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# Complex hedonic online services: a systemic semiotic functional analysis for context discovery

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**COMPLEX HEDONIC ONLINE SERVICES: A SYSTEMIC SEMIOTIC  
FUNCTIONAL ANALYSIS FOR CONTEXT DISCOVERY**

**A thesis submitted in fulfilment of the  
requirements for the award of the degree**

**DOCTOR OF PHILOSOPHY**

**from**

**THE UNIVERSITY OF WOLLONGONG**

**by**

**Robert George Cardross GRANT, MBA**

**School of Management, Operations and Marketing**

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### **Declaration**

I hereby certify that this thesis has not been submitted previously as part of the requirements of another degree and that it is the result of my own independent research.

## **ACKNOWLEDGEMENTS**

What an Odyssey! This research has ended up very different from what I imagined when I first wondered about the possibility of customised information serving to make websites more user friendly. From “conventional” qualitative and quantitative research techniques, through interesting diversions such as choice modelling to an unexpected new theory. Shifting my long-ingrained marketing focus on information about consumers to a focus on the significance of their actions took time, but happily I got there!

This research would not have been possible without the Systemic Functional Analysis Theory introduced by Associate Professor Rodney Clarke. His intellectual contribution has been invaluable. The engine room was my second supervisor, Dr Elias Kyriazis, who worked hard to lay the foundations of this this thesis and to keep me on track in difficult times through the process. The University of Wollongong provided ongoing employment for sustenance through the process and funding for attendance at useful conferences. Colleagues and leaders in the School of Management, Operations and Marketing who took an interest in my research are the valued community that has encouraged and supported me to completion.

Last, but most of all, my thanks to my lovely wife, Kaye, and the two fine young men that my sons, Campbell and Alasdair, have grown to be, for their support and encouragement over the years. This work would not have been happened without daily recourse to our nest of love and nurture. Let’s share the fruits of the labour ....  
Craigelachie!

## **Abstract**

Online shopping has achieved what is for many a surprisingly low share of overall retail spending in developed economies with figures from the USA census bureau and the Australian Productivity Commission reporting between 5-7% of all retail spending occurring online. While growing faster than offline spending, a major constraint seems to be the limitations of online information that result in considerable frustration for customers seeking to buy structurally and/or semantically complex high-involvement services. This is particularly relevant in the structurally and semantically complex purchase of international travel to an unfamiliar destination. Frustrations include: inability to find the information sought, discomfort with unknown information sources and vendors and unclear purchase processes. As a result of these information roadblocks, consumers opt for offline intermediaries (travel agents) to complete their purchase, compromising the effects of organisations' online presence. This thesis proposes an alternative approach to maximizing online customer value, by serving information that is relevant to consumer needs in the way that a perceptive sales person assesses consumer needs by questioning and offering appropriate responses leading the customer to a purchase. Such an approach is seemingly unachievable and extends the capabilities of the algorithm based approaches used by best practice online vendors.

This thesis extends the ability to analyse consumer purchase process for complex hedonic products online, offering the ability to facilitate consumer online processes. Using socio-semiotic analysis of online consumer behaviour to determine its communicative meaning enables the development of models of activity that provide the basis of a system that responds in real time to evolving needs. Using consumer activity

data in the course of their online interactions to predict their likely needs is a form of value co-creation that extends the ability of websites to add value for customers. Specifically, the ability to serve links to information content from the right source, in the right format at the right time will minimise the incidence of information roadblocks and/or information overload that may drive the consumer process offline.

In effect this enables a major advance in consumer process analysis which to this point has focussed on “stages” of a process which include multiple activities. The socio-semiotic analysis approach used in this thesis enables the definition of the consumer activities within each of these stages with the ability to respond based on the effects of, or individual reactions to, the information served at each step. This brings the internet closer to the ideal of responsiveness to individual needs in real time for complex interactions, similar to a good salesperson responding to the individual needs of a prospective customer.

To do this the data from 12 subjects who were invited to a useability lab to research travel to a new (to them) long haul travel destination. The researcher then recorded their on screen activity complemented by “thinking out loud” verbalisation. This delivers insights into the causes and effects of the activity they undertake so that understanding of the “meaning” of activity results. Their activity can then be classified in *genres* (based on Systemic Functional Analysis), and the identified genre elements form the basis of a directed graph that defines the consumer process and its associated information needs. The directed graph is then used as the basis for a computer programme that enables information appropriate to the individual’s defined need to be served in real time to website visitors.

This thesis offers theoretical, methodological substantive and disciplinary contributions to the literature as follows. Firstly, the introduction of Systemic Functional Analysis to Marketing which enables the analysis of interactions with consumers represents a potential breakthrough in consumer behaviour study. In particular modelling information needs associated with consumer purchase activities at the level of specific interactions delivers higher resolution definition of process. These models provide the basis for systemically serving information that addresses the information needs of an individual on a website in real time. Second, the development of a novel research framework for Systemic Functional Analysis of activity brings a new theory to marketing research. Third, the ability to serve information relating to an individual's needs in real time will improve the utilisation of websites in consumer process enabling organisations to leverage the efficiencies of automated processes online. Further the ability to systemically define context has the potential to dramatically enhance the application of customer relationship management and improve the targeting of advertising. As a result higher levels of value and better customer experiences will be delivered online by a process of value co-creation.



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## **CHAPTER 1: INTRODUCTION**

### **1.1 Orientation**

The internet has brought higher levels of empowerment to consumers making purchase decisions mainly from convenient access to a wider range of information sources. This thesis addresses the issues relating to consumer information needs and preferences in a high involvement consumer service bundle. Specifically, the objective is to enable real-time service of information that relates to an individual's specific information needs at a point in time. In this way value will be added by reducing time and effort "costs" incurred by a consumer as they gather and process information in the course of their purchase process. As a result, online information sources may be expected to fulfil a greater role for both consumers and service providers in their interactions with a greater potential for completion of process online.

The effects of online access to products and services for consumers are evident in the transformation of some retail sectors such as book sales where Amazon.com has become the dominant player in a relatively short time. Similarly the more complex area of personal computers has seen Dell's use of online interaction combined with flexible manufacturing to quickly move to a dominant position from 1998 to 2006. But the total share of online retail remains surprisingly low with the Australian Productivity Commission estimating total online retail at 4-7% of total retail sales in 2012. This is similar to USA data which shows the online share of retail spending at 7% (US Census data, Q1 2015). The majority of those with online access report that they made online purchases, so it appears a limited range of products is purchased online. An obvious question arising is: what is the barrier to wider adoption of the internet by consumers?

A common factor with the Amazon.com and Dell is that they are examples of “search” products having clear and unambiguous attributes. Books for example are highly standardised, being produced by a publisher with no variance between items apart from hard or soft covers. Computers are similarly well understood with the key components defined by numbers which indicate capacity or performance that the user can relate to their needs. This research tackles the more subjectively evaluated “experience” products, which present a greater communication challenge for both vendors and their customers online. In the case of recreational travel, for example, the use of terms such as “exciting” or “fun” to describe experiences is problematic as one person’s “excitement” may be banal for another or terrifying for someone else. The polysemy of such descriptive terms makes the experiences sought by recreational travellers semantically complex. There is however another source of complexity with the variety of services required for a desired travel experience including transport, accommodation, attractions, activities, local transport and dining. The range of components required for a travel experience results in structural complexity with some aspects of the services, for example the signature experiences sought, being hedonic while others, for example flights or chain hotel accommodation, are utilitarian. Since consumer needs for information are expected to differ based on the motivation for purchase, the study of a bundle of services such as this is likely to deliver useful insights.

The key difference between online and offline interactions is the lack of personal contact and the absence of touch, smell and taste online which affects the relative value of information for consumers. In the absence of sophisticated and ubiquitous virtual reality, evaluating the nature of a desired service is problematic. This thesis seeks to improve the information value for consumers for a structurally and semantically

complex service bundle by firstly reviewing the current understanding of online information value and then proposing a method to improve it.

This chapter introduces three key areas of theory and their application to the research of this thesis as a basis for specifying the research questions and contributions of the thesis. First is the current approach to online information value is outlined and an approach better suited to online interactions is proposed, see § 1.2. The next section then reviews the traditional model of the consumer buying process as a foundation for studying changes in information needs through the process and explains the need for improving process definition, see § 1.3. The subsequent section, see § 1.4, identifies the factors in consumer information need factors based on perceived risk as the motivation for consumer behaviour and proposes an alternative approach for defining needs in online interactions. Finally, following the discussion of these three key areas, the research questions and expected contributions of the thesis are specified, see § 1.5. This introduction then concludes with an outline of the structure of the following chapters.

## **1.2 Online information value**

The existing literature dealing with online information value is fully reviewed in Chapter 2 of this thesis. As an introduction to the thesis however a brief review of the current literature is given here as the basis for defining the research questions and contributions to knowledge sought. In general, the existing online information value literature focuses on the effects of online applications such as websites and advertising and offers useful insights into a number of strengths and weaknesses of online information. In addition to the overall strengths and weaknesses of online information there are some useful pointers to elements of research methodology which this research

incorporates in the new methods it develops to analyse consumer process at the level of micro interactions.

#### ***1.2.1. Key strengths and weaknesses of online information***

The literature suggest four key strengths of online information for hedonic service provision in the (a) convenient access to highly detailed information from diverse sources of information (e.g. Eighmy and McCord, 1998; Klein, 1998), (b) interactive nature that cedes control to the customer and ensures high levels of engagement (McGaughey and Mason, 1998; Li et al., 2001; Xiao and Dasgupta, 2002; Klein, 2003), (c) the multi-format and multi-modal capabilities that delivers words, images, diagrams, audio and/or video to suit individual preferences (Li et al., 2001; Xiao and Dasgupta, 2002) and (d) the potential to interact with a community of people with similar interests (Bickart and Schindler, 2001; Li et al., 2001; Bagozzi and Dholakia, 2002). Other notable findings include the synergy between online and offline interactions or experiences (Jensen et al., 2003) and the potential for higher levels of customer loyalty online than offline (Johnson et al., 2003; Murray and Häubl, 2007).

In contrast there are three notable weaknesses of online interactions, (a) the potential for information overload and poor customer outcomes that result when this occurs (Lee and Lee, 2004), (b) the impersonal and anonymous character of interactions with resultant trust issues (Peterson and Merino, 2003) and (c) a number of format limitations including lower recall of screen based information compared to hard copy (Jones et al., 2005) and the inability to convey touch, taste and smell that is available offline. Another interesting format limitation, related to the lower levels of trust online, is that consumers apparently prefer subjective or opinion based information from offline rather than

online sources (Ratchford et al., 2003; Klein and Ford, 2003; Yoon and Kim, 2001). The trade-offs between these weaknesses and the strengths noted in the previous paragraph will be discussed in greater detail in Chapter 2 of this thesis.

While the existing research offers useful pointers to customer utility associated with online information, it fails to address the issue of value in a live and interactive medium such as the Internet. This thesis adopts Holbrook's (1994) definition of value as *individual* and *relativistic* and therefore seeks to study consumer needs at this level to deliver information value. The challenge in doing so is dealing with the dynamics of individual needs through a purchase process and serving appropriate information or resources to facilitate their progress. This is necessary to minimise the potential for online information roadblocks identified by Grant et al. (2007) that have the potential to drive consumers offline. To do this requires an understanding of the individual consumer information search process needs as well as preferences for modality (online or offline), format (print, audio, video, interpersonal) and information source type (public, personal or commercial) necessary to satisfy those needs. Ideally this needs to be done in real-time while simultaneously being adapted to the consumer's evolving information needs

Achieving a reliable information service offering would provide three notable benefits. First, an effective information service reduces customer information search time and effort, effectively adding customer value (e.g. Eighmy and McCord, 1998; Klein, 1998). Second, the so-called *cognitive lock-in* effect (Johnson et al., 2003; Murray and Häubl, 2007) offers the prospect of repeat website use when vendors offer useful content in an appropriate format. Third, a reliable and responsive information service is likely to

improve levels of consumer trust, a key factor in later purchase point selection (Eighmy and McCord, 1998; Peterson and Merino, 2003).

### ***1.2.2. Research methodology***

The current methodology employed to do this is a departure from traditional marketing research and relies in part on *Clickstream Modelling*. Work to develop predictive ability for subsequent consumer activity (Sismeiro and Bucklin, 2004; Moe and Fader, 2004; Chatterjee et al., 2003) illustrates the potential for better management of internet based customer interactions. The key limitation of Clickstream Modelling is that it delivers a probability of eventual purchase based on an individual's activity. Unfortunately it delivers no insights into what may be done to improve the customer's experience, let alone indicators of remedial action in the event of a low probability outcome. The published research in this area is also limited to low involvement, standardised products that consumers are familiar with, such as books or even high involvement standardised products such as computers, where search activities are likely to be limited to a trusted website to the exclusion of other resources. The situation for higher involvement products or services with experiential dimensions rather than simple search dimensions is likely to be a lot more complex with consumers choosing to draw on a range of external information sources, both online and offline, in their buying process. This results mainly from the need for higher quality information to manage perceived risk to acceptable levels as described by Dowling and Staelin (1994).

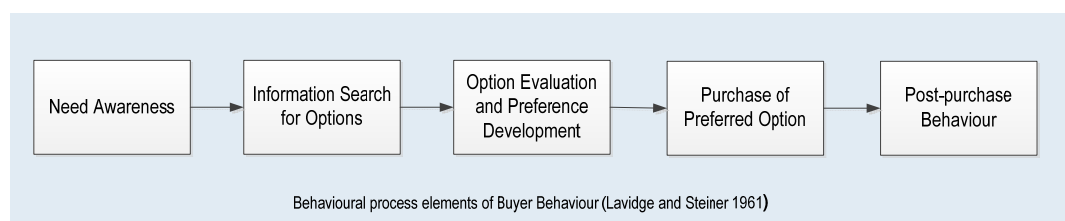
To manage delivery of higher quality information an understanding needs to be developed of whether information utility or expectation changes when consumers access information online. The problems arising from thinking about consumers acting online

or offline as discrete phenomena is addressed by Wind and Mahajan (2002). They liken online consumers to a centaur with the “rapid feet of new technology but carrying the same ancient and unpredictable human heart” and (implicitly) human needs for risk reduction and value maximisation. In other words, access to detailed information from many information sources, with added utilities of search and hyperlink navigation functions, does not change the basic human needs which endure whatever mode consumers are operating in. In a rapidly changing technological environment, the key to value (reduced search time, effort and psychological costs in managing perceived risk) remains customer needs, which evolve through a process, rather than the technology itself (Urban, 2004, p5; Porter, 2001) as the organisation’s focus. To do this in real time requires a model which identifies an individual’s activity, the purpose of the activity and the online resources required for that activity. The model must also be the basis for an executable programme for the service of the requisite resources for the defined purpose so that these may be dynamically served to the individual.

Since there is no current method for modelling information needs for systemic delivery, a conceptual tool is required to define online activity and related information needs. The literature review in Chapter 2 further shows that current research methods are inadequate for the task of context definition and online information value specification. To address these problems, the next two sections introduce key themes that are central to the approach of this thesis to the problem. First is the process model of consumer buying behaviour that consumers move through as a basis for understanding information needs through the process. Second is a discussion of the factors that have traditionally been used to define consumer needs for information through a buying process, based in the study of perceived risk management.

### 1.3 Information needs through the consumer purchase process

The evolution of consumer information needs through the purchase process are likely to be related to the structural constituents of that process. Lavidge and Steiner (1961) defined this as a multi stage process, called the Hierarchy of Effects, that includes stages of (a) *need recognition*, (b) *information search for options*, (c) *option evaluation and preference development*, (d) *purchase* and (e) *post purchase behaviour*. This process is shown in Figure 1.1. It was not possible to study need awareness, purchase of preferred option and postpurchase behaviour owing to the design of the study and the observation-based techniques employed in it. Because of limitations in the behaviour observation based methodology used in the study, the need recognition, purchase and post-purchase behaviours have been excluded. For the high involvement complex products of interest in this study, the majority of purposive behaviour will in any event be concentrated in the two stages of information search and option evaluation.



**Figure 1.1 Buying process elements of buyer behaviour.**

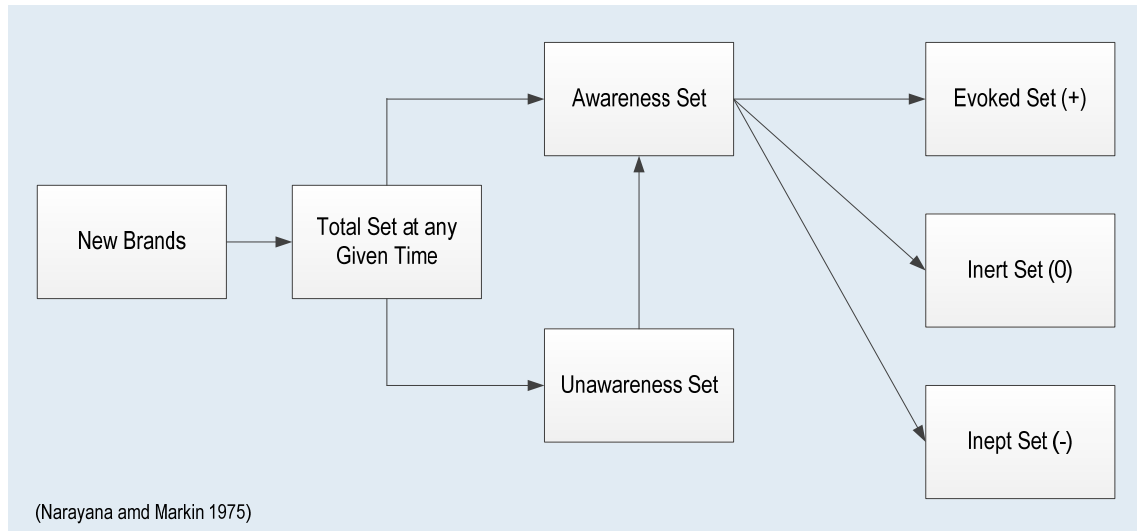
Howard and Sheth (1969) advanced Lavidge and Steiner's work by defining information need differences at each of these stages, suggesting that different information sources would be required as consumers moved through the process to satisfy their needs. The first attempt to model consumer time and information resource use was by Hauser et al. (1993) with a focus on time allocated to various information



resource types in a simulated purchase of a high involvement durable product. Their study pre-dated the internet and had serious limitations that are discussed in Chapter 2.

In order to satisfy an identified need, the information search phase of the purchase process follows a decision to purchase a product or service from a particular category. The expected objective is to gather a list of possible options that raises the probability of choosing the most suitable option for the consumer's needs. For example, a person considering options for an African safari holiday will discard options that do not fit with their tastes based on accounts from friends and acquaintances. Similarly, the consumer's knowledge derived from information over time, likely in the course of developing need awareness, may also result in a lack of fit with desired attributes. Modes of safari accommodation such as, wilderness trails, tented camps or various types of permanent accommodation are combined with transport options (coaches, minibuses, open four wheel drive or self-drive vehicles) for the consumer to consider. These modes need to be matched with other interests and objectives such as learning, adventure, exotic cultural experiences and the spectacle of observing wildlife in its natural state. The nominal outcome of this step is the formation of a consideration or evoked set which follows deletion of options regarded as either inert or inept (Narayana and Markin, 1975) as shown in Figure 1.2.

Narayana and Markin's work raises the need for a second consumer objective in the sorting or culling the identified options into a manageable number for evaluation. This is done by sorting the awareness set into a positively regarded *evoked set*, a negatively regarded *inept set* based on prior experience or contrary information or an *inert set* where insufficient information leaves them ambivalent. This requires screening out



**Figure 1.2: Information search process (Narayana and Markin, 1975)**

options that appear unsuitable or dubious based on the individual's salient attributes. Considering options on the basis of price, mode of travel and/or accommodation, requires consumers to process information in less depth than the analysis required for option evaluation and preference development in the next stage. It seems likely that different information resources will be required for information search with for example, a directory providing a full list of options together with basic price and mode information.

The option evaluation stage (see Figure 1.1) on the other hand is likely to require more detailed information to support comparing supplier options and developing a preferred option. Option evaluation requires trade-offs between available options as consumers weigh up the relative strengths and weaknesses of each. As an individual's knowledge of the product or service grows, they will develop a view on the relative importance of each of its aspects. This is an important aspect leading to an eventual choice process. The consumer will need to interact with product-specific sources in greater depth, including trusted independent sources in the case of semantically complex products

(Murray, 1991; Bansal and Voyer, 2000). To define the stage of the consumers' process, this thesis will use the expected difference in online activity as the difference between the option search and evaluation stages.

The existing research, with its focus on defining the tasks engaged in by consumers, gives valuable insights into consumer behaviour structure offering a valuable framework for analysis. What it fails to offer is insight into the consumer's relationship and attitude to the various sources and formats of information available. For example where does the benefit of independent information sources outweigh the authority of the service provider's authoritative but commercially interested information? At what point does a consumer opt for the opinion of a friend with known tastes in preference to the expert opinion of a specialised independent source? This crucial aspect of information value is central to the research of this thesis.

The nominally separate stages of this process will likely overlap to some degree and we can expect consumers to switch back to a prior stage when expectations based on prior knowledge are not met. For an example, a consumer seeking an ecological experience in an African Safari may revise their inclusion of a safari operator in their consideration set when they find an account of a pride of Lions wandering around the tented camp at night. Their concerns will likely cause them to revert back to information seeking for new options for their consideration set that do not offer such close contact with potentially dangerous animals. A simple linear process is insufficient to account for iterations of this kind with possibly frequent switches back and forth between steps.

The simplistic nature of the basic buying behaviour model is further highlighted by more recent work on consumer and organisation process that illustrates the structural complexity of recreational travel purchase (Payne et al. 2008). While not all of the many consumer processes discussed in their paper (see Fig 1.3) relate to the travel service supplier and buyer interactions of interest here, the details of the interactions are. The ability to be more effective in the information exchanges that make up the interactions will likely result in more sustained engagements and, providing the product and other elements of the offering are suitable, improved customer outcomes. Notwithstanding the shortcomings of the classical linear model of consumer behaviour, the stages of the model are still useful as a basis for activity differentiation as outlined earlier in this section. In effect this thesis relies on differences in the “meaning” of interactions with the website to determine differences in process.

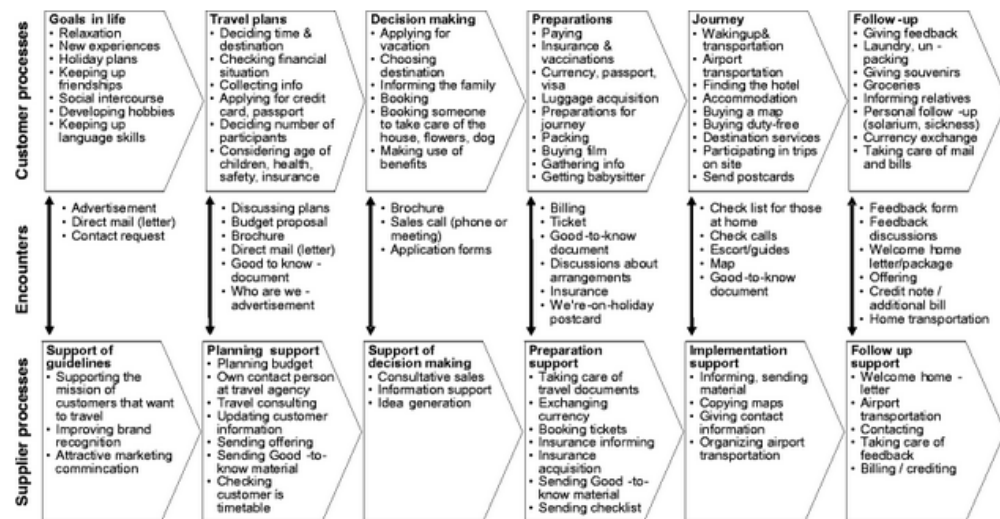


Figure 2  
Mapping of customer, supplier and encounter processes.

Figure 1.3: Consumer process mapping (Payne et al., 2008, p 92)

The behaviour described above is further complicated by the effects of differences in service types, relative importance and consumer motivations for purchase. Further,

behaviour will depend on the effects of individuals' risk propensity, experience, personality and mood and attitude factors. These factors will be briefly discussed in the following section.

#### **1.4 Factors traditionally used to define consumer information needs**

Ingene and Hughes (1985) propose risk as the core concept for consumer theory and the process of perceived risk management in a purchase has been described as a process of moving from risk framing through risk assessment and on to risk evaluation (Conchar et al., 2004). This is of particular importance online where trust issues can arise from the use of anonymous and unknown information sources as mentioned in the previous section. The higher incidence of perceived risk online has in fact been confirmed by multiple studies (Alreck and Settle 2002; Bhatagnar and Ghose 2004; Teo et al., 2004).

The five risk dimensions identified by Jacoby and Kaplan (1972) have more recently been collapsed into the two dimensions of rational (functional and financial) and emotional (physical, social and psychological) risk (Chaudhuri, 2000). These two categories of risk are similar to the differences between hedonic and utilitarian motivation in purchasing referred to in §1.1 in the way they differ between individuals. For example, a fashion-oriented person may be more emotionally attached to a shoe brand than a computer valued for its functionality; while a technology-orientated person's perspective on the two product classes may be reversed. As a result, information needs will differ according to the person's relative levels of perceived emotional and functional risk.

However, the main insights into consumer information needs are found in the product and personal factors identified by the literature on perceived risk management. First the nature of the product or service and its associated meaning or significance for an individual consumer, and second a range of personal factors within the individual consumer. These factors will be dealt with in the following sub sections.

#### ***1.4.1 Service type as a factor in consumer information needs***

There are a range of service factors that affect an individual's information needs when searching for and evaluating the relative merits of a desired service. These include (a) the likely motivation for purchase, (b) the complexity of the service offering (c) the relative standardisation or differentiation between service providers and (d) the likely involvement level of the service for a consumer.

Motivation for purchase refers to whether the consumer is motivated by personal gratification or as a means to a necessary end. For example, there is likely far less gratification in purchasing insurance cover than an exotic experience that has long been desired. Laurent and Kapferer (1985) described services sought for gratification or indulgence as *hedonic*, whereas a product or service purchased to solve a problem or as a means to an end, rather than for its own sake, is described as *utilitarian*. In the context of this thesis, the air ticket that a customer is obliged to purchase to reach their destination could be regarded as utilitarian whereas the experiential services such as touring arrangements, destination activities and resort or other theme accommodation would be described as hedonic. The information required for utilitarian services would be objective in character rather than the subjective nature of hedonic services based on

negative rather than positive motivation for the purchase (Rossiter and Bellman 2005, p 168; Park and Moon 2003).

As explained in the orientation to this chapter (§ 1.1), complexity of information types and consumer activity is central to the research of this thesis based on consumer involvement with the product. The hedonic service bundle of a recreational travel experience has semantic complexity because of polysemy in the subjective evaluations of key experiences which provide the motivation for travel. It is also structurally complex owing to the need to co-ordinate multiple components that are required to deliver the desired experience including for example, transport to and within the destination, accommodation, meals, activities and access to attractions. An example of the interdependence between components is determining the transit time from an airport to the entry to a national park to ensure sufficient time to arrive before closing time. The number of other interdependent elements can be large. For example, the range of accommodation and dining options in the national park has to be investigated and, in the event that self-catering is required, how is that organised? Such complexity is clearly likely to increase the quantum of information required to inform a consumer's evaluation as they work to deal with the dimensions of complexity relating to their desired service.

The effects of high or low levels of service differentiation and involvement result in distinctly different consumer behaviors as defined by Assael et al. (2007: 90–91). Signature tourist experiences with high differentiation between service providers and high involvement, as the likely main motivation for travel, are classified as complex consumer behavior. Such behavior is expected to involve an extended process with a

range of activities, each of which presents different challenges for a consumer, resulting in their use of multiple information sources and formats. In contrast, the purchase of the flights to get there involves engaging with suppliers with less differentiated services which are a means to an end and therefore considerably less important than the high involvement services. Given that the airfare component of a long-haul trip is a significant cost element, the main search criteria may be the cost of the flights within the bounds of brand preferences. This kind of search activity is likely to involve substantially less and different use of information resources for the consumer to satisfy their needs.

While clearly having an effect on consumer activity and information resources required to satisfy their needs, such generalisations may however be misleading at the individual level. An aviation enthusiast, for example, may regard the air travel as hedonic, based on their enthusiasm for the mode of transport and seek further information on types of aircraft used by different carriers. As a result their involvement with this aspect of their travel experience may be higher than that of other consumers. To fully understand consumer information needs at an individual level online therefore, the effects of individual and personal factors have to be taken into account. In this way, the information value delivered will be individual and relativistic, following Holbrook's (1994) definition of value. The following sub-section will therefore introduce the main personal factors in information needs in a buying process that have traditionally been used in marketing research.



#### ***1.4.2 Personal factor impacts on consumer information needs***

The basic information utilities, discussed in § 1.2 and service type, discussed in § 1.4.1, are relatively clear and under the control of the relevant organisation. But a range of personal factors in perceived risk further compounds the complexity of what we are investigating. Considering that the involvement and motivation factors outlined in the previous sub-section are contingent on the tastes and interests of the individual, it is necessary to investigate other personal factors that may affect online information value for an individual. These will be dealt with in greater detail in Chapter 2, but as an introduction to the research, a range of personal factors have been identified including:

1. levels of *prior experience* with the organisation and/or the service type by each consumer will affect the consumer's need for external information with choices on attitudes arising from personal experience
2. *technology literacy* which will affect the consumer's attitude and capability in the use of online resources and hence relative reliance on online
3. stable *personality traits* like risk aversion, need for cognitive closure, optimum stimulation levels and a range of other variables, for which measurement instruments exist, define likely relative levels of information required for an individual
4. *personal capabilities* such as education and information processing abilities affecting the individual's preference for volume of information.
5. *personal factors* which influence the way in which individuals deal with perceived risk such as perceived self efficacy and levels of wealth or socio economic standing which will affect the relative levels of perceived risk
6. relative *salience of emotional risk relative to functional risk* will affect the type of information sought by an individual

7. changeable *individual states*, such as reactions to information served, that will affect mood and attitude to a service provider and hence the continuance of interactions

As well as the large range of factors identified in the literature, is the added complication that the interactions between them are not fully understood. In addition, the practicality of collecting data to define individuals in these ways is unlikely to be workable. For example, Ajzen's (1991) work on defining the importance of attitude in consumer choices in the theory of planned behaviour, will have to be tracked as it develops over time. Similarly, the possibility of updating dynamic factors such as knowledge and skill, which will develop with cumulative interactions with a website, is not possible as this will vary between individuals based on their capabilities. Owing to the unworkability of traditional marketing methods which rely on data about the customer, this thesis follows an alternative path in seeking a method to deliver online information value. Two options for determining "meaning" as part of activity modelling are evaluated in Chapter 3 of the thesis. The potentially superior option, new to the marketing literature, is Systemic Functional Analysis which derives meaning from the structure of communicative intent of consumer activities. Based on Halliday's (1978) linguistic Communication Theory, the use of this socio-semiotic analysis offers an alternative paradigm in marketing research with applications for analysing interactions (Clarke and Nilsson, 2007 and 2008).

The application of this theory enables the online activities of consumers online to be directly analysed so that Day's (1998, p 47) view that: "The essence of Interactive

Marketing is the use of information *from* the customer rather than *about* the customer” can be used to deliver “meaning.” Despite the fact that Day’s article was primarily concerned with organisation structure, perhaps one of the reasons for its relatively low citation rate is the lack of options for analysing data *from* the customer. This will however be central to the research questions of this thesis outlined in the next section.

### **1.5 Research Problem and Research Questions**

As noted earlier, the following chapter provides far greater detail on the points relating to consumer process models and factors in online information value. This introduction does however suggest that the key to defining online information value is in developing an ability to define the meaning of consumer activity online. Meaning needs to be defined in the context of a purchase process that is more complex than traditional models in marketing theory and must allow for repetition of stages and switching between options. To deal with the communication challenges faced by consumers and vendors online, this research addresses the challenges of structural and semantic complexity. But since the current literature on information value offers few options for defining needs in real time as required in a live and interactive medium, new theories and methods need to be appropriated. These theories and methods are substantially different to the classical theories and methods employed in marketing research and the research questions arising for this thesis are therefore as follows:

Research question 1: How does an organisation define the meaning of a consumer’s online activity in real time so that they are able to serve information that addresses the consumer’s information needs?

Research question 2: What theoretical frameworks should be used to analyse online activity in a way that reveals the meaning of such activities?

Research question 3: How do we relate the meaning of activity to consumer purchase processes at the level of individual interactions such as entry of search terms or selections of hyperlinks by an individual?

Research question 4: How do we define the preferred information sources and formats for an individual relating to a particular activity or stage of their purchase process?

Research question 5: How do we combine the defined process and preferred information sources and formats in a system for real time responsive information service?

Research question 6: Which research methods may be used to resolve these questions which have not been addressed to this point?

The structure of this thesis in addressing these research questions is described in the final section (§ 1.7) of this chapter. The next section details the contributions that this thesis makes to online marketing research, marketing research more generally and to the practice of marketing.

## **1.6 Contributions of this thesis**

This thesis makes contributions to knowledge in the areas of theory, methodology, substantive and disciplinary knowledge. It is also expected to improve the practice of online marketing by advancing the information serving practices of practitioners. These contributions are explained more fully below.

The unsuitability of classical marketing research methods for the research questions are apparent in this introduction and an alternative theory is required in order to undertake the analysis in this thesis. A suitable theory must facilitate the analysis of interactions between vendors and their customers to develop models that may be systemically applied to offer real-time context definition. Such a system then offers a means to respond with information that is relevant to an individual's context based on their activity. As well as offering a rigorous method for the study of interactions in marketing research, the study of these interactions should reveal finer detail concerning consumer processes. In this way, organisations will be better placed to engage in value co-creation with the full range of their customers based on the data representing their online activity. Using inductive analysis of consumer activity, this also demonstrates nuances such as repetitions in process and interruptions during these complex activities.

The thesis also extends the limitations of Clickstream analysis so that the “meaning” of consumer activity in purchasing complex products may be understood and appropriate responses offered. Clickstream analysis offers predictive capability for buyer behaviour for standardised low involvement products with which the consumer is familiar but offers no insights into the nature of interactions. However the use of data from online consumer interactions, pioneered by Clickstream analysis, will clearly have to play a part in the research methodology of this research. But a substantially different form of online activity data analysis will therefore be required to deliver insights into the analysis of consumer information needs in real time. The methodological framework presented in this thesis represents a substantial advance on current methods of online activity research.

This thesis delivers insights into the behaviour and variations of consumers engaged in high and low involvement as well as hedonic and utilitarian services. This represents an advance on the substantive knowledge of consumer behaviour. Beyond this it will illustrate the interactions and links between the nominal steps of the buying process rather than treating the individual steps as isolated phenomena. As such it offers a substantial advance in understanding of online consumer behaviour in an increasingly network connected world.

A major contribution to marketing practice will be the opportunity to leverage efficiencies from automated processes in computer mediated communications. This requires dynamic models running on an organisation's server, delivering content, links to third party supplied content and offline information resource contacts based on understanding generated by input from the prospect or customer that they are interacting with online. Further the "meanings" extracted from a knowledge of consumer activity on an organisation's website will add an important dimension to the organisation's use of data in their data analytics programmes.

The research is also expected to result in advances in online marketing practice by facilitating higher levels of information value online. In particular, the selective service of relevant information for an individual's context is expected to minimise the potential for information overload and consumer frustration resulting from inappropriate website information. The responsive ability of such activity models should minimise consumer effort and maximise the convenience and value in a buying process by lowering time and effort costs from systemic content delivery in online interactions. This should result in higher levels of online process completion with both effectiveness and efficiency

gains for vendors. The improved incidence of positive outcomes for consumers is likely to also lead to greater levels of cognitive lock-in (see § 1.1.2), further improving the channel outcomes with higher levels of loyalty. Perhaps even more important though is the possibility of higher levels of trust which addresses one of the major weaknesses of the impersonal nature of computer mediated communication. Such improved levels of trust may also be the basis for better customer relationship management using automated processes.

## **1.7 Thesis Structure**

The following chapter of the thesis reviews literature dealing with online information value. As well as providing greater detail on the generic strengths and weaknesses of online information for consumers, it also offers some important pointers to the new methods of research that are required. Most important however, is the affirmation of the importance of real time information to move toward greater information value online. Chapter 3 then discusses two possible theoretical approaches for the analysis of online customer interactions in a way that delivers clear and unambiguous definition of “meaning.” Halliday’s (1978) Communication Theory that has not previously been used in marketing research is identified as the best option for this and the requirements of this interpretive theory. Chapter 4 draws on the theory identified for analysis to propose and justify a new method of research requiring the collection of naturalistic online consumer activity data. The activity data is supplemented by the thinking-out-loud methods used in Ericson and Simons’ (1997) protocol analysis to validate the effects of online information and better understand the elements of consumer process. A major part of this chapter is the data management and editing required to enable the extraction of meaning in a way that can enable a system for information serving.

Chapter 5 then reports on the results of the research and the findings drawn from the data gathered and processed. In effect this is a proof of concept that shows how the novel theories and methods identified for this research work in practice. By way of demonstration of the application of this method, Chapter 6 then discusses the application of the research in improving online customer relationship management, showing the potential for remarkable improvements in practice. The thesis then concludes with a discussion of the limitations of this research and the direction for future research based on these methods and theories.



## **CHAPTER 2: REVIEW OF THE LITERATURE**

### **2.1 Introduction**

This chapter reviews the literature dealing with online information value and consumer process modelling to better understand what information to provide from a website that is relevant to a customer's need at a given point in time. As explained in the previous chapter, this study addresses different consumer information needs associated with the information search and option evaluation stages of the purchase process. Implicit in this is a need to understand the reasons behind consumer choices that manifest in their eventual behaviour in a purchase process. This review is focussed on literature dealing with aspects of online consumer information value, expressed as the utilities which contribute to the overall value. The literature is reviewed through the specified of the stages of the consumer buying process and reviews literature in order to establish the substantive, theoretical and methodological contributions of this research. In particular, as identified in the previous chapter, this research seeks to provide a greater understanding of the following aspects of complex consumer buying behaviour through information search and option evaluation:

1. The potential for modelling behaviour in selection of information sources with an understanding of the reasons underlying choices.
2. Behaviour relating to customer processes relevant to complex hedonic services.
3. Identifying individual needs based on documenting a consumer's activity.

The review covers the literature on consumer online information search as well as the smaller body of work dealing with option evaluation. For each of these two stages of the buying process, the review considers (1) literature dealing with the value of online

information for consumers and (2) literature on the value of technology applications online for consumers. In addition, techniques for modelling online consumer behaviour are also considered so that the activities within each of the stages of consumer process may be mapped. Knowledge is identified that addresses the main focal points of this research as well as knowledge gaps that this research seeks to fill. A key issue with the literature is that there are few studies that directly address the issue of online information value. A major factor in the lack of attention this area has received is the unsuitability of traditional research methods to address the issue of online information value. For example in early 2015 a library database search for “clickstream modelling marketing” offered 8 articles, 6 of which had the researcher of this thesis as the primary author. These research method limitations seem to have resulted in a barrier to further studies on the topic with no new work since 2008, a barrier which this research seeks to break. The seemingly intractable problems for current theories and methods identified for this research’s objectives require the uses of theories and methods new to marketing which are presented in subsequent chapters.

To review the broad literature in the area, this chapter is structured as represented in Table 2.1 with sections based on the activities of the purchase process (represented in rows) and divided into sub-sections based on the cells in each of the rows in the table.

The review is divided into sections dealing with each of the two activities of the consumer buying process of interest to this study. Within each of these activities, the review deals firstly with literature concerning consumer information value which is divided into (a) *information content utility*, dealing with breadth, depth and currency of content, information characteristics and relevance to customer needs; (b) *information*

**Table 2.1** Online consumer purchase process and behaviour literature organisation

	Information Value		Behaviour Modelling	
	Information content utility	Information technology utility	Factor-based modelling	Clickstream modelling
Pre-purchase information search				
Pre-purchase option evaluation				

*technology utility* dealing with the effects of computer mediated communications, search and robot applications, peer exchanges (e.g. forums and bulletin boards) and interactivity effects.

Library database searches failed to identify literature dealing with online consumer process mapping so this review considers literature on consumer behaviour modelling based on factors affecting behaviour and activity-based predictive modelling. Specifically the review considers research into the effects of (c) *factor based modelling* which identifies factors that influence online consumer behaviour with resulting understanding of consumer behaviour and (d) *clickstream modelling* which uses observed patterns and incidence of consumer browsing behaviour for predictive modelling.

This review will not address the substantial literature on the Technology Acceptance Model (TAM) (e.g. Davis 1989; Fenech 1998; Venkatesh and Davis 2000; Venkatesh and Morris 2000; Goldsmith 2002; Hong et al 2002; Vijayasarathy 2004; Yadav and Varadarajan 2005) with a focus on information value and consumer processes following technology adoption rather than the adoption process itself. TAM is an important

contribution to the literature but it does not address what happens after adoption and the relative value delivered by online information and the resulting behaviour. For example, what sources of frustration might exist for even an enthusiastic technology adopter and how do they respond to such frustration? Do they for example, abandon the process or do they turn to non-technology based information sources which do satisfy their needs? Perhaps even more importantly, how does the website identify when its users are frustrated? As the next chapter argues, consumer behaviour offers a superior understanding of individual behaviour than the use of multiple scales required for TAM determination.

In §2.2, the detailed discussion of each paper reviewed is lengthy so the subsections are limited to a table of the literature reviewed and a discussion of the key points arising. The detailed review of each paper is in appendix 1 of the thesis for readers seeking greater detail about the papers' findings or methodology. The summary of the information value literature and methodology across the two stages of the buying process (§2.2 and §2.3) is provided in §2.4 with pointers to the imperatives which this thesis' research have to address.

## **2.2 Pre-purchase Online Information Search**

A rich research stream concerning the initial stage of offline information search has developed. It largely treats consumer purchase behaviour as a process rather than an indiscriminate, random event. The consumer's activities include classification of option(s) in an awareness set as either suitable for the evoked set, subsequently evaluated by more detailed analysis, or effectively discards option(s) into the inert or inept sets (Narayana and Markin 1975), see Fig 1.2. In a purchase process, this may

manifest as identifying options with sufficient information to justify inclusion in an evoked set for further investigation based on price, product form, availability and/or other salient product attributes. Alternatively an option may be assigned to the inept set owing to undesirable salient attributes or into the inert set owing to lack of clarity on the salient attributes. Information search is likely to differ from the subsequent option evaluation stage in the consumer's behaviour with less depth but wider engagement with information on product options prevalent. This review confines itself to the emerging literature into online information value where there is no evidence to suggest a different process to offline consumer behaviour. The following sub-sections consider the literature dealing with consumer information search based on (1) online information value and (2) online consumer process modelling. Online information value is divided into component utilities of content and technology and their contribution to overall value.

### ***2.1.1 Information content utility***

The literature reviewed for this sub-section is summarised in Table 2.2. In general these articles offer insights into both the advantages and disadvantages of online information as well as pointers to methodological validity.

The advantages of online information are clearly evident in the volume and variety of information conveniently available over an internet connection (Eighmy and McCord 1998). This advantage is compounded by the ability to serve a range of digital information formats such as type, graphics, photos, sound and video. A number of authors (Eighmy and McCord 1998, Klein 1998) acknowledge the potential for adding customer value by serving information online that eases the consumer's time and effort

costs of information search. However these benefits are complicated by a number of other factors relating to online information outlined in the following paragraphs.

First, great complexity results when the vast array of different information sources that may be made available by hot links to other sites is brought into reckoning (McGaughey and Mason 1998). The sheer volume of information available to consumers on practically any given topic presents a challenge of selecting appropriate resources for the purpose at hand. A successful website has to firstly establish a presence and value proposition that will attract visitors to the site in preference to the myriad alternative options available. This will require utilising the full array of resources available within the organisation as well as on other websites that offers superior benefits to consumers. For example, validation of the website's content and claims from external independent sources may add significant value for a potential customer. The complexity extends to the website content where information breadth, depth, currency and accuracy are required for content utility (Xiao and Dasgupta, 2002), a significant management challenge. Compounding this complexity is the finding of Eighmy and McCord (1998) concerning consumer expectations of entertainment as well as information online. Notwithstanding the limitations of Schlosser et al.'s (1999) methodology detailed in the appendix 1, suggesting lower entertainment gratification, expectations and attitudes such as these have to be catered for in the massive diversity of consumer tastes.

Second, the volume of online information also has the potential for information overload (Lee and Lee 2004), particularly given the inconsistency of online information (Brown and Sellen 2001). This is an issue arising with technology utility and other aspects of information overload will be addressed in the following sub-section. The

Author(s)	Method & sampling	Subjects	Study focus	Product/ Service type	Key findings	Analysis method
Eighmy and McCord (1998)	Experiment	n=31 web users (70% experienced)	Websites use and consumer gratification, similarities to other media and need for continued relationship and personal involvement	Telecom, broadcast TV, confectionery, packaged food and sportswear	Importance of website information, entertainment and organisation to add consumer utility. Key factors identified: Information involvement, clarity of purpose, entertainment, personal involvement, controversy, credibility, continued relationship and purchase intent.	Factor analysis and ANOVA
Klein (1998)	Literature review		Internet search behaviour differences between search and experience products based on economics and media attributes	Software and wine used as examples	3 possible routes to transform experience products to search products: Provide lower cost and easier information access; influence key attributes by emphasis and vicarious experience; higher risk increases importance of trial or vicarious experience. Potential to add consumer value with information.	Klein 1998
McGaughey and Mason (1998)	Literature review		Internet influence on buyer behaviour through buying process	Conceptual use of internet browsers	Online visibility required for need arousal, online search facilitation required by providing links to other sites, need to understand preferred heuristic for product for information presentation to aid decisions, security for purchase and post purchase interaction options for building dialogue.	
Schlosser, Shavitt and Kanfer (1999)	CATI survey	n=402 internet exposed adults and n=1000+ general population	User attitudes to internet advertising relative to offline advertising. Takes consumer control into account.	Conceptual	43% of attitude based on utility with internet seen as more informative but less entertaining and used less in information decisions. 4% of attitude based on level of indignation, trust, price expectations and regulatory preferences.	Regression, factor analysis and cluster analysis
Brown and Sellen (2001)	Semi structured depth interviews	n=12 internet users (>3 hours per week)	User management of repeat site visits, cross-site information comparison and security and privacy	Internet use and consumer utility	Design implications for consumer interface. Structure home page to feature favourites based on relative frequency of visit (daily, weekly or monthly). Need for inter-site information comparability and security of online transactions.	Qualitative

**Table 2.2** Information content utility (continued on following page)

<b>Author(s)</b>	<b>Method &amp; sampling</b>	<b>Subjects</b>	<b>Study focus</b>	<b>Product/ Service type</b>	<b>Key findings</b>	<b>Analysis method</b>
Yoon and Kim (2001)	Survey	n=105 internet experienced people	Media and product related characteristics as factors in consumer information media choice	Cars, luxury watches, shampoo and fast food	Internet has greater utility for high involvement and rational approaches. Curious characterisation of cars and luxury watches as rational purchases.	Regression and correlation
Xiao and Dasgupta (2002)	Pilot study and survey	n=30 graduate students and n=340 students	Development of instrument for measuring user satisfaction with web based computing	Use of internet web portal for information	Validates model of seemingly utilitarian elements of content, accuracy, format, ease of use and currency of information as determinants of satisfaction.	Factor analysis and correlation
Peterson and Merino (2003)	Literature review		Limitations of internet utility. Need for research focus on moderators and interactions of search behaviours rather than main effects based on multiple effects and applications.	Conceptual	14 Propositions relating to research methodology, technology applications, consumer behaviour and information economics. Key moderators proposed as consumer characteristics, type of information sought, product characteristics, search motivation and sources used. Key moderator is consumer product knowledge level.	
Lee and Lee (2004)	Experiment	n=350 undergraduate students	Effects of changes in attribute and option numbers and attribute level effects across options on consumer choices	CD Players	Numbers of attributes and attribute level distributions are better predictors of information overload online than number of options or attributes alone. Integrates traditional (variance in options and attribute numbers) with structural (varied attribute levels across options) measures of information.	ANOVA and Logit regression
Moon (2004)	Literature review		Propositions for researching internet adoption for product search and purchase	Conceptual	Contingent decision making based on personal and product factors context of purchase. No account of limitations of internet communication effects	

**Table 2.2** Information content utility



basis of information overload is based largely in the cognitive limitations of consumers discussed by Peterson and Merino (2003) which lead to the use of heuristics in consumer processes to address Simon's (1978) concept of bounded rationality. A consumer's reliance on prior knowledge also has to be credited as a factor in their information seeking behaviour making the heuristics employed highly individual. Given the potential to serve vast amounts of information on a website, organisation of the information and the ability to serve information relevant to an individual is clearly an important management challenge in addition to maintaining accuracy of information served. The impact of individual heuristic patterns leads to another important point which is the need to be responsive to individual context in serving information. Indeed this fits precisely with Holbrook's (1994) perspective of value identified in § 1.2.1 (p 5) as being individual and relativistic.

The need to be contextually relevant is surely a major point in information utility, serving material that fits with an individual's purpose and expectation (Eighmy and McCord, 1998). Responding to context requires insights into individual needs for engagement and other differences between people and some researchers propose a focus on human needs rather than the potential to serve vast quantities of information (Eighmy and McCord 1998; McGaughey and Mason 1998; Klein 1998; Brown and Sellen 2001; Peterson and Merino 2003). This requires an ability to systemically define the context of a visitor to a website to enable programmed information serving relevant to their situation or context. Important elements of context include the objective of the website visit, for example the difference between browsing and purposive search identified by Brown and Sellen (2001). Within this, the level of emotion or rationality on which the behaviour is based will further affect information needs, together with the

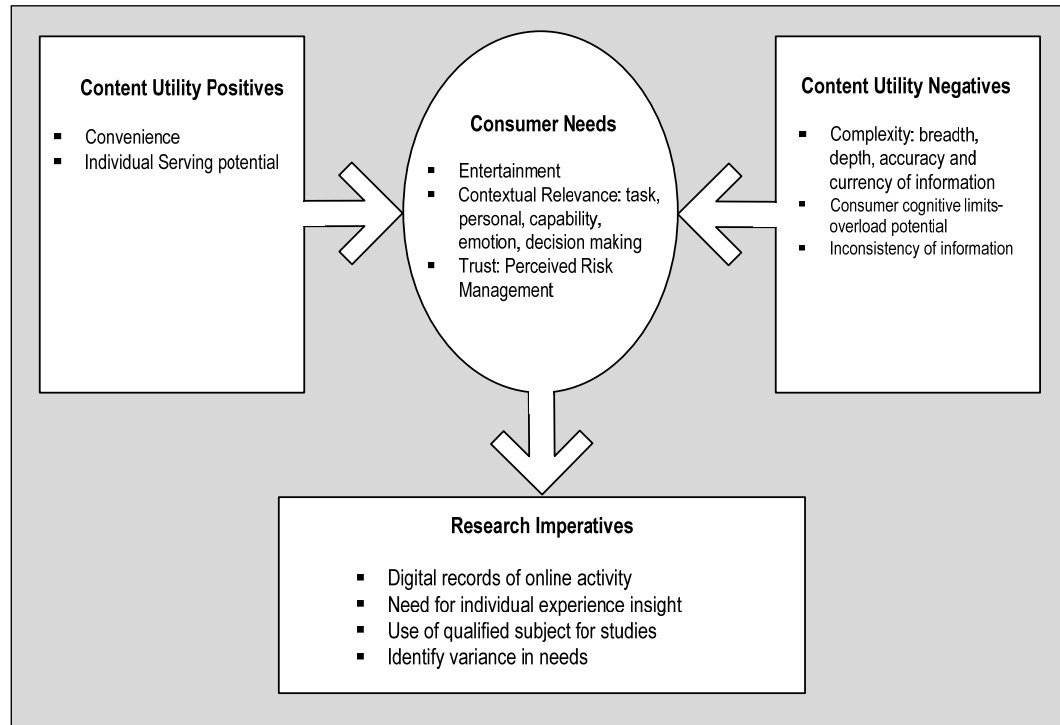
role of the product in the consumer's life (Yoon and Kim, 2001). Taking the individual's prior knowledge into account as a further element of context adds to the complexity of this aspect of online information utility (Peterson and Merino, 2003). Moon (2004) summarised the complexity as based on the personal characteristics, the nature of the decision problem and the social context of the situation. These factors are drawn from Bettman et al.'s (1991) framework of contingent decision making that further classified heuristic types of decision making based on the approach taken by the consumer. Given the vast array of personal factors, some form of heuristic scheme may be a better option for definition of consumer needs. This point will be revisited in §2.2.3.

A number of the researchers have pointed to the need for trust to be built with online information providers as the basis for repeat use by consumers (Eighmy and McCord 1998; Peterson and Merino 2003). Indeed, a lack of trust is the likely reason for Schlosser et al.'s (1999) finding of the lower level of use of websites for purchase relative to the high levels of consumer use for information search prior to offline purchase. Limitations of trust are also reported by Brown and Sellen (2001) in perceptions of higher levels of fraud and privacy abuse with higher levels of perceived risk associated with online information exchange. Peterson and Merino (2003) also note that an important objective for commercial websites is to build trust with visitors to facilitate repeat visits and increase reliance on the site for information. An ability to address individual context, as mentioned in the previous paragraph, may be a significant factor in addressing the issue of lack of trust in online sources by reliably serving relevant information at an individual level.

Methodologically, researchers have pointed to the advantages of using the ability to monitor consumer behaviour online (Klein 1998; Peterson and Merino 2003) or the importance of understanding the nature of consumer behaviour in vivo by on-site depth interviews (Brown and Sellen 2001). Further, research subjects should have relevant levels of both technology and product experience to bring true understanding to the use of the still relatively new and rapidly developing phenomenon of online shopping (Peterson and Merino 2003).

In summary, this subsection identifies a number of positives and negatives related to consumer online information content utility that serve a range of defined consumer needs. There is a further set of research imperatives related to the discovery of these needs represented in Fig. 2.1. In brief the positives of information content utility are the convenience of access for consumers with the potential for individualised information serving based on identification of visitors by cookies or login.

The negatives include the massive complexity in determining the consumer's need for breadth and depth of information as well as ensuring the currency and accuracy of information served. An additional problem is the inconsistency of information not only within websites but also between them which exacerbates the key problem of information overload associated with individual cognitive limitations. These positives and negatives are traded off in serving a set of needs associated with consumer purchase processes which include expectations that online information will be entertaining to some measure. More important is the need for contextual relevance that addresses a consumer's task within a defined decision problem, taking into account the individual's



**Figure 2.1** Information content utility summary.

emotional state and personal capabilities. In doing this the website needs to build a sense of trust in the consumer as the main motive behind information search for a purchase decision is to manage the perceived risk associated with the purchase.

To explain these positives and negatives in satisfying complex individual needs, a number of research imperatives are also found in the literature. These include the need to base any solution on the activity of an individual, for which the digital records of online activity are likely to offer the most informative data. To do so the actual experience of individuals through the purchase process has to be identified, requiring the use of subjects actually engaged in such a process for research studies. Finally, any such study should be able to account for the wide range of need variances across a population of interest.

Beyond the complex information needs affecting consumer behaviour identified in Fig 2.1, a key issue is that of the potential for consumer information overload compounded by information inconsistency both within and between websites. Ozanne, et al.'s (1992) research showed the potential for the termination of offline searching due to frustration, and there is no basis to suggest that online behaviour will be different. The solution is to identify consumer information content needs in the search process and the information sources and formats that will satisfy those needs to enable serving limited information online that facilitates the consumer's information search process. The complexity of understanding the knowledge, the personality and skills of an individual consumer, whether they perceive the decision as a complex or simple one, the size of their consideration set, as well as effect of context factors such as the impact of the decision on others, presents a daunting problem for marketers. These issues are revisited in §2.2.3 which deals with factor-based modelling of consumer search processes.

### ***2.2.2 Information technology utility***

While the previous sub-section on information content utility dealt with breadth, depth, accuracy and currency of information; this sub-section deals with the utility of technology during information search activities. This includes the differences in the effects of digital rather than analogue information, the use of search and robot applications online and the effects of interactivity and online community engagement. As with the previous sub-section, this has both positive and negatives for customer utility and the papers reviewed are summarised in Table 2.3 with the detailed review of each paper in appendix 1. The following paragraphs will discuss the negative utilities of online information in the areas of the social context of information, online information preferences, sensory stimuli delivery and relative recall capabilities.

Author(s)	Method & sampling	Subjects	Study focus	Product/Service type	Key findings	Analysis method
Brown and Duguid (2000)	Literature review		Limitations of information applications in business strategy. Reversal of insufficient information for decisions problem	Online and digital information	Data availability does not supplant need for social institutions and organisations. Original applications may thrive on information rather than being replaced by them. Trends to decentralisation and disintermediation may apply in some cases with others being reverse.	
Li, Daugherty and Biocca (2001)	Experiment based on metastream website	n=30	Effects of 3-D or virtual experience interactions	Bed linen, laptop computer, ring, watch	Virtual experience as substitute for sensory stimulation in buying. Incidence of attribute attention, evaluation, association and questioning with information search in virtual experiences. Effects of presence, involvement with product and affordance based enjoyment on intention to purchase.	Qualitative – concurrent verbalisation content analysis
Bickart and Schindler 2001	Experiment	n=61 students	Relative values of forums and commercial sources as consumer information.	Cycling, exercise equipment, nutrition supplements, photography and stereo equipment.	Online forum information results in higher level interest, thought, knowledge, expected spending and purchase likelihood.	MANOVA
Bagozzi and Dholakia 2002	Survey	n=157 virtual community participants	Determinants of social action in virtual communities	Generalised chatroom participation experiences	Virtual community influences of compliance, internalisation and social identity. Participation based on both individual gratification and community influences.	Structural equation modelling
Kozinets 2002	Literature review with practical application	179 Postings of consumers in an online community	Methodology development with illustrative example	Coffee enthusiasts	Depth of insight from more naturalistic data generated by highly engaged consumers of an experience type product. This offers a simpler less expensive method than conventional ethnography or focus groups provided important practice guidelines are followed.	Ethnography / netnography
Redmond 2002	Literature review		Potential impact of shopping agents in e-commerce markets	Generalised	Inflexibility of search technology leading to poor search results, information processing lower differentiation benefits and customer loyalty. All activities of the buying process.	

**Table 2.3** Search technology utility (continued overleaf)

Jensen, Kees, Burton and Turnipseed (2003)	Classroom, internet and mail surveys.	n=137 undergraduates, n=344 internet users and n=243 adults	Effects on price perceptions and search intentions of reference prices advertised online	DVD player	Offline store price expectations higher with greater effects of reference prices and higher search intentions than offline. Shows need for consumers to supplement online search with offline search.	MANOVA and ANOVA
Johnson, Bellman and Lohse (2003)	Observed behaviour on selected websites	n=19466 Media metrix panel participants	Cognitive lock-in effects of repeated application use.	Books, music and travel	The effects of experience based learning in developing consumer loyalty to a website and eventual purchase from the site. Shorter visit times and easier learning as facilitation for buying.	OLS, Bayes theorem and logistic regression.
Klein (2003)	Experiments (X2)	n=140 students and staff and n=100 ♀ staff and students	Effects of user control and media richness in virtual experience	Wine and face cream	Telepresence effects on consumer attitudes and beliefs about products and influence on cognitive responses. Substitute for direct product experience.	Factor analysis and ANOVA
Ratchford, Lee and Talukdar (2003)	Experiment based on mail survey with replication	1990 n<901 and 2000 n<886	Changes in high involvement search behaviour since introduction of the internet. Internet sources as substitutes and search effort effects	Product with high involvement search and high experience values (cars)	Mixed modes of search used with different sources for search and experience dimensions. No apparent effect on volume of search, time and effort savings taken by consumers. Perceived cost of time dependent on search motivation with many doing surprisingly little search	ANOVA, Regression, Correlation and Likelihood ratio test
Jones, Pentecost and Requena (2005)	Experiment	n=48	Information effects online and offline	Non-prescription analgesic	Recall and recognition effects of online and offline communications for persuasion and information. Brand names and persuasive information recall worse online.	Chi square and t-tests
Murray and Häubl (2007)	Experiments (X3)	n=240 students n=88 students n=80 students	Consumer preference for websites based on prior usage experience	Abstract information processing online.	The effects of interface specific experience on future consumer choices based on skill based habits of use rather than habitual choice. Recognises value of lower cognitive costs associated with learning effects.	Regression Logistic regression ANOVA

**Table 2.3** Search technology utility

A major factor in online information value for consumer search activity relates to the negative effect of information overload detailed in the previous sub-section. Duguid and Brown (2000) point to the poor recognition of social context in information delivery as a compounding factor in the massive volume of online information. They refer to the meaning that information derives from social structures and society and the relative absence of this in information delivered by technology. The tendency to try to solve problems with the understanding of information by offering yet more information to people presents as a major factor in the persistence of seemingly less effective non-technology solutions to common problems. A better solution is likely to involve identifying the problem a person is dealing with and then offering an appropriate solution rather than offering a range of information which may or may not contain an appropriate remedy. In essence this reinforces the need to define the situational context as suggested in the previous sub-section.

Further, Ratchford et al. (2003) show consumer preference for subjective information from interpersonal sources offline, raising a further social aspect to information. Again, one needs to gain an understanding of the situation or interests of the visitor to the website in order to know what information is likely to be useful. In the case of Ratchford et al.'s (2003) car buyers for example, a functionally orientated car purchaser seeking performance for example may prefer objective attribute information from manufacturers or dealers online while another person seeking hedonic benefits may prefer offline personal sources or personal inspection to inform their decision. This also resonates with the need identified in the previous sub-section to differentiate between emotionally and rationally driven purchasers.



Online information is also characterised by an absence of sensory stimuli other than sight and sound with a majority of Li et al.'s (2001) subjects regretting the lack of tactile stimulus. While this is beyond the capabilities of online media, it diminishes the possibility of exclusively online interactions in acquiring goods and services where physical shops or service centres provide options for personal interactions and touch, taste and smell stimuli. Once again, an understanding of the consumer's purpose and interests could help an online marketer to suggest a visit to a local dealer or service centre if that suits the customer's needs better than online information.

In addition, Jones et al. (2005) found that consumers have lower levels of online information recall regardless of their comfort levels with using technology and prior knowledge of the information. Lower levels of information recall compound the information overload effect as lower recall of online information is likely to frustrate a consumer's mental processing in a purposive information search process. This key finding further raises the need to improve the effects of online information for consumers, especially given the positive effects which are outlined later in this subsection.

Happily, there are a range of online information effects that are superior to offline equivalents. These include the benefits of time saving through convenient access to the information assisted by search engines and robots, the behavioural phenomenon of cognitive lock-in and the potential for greater cognitive engagement through online peer interactions and interactivity.

A key factor in the time utility of online information is the ability to navigate the vast amount of information with the help of search engines and robots. While this seems to be a solution to the problem of information overload, Redmond (2002) shows the potential for the law of adverse selection. While search engines are clearly indispensable for online information search, the paucity of relevant information within the vast stores of information online may result in it being hard to find. This becomes a greater problem when a consumer uses search terms that do not align with the keywords assigned by a website, perhaps because of different perspectives on “meaning.” Similar problems arise with inconsistency of attribute descriptors between vendors when search robots are deployed resulting in some level of compromise in search product. This problem can of course only be remedied by the consumer revisiting and altering their search terms which will only happen if they are aware of the problem in the first place. As a result, the most likely solution to the problem of information overload is compromised to some degree.

Validation of the savings in time is found in evidence of consumers “banking” the savings from online information access as the convenience of online information does not result in greater search activity (Li et al., 2001; Ratchford et al., 2003; Jensen et al. 2003). As suggested in the previous sub-section, it seems there is a requisite amount of information that will satisfy consumer needs and that the rationality of Stigler’s (1961) information economics may not apply. This is a clear indication of the potential value added by contextually relevant online information for consumers.

Perhaps the greatest opportunity in the effects of computer mediated communication effects is the potential for what Johnson et al. (2003) referred to as cognitive lock in.

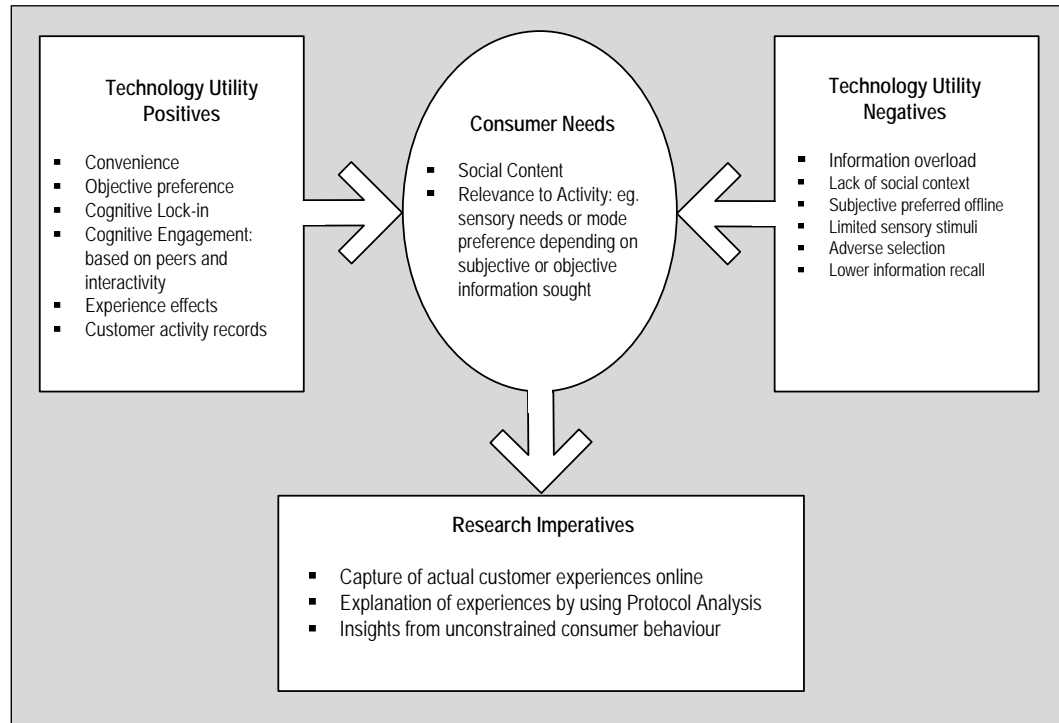
The advantages of this are evident in the increasing efficiency of interactions over time by visitors to websites as reflected in the data observed by Johnson et al. The increased benefit for consumers over time was confirmed by Murray and Häubl (2007) who demonstrated that the power law of learning effect is harder to achieve with more complex interactions. The ability of a website to facilitate the customer's interactions is therefore directly linked to the potential to become the default choice for a consumer engaged in a search process online. The challenge in achieving this is the need to deliver consistently positive and effective outcomes for a visitor to the website which will require the ability to differentiate needs and offer appropriate programmed responses. To do this the different heuristics or patterns of behaviour used by customers will have to be identified and understood in the context of their process, a key objective of the research reported on in this thesis.

Technology does however bring largely unmitigated benefits to communication effects in the areas of interactivity and online communities which offer the potential for higher levels of cognitive engagement. In the case of interactivity, Li et al.'s (2001) use of Protocol Analysis showed the potential of interactivity "affordances" (the ability to manipulate product representations online) for virtual inspection of a range of products to achieve higher levels of cognitive engagement than offline media. The cognitive engagement stems from user engagement based on the required interactivity control, resulting in an experience unlike any available from offline media. Their use of Protocol Analysis is also interesting given Ericson and Simons' (originators of Protocol Analysis, 1993) persuasive argument that their methods deliver data with metric properties. Klein (2003) took a step further by adding rich media effects to interactive user control and her experiment found that beyond cognitive engagement, there is a

potential for “telepresence” or heightened cognitive responses. Interestingly Klein’s use of personalities in rich media may indicate the potential for achieving social engagement as part of the cognitive engagement. Klein’s and Li et al.’s work also addresses products with experience characteristics in contrast to much of the other work on online information utilities.

Online communities offer a different form of interactivity with engagement and consequent cognitive benefits resulting from consumers as shown in Bickart and Schindler’s (2001) work. Again using a variety of product types with experiential properties they showed that consumers who engaged in online forums are likely to have higher interest in the relevant product with intentions for higher purchase and spending levels across all types of products. Bickart and Schindler also offer important insights into the roles of individuals in online communities with important cues for the management and sustenance of such communities. The effect of this engagement offers further benefits in understanding customers with Kozinets’ (2002) ethnography-based technique of “netnography” showing an ability to develop deep insights. Indeed Kozinets shows that analysis of online forum exchanges deliver greater naturalistic effects faster, more simply and at lower cost than traditional ethnography or focus groups. The resulting insights on symbolism, meanings, and consumption patterns of online consumers has the potential to greatly improve the quality of online information exchanges.

As with information content utility, this sub-section has identified a range of positives and negatives relating to information technology utility. The positives include further convenience in the use of technology to gather information faster, offset by problems



**Figure 2.2** Information technology utility summary

with information overload, adverse selection and lower recall of online information. Perhaps more significant though are the behavioural benefits of cognitive lock-in and the higher levels of cognitive engagement associated with peer engagement and interactivity. These behavioural benefits offer significant advantages to practitioners offering a better experience or superior information value at the expense of those with inferior offerings. This makes the accurate serving of relevant information an even greater prerogative together with the understanding that a consumer seeking subjective information is better directed to an offline touch-point.

Methodologically, the potential to get deep insights into consumer “meaning” from unconstrained expression in peer to peer forums is important in gaining an understanding of the meaning of activity. The challenge arising is how to extract meaning from the majority of online activity where consumers are not sufficiently

motivated to engage in peer to peer exchanges and server log data is required to define meaning. A further interesting point in determining meaning is the use of Protocol Analysis by Li et al. (2001) to gather insights into the meaning of consumer experiences. Such insights seem likely to be an integral part of any system of serving information that is contextually relevant to an individual's needs in real time.

This chapter now moves to consideration of literature dealing with modelling of online behaviour, starting with factor-based methods and moving on to clickstream modelling. The following sub-sections complement the literature on information utility by offering insights into the quantity and sequencing of information sources in a search process.

### ***2.2.3 Factor based search modelling***

To investigate the sequencing of customer information source and format choices, this review now moves to studies of modelling online behaviour. In this subsection the review focuses on classical marketing factor based modelling while the following sub-section deals with modelling based on customer clickstreams on a website. Factor modelling looks for understanding of factors that influence the breadth and depth of information sought and preferred sources to gain an appreciation of the “why” consumers act in a certain way or in certain patterns when searching websites. Such factors seek to offer insights into a consumer's future online search process needs which, combined with an understanding of likely online information utility drawn from the prior two sub-sections, may enable superior sequencing of information serving. Such predictive modelling enables organisations to add consumer value through better information service based on defined customer needs as a solution to the problems with information overload and lack of contextual relevance. The literature in this sub-section

is reviewed to evaluate its potential to inform a real-time programmed response to a website visitor based on their contextual needs. A summary of the papers reviewed is provided in Table 2.4 with a detailed discussion of each paper in Appendix 1.

The literature in this area can be grouped in two main areas, firstly intrinsic factors which influence consumer choices and secondly the extrinsic stimuli which prompt different responses from customers. There are also a range of insights which will help to inform appropriate research methods for this study reported in this subsection. The research into intrinsic factors that affect consumer behaviour follow the traditional methods of marketing research, seeking associations between customer characteristics and defined behaviours. Lohse et al. (2000) researched technology use as a predictor of online purchase and found significant associations with duration, frequency and extent of internet use as a significant predictor of online purchase. They also showed a lifestyle association for people with time pressures and a “wired” lifestyle being more likely to use the internet for purchases. Klein and Ford (2003) also identified a range of personal factors affecting online search behaviour, adding education to the consideration of internet experience. An interesting point is the lack of significance of demographics as a predictor of online activity.

Adopting a more classical approach, Richard and Chandra (2005) surveyed the well-established consumer factors of optimum stimulation level (OSL), need for cognition (NFC), internet skill and the antecedents of “flow” as factors in pre-purchase intention. “Flow” describes a situation where an individual engages in an unbroken, intrinsically enjoyable and self-reinforcing series of interactions with a computing device resulting in loss of self-consciousness (Hoffman and Novak, 1996). The antecedents of flow were

Author(s)	Method & sampling	Subjects	Study focus	Product/Service type	Key findings	Analysis method
Degeratu, Rangaswamy and Wu (2000)	Longitudinal field data collection from online and offline shopper samples	n=300 online and n=1039 offline panellists	Search attribute effects on consumer behaviour online and offline	Supermarkets/ selected grocery products (detergent, margarine and paper towels)	Brand names add value online for products lacking in attribute information. Objective information has a positive effect on online product selections. Price sensitivity higher online based on sales promotions only.	Binary probit and multinomial logit.
Lohse, Bellman and Johnson (2000)	Panel participants survey	n=2549	Predicting market adoption of online purchasing	Various	Time scarcity and “wired” lifestyle superiority to demographics in predicting online purchasing. Importance of product search behaviour and overall internet use in predicting online purchase propensity.	ANOVA, MANOVA, Logistic regression, Monte Carlo simulation
Hill (2001)	Literature review		Dealing with emotional responses online	Consumer responses to stimuli	Need to understand sensory, emotional and rational responses to stimuli in terms of impact or reaction and appeal or likeability of offering.	
Spink and Gunnar (2001)	Observation	n=10 000 enquiry logs from each of 2 major search engines	Review of business internet searches	Organisation use of internet as clients	Business searching more focussed, typically on other organisations and most related to sourcing inputs. Need for inter-site comparability and better interactivity for clarification.	Descriptive
Klein and Ford (2003)	Survey online of past buyers and current shoppers	n=171 past buyers and n=168 current shoppers	Use of the internet in product information search and substitution of offline media	Cars	8 Cell matrix conceptualisation of source types, with internet substitution resulting in greater search. Need to understand breadth and depth of search as much as time spent on each source and roles of different sources across process.	Descriptive, multiple regression, factor analysis

**Table 2.4** Factor based search modelling (continued overleaf)



<b>Author(s)</b>	<b>Method &amp; sampling</b>	<b>Subjects</b>	<b>Study focus</b>	<b>Product/Service type</b>	<b>Key findings</b>	<b>Analysis method</b>
Ward and Ostrom (2003)	Observation	Selected organisation searches	Source and character of consumer information available online and need for information control	32 paired brands covering retail, services and products	Potential for positive and negative (from antagonist sites) information search results. Marketers should implement strategies for multiple official and alliance sites to improve results. Sponsored communities may also help.	Descriptive
Richard and Chandra (2005)	Online survey of site visitors	n=unspecified	Website navigation based on “flow” model of responses to site characteristics.	Non prescription pharmaceuticals	Models contributions of flow, personal and situational factors and web navigation effects on consumer outcomes. Shows importance of skills, challenge, need for cognition and optimum stimulation level.	Structural equation modelling
Ylikoski (2005)	Experiment	n=149 students	Different types of search behaviour for pre-purchase information.	Camcorder	Search types of “heuristic” or reactive/opportunistic and “analytical” or planned. Categorises search events and relative importance of each. Heavy reliance on inter-site links which offer greater information flexibility.	Qualitative, cross tabulations and multiple regression

**Table 2.4** Factor based search modelling

identified as the level of challenge in the interactions, the nature of interactivity with the application and the individual skills of the person interacting with the device. The challenge dimension of the “flow” state antecedent was identified as being the most significant effect from their structural equation modelling with a range of other factors showing significant associations. However these important findings have little application in a system required to offer a real-time information service. Firstly, the factors selected by Richard and Chandra only explain a relatively small part of consumer behaviour that would still not be fully explained by adding factors such as risk aversion, perceived self efficacy, lifestyle and need for closure (Grant et al. 2007) amongst others. The difficulty of working with descriptors of consumers is similar to the problem which contributed to this thesis electing not to engage with the technology acceptance model as explained in §2.1. Richard and Chandra’s factors (OSL and NFC) are further based on survey instruments that each website visitor would need to complete to inform information serving needs. This is likely to be a barrier to consumer utility and therefore to vendors trying to implement such a system. Further, as pointed out by Grant et al. (2013), these relatively stable consumer traits only explain a portion of consumer behaviour and account has to be taken of a variety of dynamic factors that affect information needs.

However, the most problematic issue with modelling intrinsic consumer factors as a method of defining a consumer’s information needs is that of dealing with short term states and dynamic factors which affect information needs. For example one of the precursors of “flow” used by Richard and Chandra (2005) is the individual’s skill level which will evolve over time with experience and learning. In addition, an individual’s knowledge about a product will also affect their information needs as pointed out in the

previous sub-sections and this will also evolve over time. The challenge with such dynamics is finding a way to define an individual's relative level with possible complications such as the effects of different cognitive abilities on knowledge and skills. This is not the sum of the problem as other contextual factors in Richard and Chandra's study of visitors to a non-prescription pharmaceutical website are also likely to affect the individual's behaviour. For example, will these associations be the same in the case of consumers searching for an indulgence rather than a remedy for a health condition? And even within the context of seeking a solution for a problem, what are the effects of different levels of acuity of the problem? In short it seems as though the intrinsic factors identified in these and other studies of this nature are unlikely to be helpful in real time activity modelling. Instead a method is required to define an individual's situational context that reflects their needs and manifests in their activity and information selections.

The alternative approach to behaviour modelling is the effects of extrinsic stimuli or the responses of consumers to the information provided and their task situation. Degeratu et al. (2000) identified the effects of brands online as greater loyalty, less price sensitivity and dominant brands enjoying disproportionately greater share online. It seems as though brands may act as a surrogate for "experience" type attribute understanding although at an individual level personal attitudes to the brand will have to be identified. Such thoughts add a social dimension that will be even more important when organisations seek to develop customer relationships online with the dynamics of an evolving relationship.

Beyond the difficulty of using consumer traits and states to define context is the response or reaction of the website visitor to the information s/he is interacting with. While Hill's (2001) monitoring of facial expression is not possible beyond a laboratory setting, it raises the important point of how reactions to a vendor's online offering may change the nature of the interaction. At a marginal level, the website visitor's level of satisfaction with information provided may result in either a positive or negative trend of sentiment, affecting the nature of engagement. On the other hand a higher than expected price or lack of availability may lead to a more extreme reaction that requires a remedy for the continuation of engagement. The individual's reaction will encompass both their rational and emotional response to the information and manifest in the consequent actions of searching, clicking or exiting. The challenge then is to understand the "meaning" of that action and systematically respond in a way that capitalises on a positive response or remedies a negative response. With the potential for offline interactions and interactions on other websites between browsing sessions that may result in changed perspective, the website's response needs to be systematic. No literature appears to have addressed this issue to this point.

The effects of brands also extend further to the suggestion by Ward and Ostrom (2003) regarding the possible advantages from co-operation with third party alliance partners in supply chains or through facilitating online forums for deeper positive engagement with consumers. In essence, they document the potential for achieving a critical mass online that, with beneficial effects from external alliance partners as well as internal resources and systems, will offer better outcomes for online interactions. This offers a solution to the law of adverse selection discussed by Redmond (2002), a point that is also touched on by Spink and Gunnar (2001). Beyond reinforcing the phenomenon of adverse

selection, their use of actual search data for content analysis makes their findings incontrovertible. The digital records of actual customer activity are also used by Degeratu et al. (2000), Lohse et al. (2000), Ward and Ostrom (2003) and Ylikoski (2005), indicating the value such data holds for research in this area.

By engaging in co-operative networks as advocated by Spink and Gunnar (2001), marketers increase the probability of positive online information search results by consumers. Further, they are better able to offer a wider range of links to cater for consumer preferences to navigate by clicking on available links in what Ylikoski (2005) terms as “heuristic” search. In effect this raises the inventory of options the system has to draw on in response to the individual situations of website visitors. Notably the use of such search behaviour is particularly favoured by consumers searching for ambiguous or complex types of information.

In summary, this subsection identifies a range of intrinsic factors that contribute to an explanation of a consumer’s information needs and extrinsic factors that affect their needs. The intrinsic factors derive from traditional consumer behaviour studies and include a range of both stable traits and dynamic states that are used to describe consumers. Unfortunately there are problems associated with both the traits and states in seeking a basis to understand an individual’s information needs. Firstly traits such as OSL and NFC used by Richard and Chandra (2005) do not fully explain all aspects of consumer information needs. Adding other consumer factors such as risk aversion, perceived self-efficacy, technology skills, need for closure and others does not remedy the situation as the constructs are not complementary and will still offer an incomplete picture of consumer information needs. Second there are practical problems in

collecting data from consumers in practice who will have to complete multiple survey instruments before a website can identify their relevant factors. The dynamics of states such as mood, knowledge and the individual's situational context exacerbate the situation even further.

The extrinsic factors compound the difficulty as they will depend not only to the extrinsic factors in the interactions the individual has with the website but other influences in the individual's wider environment. These other influences may lead to seemingly inexplicable mood changes which affect the perspective on interactions or the influence of others affected by the purchase decision that may vary the situational context. Even relatively stable dynamics such as the individual's growing product knowledge and site experience will not evolve uniformly as they depend on traits such as inherent skills and capabilities.

The extrinsic factors also are problematic for modelling as they require an understanding for example of the individual's attitude to a brand, an aspect of social context defined by the customer brand relationship. The reactions to content presented in the course of interactions present further problems since a click after only a short duration on a page may signify either frustration with inappropriate content or an information objective efficiently achieved. Similarly a long duration on a page may indicate problems dealing with the content, immersion in gratifying content, or even that the individual has taken a coffee break. Given the potential for adverse selection as discussed in §2.2.2, deciding which parts of a co-operative network of external resources to which to offer links exacerbates the problem.

**Table 2.5** Factor based search modelling summary

Modelling Factors	Barriers to information needs modelling	Methodology Insights
Intrinsic Traits	<ul style="list-style-type: none"><li>▪ Incomplete for information needs and little consistency between factors</li><li>▪ Practical issues for data collection</li></ul>	<ul style="list-style-type: none"><li>▪ Validity of actual customer activity data</li><li>▪ Content analysis for determining 'meaning'</li><li>▪ Potential to establish linguistic and behavioural norms</li></ul>
Intrinsic States	<ul style="list-style-type: none"><li>▪ Dynamics vary between individuals</li><li>▪ Situational context variation over time</li></ul>	
Extrinsic	<ul style="list-style-type: none"><li>▪ Environmental factors beyond knowledge</li><li>▪ Reactions to information-based on intrinsic factors</li></ul>	

Happily, there are a number of methodology considerations that may prove useful in defining individual context identified in this sub-section. These include the use of content analysis (Spink and Gunnar 2001) for understanding a consumer's situation, possibly based on linguistic and behavioural norms in online communities (Li et al 2001). The need to understand changes in consumer states in real time makes such qualitative insights an integral part of any attempts to model online consumer behaviour. Further the potential to use digital records of actual online consumer behaviour provides incontrovertible evidence of phenomena that is superior to survey type methodologies. This chapter now moves to modelling based on the activity of consumers on a website in the form of clickstream modelling.

#### **2.2.4 Clickstream search modelling**

The literature in this sub-section covers a research method developed to predict future behaviour based on observations of the consumer's incidence of website visits and their navigation behaviour on the website. Clickstream modelling determines the probability of future behaviour options by heterogeneous mathematical models of consumer

behaviour, independent of personal or context factors, by comparing individual behaviour to generalised probabilities (Chatterjee et al., 2003; Moe, 2003; Johnson et al., 2004; Park and Fader, 2004). A major benefit of this type of modelling is the requisite data's ready availability from server web-logs recording incidence (recency and frequency) of visits to a website and mouse clicks within the site on each visit. The ease of data access with this approach is in stark contrast to the factor based modelling of the previous section and requires consideration based on the growing level of behaviour predictability. While the majority of clickstream modelling research relates to online purchase, a number of important behavioural and methodological insights are found in studies that address online consumer search behaviour. As with previous sub-sections, the papers reviewed are listed in Table 2.6 with the detailed discussion of each in appendix 1.

Chatterjee et al. (2003) found greater predictive capability by using data from both within and between information search sessions beyond single session data. They showed that failure to deliver relevant information up front results in a decline of click probability over time. This clearly compromises engagement with later consumer activity, giving independent confirmation of the importance of relevant information reported in the previous sub-sections. However, these effects require testing for information offerings relating to purposive search leading up to a product's purchase beyond the advertising application of Chatterjee et al.'s work. Indeed, when the effects of errors or dissatisfaction on cognitive lock-in (Murray and Häubl 2007) are considered, the importance of serving appropriate information as early as possible in a consumer's contact with a website becomes even more critical. This hypothesis is further supported by Johnson et al's (2004) finding of a slow but sure trend to wider



<b>Author(s)</b>	<b>Method &amp; sampling</b>	<b>Subjects</b>	<b>Study focus</b>	<b>Product/Service type</b>	<b>Key findings</b>	<b>Analysis method</b>
Chatterjee, Hoffman and Novak (2003)	Clickstream data	n=3 611 registered website visitors	Clickstream analysis of response to online stimuli	Content provider website	Needs for dynamic models for information serving based on intrasession as well as intersession effects. Higher probability of behaviour response with earlier presentation of option.	Random coefficients logit modelling
Moe (2003)	Observation of customer behaviour	n=5730 unique website visitors	Clickstream typology of consumer activity within a particular visit	Online health product/supplement sales website	Taxonomy of website visitor types by motivation as goal directed, search/deliberation, hedonic and knowledge building visitors. Shows ability to differentiate behaviour by information exchange activity online	Cluster analysis. Multiple discriminant analysis
Johnson, Moe, Fader, Bellman and Lohse (2004)	Panel data	10 000 households	Depth, dynamics and activity of search. Effects of lower search costs on search effort and inter site competition	Books, CD's and air tickets	Lower than expected search for commodity type products. Higher search for higher involvement air tickets with seasonal effects. Cross site activity based on personal characteristics – “higher search” households	Probability logs and hierarchical Bayesian models
Park and Fader (2004)	Panel data	20 000 panelists	Effects of modelling data from two sites for behaviour prediction	CD's and books	Including clickstream data from a second site results in better predictive modelling of consumer behaviour for standardised “search” type products. Limited to recency and frequency of visits by product type	Multivariate modelling

**Table 2.6** Clickstream search modelling

search off a low base over time as experience and knowledge grows. However there is no literature regarding these effects for differentiated products with complex attributes as proposed for this thesis. Further the inability of the heterogeneous models to define context points to one of the knowledge gaps which the research of this thesis endeavours to fill.

A major limitation of clickstream analysis however becomes apparent when the need to understand the “meaning” of consumer responses to stimuli in real time are taken into account. Notwithstanding the quantitative rigour of clickstream analysis, its use, typically on single websites, is limited as shown by Park and Fader’s (2004) improved predictive ability and reduced systemic error by adding data from a second website. The panel data they utilise is useful for research activity but real time modelling will not have legal access to data from independent websites owing to privacy limitations. It is therefore not relevant to this research’s objective of enabling better website information service for higher involvement and/or more semantically complex products. The alternative for increasing the quantum of individual visitor data is to collect longitudinal data from individual website visitors over time through multiple sessions using database records based on unique visitor logins or cookies.

One clickstream researcher (Moe, 2003) moved toward context definition, identifying the potential to develop insights into motivation behind consumer website behaviour. By classifying a websites pages into 5 categories and then analysing individual intensity and concentration of interactions, she was able to classify visitors into four different behaviour motivation types. The behaviour types were classified as (a) knowledge building, (b) hedonic browsing, (c) directed buying and (d) search deliberation which

offer clear links to the classical model of consumer process in §1.3. The most important variables Moe identified were the variety of categories viewed by visitors and the number of repeat page views. While her research has not been followed up it shows the potential for clickstream modelling incorporating content variables to provide real-time insights into consumer motivation. The potential for using a finer grained definition of page content to define context based on heuristic patterns of behaviour by consumers is an open question of critical interest to this research. By doing this, the heterogeneity condition of clickstream modelling may be relaxed enabling greater definition as well as more detailed motivational insight. The resulting data may possibly offer a basis of modelling online activity in a way that could enable programmed systemic responses that improve the quality of online consumer experience.

In summary, clickstream data analysis (a) offers a number of insights for the purpose of this thesis' research, (b) has a major advantage over factor based modelling but is (c) limited by a number of other factors. There are however (d) some valuable pointers to method that the study of this thesis can draw on. These points are discussed below and summarised in Fig. 2.3.

The insights derived from clickstream analysis further underline the importance of this thesis' study to identify methods for improved information serving effect. Studies of inter-session behaviour show that failure to serve relevant content results in consumer disengagement, perhaps confirming the phenomenon of cognitive lock-in as detailed in §2.2.2. The imperative for more accurate information serving is further underlined by the trend for consumers to search more widely as their knowledge and experience develops over time.

Insights	Advantages
Need for right information up-front to attract repeat visits	Real-time data use
Increased incidence to search by users over time.	No limitations to collection
Methodology Pointers	Disadvantages
Results from multiple sessions advantageous	Heterogeneity of data- no context or meaning derived from activity
Multiple website data advantages	Application of prior studies to non-complex, low involvement products
Potential for higher level content definition	

**Figure 2.3** Clickstream search modelling summary

The major advantage over factor based modelling is the use of data which is available from each and every visitor to a website and imposes no burden on the visitor for collection. While the quantitative rigour of the analysis seems attractive it is more of a liability in the lack of insight it delivers in real-time. The heterogeneity condition effectively precludes any consideration of context or meaning of the activity it monitors. With the exception of Moe's (2003) study, the outcome of single website clickstream analysis is a probability of the visitor going on to make a purchase. This simple probability offers no clues on what remedial action may be necessary to improve the purchase probability or even opportunities to capitalise on a high purchase probability visitor. A final limitation of this research is the tendency to use low complexity products in studies which typically have low levels of customer involvement.

There are however a number of pointers that require consideration for an alternative methodology using server log data from this review. First, the benefits of aggregating data over multiple sessions of interaction will offer a more complete picture of individual customer behaviour over time. For example, while it seems impractical to monitor dynamics such as product knowledge and expertise in using a site, these will

likely manifest in different behaviour over time. Second, while real-time data is not legally accessible from multiple websites owing to privacy legislation, there is merit in studying the activity of individuals on multiple websites to derive a broader perspective. In identifying heuristic patterns of behaviour, the activities of individuals on multiple websites may offer insights that will facilitate a better system of targeted information serving. Finally, the use of content specification in the classifying web pages offers deeper insights from activity in the same way that Moe (2003) defined visitor purpose. Rather than using five basic classifications of page types however, specifying the content and format of the pages visited offers a far higher level of resolution of individual activity purpose and subsequent needs.

This chapter now moves on to the following section of online consumer option evaluation and preference development.

### **2.3 Option Evaluation**

A rich research stream into offline option evaluation has developed with a focus on the consumer's considerations and deliberations as they engage in this process. Much of this research is based on considerations of how consumers evaluate options, but very little research addresses resource preferences or behavioural differences associated with the more detailed analysis of option evaluation compared to information search. This apparent neglect is surprising since the consumer in this case is choosing between a limited number of options so organisations have a relatively higher probability of selection, suggesting better returns from investing effort at this point. Research offering behavioural insights into option evaluation activity could be used to add value for

consumers and/or to present offerings more attractively and should therefore be helpful to organisations seeking consumer selection preference.

The neglect may result from assumptions of similar behaviour between information search and option evaluation based on use of the same information source options. However, as pointed out at the opening of the previous section, there are likely to be substantial behaviour differences between information search and option evaluation activities. Option evaluation leads to the development of a preferred option for purchase from the evoked set in information search, typically moving beyond price and/or other key product attributes used in the screening process. As well as attention to fewer product options, the information sources used for option evaluation may assume different roles for consumers and new options that offer greater depth of understanding for consumers may be preferred. An understanding of consumer behaviour online requires identification and explanation of such likely behavioural differences.

This section of the review considers literature regarding option evaluation to identify pointers to the differences in behaviour and different uses of online information and technology. For continuity and comparability between sections, literature dealing with (1) online information value and (2) online behaviour modelling is reviewed. As with the previous section, value is divided into the utilities of content and technology effects online while behaviour modelling is divided into the areas of factor based modelling and clickstream modelling. As indicated earlier, the literature is sparse in this area with voids in some aspects but the structure of the previous and following sections is maintained for consistency and comparative reasons.

### ***2.3.1 Option evaluation content utility***

The literature in this area is void. While the key to content utility may be assumed to be the depth as opposed to breadth of information valued for information search, many of the issues identified for online information search seem relevant to option evaluation. The trade-offs between information volume and overload for example may persist as may preference for offline information for some types of information or sources but will the same effects apply? The lesser communication effect from lack of personal interaction in accessing information online is also likely to apply with option evaluation as consumers weigh up options and seek guidance on distinctions between seemingly similar offerings. New information sources or substantially different use of the same information sources may be required for the different attributes likely to be considered in evaluating options. Similarly the personal and product factors that bear on information search behaviour are also likely to affect behaviour with dynamic state, stable trait and motivation for purchase effects applying to option evaluation as they do to information search.

However, given the impracticality of collecting such data and the incomplete solution it provides (outlined in §2.2.1), an alternative method, possibly based on heuristic patterns of behaviour, needs to be identified. Patterns of behaviour for option evaluation are likely to be different to information search however, evidenced by Moe's (2003) differences in frequency of website page visitation and page type sought as consumers moved from search to purchase intention. Since consumers may shift back and forth between information search and option evaluation it is important for vendors to distinguish between the two types of behaviour to enable serving of appropriate information sources and formats. Critically, the required responses to capitalise on

customer satisfaction or remedies for dissatisfaction are also likely to differ between the two stages of consumer behaviour.

The proposed research should also identify the roles and usage of online information sources in option evaluation as distinct from information search activity. Since the contact point options are largely common this is a matter of defining different behaviour typologies associated with option evaluation and preference development as distinct from option search and screening.

The following sub-section addresses the literature dealing with technology utilities associated with option evaluation.

### ***2.3.2 Option evaluation technology utility***

The main focus of the limited literature dealing with online technology utility relates to the development and operation of recommendation agents or systems. These systems address the potential for frustration through information overload online and the interest of this study is in their effects on online consumer option evaluation. In common with the other sub sections in this section, there is little research addressing option evaluation activity with the majority of literature devoted to information search. The papers discussed in this sub-section are summarised in Table 2.7 and reviewed in detail in Appendix 1.

Both Ansari et al.'s (2000) and Häubl and Trifts' (2000) studies showed that decision aids or recommendation systems helped consumers make better choices. However there are no insights into the preferences or sequencing of resources used by consumers



<b>Author(s)</b>	<b>Method &amp; sampling</b>	<b>Subjects</b>	<b>Study focus</b>	<b>Product/ Service type</b>	<b>Key findings</b>	<b>Analysis method</b>
Ansari, Essegai and Kohli (2000)	Film recommendation system database	n=2000 for validation and n=986 for calibration	Requirements for operation of internet recommendation systems and operation effects	Feature films	Bayesian preference model based on expressed preferences, preferences of other consumers, expert evaluations, item characteristics and individual characteristics. Accounts for product heterogeneity through interaction of unobserved product attributes with customer characteristics.	Markov Chain Monte Carlo estimation
Häubl and Trifts (2000)	Experiment	n=249 students	Interactive decision aid effects on consumer decisions online.	Backpacking tents and stereo systems	Recommendation agent and comparison matrix effects on search behaviour, consideration set size and quality, choice quality and purchase confidence.	Generalised estimating equations modelling
Redmond 2002	Literature review		Potential impact of shopping agents in e-commerce markets	Generalised	Inflexibility of search technology leading to poor search results, information processing and erosion of differentiation benefits and customer loyalty. Touches on all activities of the buying process.	

**Table 2.7** Option evaluation technology utility

engaged in a higher involvement processes. The limited flexibility of technology based applications detailed by Redmond (2002) is further underlined by Häubl and Trifts' (2000) finding of the need for standardised attributes. Since many marketers benefit from frustrating direct comparisons in recommendation systems and comparison matrices, the utility of such applications is likely to remain limited for consumers online.

The open question remaining for consumers is whether the added value of online information search carries over to the different cognitive tasks of option evaluation. If so, what are the effects on heuristic patterns of behaviour and the associated “meaning” that offers clues to a consumer’s following information needs? It seems unlikely that a consumer will have one pattern of behaviour across all stages of their process given the potential for different needs for content as pointed out in the previous section. Therefore the types of behaviour defined by sequences of activity within the option evaluation “stage” of consumer process also needs to be defined with the utility of information sources and formats online.

### ***2.3.3 Option evaluation factor based modelling***

The literature dealing with online factor based modelling of option evaluation processes is rather sparse, again suggesting a rich area for future research. The common resources used by consumers for information search and option evaluation activity suggests that literature on information search behaviour may be useful here, but expected differences in activity mandate the need for investigation and definition. In particular, the differences in behavioural patterns between option evaluation and information search should be identified for activity classification to enable systemic information serving.

This will also require an appreciation of the roles of information source types and formats for consumer option evaluation relative to information search activity. The papers discussed in this sub-section are summarised in Table 2.8 and reviewed in detail in Appendix 1.

The sparse literature relating to factor based modelling for option evaluation offers interesting methodological considerations for online behaviour modelling and points to a major factor in preference formation. Kim et al. (2002) used clickstream data to identify factors which enable prediction of the consumer's future needs, effectively extending Moe's (2003) work with higher resolution at the product level. Their methodology also extends the application of collaborative filtering with the use of association web mining and application of a decision tree. Their focus however is on predicting the consumer's likely product needs based on past activity, rather than their dynamic and evolving needs for information as they move through a process as this thesis seeks to do. It does however reinforce the potential for developing higher levels of resolution by closer attention to variables in the consumer's activity. Unfortunately though, the findings of the research in the previous sub-section of the need for standardised attributes for effective recommendation system operation remains a limiting factor for such systems.

On the other hand, Erdem and Swait's (2004) study reinforces the findings of Degeratu et al.'s (2000) identification of brand values as a major context factor. The effects of brand credibility are found to substantially ease the consumer's task in selecting a preferred option, particularly when the consumer is unfamiliar with the options available. The emotional base of this effect is apparent from the greater effect of the

Author(s)	Method & sampling	Subjects	Study focus	Product/Service type	Key findings	Analysis method
Kim, Cho, Kim, Kim and Suh (2002)	Experiment	n=116 customers from shopping mall database	Personalisation of internet recommendation systems	Cosmetics and grooming products	Importance of product taxonomy and targeting for effective recommendation systems. Based on collaborative filtering of browsing data applied to a decision tree.	Test of WebCF-DT decision tree
Erdem and Swait (2004)	Survey	n=166 students	Brand choice effects of credibility based on perceived trust and expertise	Athletic shoes, mobile phone services, analgesic medications, juice, personal computers and shampoo	Across a range of product types with different levels of perceived risk and types of attribute, consumer perceptions of trust weigh more heavily on brand selection than perceptions of expertise. Credibility is most important when consumers are unfamiliar with products but has an effect even when they are familiar with the product.	Binary logistic regression and multinomial logit.

**Table 2.8** Option evaluation factor based modelling

trust element than the expertise element associated by consumers with brands. An interesting following question not related to this research is to what effect this phenomenon contributes to the overwhelming dominance of market leaders in some sectors of online applications (e.g. Google, Amazon and e-Bay)?

In summary, this sub-section identifies the paucity of research on the factors affecting consumer processes for option evaluation apart from the singular effect of brands in easing the consumer's task. This important context factor carries over from the previous section on information search and is likely of greater significance in predicting consumer information needs than traditional factors identified in marketing research. The other important insight is the methodological support for seeking higher resolution from the variables involved in consumer processes. While the utility of recommendation systems remains constrained by the need for standardised attributes identified in the previous sub-section, the research shows the potential for improvement by finer grained analysis. Of particular interest is the application of this research to prior activity in actual customer online behaviour.

#### ***2.3.4 Option evaluation clickstream modelling***

In the absence of literature applying clickstream modelling to consumer option evaluation behaviour, this review proposes that the insights drawn from information search be applied to option evaluation behaviour. The key point will be to use server log data to identify patterns of behaviour to develop typologies of activity that may be related to heuristics used by consumers in their option evaluation. This will require a higher degree of content specification than typically used by clickstream analysis and an

alternative to identifying the personal, product and motivation factors of classical research.

## **2.4 Summary of information value and research methods**

The literature clearly establishes the value of online information for consumers largely based on the high level of convenience which it provides. While the convenient access does not seem to result in consumers accessing more information, the time and effort saved in a purchase process appear to be banked as a valuable saving. Online interactions and peer exchanges also offer a higher level of customer engagement than offline media, providing communication benefits for organisations using websites. Critically the activities of website visitors are recorded in a server log which is available to the website owners for analysis. The use of clickstream data in confirming the value of serving relevant information, particularly given the trend to wider search, offers further justification for the premises of this thesis' research.

The literature in §2.2 and §2.3 dealing with online information value and the principal research streams exposes knowledge gaps in understanding the potential to serve “valuable” information on websites. It also offers very clear pointers to the imperatives for research to address this significant opportunity to capitalise on the advantages of online information serving. The following sub-sections summarise the key points identified in the literature reviewed that will inform and focus the research agenda for this thesis. First the nature of complex information value online is discussed, followed by the limitations identified in current research methods. The requirements of context determination are then discussed as the basis to outlining the research imperatives for this thesis.

#### ***2.4.1 Complex information value online***

There are a number of requirements for dealing with the complexity of online customer needs from a website owner's perspective. These include having well-organised information architecture, effective partnerships and alliances with online links and search engine optimisation to provide a better service, particularly when applied in a positive organisation culture. However the key problem of defining individual context to enable serving of relevant information in real time remains an unsolved problem. To more fully derive the benefits of cognitive engagement associated with interactivity and online forums and brand loyalty online, organisations need to address this issue of context.

The need to address context may also be the key to some of the trade-offs between positives and negatives in the research reviewed. For example, how do consumers trade the positives of online information value in terms of the convenience against the negative of information overload? While no clear trade-offs are shown between these positives and negatives in the literature it is possible that this may lie in the common need identified in the form of individual context. As noted in the §2.2.3 discussion of Richard and Chandra's (2005) paper: What effects do different degrees of the condition requiring remedy have on information preferences about the options?

Clearly defining individual context is a central problem that has to be addressed if organisations are to improve the value of their online information offerings. While technology utility shows a number of very powerful advantages such as the potential for engagement in peer exchanges and the use of interactivity these, like raw information, have to be relevant to the customer's context. In the event that context can be

determined, the major problem of information overload may be addressed through the ability to serve customised information addressing the individual's situation. It is further possible that addressing the issue of context may mitigate the impersonal nature of online interactions and thereby improve the potential for online trust. But context is a complex issue with multiple dimensions identified in the literature including the individual's task, personal capabilities, emotional state and social context. These points will be addressed in greater detail in the following chapter.

#### ***2.4.2 Research methods limitations***

The literature also offers clear pointers to inappropriate methods for defining context as the basis for delivering information value from a website. Classical factor based marketing research methods are fatally flawed by practical issues in collecting the required data. Beyond data collection difficulties, the many consumer trait factors relating to consumer information needs are incomplete and not complementary in describing individual information needs. The problem only increases when seeking to determine dynamic consumer states as skill and learning development varies between individuals and situational context may vary based on environmental factors beyond the individual/website dyad. Environmental factors also compound the complexity of personal traits and states that will result in variable reactions to information served, affecting the individual's state further. Given the problem of classical marketing research methods, it is unfortunate that while clickstream modelling offers the advantage of using live consumer data it does not offer a solution to context definition in itself. The use of heterogeneous modelling precludes the extraction of meaning or context from actions as such actions are, by definition, individual rather than generalised. Not even innovative approaches such as using collaborative filtering with



association rule web mining and application of a decision tree and advanced quantitative approaches such as Markov Chain Monte Carlo modelling achieve what is required.

#### ***2.4.3 Context determination***

Fortunately there are also a range of positive indicators of what is required to associate meaning with activity as a basis for defining individual context. The key requirement is for a method which captures actual consumer behaviour as they are engaged in an actual process with a methodology to analyse and extract the meaning of the activity. This suggests that a critical part of the method will be the use of actual customer activity data which offers improved validity from aggregating data over time and using data from multiple websites. This requires the use of a database which offers a further benefit in facilitating a higher resolution website page classification system. However the most promising contribution from clickstream data is the use of content specification by Moe (2003) to determine motivation of a website visitor. Given the basic level of categorical content specification used in her study it is surprising that higher resolutions of content specification have not been investigated in a search for context definition. With the potential for multiple activities within each motive described by Moe, and factors such as different levels of knowledge affecting needs, a far finer grained analysis is required. Further, there is also the issue of social and other context dimensions which reflect, for example, the consumer's attitude to the brand which will affect their need for information.

To achieve contextual relevance the research needs to capture the “meaning” of individual experiences, which is beyond the possibilities of clickstream analysis in the reviewed literature. But to capture the “meaning” of experiences, they need to be

gathered from qualified respondents or subjects, ideally engaged in actual customer activity. Further the experiences should be with different information resources to show the effects of different information formats and content in various contexts. These also need to be part of a series of interactions rather than isolated snapshots to develop an understanding of the sequencing of activities. An interesting contribution from the literature reviewed is the use of protocol analysis and/or content analysis to discover behavioural or linguistic norms as used in normal practice by consumers. Since such norms are identified as part of consumer heuristics (Bagozzi and Dholakia 2002), this is an approach that will bear consideration in Chapter 4 which deals with the research methodology.

#### ***2.4.4 Research imperatives***

As an alternative to the unworkability of factor based research and the limits of clickstream modelling an alternative analysis method is required with a focus on analysing activity to determine context. The previous sub-section points to four key dimensions of context that will have to be addressed in both the theoretical basis of the research as well as the research methods developed in this thesis. First, a *functional dimension* of context is required in the capture and use of actual consumer behaviour associated with a consumer purchase process including the nature and content of interactions. Second, the research must be able to capture the *structural* dimension of the process or the sequence of interactions to enable modelling of the activity for predictive capability. In addition to these two dimensions, there is a need to understand the customer's situation and the effects of the interactions on subsequent interactions. This adds the third dimension of needing to understand the *purpose* or motivation behind the selections made or activity undertaken by consumers. Finally, the *meaning*

or effects of interactions has to be understood, adding the requirement for a semantic or semiotic appreciation of the activity. These four dimensions are briefly reviewed in in the following paragraphs to specify the requirements of the theoretical base for this research in the following chapter where they are discussed in detail.

### **Functional dimension of context**

The first contextual dimension is capturing the activity or selections of consumers as they progress through an actual purchase process. Payne et al. (2008, p. 87) define consumer behaviour as “the actions that stem from and result in experiences” and point to the role that experiences play in explaining consumer behaviour. Their view is supported by Heidegger’s (1927/1981) proposal that the actions of people gives a pragmatic validation of their motivation and purpose through perceived fulfilment. In other words their actions are the product of their cognitive and emotional needs and if the “meaning” of those actions can be understood, the limited insights derived from traditional market research methods become redundant. In the case of this research the functional aspects of consumer behaviour manifest in the interactions they perform on websites and an accurate record is required of the nature of such interactions. Key dimensions of the interactions that are required to be logged are the details of who is interacting on either side as well as the format and content of the information exchanges. The difficulty is however in achieving an unambiguous understanding of the meaning of the interaction activities and hence the requirements for the other three dimensions of context that are required.

**Structural dimension of context**

The specific activities that represents a consumer's process do not exist in isolation and represent a sequencing of events and responses to stimuli as they move through a process. As such there is an expected logical sequence to the activity that should be apparent if the further two dimensions of context can be determined. A mechanism is however required to map the process so that the functional interactions may be mapped and understood as logical sequences. Such sequences offer the ability to predict which options follow specific interactions and hence the ability to serve relevant information based on the preceding activity. As with the functional dimension of context though, any sequence of activities has to be understood in terms of what is being sought by the consumer and how they do this.

**Purpose dimension of context**

A major factor in understanding the phenomena that are observed in the previous two dimensions of context is gaining an insight into the purpose of the activity. In the absence of understanding the motivation or the reasons why consumers choose specific options the reasons for the actions become speculative. It is therefore necessary to get some sense of what a consumer is striving to achieve through their actions so that specific interactions may be associated with defined objectives such as lower prices or better outcomes from the process. Such clearly different purposes or motivation for activity seems likely to result in clearly different functional and structural context elements of a process.

**Semantic/semiotic dimension of context**

Finally, the “meaning” of the interactions has to be determined in two major ways. First is the need to understand the differences between a consumer’s interactions with different online information sources. For example a tried and trusted website may elicit different interactions than one which is new and previously unknown to the consumer. In the same way, the opinion of a friend with known tastes may be preferred to an independent source for a recommendation for a subjectively evaluated or polysemic travel experience. Second, the effect of interactions has to be ascertained as there are always likely to be a range of different reactions to information served by a website. The information required following information served depends entirely on the reaction that a consumer has to the information. For example an unexpectedly high cost for an experience may result in dismay and result in a recalibration of search options whereas a low cost may result in a move to effect a reservation.

The following chapter reviews the nature of context in greater detail and evaluates two analytic theories for defining context from online activity. The subsequent chapter then describes a research methodology for implementing the analysis using the theory which satisfies all of the criteria outlined in this sub-section.

## **CHAPTER 3: THEORETICAL BASIS OF RESEARCH**

### **3.1 Introduction**

The previous chapter outlines the nature of information value as individual and relativistic and dependent on the context of the information seeker. Context however is a complex phenomenon with multiple dimensions and a further complication of dynamic evolution that has to be dealt with to deliver real-time information value. The challenge increases when the use of an individual's online activity data (in the form of individual click sequences, search terms or activity in online forums) is specified as the basis for understanding context. Since there is no apparent prospect of using classical marketing research methods to define context for the reasons outlined in the previous chapter, a new approach has to be identified and/or developed.

This chapter reviews the theoretical basis for online consumer activity data analysis to determine the individual's context. Two theories are reviewed, firstly the application of activities associated with Bettman et al.'s (1991) heuristic typologies and secondly Halliday's (1978) Systemic Functional Analysis based on socio-linguistics and social semiotics. As noted in the previous chapter, rigorous and fully theorised methods are required to avoid the potential for subjective bias in determining the "meaning" of activity.

A major benefit of online interactions is the data created by the activities of consumers on websites that may then be used for real-time behaviour modelling in value co-creation. Using online consumer activity data for value co-creation is akin to the way a perceptive sales representative elicits or observes consumer needs and responds appropriately. Server log data offers vendors the ability to track a consumer's activity

on a website and the timing and duration of their exposure to selected pages over time. In conjunction with a detailed information content classification scheme, beyond that used by Moe (2003) and discussed in §2.2.4, including content elements, the characteristics of the information sought may also be defined. Using activity data to define an individual's context represents a method to determine information utility as it applies to an individual's situation. This does not seem to have been addressed in research efforts to date.

Importantly, such a behavioural approach offers an alternative to modelling behaviour based on personal factors and avoids the problems associated with consumer trait and state determination in real time. Given the problems identified with modelling online consumer behaviour identified in the previous chapter, the use of consumer activity data represents a major advance in modelling online consumer behaviour.

An associated advance in online marketing will be a move from regarding making information available as communication to understanding the effects of such information. Typically, marketing communication campaign effects are evaluated by primary research before and after the campaign to determine changes in awareness, recall, recognition or attitude. Descriptive statistics of this kind are however a relatively blunt measure and of no help in dealing with individual reactions or unexpected effects while a campaign is underway. To deal with this problem the understanding of communication as occurring when the information has been processed with "meaning" resulting for the user has to be used. A useful definition that characterises communication as transactional is provided by Alberts et al. (2007, p21) as

“... a transactional process in which people generate meaning through the exchange of verbal and non-verbal messages in specific contexts, influenced by individual and societal forces and embedded in culture....”

Alberts et al. highlight the development of meaning in a specific context through an interactive exchange process where both parties are actively engaged. Previously, this could only be achieved in interpersonal exchanges and this thesis now seeks to add online interactions with the development of modelling as the basis for monitoring activity and responding with contextually relevant information. For interpersonal interactions this is done based on personal learning and experience and draws on a range of visual cues such as facial expressions, body language and vocal inflection in addition to the words used. To do the same online requires a system that uses the data of the individual's activity to determine the individual's context and to serve relevant content or hyperlinks to further information. Such a system will require a detailed model of the activities engaged in by consumers with the associated information content, source and format related to each activity. This requires a fundamental change in thinking about communication from offering or providing access to a message or content to determining the effect of the message or content so that the following offering of information is contextually relevant to the consumer's need.

The benefits of serving contextually relevant information are manifested in three key sources of consumer value beyond simply reducing consumer frustration. First, effective pre-sales service reduces customer search time and effort, adding customer value (e.g. Eighmy and McCord, 1998; Klein, 1998) in a way that compounds the primary utility of online information. Second, the so-called “cognitive lock-in” effect

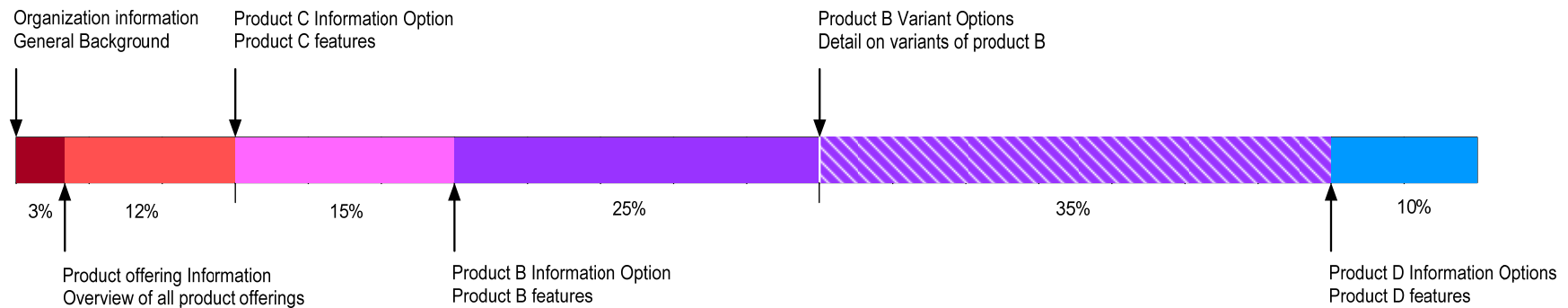


(Johnson et al, 2003) offers the potential for repeat website use when vendors offer useful content in appropriate format. Murray and Häubl (2007) showed that this effect derived from perceived ease of use based on website functionality resulting in higher return visits. Third a reliable and responsive information service addresses the key issue of information overload (Lee and Lee, 2004) and may improve levels of consumer trust in an impersonal communication medium (Eighmy and McCord, 1998; Peterson and Merino, 2003). As a result value is created for the website proprietor as it reduces the potential for frustration that results in consumer disengagement from a process (Ozanne et al., 1992) as noted in §2.2.1.

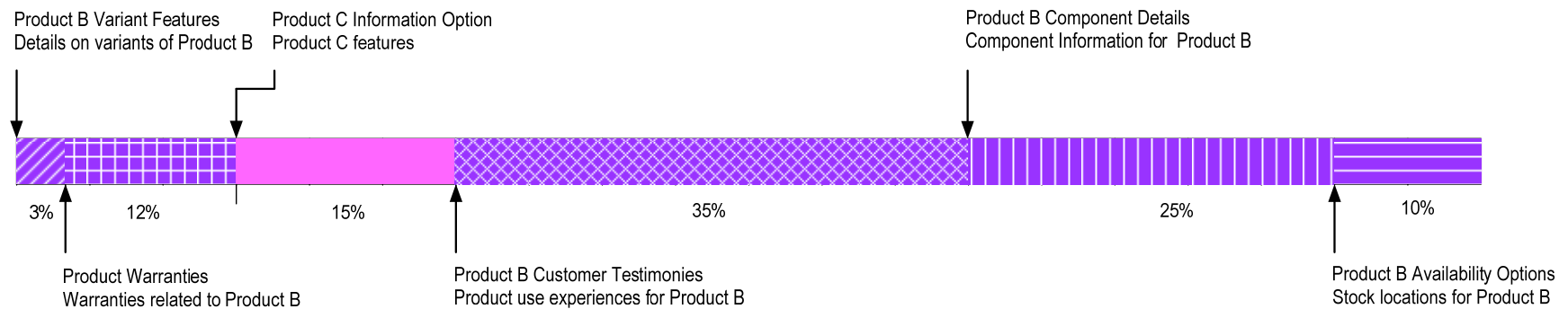
This chapter's first section defines the elements of consumer context based on activity related needs for the purchase of a high involvement hedonic product. As identified in the previous chapter, both task and social context affect consumer information needs and these have to be identified as part of heuristic patterns of behaviour. Based on these two dimensions of context definition, the relative utility of information sources and formats online need to be established to enable service of information suited to the individual's real time needs. The behaviour relating to task context may be a primary indicator as discussed by Grant et al. (2010) based on the relative breadth or depth of browsing activity. As illustrated in Fig. 3.1, information search may be spread across multiple product options whereas option evaluation are characterised by deeper navigation on a single product option.

However, not all consumer activity is task directed and different patterns of activity are likely to reflect a consumer seeking hedonic pleasure from online interactions. Such activity may serve to heighten anticipation of a planned travel experience or simply to

### Sequence of consumer **information search** activity



### Sequence of consumer **option evaluation** activity



**Figure 3.1:** Activity variance between information search and option evaluation (Grant et al., 2010 p54)

gain vicarious pleasure from engaging with a topic of great personal interest. In addition the behaviour has to reflect the differences in social context and the different process dynamics of individuals interacting on the website. This illustrates the need for a far greater degree of semantic definition of online activity and the theoretical basis for doing this is addressed in the following two sections of the chapter.

The subsequent two sections of the chapter introduce alternative theoretical bases for understanding online consumer behaviour in real time. The first of these is identifying and using the behavioural characteristics of Bettman et al.'s (1991) heuristics typology as the basis for determining "meaning." Owing to the shortcomings identified in using heuristics in this way, an alternative theory of systemic functional analysis is proposed where consumer activity is analysed using socio-semiotics to determine the "meaning" of the activity. The comparison of the two theoretical bases for the analysis of online information search data clearly shows the basis for using systemic functional analysis as the basis for the research design detailed in the following chapter.

### **3.2 Consumer context identification**

This section deals with the elements of context for an individual consumer's information needs and outlines how behavioural data may offer pointers to context. The three sub sections address different bases of consumer information needs, each of which poses different challenges for research as identified in the previous chapter. First, consumer information needs, and therefore utility, are likely to depend on the task in which the consumer is engaged (i.e. information search, option evaluation or indulgence). Second, the social context which relates to the consumer's needs for perceived risk management based on the importance of the product and relative levels

of experience and knowledge. Social context will also be affected by the nature of consumer's relationship with the information source or the consumer's attitude to the information provider based on trust and familiarity. Third, the relative utility of various information format and sources need to be identified for a given individual for the task and social context identified. These context factors which affect consumer information needs and resultant information format choices are summarised in Table 3.1.

**Table 3.1** – Context factors affecting consumer information source preference or utility

Task context	Social context	Information format options
<ul style="list-style-type: none"> <li>▪ Information search <ul style="list-style-type: none"> <li>○ Option identification</li> <li>○ Option culling</li> </ul> </li> <li>▪ Option evaluation <ul style="list-style-type: none"> <li>○ Problem framing</li> <li>○ Purchase goals</li> <li>○ Heuristic strategy used</li> <li>○ Preferred option development</li> </ul> </li> <li>▪ Hedonic indulgence</li> </ul>	<ul style="list-style-type: none"> <li>▪ Perceived risk management <ul style="list-style-type: none"> <li>○ Functional</li> <li>○ Emotional</li> </ul> </li> <li>▪ Information source type <ul style="list-style-type: none"> <li>○ Commercial</li> <li>○ Independent public</li> <li>○ Peer interactions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Information format <ul style="list-style-type: none"> <li>○ Written / verbal</li> <li>○ Pictorial</li> <li>○ Graphic</li> <li>○ Audio</li> <li>○ Audio visual</li> <li>○ Interpersonal</li> </ul> </li> </ul>

The first sub-section of the chapter discusses activity that may signal the tasks listed in Table 3.1 based on the stages of the classic model of complex consumer purchase behaviour outlined in Chapter 1. The second sub-section reviews activities that indicate social context based on the roles of various information sources in perceived risk management for a complex consumer purchase process. The final sub-section relates these points to the information format options associated with the context elements. In summary, task context broadly describes what is being done while social context offers insights into factors affecting the task environment. Information format choices reflect

task and social context in the most appropriate format for dealing with the elements of task and social context.

### ***3.2.1 Task context definition***

The previous chapter showed the clear differences of needs and information utilities between consumers in different “stages” of a complex buying process. In this sub-section, each of these stages is considered in terms of the likely range of activities that consumers may engage in within each of those stages. This addresses the definition of what is happening within each of the processes identified in Payne et al.’s (2008) work as outlined in §2.5. A third element of task is added in the form of pleasure seeking behaviour for activity which is not purpose directed but for the hedonic indulgence or pleasure seeking of the consumer. For each of these tasks, each individual will have their own set of activities based on their contextual needs determined by levels of knowledge, skill and importance of the purchase. As a result individuals are likely to have different objectives, which will manifest in their activities, based on their context factors of knowledge and experience and skills and abilities. On this premise, this thesis proposes identifying activities which reflect different tasks as a key step in defining the context of the consumer through their activity. The basis on which online behaviour may point to an individual’s task context for the stages of information search and option evaluation is discussed in this sub-section.

**Information search:** The likely tasks within the information search stage of consumer behaviour are indicated by the activities outlined by Narayana and Markin (1975) leading to consideration set formation. Consumers first search for options and then cull “inert” and “inept” options from an awareness set which suggests distinctly different

“tasks” within this stage of their buying process. There is a logical relationship between these tasks and types of online information sources that suggests activity may be differentiated by the sources selected by the consumer. For example, a consumer seeking lodgings at an unfamiliar destination may seek options from directory listings of intermediaries or destination tourist authorities. A review of the options’ key attributes are then the basis for culling options based on the individual’s purchase criteria which may be based on price, grading or preferred type of lodging. On the other hand, a consumer who has visited the destination before may have clear preferences for their options based on experience with no requirement for such exploratory activity. Where server log data records the prior behaviour and preferences for a consumer, the relevant experience will be evident but in the case of a new visitor to the website the relative breadth and depth of the consumer’s activity is important. For example, a consumer who sifts through the options on an intermediary or tourist authority website seems likely to be identifying options for review. On the other hand, a consumer who navigates directly to a limited number of options may have prior experience and therefore be reliant on their knowledge of options available. There is however more that may be gleaned for consumer context from such exploratory behaviour that can add value for subsequent interactions.

The individual’s activity may offer insights into the individual’s motivation, affecting the system’s programming of information to serve them in subsequent interactions through their process. For example a consumer who navigates to the website through a recommendation agent may be more price orientated, which may be reinforced by subsequent selections of pages dealing with price and inclusions. On the other hand, a birdwatcher travelling to observe a specific species of bird may select links from a tour

operator's website relating to the item of interest. Even more explicitly, the use of specific search terms used by an individual in their information search process may be a particularly clear indicator of their interests.

Naturally, decisions are likely to be based on multiple factors and the key attributes sought in the screening process should be logged to identify the individual's priorities. Such elements may be placed in a model of the consumer's behaviour based on an appropriate method of classifying sources of traffic and activity such as the content sought on the website. The difficulty arises with dealing with the variability of individual knowledge dynamics resulting from consumers' experience over time. Further the effect of interactions on other websites or offline that will also affect knowledge and preferences cannot be dealt with. Therefore a system-based method of information serving relating to an individual's context must be able to track their progress through a process and be responsive to the evolution of need over time.

**Option evaluation:** As noted in §2.4 and §2.5, there will likely be significant differences in the patterns of behaviour as evidenced by heuristic strategies in consumer purchase process stages. As noted in §3.1, heuristic strategies will be discussed as one option for behaviour analysis in §3.3, but at this point the discussion relates to the nature of the activity data which may indicate a different task. In particular likely activities detailed in Table 3.1 are discussed. In general, following the formation of a consideration set we might expect a website visitor's navigation to focus in greater detail on a lesser set of options. This appears likely to extend or refine knowledge of the individual's salient attributes derived from information search, offering further pointers to the system of the individual's information needs. Beyond this differentiation between

stages of the purchase process however, definition is required of the activities within this stage of the consumer's process.

A key theoretical point is Simon et al.'s (1987) distinction between problem solving which precedes decision making and the importance of understanding the way in which (a) problems are framed and (b) goals for the eventual purchase set before the consumer's "subjective expected utility" or SEU may be determined. To do this consumers employ a heuristic strategy of their choice to develop a preferred option for purchase.

*Problem framing:* While the focus on salient attributes identified in information search seems likely to continue, there is no apparent way of knowing the trade-offs which characterise the framing of the problem in the consumer's mind. For example, while a heightened focus on an attribute across the options being considered by an individual may suggest salience, there are other possibilities to consider. Greater attention to one attribute in preference to another could result from a need for knowledge development in a consumer with limited experience. There is therefore seemingly little that even content defined clickstream data can do to help with insights in this area. The only possibility in this area is using qualitative analysis of forum interactions which is impractical systemically and generally limited to a small proportion of website visitors. This potential ambiguity of activity is a crucial issue that will be addressed in the discussion of analysis methods in §3.3 and §3.4.

*Purchase goals:* As with problem framing, the goals of the purchase are unlikely to be systemically defined from content defined clickstream data. While the deeper



navigation trend expected may focus on specific attributes, no reliable attribution for the purpose of the information may be made without an explicit statement from the consumer as to the purpose of the activity. A consumer's motivation for travel may be centred on adventure, cultural experiences, viewing natural phenomena, learning or simply hedonic indulgence in an exotic environment but none of these may be reliably construed systemically from their online activity. Since the individual's information needs will vary based on their purchase goal, the reliability of attribution from activity will have to be addressed in the discussion of analysis methods later in this chapter.

*Heuristic strategy:* The following challenge of defining the heuristic strategy employed in evaluating the options available will be problematic given the ambiguity of activity as evidence for problem framing and purchase goals. The classic heuristic options defined by Bettman et al. (1998) will be discussed in greater detail in §3.3 but are clearly linked to the individual's approach and goals.

*Preference development:* Preference development may be signalled by focus on transactional pages signifying a formed preference as detailed by Moe's (2003) work. In this sense it offers the best potential of all the activities in option evaluation to use content based clickstream analysis to point to the consumer's task. It is however the end point of the consumer's evaluation process and the potential for a website to add value to its information service lies in assisting them to this point. If a consumer experiences information overload on a website in their progress to reach this critical point, disengagement may result and preference development will therefore occur elsewhere.

**Pleasure seeking:** As suggested by Babin et al. (1993) pleasure seeking or hedonic indulgence may be a substantial part of consumer behaviour. Online the opportunity exists for consumers to engage with resources relating to topics or aspects of a destination they will be travelling to. As well as deepening their knowledge of the subject it serves to raise their expectations of a long awaited and highly anticipated experience. For example an avid birdwatcher planning to visit a nature lodge in New Guinea may derive great pleasure from perusing high definition photos of the birds which may be seen in the area or aspects of the lodge experience. Alternatively they may engage in a forum which discusses the various dimensions of the experience and how to make the most of a limited time opportunity. Clearly the server log data for such activity is likely to differ greatly from that of the purposive behaviour to the degree that even Moe's (2003) limited page classifications were able to differentiate such behaviour.

In summary, task definition may be substantially aided by clickstream analysis augmented by content details. The insights are not however sufficient for systemic modelling and lack the ability to offer insights into reactions to information and notably there is no insight into the critical area of the consumer's emotional state. To complement task context, this section of the chapter now moves to consider elements of social context to more fully explain an individual's situation.

### ***3.2.2 Social context definition***

The need to consider social context is perhaps reflected in the lack of emotional or trust factors affecting activity in defining an individual's task context. The progression of the individual's process will however be markedly affected by the trust and experience with

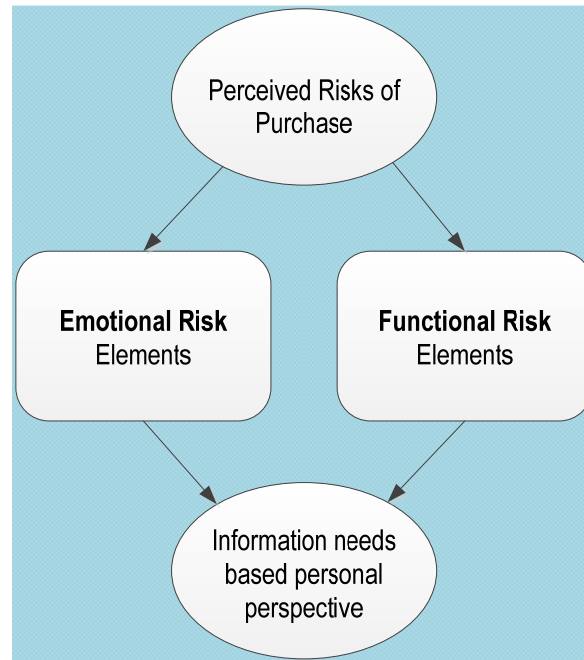
resources used. It will also be dependent on the importance of the task to the consumer since one of the primary reasons consumers engage in a buying process is to manage perceived risk associated with an acquisition (Conchar et al. 2004). The other element affecting their task performance and perceived risk management is the roles or functions of different media sources sought by the consumer and which is the other focus of this sub-section. In summary, this section deals with the potential for online data to offer insights into a consumer's information needs for perceived risk management and the role(s) of different information sources in achieving this.

**Perceived risk management:** Perceived risk management is particularly important online given the additional dimensions of perceived risk for many consumers associated with online purchasing. Notably, the seminal study of perceived risk management dealt with the (then) new medium of telephone shopping (Cox and Rich, 1967) illustrating the potential for higher perceived risk in novel shopping channels. More recently, researchers have confirmed higher perceived risk for the “new” option of shopping online (e.g. Alreck and Settle, 2002; Bhatnagar and Ghose, 2004; Teo et al., 2004). Lim's (2003) review points to the additional barriers of technology and vendor risk for consumers online — either of which may lead to termination of the consumer's online process. To minimise defections from online process engagement therefore, the consumer's information needs for perceived risk management should be addressed.

To understand behaviour related to management of perceived risk, Conchar et al. (2004) suggest that key factors are: (1) stable personal traits, (2) dynamic personal states and (3) dimensions of the risk. But given the problems identified in the previous chapter

with defining stable traits and dynamic states, discussion will be limited to the emotional and functional dimensions of perceived risk.

Cunningham (1967) proposed that risk has unique dimensions based on the consumer's experience, purchase motivation, and significance for the consumer. These dimensions have been described as functional or rational risk, including performance and financial aspects, and affective or emotional risk, including social and psychological risks (Dowling and Staelin, 1994; Chaudhri, 2000). The requirement is to determine relative levels of emotional and rational concern for a given consumer, because this will affect their information needs. For example, the flights booked as part of travel arrangements may represent a means to an end and functional elements such as the price, schedule and/or routing may be imperative for some consumers. Others however may have a strong preference for one airline or another based on perceived safety if the individual has concerns with the safety of air travel. These dimensions should be apparent in the content of the pages which the individual seeks out. In the same way the lodgings may be a functional element, evaluated based on price, type of lodging and/or the rating of the options under consideration. This may hold true for the person whose purpose for travelling is not the lodging experience but rather for example the bird watcher's interest in the species which may be observed and the quality of hides and guides available. On the other hand a person seeking a resort experience may have a focus on the rooms and facilities offered by the resort and perhaps even more important the nature of the expected experience. Information needs for dealing with emotional and functional risk are likely to differ, and therefore a vendor needs to know the relative significance of each risk dimension for a consumer and which of these the consumer is dealing with at a point in time. These factors are summarised in Fig 3.2.



**Figure 3.2:** Elements of perceived risk

The customer's information needs will depend on how they regard the service they are engaged in a purchase process for. As noted in the examples above, the various elements of a travel experience may be of either functional or emotional significance dependent on the individual's perspective. Functional risk may be evidenced by selections of pages dealing with prices and other objective measures such as the class of travel, grading of lodgings, flight timings and other such clear aspects of the trip. Other less clear functional risk may be evaluating the reliability of airlines and the cleanliness of lodgings and perhaps the suitability of their catering services. Emotional risk on the other hand may derive from a number of sources relating to the core experiences sought. For an individual is the concern for the level of fulfilment delivered, perhaps fun or relaxation in the case of a resort or the quality and variety of sightings for a bird watcher. In the event of an individual planning for travel with others there may also be concern for satisfying the interests of others in the travel party. Again the website page

content sought will be different and in the case of social risk may be evidenced by sharing of the page contents with fellow travellers.

However content analysis of page selections will be required to extract such meaning of the activity and since this is not feasible systematically, a new approach is required for the objectives of this research. Any such new approach has to be based in a theory which clarifies the potential ambiguity of consumer activity by determining the meaning of the individual's activity. Further it should be able to be applied as a programme that will enable automated serving of information that is relevant to an individual's needs in real time. The following two sections of this chapter will offer two theoretical options for doing this.

**Information source roles:** The other major consideration of social context is the roles which different information sources play in an individual's life. They are also likely to differ based on the task the consumer is engaged in and the dimension of perceived risk they are dealing with at a point in time. In the marketing literature these are broadly categorised as (a) commercial (including producers and distributors), (b) independent and expert (including independent experts and specialised media) and (c) personal (including friends and acquaintances) information sources.

There are likely to be trade-offs in this area with, for example, the authoritative data on a product's form or composition from a producer about their products compromised by the potential for self-interest or commercial motivation. On the other hand, the relevance of peer experiences may be tempered by the perceived lack of expert knowledge and expert independent sources, having unknown tastes, are of uncertain

value. However, it seems likely that evaluations of the effects of using a product may be preferred from an independent expert or other source such as media independent of commercially interested vendors or their intermediaries. When trying to determine whether the degree of “adventure” or “fun” associated with a desired experience is suited to one’s personal taste however, the opinion of a known associate, or a personal information source, with similar values may be preferred. The judgements on such matters are likely to be personal with prior experience effects or the opinions of having a major impact on the selections made by individuals. This individual focus or perhaps the effect of different information sources is why information source types or individual sources are characterised as part of social context.

The key requirement for delivering information solutions in real time is to have a clear understanding of the role the website plays in the consumer’s process and how this evolves over time. In a complex process where multiple information sources are likely to be used for option search and evaluation stages, the way(s) in which a website is used have to be understood. The activities which constitute the role(s) of the website need to be defined as processes so that a system is able to identify them as and when they occur so that appropriate options may be offered at that point in time. While these activities may be recorded on a server log, the difficulty arises with determining what the meaning of the activities is, or making sense of what are not likely to be random acts.

The ability of server log data to track individual preferences over time certainly offers the potential for a database relating to some of the activities which may be defined by information source selections. Beyond the links to information within the site from hyperlinks or internal search, data will also exist of external hyperlink selections to

independent sources as well as activity in forums on the website. However, such selections will be limited to activity which takes place on the website or other online applications such as Facebook where user logins or cookies may identify individuals. Other activity of the individual independently through Google or other information seeking methods will be unknown but will likely have some effects on the individual's subsequent activity. Further, as detailed in the previous sub-sections, the inability to define the reasons for a consumer's action is likely to compromise the validity of such associations. As importantly, it is not possible to reliably construe or infer motivation for selection of source types without an understanding of the reasons for the consumer's activity.

Notwithstanding the rich data available from server log analysis there is little prospect of even content related clickstream data offering the potential for real-time modelling of consumer information needs. While there may be some potential for modelling based on the associations between task and social context factors of an individual in a database the incomplete information data on both aspects of context suggests limited value in such an approach. This underlines the need for a strong theory based approach to the activity data of interest that provides the required insights into a consumer's process based information needs.

### ***3.2.3 Information format***

The previous sub-sections identify online interaction data which indicates the individual's (a) task context and (b) social context. A final factor in social context is the information format (written, pictorial, audio or audio-visual) which best suits the consumer's activity. As noted in the previous chapter, digital information on websites



can be in the form of words, diagrams, photos, audio or audio-visual but the challenge is in knowing which of these information formats best suits the individual's purpose and preference. While the potential exists to serve vast quantities of information online, the negative effects of information overload (Lee and Lee, 2004) suggest that targeting relevant content in an appropriate format will provide considerable value or utility for consumers. This will require research that determines the information content and format utility associated with the consumer's current task and social context affecting their information needs. The benefits of doing so are outlined in the introduction to this chapter in the form of added customer value, cognitive lock-in, trust and loyalty based largely on less frustration with targeted information. To achieve this however, beyond defining the task and social context of an individual, an information typology is required that will enable systemic serving of appropriate information sources and formats.

The consideration of information source value in the previous sub-section is complemented by this sub-section's discussion of the basis of information format preferences. Further, a proposed classification system for both information source and format considerations online is outlined. Unfortunately, there is no definitive literature on the utility of information formats for consumers beyond generalist guides such as that offered by Kotler and Keller (2009, pp 501-504) for advertisers choosing media formats.

While such guides offer clear insights into the strengths and weaknesses of offline media formats, they are unlikely to be of help at an individual context level online. In the same way that information source preferences will be based on a variety of

endogenous factors in consumers, information format preferences seem likely to depend on personal experiences and tastes. The generalisability of utility will therefore be limited at an individual level which will be affected by preferences for audio-visual, high quality visuals, schematic diagrams, tables, words or a combination of these to build understanding of complex phenomena.

An individual's prior experience should offer the best understanding of where to find resources that assist with dealing with both functional and emotional risk in a high involvement hedonic purchase process. If the individual lacks personal experience with the research subject, advice may be sought from personal acquaintances (Murray, 1991; Bansal and Voyer 2000) to limit the potential for adverse selection (Redmond, 2002). The objective will likely be to get access to tables and diagrams that may help with cognitive or functional aspects of the evaluation; and photo, video and evocative written representations that convey the experiential dimension of the service sought. These are likely to work best at an emotional level and also offer a heightened expectation of the experience, adding an hedonic element to the consumer's process (Babin et al., 1993).

As an alternative to Moe's (2003) classification of five website page types as the basis for determining customer motivation, this thesis offers a higher resolution typology. As noted in the conclusion to Chapter 2, this higher resolution is likely to be a key element in the solution sought by this thesis. The proposed classification of sources and formats of information is detailed in table 3.2. Tracking consumer information format preferences based on this classification system through a purchase process will a far higher resolution definition of behavioural patterns which represent consumer process. This classification would work in conjunction with the log of content accessed on the

website used to identify the consumer's current activity as proposed earlier in this chapter.

The classification proposed in Table 3.2 offers a range of variables as sub-groups for each information source types to allow for differences in social dimensions. These sub-groups of source types allow for expected differences in the meaning of interactions based on credibility, proximity or closeness to end-user and expectations in information exchanges. Note that there are some hybrid categories such as forums on the websites of commercial sources where interaction are with peers mediated by the commercial environment. Also, in the "private" source category, there may be a case in practice for differentiating between work or professional and social acquaintances to allow for differences in interaction on Facebook and LinkedIn as social media formats. Such differences will however have to be based on evidence gathered in research.

An important omission from this table is the important element of trust and/or repeated interactions as a further element of social context. Inclusion of such variables would add further dimensions to the table but they have not been added in the expectation that the purpose would be better served by server log data which indicates choice preferences over time. Such choice preferences will be at the level of specific websites and even pages within the websites when a consumer used a "bookmark" or "favourite" link to navigate away from the website. Such preferences stored in a database will likely be a more effective method of serving links to aid the consumer's process when off-site content is indicated.

**Table 3.2:** Online information source classification

Mode	Source type	Source sub type	Communication format
1. Online	1.1 Commercial	1.1.1 Producer	1.1.1.1 Website pages 1.1.1.2 Online forum / blog 1.1.1.3 e-Mail 1.1.1.4 Instant messaging 1.1.1.5 Search function
		1.1.2 Intermediary or producer's agent	1.1.2.1 Website pages 1.1.2.2 Online forum / blog 1.1.2.3 e-Mail 1.1.2.4 Instant messaging 1.1.2.5 Search function
	1.2 Public	1.2.1 News media (generalist)	1.2.1.1 Website pages 1.2.1.2 Online forum / blog 1.2.1.3 e-Mail 1.2.1.4 Search function
		1.2.2 Special interest media	1.2.2.1 Website pages 1.2.2.2 Online forum / blog 1.2.2.3 e-Mail 1.2.2.4 Instant messaging 1.2.2.5 Search function
		1.2.3 Consumer advocacy group	1.2.3.1 Website pages 1.2.3.2 Online forum / blog 1.2.3.3 e-Mail 1.2.3.4 Instant messaging 1.2.3.5 Search function
	1.3 Private	1.3.1 Personal friend	1.3.1.1 e-Mail 1.3.1.2 Social group 1.3.1.3 Blog 1.3.1.4 Video call
		1.3.2 Family member	1.3.2.1 e-Mail 1.3.2.2 Social group 1.3.2.3 Blog 1.3.2.4 Video call
		1.3.3 Acquaintance	1.3.3.1 e-Mail 1.3.3.2 Social group 1.3.3.3 Blog 1.3.3.4 Video call
		1.3.4 Common interest member	1.3.4.1 e-Mail 1.3.4.2 Social group 1.3.4.3 Blog 1.3.4.4 Video call

Format classifications in the table are based on the degree of synchronicity and expected differences in formality of information exchanges. Also blogs are differentiated from social media exchanges owing to the expectation that a blogger will likely have some level of expertise and is more actively sought out for that reason. In contrast, encounters relevant to the consumer's task on social media such as Facebook are more likely to be chance based which may affect the level of engagement.

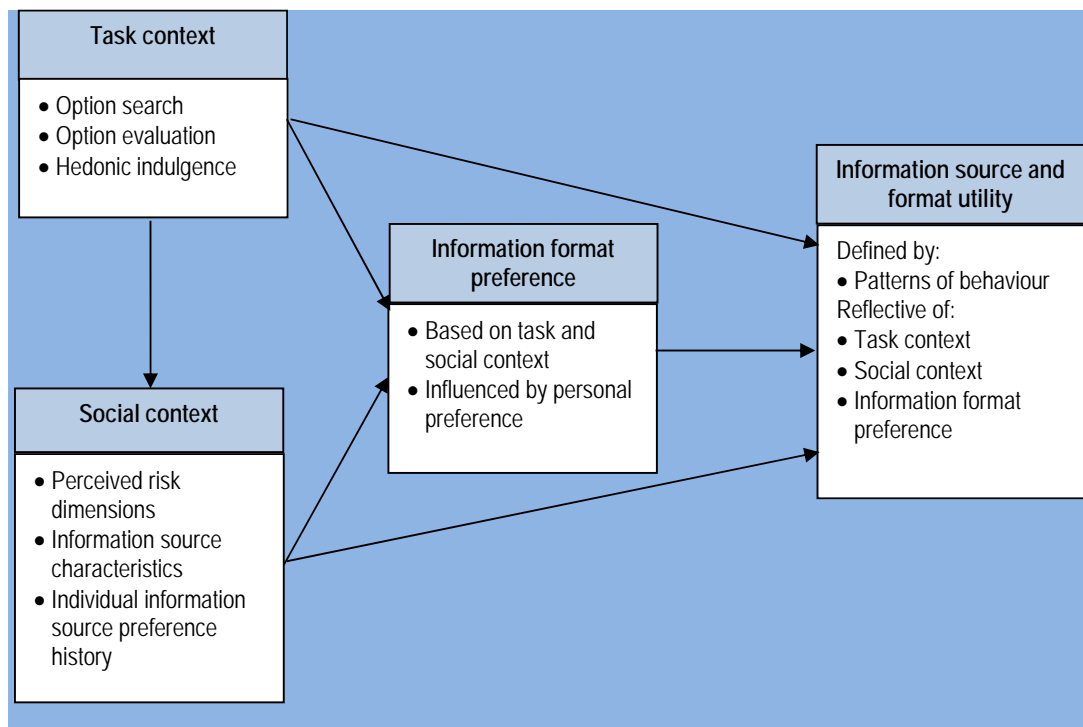
The challenge for this research is to identify the information source and format classifications which are associated with patterns of heuristic engagement. While preferences for specific sources such as Travel.com or Expedia as online retailers will be subjective, and pointed to by previous activity, source types such as websites for retailers and independent travel guides may be attributable to specific heuristic patterns of behaviour. As with information source choices which indicate a dimension of social context, format preferences will likely be highly subjective and a robust theoretical base will be required to determine meaning from online activity which points to source and format utility.

#### ***3.2.4 Summary of consumer context definition***

This section has highlighted a range of different data types that are likely to be useful for defining a consumer's context. This data falls into three different categories. First is tracking a consumer's website navigation to determine whether their navigational trend is broader or deeper in character as part of task identification. Second is tracking the consumer's social context through identifying the consumer's objectives and the role the website plays in satisfying the individual's needs. Finally the nature of the interface which the consumer engages with and how that interacts with the task and social context to enable context definition from a series of actions.

There are likely interactions between all three elements of context that result in the overall problem solving utility of the information for an individual at a given point in time. The primary element is likely the task context which will largely determine the individual's social context and preferences for information format. Social context will also influence preferences for information format and all three elements collectively

will contribute to the information utility. The evidence of information utility will be in completed patterns of behaviour representing elements of the consumer's process through to successful conclusion of the purchase and use of the desired service. Graphically, these elements of context and their interrelationships are represented as in Fig 3.3.



**Figure 3.3:** Summary of context element relationships

The challenge arising for the research is less related to discovery of navigation trends or website content accessed by the consumer which can be relatively easily achieved by server log data analysis. The synthesis of this data to firstly identify patterns of behaviour and then derive insights into the consumer's perceived risk management objectives and/or use of heuristics strategies represents a far greater challenge. Specifically, the task analysis problem identified for the option evaluation stage in defining the motives behind activity is to determine problem framing and purchase

goals. Similarly the reasons behind information source and format selections need to be uncovered so that a reliable “meaning” of the activity may be construed.

In essence the “meaning” of the individual’s activity needs to be defined based on their activity in ways that provide clues to subsequent needs which may not be immediately apparent to the individual. For this to happen, the research process will need to elicit the reasons why a consumer is performing the acts that they are without prompting or interfering in their natural behaviour. The way in which this is addressed is the subject of the following chapter.

First however the conceptual base of patterns of behaviour needs to be discussed as this is not simply a random phenomenon that is observed. One option is using the activity associated with Bettman et al.’s (1991) heuristics typology as a means of construing which heuristic a consumer is using and tracking the preferred information resources associated with each heuristic. The workable alternative however is a socio-semiotic analysis method based in linguistics that management researchers have used to analyse process within organisations. The following two sections of this chapter will therefore review the suitability of each of these two options to define the meaning of individual online activity in a way that facilitates serving of relevant content in real time.

### **3.3 Heuristic patterns of behaviour**

The previous chapter established the limitations of the major online consumer behaviour research streams of factor based and clickstream modelling to define consumer information needs in real time. However, the importance of context in information value was established, suggesting that by establishing context insights may be drawn into an

individual's real-time information needs and hence value. But the possibility of using the source and format classification method in Table 3.2 to extend Moe's (2003) work to achieve this systematically seems unlikely to succeed as discussed in §3.2. This section of the chapter reviews the first of two possible methods identified to identify context online using customer activity data in real-time. This section is based on the work referenced earlier by Bettman et al. (1991) and Bettman et al. (1998) in defining heuristic behaviour in terms of constructive choice processes.

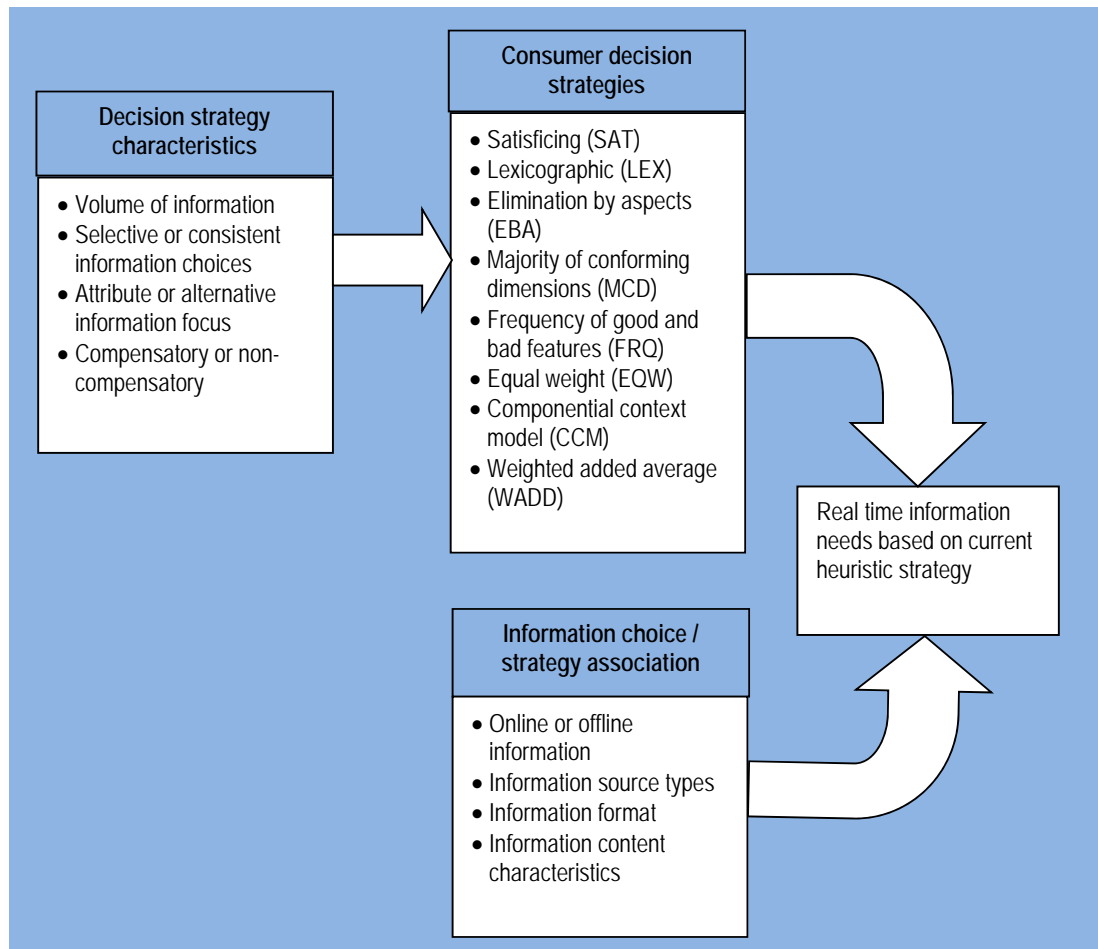
Such constructive choice processes identify the effects of task, social and cognitive context factors on contingent decision making and the strategies used by consumers to cope with complex decisions. These context factors mirror the characteristics and complexity of the factors identified earlier in this chapter but then take matters a step further in identifying resultant strategies and behaviour by consumers making decisions. Importantly, they point to the adaptive and evolving nature of such strategies as consumers develop knowledge and skills while moving through a process. For example, Bettman et al. (1998, p 191) point to the use of different strategies relating to different tasks in the purchase process: "One frequently observed strategy combination is an initial use of EBA (elimination by aspects) to reduce the choice set to two or three options followed by a compensatory strategy such as weighted adding to select from among those remaining." Implicit in this process is selective information acquisition to determine the relative losses and gains or trade-offs between options available to them. At a basic level this may involve the higher price that a consumer is prepared to pay for what they perceive as superior quality based on brand and/or functional and/or emotional benefits of one option relative to other options.



This suggests that the strategy in use by a consumer at any given point may reflect their current context. The choice strategy in use should therefore be reflected in patterns of behaviour evidenced by their choices of information content, source types and formats. This will require research that identifies the behavioural characteristics associated with each of the possible strategies. The following step will be for the research to identify the preferred information utilities associated with each of the strategies so that their associated information needs may be systematically served in real time.

The characteristics of consumer decision strategies identified by Bettman Luce and Payne (1998) include (a) the volume of information processed; and whether processing is (b) selective or consistent, (c) attribute or alternative based and (d) compensatory or non-compensatory. The strategies identified range from highly rational *weighted adding evaluation* strategy to more subjective *lexicographic* or *satisficing* strategies. To enable context based information serving in real time, online activity data will have to accurately define such heuristic strategies and offer a sense of meaning of the activity in terms of consumer behaviour. Defined or characterised activities will then have to be associated with information source and format choices by empirical research as the basis for a system to enable context based online information serving. This is represented graphically in figure 3.4.

The following four sub-sections review likely activities associated with each of the characteristics of the decision strategies identified by Bettman, Luce and Payne (1998). A final sub-section discusses the degree to which each of these characteristics and the heuristic patterns of behaviour which they are part of offer insights or individual meaning into consumer information needs to enable context based information serving.



**Figure 3.4:** Heuristic strategies and related information choices

### 3.3.1 Information volume

Variance in needs for information volume for a given product seems to be a key indicator of the consumer's level of engagement with the product and hence the time and cognitive costs that they are willing to incur in their search process. A requirement for large amounts of information may however depend on the consumer's product knowledge and also whether the information search offers an hedonic experience for the consumer. Typically a consumer with low levels of product knowledge will seek understanding of the relative merits of the product options available, perhaps resulting in cursory perusal of a wide range of different options. For example, as explained in §3.2.1, this may result in the individual scanning multiple options in a broad rather than a deep navigation pattern. On the other hand, an experienced consumer seeking hedonic

gratification from information regarding a high involvement hedonic product is likely to search in greater depth on fewer preferred options known to them prior to undertaking the search activity. Characterised as deep rather than broad navigation in §3.2.1. Both consumers are however likely to access a large amount of information in their search process, perhaps over multiple sessions, in the course of their information search. Given the likely differences in need between two such consumers, a further level of content analysis is required to distinguish between the problem solver and the hedonist. In summary, to determine the consumer's heuristic strategy and resulting information needs the depth and breadth of navigation is taken into account together with the specifics of content accessed.

On the other hand lesser needs for information may be based on an experienced consumer under time pressure who is aware of the options and has their option clear in their mind. Alternatively the consumer may have been recommended an option in an area that they have little knowledge of. In the event of the recommender having a high level of credibility, the amount of information sought may be reduced. What will be required is a categorisation of relative levels of information search between individuals using the website so that they may be appropriately classified on this dimension of information volume accessed. The resulting categorisation will have to be moderated by the content of resources sought to determine the motives behind high levels of information search in particular. This aspect of consumer activity as part of heuristic determination therefore seems to be capable of resolution using the data available.

### ***3.3.2 Selective or consistent processing***

Different consumers are likely to have different interests for the same product resulting in attention paid to different attributes relating to the product. A highly specific focus on one attribute by a consumer is likely to lead to different heuristic strategies to those of a consumer with a broader or more generalised interest. Such differences are reflected in heuristic strategies by the degree to which consumers are consistent in the processing of information regarding either attributes or alternatives of interest. Selective processing is likely to result in greater attention to information regarding a limited range of attributes or alternatives and less attention to other attributes. Consistent processing on the other hand would likely have a consumer giving equal weight or attention to all relevant attributes or alternatives.

To determine this aspect of a consumer's behaviour to define their heuristic strategy, the classification scheme referred to in the previous sub section is again required to track the consumer's information choices. In this case, the relative volume of time spent by the consumer on website pages dealing with the aspects or attributes of the product of interest to them may be analysed for relative focus or generality of interest to the consumer as evidence of selectivity or consistency in their heuristic strategy. This requires the classification scheme to differentiate between website pages based on different attributes so that the relative volume of information accessed for each attribute can be determined. Based on this information the relative volume of search into specific attributes for a given consumer will have to be computed and compared to the attributes sought by all users of the website. A further benefit derived from tracking such behaviour includes the clear insights into the consumer's salient interests relating to the product, often an important basis of customer segmentation.

### ***3.3.3 Attribute or alternative processing***

The third dimension of consumer heuristic strategies cited by Bettman et al. (1998) is the tendency to process either by attributes of the product options or alternatively by the alternatives available. Processing by attributes may suggest better levels of product knowledge perhaps based on the consumer's experience with the product giving an understanding of the differential effects of attributes for value in use. Alternative processing on the other hand is typically at the level of brand or holistic product options, possibly because of a consumer's limited knowledge of attributes and/or their effects in use.

A consumer's behaviour on a website may provide evidence of which type of processing is being used based on whether they access information at the level of product options or deeper level searches of the attributes of those products. A person searching for information on a Swiss watch brand for example without great knowledge on the workings of watches may choose to search at the level of options and prices. A more knowledgeable person however may search for details of the workings and configuration of models of interest based on their understanding of the effects of such differences. Such differences in behaviour are likely to show clearly in analysis of page classifications accessed by the two consumers indicating whether attribute or alternative processing is being used.

### ***3.3.4 Compensatory or non-compensatory processing***

The first three characteristics of activity associated with Bettman et al.'s (1991) heuristic typology rely on navigation trend and content definition based on Table 3.2 to determine the type of heuristic. But the fourth characteristic of consumer processing, the

degree to which consumers make conscious trade-offs between the options available to them, is less obvious and requires deeper deliberation. In this case the degree to which favourable attributes of one option outweigh unfavourable attributes need to be determined relative to other options under consideration for a given consumer. A simple example may be the choice of a more expensive option (typically an unfavourable attribute) over a less expensive option because of perceived superior value in use for the consumer. As explained in §3.2.1 and §3.2.2, a person seeking a resort experience may favour a more costly lodging option in the interests of a superior experience. Such superior value may be represented not only by functional or performance superiority but equally by image, prestige or the expected experience depending on the consumer's motivation for purchase. The patterns associated with such behaviour are less obvious and research will need to determine whether the sequence of website page types selected and the duration of time spent on each of these pages is diagnostic for this characteristic.

For example, a focus on more expensive resorts in a range of options may suggest either functional or emotional utility that outweighs price for a consumer. The type of attributes considered, evidenced by the website pages visited by a consumer, may point to the aspects of the product which deliver the value of interest to the consumer. One consumer may focus on a particular performance attribute and another on physical attributes such as size, weight and perhaps aesthetic elements such as styling. Similarly, a specific brand may be preferred regardless of a higher price, perhaps pointing to value associated with alternative rather than attribute processing for a consumer. Either way, the consumer's focus may point to the factors which are considered as compensatory for the higher price in the consumer's processing. However, this will require an insight into

the meaning of the individual's subsequent action to determine the effect of the information presented. In the event of the click, search or other activity suggesting a positive reaction to the price or attribute under consideration different information will be required to that of a negative reaction. This suggests that a theory is required that explains the meaning or significance of different activities in a sequence for successful determination of contextual information needs.

Such research will require investigation of consumer thought processes as they undertake behaviour such as the thinking-out-loud methods advocated by Ericson and Simons (1993) as part of protocol analysis. Such methods have been effectively used by Li et al. (2001) as explained in §2.2.2 in the previous chapter. The application of these methods will however be more fully dealt with in the following chapter on research methodology. At this point however, it seems as though the difficulty of reliably differentiating between compensatory and non-compensatory activities is a block to using heuristic patterns of behaviour to garner sufficient insight for context definition

### ***3.3.5 Heuristic strategy analysis summary***

The heuristic strategy analysis proposed seems likely to deliver substantial insights into the information needs of an individual based on their current processing strategy. Notably the direct association of the information sources viewed with the heuristic strategy defined by the four behavioural dimensions would offer the potential for associating resources with activity.

There are however two major limitations for the purpose of this research. First is the limitation of the heuristic categories resulting which restricts the ability to deal with

what may be a wide range of activity types within and between service types. Note that the analysis methods for three of the behavioural variables rely on either navigation trend (breadth or depth) and/or content analysis to define these context categories. Such categories have the effect of forcing activity to fit a limited number of options which seem likely to lose accuracy when dealing with the complexity of consumer behaviour. While there is the possibility of expanding the number of heuristic strategies by, for example, raising the number of categories of information volume from two (low and high) as defined by Bettman et al. (1998) to a larger number of semantically differentiated categories, the forcing of activity to a defined number of categories makes this a somewhat blunt tool. The effect is likely to be the association of multiple information source and format options with each of the strategies identified.

The other major problem is the lack of focus on the sequencing of activities to develop an appreciation of the meaning of such activities. As with the question posed earlier in this thesis: Does a click on the “back” button after a relatively short duration on a page suggest frustration or an efficiently accomplished objective? Such meaning can only be construed taking an individual’s sequence of process activities and stages to determine the meaning of superficially simple actions. While reverse engineering heuristic definitions in this way does offer a clear advance on current theoretical practices, it does not offer the solution sought. Therefore the alternative option of socio semiotic process analysis is reviewed in the following section on systemic functional analysis.

### **3.4 Systemic Functional Analysis**

The major limitations of using the behavioural aspects of heuristic processes as defined by Bettman et al. (1998) are the categorical behaviour definition and the lack of



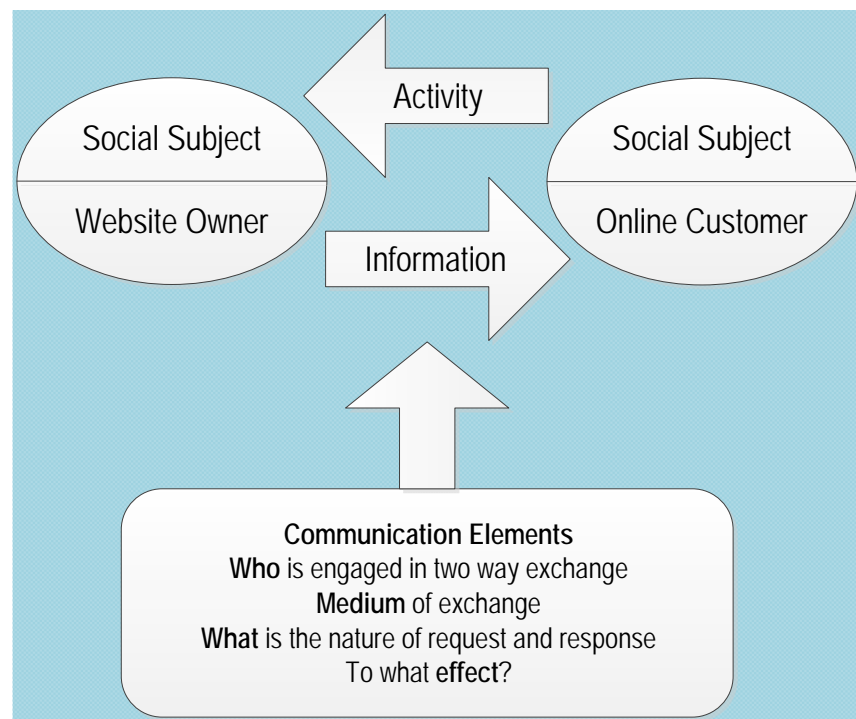
“meaning” to inform subsequent information serving. To deal with this problem, an alternative theory is proposed for analysing online activity based on Halliday’s (1978) system of linguistic semiotics that takes a structural approach to extracting meaning from language. The theory imposes no limits on the numbers of behaviours defined and offers rigorous methods from two different approaches and three forms of validation to define “meaning.” The two approaches are to determine meaning through *genre*, or cultural context definition, and *register*, or situational context definition; each of which will be explained in §3.4.2 and §3.4.3. Since these two approaches are co-dependent, a change in one will result in a change in the other so matching defined *genres* with defined *registers* and vice versa provides validation for each approach. The use of this theory for process analysis is drawn from its successful application by management theorists for process analysis within organisations based on the words and actions used. By defining the “meaning” of actions and words in workplace processes, problems have been identified and more efficient and effective work practices implemented (Halliday and Hasan, 1985; Martin, 1992; Clarke, 2000 and 2006). The analysis is based on the socio-semiotics of workplace processes that are both interactive and social, using the meaning derived from symbols, activities and language in the workplace.

This thesis proposes studying the consumer purchase process in the same way that work practices or processes within organisations are studied based on communicative acts. To do this, elements of online consumer behaviour have to be theorised as *texts* representing the exchange of meaning between social subjects (buyers, sellers and intermediaries) in the process. *Texts* are the unit which systemic functional analysis focuses on and are more fully explained in §3.4.1. The challenge is in extracting sufficient understanding from apparently simple clicks as the words and actions used by

management theorists for process analysis within organisations. Doing this requires defining the communicative meaning associated with each click, search term or other activity on a website. To determine the communicative meaning of online activity, it is necessary to look at a range of dimensions of that activity noting that actions may speak louder than words. The significance of actions in nonverbal interpersonal interactions has a strong support in the meaning communicated by facial expressions, gestures and body language. In the case of website activity, the customer communicates a wish for information by a click, search term or other activity, to which the website responds with a programmed offering of files served. The elements of this exchange are found in Lasswell's (1948) model, which defines the elements of meaning in communication as *who* says *what* to *whom* in which *medium* to what *effect*. Since server log records identify individual visitors to a website, the *who* is clearly available to the system as is their choice of format in the defined *medium*. The *what* is the specific nature of the request (click or search term) which is similarly recorded in server logs, leaving the *effect* to be determined for construing "meaning." These points are summarised in Fig. 3.5.

To determine the *effect* of the activity and the response from the website, the motivation (or the *why*) of the customer's subsequent action has to be determined. The method of defining the effect or "meaning" of activity will be explained in §3.4.2 and §3.4.3 dealing with *genre* and *register* definition and in Chapter 4 that deals with the research method. More generally, "meaning" derives from sequential flows of language that are the basis of discourse theory which analyses information exchanges as a process. In defining communication as more than making data available, Shannon and Weaver (1949) proposed a *process model* of communication that has since attained the status of

“commonsense” (Belsey, 1980). In the case of online interactions, the process is recorded as a text that documents the actions of a customer and their reactions to content served in response to their requests.



**Figure 3.5:** Website interaction communication elements

There is a similar logical flow of processes within organisations that Clarke (2000) used as a basis for analysing those processes and this thesis proposes applying this to complex consumer purchase processes online. Clarke (p. 56) describes the way in which discourse shapes exchanges by predisposing social subjects in organisations to appropriate behaviours. The same effect is found in society where expectations on the part of individuals and the websites they interact with results in predisposition to relevant behavioural norms. The characterisation of customers and website owners as social subjects underlines the norms which apply to their interactions and such norms are also a key part of *genre* discussed in §3.4.2.

Currently marketing theory represents the customer purchase process in the way outlined in Chapter 1 of this thesis. Higher resolution is provided, as discussed in §3.2.1, by Narayana and Makin's (1975) specification of information search elements and Simon et al.'s (1987) specification of option evaluation elements. As noted in §3.2.1 however, the elements of these processes will differ based on the individual's knowledge and experience with the potential for information search be redundant and option evaluation greatly abbreviated for a traveller with clear preferences going in to the process. These elements as discussed in §3.2.1 and §3.3 may be defined by content analysis of clickstream data although the challenge remains in deriving an understanding of the "meaning" of activity. To do this, structural functional analysis considers the actions in a series of events in the same way that meaning is extracted from language based on discourse.

The use of communicative significance of online activity may in fact offer advantages for the determination of "meaning" based on Sandberg's (2005) criteria for establishing a representation of reality. Two of his three criteria relate to the communicative and pragmatic validity of data both of which are fulfilled by respectively the communication process focus of systemic functional analysis and the use of consumer activity. Communicative validity is based on the perceived fulfilment of a research subject defined by discursive logic of their communication process to a point where they have perceived fulfilment (Husserl, 1931/1962). Pragmatic validity is based on the evidence of what subjects actually do evidenced by fulfilment in practice (Heidegger 1927/1981) as a means of corroborating communicative validity. While Sandberg (2005) proposes methods of achieving pragmatic validity in more conventional qualitative research

involving interviews, the use of actual consumer behaviour in this study offers such validity in an irrefutable form. These validity criteria will be revisited in the following chapter outlining the research methodology.

The following sub-section will firstly outline the nature of *texts* as the unit of analysis for online customer activity. The subsequent sub-sections will then explain how firstly *genre* as a manifestation of cultural context and *register* as a manifestation of situational context are determined from such texts.

#### **3.4.1. *Texts for analysis***

The challenge in compiling a *text* for analysis of online consumer activity is how actions are represented as words and images. In the case of online interactions which are typically non-verbal, the text is a sequential record of the activities of the customer and the information served in response. Halliday (1978, p10) points out that texts are semantic units or expressions of meanings expressed or coded in words and other structures. The way this is done is explained in Chapter 4 which details the methods of data collection and analysis. At this point it is necessary to be clear on what a text is required to represent for definition of *genre* and *register* of online consumer activity.

An effective text reflects a discourse with its social and content elements and “is the material object produced in discourse” (Hodge and Kress 1988, p6) that may be analysed to reveal the operation of discourse between social subjects. The term *text* is used as it typically involves written representations of exchanges but also requires collateral material such as actions and symbols to aid in defining the meaning represented by a text. The most familiar examples of communication texts would be

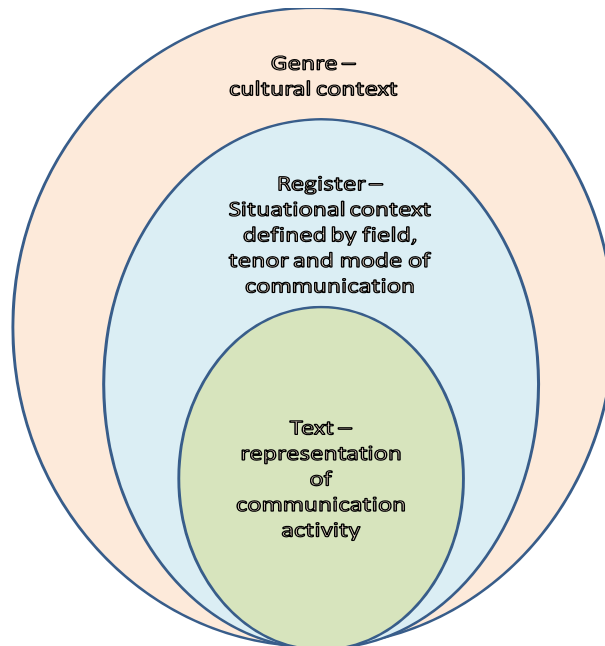
transcripts of conversations, or the texts of letters or of e-mails. A far wider range of communication acts may however be considered as scripts if the definition of a text in communication theory as a “completed act of communication in any medium” (Kress, 1988, p 185) is used. A completed act of communication is where a message has been both sent or exposed to and received or processed by another person(s) with defined meaning or effect resulting. In the case of online activity, the elements represented in Fig 3.5 combine to fulfil this requirement. Such meaning can be derived from not only language but also images, performances and acts where meaning is realised differently to a transcript of language in ways that must be accounted for in analysis.

Texts have the characteristics of a product in the form of a transcript of language, catalogue of images or symbols and/or descriptions of interactions in a process. As such they have a structure which can be analysed to extract meaning on the basis of content, sequence of activity and the roles of individuals or entities engaged in the process. In the online environment, a consumer clicking on a link is communicating a request for the content specified by the link and when the relevant files are served to their computer another communication act is completed in the form of a response. To continue the discourse, the effect or meaning of the served response has to be understood to facilitate a more effective response to the individual’s subsequent action. To determine “meaning,” as explained in §3.4 and Fig. 3.5, the identities of those interacting, the format of interaction as well as the purpose and the outcome of the exchange are required. As noted earlier, the outcome is evident in the subsequent action taken by the consumer which, if successful will result in a logical progression of their process. If the content served does not meet the consumer’s need the sequence may be broken in the form of a click on an alternative option or perhaps disengagement.

Common patterns of responses to defined website page content are the basis on which *genres* are identified, so texts are the basis of systemic functional analysis. Different responses to a common set of stimuli indicate different effects or “meaning” derived from the content offered on a website page by an individual. To reliably construe meaning, an explicit and unambiguous understanding of the consumer’s reasons for taking the action which they do in response to a website page is critical. Given the method of achieving such clarity of insight outlined in Chapter 4, a *text* then provides us with a viable alternative for context definition to the unworkable personal factors identified in §3.2 and §2.4. The focus of systemic functional analysis on the “meaning” or effect of stimuli or content offered on a website page based on the range of responses is the key to following Day’s (1998) suggestion to rely on information *from* rather than information *about* the customer. As noted in §2.5, this offers the possibility of a new form of value co-creation with the potential to add important functionality to online interactions.

Common groupings of communication sequences are classified as *genres* which represent the cultural context of interactions based on a common approach or “way things are done” between the parties. Identification of such genres by a vendor provides valuable insights into what the consumer is engaged with and therefore what their information needs are likely to be. Analysis of the situational context or *register* is done by examining the field (what is being done), tenor (by whom and to whom) and mode (characteristics of the communication medium) of the communication that characterises the consumer’s activity. Note that in this way, situational context accounts for all three elements of context identified in §3.2. The method of analysing texts for identification of genre and register and the way in which *genre* is applied to real-time information

serving is outlined in §3.4.2 and §3.4.3. The relationship of *texts* to *genre* and *register* is demonstrated in Martin’s (1992) stratified model of context shown in Fig. 3.6.



**Figure 3.6:** Stratified context model (Martin, 1992)

It is important to note that Fig 3.6 is not a Venn diagram indicating subset relationships but rather of texts being at the centre of *genre* and *register* definition. Similarly, as noted in §3.4 and reiterated in the following two sub-sections, *genre* and *register* are co-dependent rather than one being a subset of the other.

### **3.4.2 Genre definition**

The basis of genre definition is based on the identification of normalised patterns of behaviour that follow the patterns that arise in discourse. Martin (1992, p25) referred to genre as a: “staged, goal-orientated, purposeful activity in which speakers engage as members of our culture.” As noted in §3.4 however, actions may be communicatively interpreted as well as words so for the purpose of this thesis, social subjects’ website



interactions are substituted for speakers. Further, a less technical summary from Martin (p248) argues that: “Genres are how things get done, when language is used to accomplish them.” Once again, this thesis substitutes the interactions between social subjects online for language as a method of communication.

There is strong theoretical support for the normative activity associated with *genres* outlined in §3.4 based on human interests of doing things with the least time and trouble. In the words of Berger and Luckman (1967, p70-71):

“Any action that is repeated frequently becomes cast into a pattern, which can then be reproduced with an economy of effort and which, *ipso facto*, is apprehended by its performer *as* that pattern. Habitualization further implies that the action in question may be performed again in the future in the same manner and with the same economical effort.”

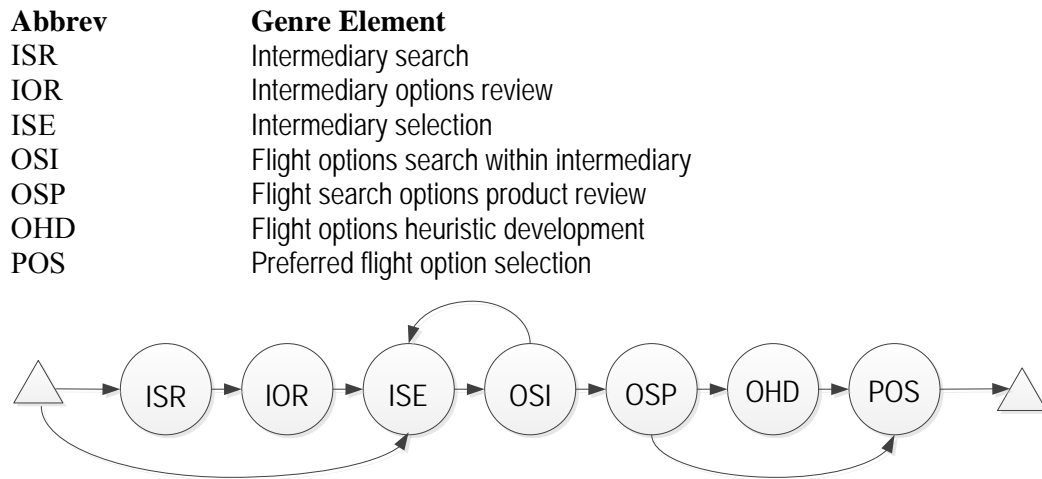
This economy of effort becomes ever more rewarding when the greater complexity of social rather than individual interactions come into play. The routines employed in everyday transactions in a convenience store are highly routinised for the benefit of both buyer and seller. In the more complex environment of a supermarket customer learning over time results in a faster and easier completion of a larger shopping task and these economies are reflected in automated processes online. The big difference in customer activity for recreational travel purchase is likely to stem from the customer’s experience and the relative importance of the travel component they are dealing with. As noted in §3.2, items which represent a means to an end such as flights and utilitarian accommodation are likely to attract less attention than aspects which are central to the

travel motivation. However, such differences in activity should be clearly evident in the structural functional analysis of online activity.

To avoid the possibility of subjective attributions of genres, it is important to note the three dimensions required for validating systemic analysis of texts defined by Eggins (2004, pp54-56). First that there is a corresponding *register* for each text, which as noted earlier offers a method of cross validation. Second, that texts have staged or schematic structures that represent different *genres*. In the case of online consumer behaviour, this may be represented by a series of exchanges between social subjects with common purpose, content employed and sequence of actions. Third, that there are realisation patterns in the text across different social subjects or distinctly different sequencing of activities that differentiate and define genres. The nature of the schematic structures and realisation patterns for defining texts will be outlined in the following paragraphs. The definition of co-dependent *register* will be discussed in §3.4.3.

**Schematic structures:** The elements of linguistic schematic structure (in Eggins' (2004, p59) example of a horoscope comprising a general outlook, uncontingent and contingent predictions and closing advice) are reflected in consumer behaviour by the activities within stages of the buying process outlined in the task context activities of §3.2.1 and Table 3.1. Eggins (pp61-64) further provides examples of transactions expressed as verbal texts and details how the activities identified may be represented by a linear description of the genre. The key point illustrated by the two examples is the similarity of sequences in each text and the presence of obligatory, optional and repeated elements. While Eggins uses a literary notation for the linear representation, this thesis uses a directed graph for the same purpose. The directed graph offers all of

the functionality of Eggins' notation and is also the basis for writing an executable computer program to implement a genre systematically (Bohm and Jacopini, 1966). An example of a theoretical directed graph representing a flight search genre is provided in Fig. 3.7 with explanations of the notations.



**Figure 3.7:** Exemplar theoretical digraph for flight search

In directed graphs the upright and inverted triangles represent the start and conclusion of a process and the circles represent activities within the larger process. The arrows indicate the sequencing of activities with options for bypassing non-obligatory elements and repeated activities that may be repeated multiple times. The example given suggests that a subject may bypass the activities of intermediary search and selection if they have a preferred option based on previous activity or if they intend to search within just one carrier's offerings. In the same way they may bypass developing a heuristic for flight selection if they have clear preferences for a direct flight, with a preferred carrier, at a particular time of day within defined price parameters. On the other hand there may be a repetition loop from the flight search options product review back to flight search as a variety of options are considered for fit with the individual's preferences. Once a number of suitable options are identified, the genre is completed and the individual may

move to the next stage of the purchase process where they evaluate their options. This represents the start of a new genre and interactions between genres are represented in a genre assemblage which is described later in this sub-section. Alternatively, for a simple service such as a flight which many individuals would be very familiar with, the individual may skip directly to seeking the best terms for purchasing the preferred option.

In avoiding the category-based limitation of heuristic patterns of behaviour (§3.3.5) as an analytical technique, an important feature of genre theory is that the number of genres is effectively unlimited. In this way, patterns of activity which represent different emotional states may be identified in research and, with identification of the associated information needs, be served appropriate information. This also allows for the nuances that may appear where for example, there is an element of hedonic gratification in the information search or option evaluation activity of the consumer.

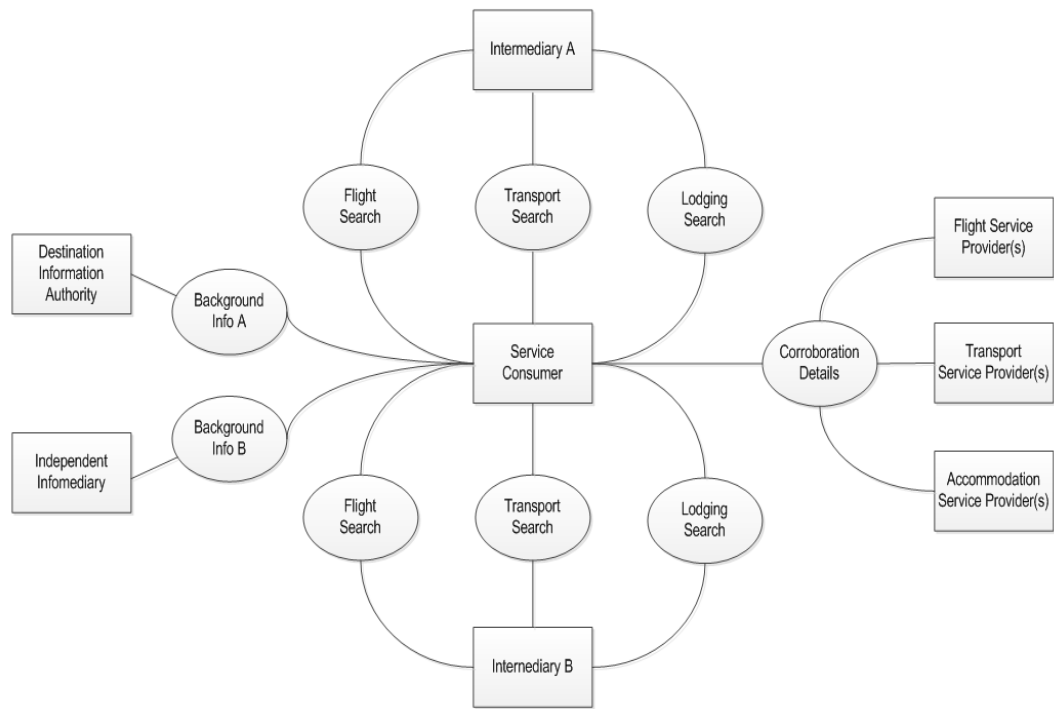
**Realisation patterns:** To minimise the potential for intuitive and personal interpretation of meaning, the elements of the digraph then need to be related to their communicative function. Eggins (2004, p65-66) uses discourse-semantic, lexico-grammatical and phonological patterns of language for semantically identifying the meaning of written texts so that they may be divided into distinct units. In the case of online activity, the semantic link to defining the meaning of activity is dealt with by a methodological mechanism which will be outlined in the following chapter.

A further problem arises however with the need to manage multiple genres with the possibility of individuals skipping between them. To do this genre assemblages are used to map the relationships between genres as explained in the following paragraphs.

As noted in Chapter 1, travel arrangements are both structurally and semantically complex and the structural complexity is dealt with by mapping the relevant genres in a *genre assemblage*. In this way the full process of all relevant genres and their relationship to each other can be mapped. No activity stands on its own in isolation as antecedents in the path that is followed to the point of the activity influence what is done at that point. This view is supported by Payne et al.'s (2008, p87) description of behaviour as: "the actions that stem from and result in experiences." Such antecedents and subsequent activity may greatly improve understanding of the meaning of changes in genre and whether a change of genre indicates a problem or a logical continuation of productive activity. Such differences are likely to have critical implications for the consumer's subsequent information needs.

What happens for example when an individual selects a link or other navigation method that is not part of the currently defined genre? It may be that the individual has chosen to engage with some other part of the process or is experiencing frustration and needs to solve a problem in an alternative genre. Either way the range of genres associated with the discontinuous choice has to be reviewed on the basis of prior activity to inform the system's subsequent information service. To help understand the nature of relationships between genres, genre assemblages of communicative behaviour may be compiled for work or, in the case of this thesis, the consumer's process for purchase of a complex

product or service. A theoretical example of a genre assemblage is provided in Fig 3.8 with an explanation of the notations following.



**Figure 3.8:** Genre assemblage for search processes

In genre assemblages, social subjects are rendered as rectangles and the genre processes between them as ovals. The directional graph represented in Fig 3.7 for example would occur in the flight search genre ovals between the service consumer and intermediaries A and B. While the same digraph would apply in both of these instances, with differences in relationships managed by the inclusion of optional, mandatory and repetition loops, differences between social entities such as these need to be accounted for. Naturally, the focus of interactions can only be between the parties to the exchange so each entity would have to do its own research to allow for the differentiated nature of their offerings. Fig 3.8 is a somewhat simplistic rendering in terms of the suggested interactions with principal service providers and independent information providers.

Where there are strong preferences for a particular lodging or carrier, no intermediary may be involved as the consumer may prefer direct interaction with the principal service provider. There is also no representation of likely engagement with peers whose known tastes for qualitatively evaluated aspects of the proposed travel experience are likely to be important. Finally there will be similar assemblages for each of the stages of the consumer purchase process to allow for the possibility of switching between stages.

An important aspect of Fig 3.8 is that it does not define sequences as a process diagram such as the directional graph in Fig 3.7, but a *state* diagram that represents the range of potential *genres* for a consumer. The order of *genres* engaged in by a consumer is arbitrary with the *genre* currently in play being defined by the sequence of resources accessed by the consumer.

In Eggins' (2004, p56) three dimensions of genres, the first is the definition of *register* which offers an important validation method for genres. As noted earlier, *genre* and *register* are co-dependent so any change in register signifies a change in genre and vice versa. A key aspect of register definition is the highly structured and unambiguous dimensions that are used to define it. The following sub-section details the application of register to online consumer activity.

### **3.4.3 Register definition**

Register offers possibly clearer resolution of activity taking the dimensions of the task at hand, the nature of the relationship between social subjects and the characteristics of the interface into account. In systemic functional analysis, “field” defines the task, “tenor” defines the relationship between social subjects and “mode” the interface

characteristics. This roughly parallels the *what*, *who* and *which medium* elements of Lasswell's (1948) communications model but with the added advantage of clear differentiations for each element. Further, *register's* role as a validation mechanism for *genre* definition as described in §3.4.2 gives it value beyond Lasswell's (1948) model. As pointed out in §3.4, each *genre* has common *register* elements and therefore a change in any of these *register* elements signifies a change in *genre*. The basis of the communication field, tenor and mode definition is outlined in this section as a precursor to discussing how common groupings of such variables are used to validate communication genres for their customer interactions. The highly technical aspects of *register* definition when used for linguistic meaning definition that are greatly simplified when applied to online activity, especially when, as in this thesis, the primary analysis is focussed on *genre* definition. Nonetheless, it is notable that in validating *genre*, *register* definition accounts for all the dimensions of context outlined in §3.2.

**Field:** The first, and perhaps most telling aspect of *register*, relates to defining the objectives that the individual is pursuing in their process. This parallels the task context analysis outlined in §3.2.1 where, applying the classical marketing process model, consumers engage in either information search or option evaluation. A further option was added in §3.2.1 in the form of hedonic indulgence and while depth, breadth and website page contents may provide clues to the customer's engagement, this is not conclusive analytically. The potential for misconstruing an individual's purpose is an issue that is dealt with in Chapter 4, to ensure that genres identified are representative of the normalised patterns of activity referred to by Berger and Luckman (1966). This makes the definition of *field* both more accurate and simpler than the determination of



task context by determining relative breadth and depth of navigation as proposed in §3.2.1.

The value of what seems to be a more simplistic system is its interaction with the other elements of *register* to define situational context. In addition it offers a clear focus on the objective or purpose of the consumer's activity. In the event of *register* being used to determine situational context, there are a range of linguistic mechanisms such as identification of lexical indexical items associated with specified tasks. It may be the case that a similar typology of activities online may be developed but this seems unnecessary given the rigour of methods proposed in Chapter 4. The proposed methodological innovation introduced in Chapter 4 is a major contribution of this thesis given the centrality of *field* in defining *register*.

**Tenor:** The nature of the relationship between the two parties interacting is the focus of the *tenor* of the information exchange. The linguistic application of structural functional analysis offers a range of measures to define the nature of the relationship between two parties, but the online application is again simpler. The linguistic application offers a range of clear indicators for determining the level of formality and the power relationships between those interacting. However, with a focus on validating *genre* changes, it is sufficient to simply note the point at which a consumer changes whom they are interacting with online. Any change in who the consumer is interacting with may signal either a change in task or a change in the relationship which, by definition, results in a change in *register*.

In the case of a shift from browsing website content to observing or participating in a forum on the website for example, the consumer is changing whom they are interacting with. As a result, the commercial focus of vendor supplied information may be regarded with less trust than that of those posting views on a forum, resulting in a change of *tenor* and hence a change in *register* and *genre*. On the other hand, if there is a long standing engagement with high levels of trust in the vendor, there may be less trust in the forum participants' views. A key task of the data analysis will be to detect such subtle changes between a consumer and the parts of a website they are interacting with.

While there is scope to analyse the nature of the relationship between parties using online activity data, as with the nuances of task, the interest is better placed on the activity associated with different types of relationships. If differences in attitudes to a vendor result in different information needs, these should be apparent in the sequences of activity in the directed graphs (e.g. Fig 3.7) with the associated information resources.

**Mode:** Beyond the task at hand and the nature of the relationship between social subjects in a communication exchange, the means of communication chosen by a social subject further informs understanding of their situational context. In the linguistic application of systemic functional analysis, *mode* is defined based on the spatial or interpersonal distance between social subjects and the experiential distance between them. In essence, the distinctions here are between the synchronicity of interaction and the relative subjectivity or objectivity of the information source. In the case of online activity, there is a difference between seeking an e-mail response to a query compared with live chat or even Skype applications which signals a change in interaction

dynamics of the context. On the other hand a shift from video or pictorial representations to prices or availability data on a website may signal a shift in purpose from indulgence to the next stage of the purchase process. Such details will be corroborated by the other elements of *register* as well as the schematic structures and realisation patterns for *genre* validation discussed in §3.4.2.

### **3.5 Summary of context definition**

This chapter has reviewed the possibility of real-time context definition using online activity data. This shows that a key asset may be the use of actual consumer behaviour as the basis for determining context as it has the strong benefits of what Sandberg (2005) terms pragmatic and communicative validity. The challenge however arises in deriving an unambiguous “meaning” of the activity based on the communicative properties of *who* is doing *what* in which *medium* and to what *effect*.

The inadequacy of server data to account for the task, social and format context dimensions mandates the use of a theory to derive meaning from the activity. While the characteristics of activity in heuristic strategies defined by Bettman et al. (1991) show the potential to use activity data as an alternative to traditional factor-based methods of marketing research, there are two key limitations. First, the resulting behaviours would be categorically defined but perhaps even more importantly, there is an apparent difficulty in determining why individuals take certain actions or attaching a “meaning” to the activity. Therefore an alternative theory was sought from the field of linguistics where systemic functional analysis is ideally suited to extracting meaning from *texts* and defining what is going on.

Systemic functional analysis is based on an analysis of communication which may be achieved by both words and actions and has been used successfully by management researchers for process analysis in organisations. The management studies used both words and actions used in processes in their analysis and a challenge for this thesis is how to define the communicative value of apparently simple clicks on a website. Using Lasswell's (1948) description of the elements of communication it is possible to attribute all but the *effect* of the communication to online consumer activity. As noted, the determination of *effect* or "meaning" of the activity is a major highlight of the following chapter. Given the ability to represent online activity as a *text* which represents exchanges between social subjects, such a text becomes the basis for systemic functional analysis.

The advantage of systemic functional analysis is the focus on actual activity, given the proven tendency of humans to engage in similar patterns of behaviour in the interests of efficiency and effectiveness. Such patterns of behaviour are learned over time and may be classified in typologies or *genres* of activity that parallel the exchanges of meaning in discourse where language is employed. As such these activity types may be generalised and used for analysing the needs of consumers on a website in real time based on their activity or process, making *genre* ideal for this purpose. This advantage is reinforced by three separate methods of validation that provide rigour in the analysis and minimise the potential for subjective bias in *genre* definition.

The first of the validations is by the use of *schematic structures* of communication that map the repetition loops. Representing these activities in a directed graph is then the basis of a computer programme for serving information since each activity has specific

related website content. The commonsense sequencing of activities provides the basis for communicative validity while the use of actual consumer behaviour confers pragmatic validity.

The second method of validation is the *realisation patterns* which map all of the *genres* associated with consumer process on a website. In effect this is a representation of all the *schematic structures* so that in the event of discontinuous activity, the content sought indicates the changed orientation of the consumer. These realisation patterns offer a more macro view of the consumer's process, in effect putting each of the *genres* into broader context that enables dealing with unexpected changes in activity.

The third validation method is from an alternative analysis of situational context known as *register* which is based on the *field*, *tenor* and *mode* of information exchange. Since *register* is co-dependent with *genre*, a change in one means that there is a change in the other, making this a powerful method of *genre* validation. In essence, the three variables of *register* deal respectively with the “what,” “who” and “how” of interactions, thus covering all of the elements of context identified in §3.1. While there are rigorous frameworks for these three variables using linguistic information exchange, the ability to identify a change in any of the variables is sufficient for validation of *genre*.

Crucially, systemic functional analysis addresses the dimensions of context specified in § 2.4.4 (pp 75-77). The *functional* aspect of context is addressed in the communication analysis of the activities between the website and a defined visitor, in other words, defining what is occurring. The *structural* aspect of context is addressed by representing activities as the directed graphs of the identified Genres and the Genre assemblage for

the full range of activities. The *purpose* and *semantic/semiotic* aspects of context are addressed in the *field*, *tenor* and *mode* dimensions of communication register. The importance of *field* is evident in the importance of understanding the reason why a consumer is interacting on a website. *Tenor* and *mode* on the other hand define the preferred format of interactions in a medium with multi format capability and the character of the interactions based on the relationship between the visitor and the website.

To apply this theory however, it is firstly critical to gather naturalistic consumer behaviour data that accurately represent the generalisable activities that systemic functional analysis relies on. It is clear that if the activity data is skewed in any way, the programme that is based on this data will not accurately reflect actual customer needs. Secondly, the ability to accurately construe the *effect* of information exchanges to understand the reasons for subsequent activity is also crucial given the potential for ambiguity in task context as discussed in §3.1. These points are addressed in the following Chapter which explains a novel research framework originated for this purpose.

## **CHAPTER 4: RESEARCH METHODOLOGY**

### **4.1 Introduction**

The central requirement for the application of Systemic Functional Linguistics as explained in the previous chapter is the ability to derive “meaning” from the activities and words of research subjects in online interactions. This chapter adapts Crabtree and Miller’s (1999) approach for analysing interactions between clinicians and patients to achieve positive outcomes to the interactions of website visitors. In the same way as clinicians seek to elicit knowledge from patients to apply their knowledge in delivering remedies, websites seek to draw on interaction data to co-create mutual value by delivering information which facilitates customer processes. The value derived for customers will arise in the ability of the website to dynamically serve information in real time to facilitate their process in the same way as clinicians determine patient needs in situ. The focus on data which facilitates an understanding of “meaning” in online interactions delivers a new research approach with possibilities for value co-creation investigation in marketing.

This introduction will firstly specify the data requirements for online interactions taking into account the complexity of subjects and the possibilities of their interactions. Second, it outlines the justification for the constructivist research paradigm adopted in delivering the required data before thirdly explaining the validation of the data. The introduction concludes with a detailed outline of the structure of the remainder of the chapter.

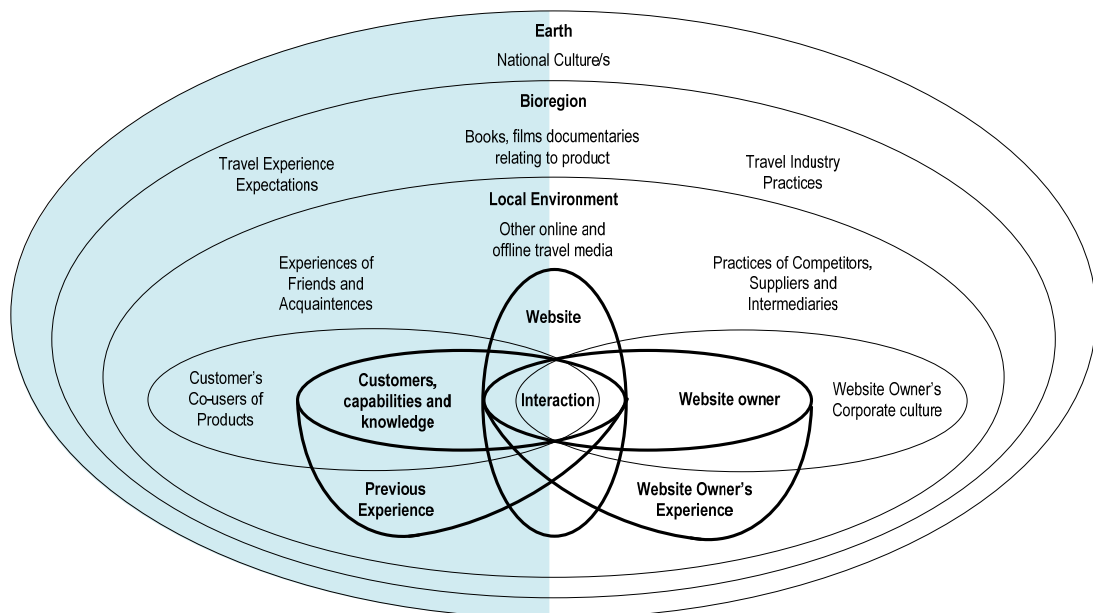
To determine “meaning” this research has to capture what Crabtree and Miller (1999, p. xi) term “what is going on here” for subjects interacting with websites and other

resources in a defined task. Two central criteria apply to the data for this requirement, firstly that the activity of subjects on the websites they select must be natural and unaffected as far as possible so that analysis is based in reality. This includes limiting potential for social desirability bias effect of research subjects (Millham and Kellogg, 1980) who are aware that their responses or activity are being recorded. The unconstrained or naturalistic behaviour sought by this research is unlikely if the websites or aspects of a task the research subject should undertake are specified or prescribed. A better result is likely if a subject is doing something, using the resources of their choice, that they would have done performing the task in their natural environment. Perhaps the best indicator of a successful data collection session is where a subject feels that their purchase process has progressed from where it was before. In such a case the “what,” “who” and “how” of their activity, reflecting the situational context dimensions of *field*, *tenor* and *mode* as outlined in the prior chapter are more likely to be truly representative of actual behaviour. As noted in §3.5 the combination of *Communication Genre* and the elements of *Communication Register* effectively deal with the four aspects of context specified in §2.4.4

Second, for analytical purposes, the activity data has to provide insights into the phenomena of interactions so that website owners may better facilitate consumer processes. The limitation of personality factors and dynamic moods and attitudes of individuals as metrics to improve website interaction outcomes is established in chapter 2. An alternative is to use the dimensions of their interactions for systemic analysis of complex interactions based on systemic functional linguistics as explained in Chapter 3.



The complexity of individual behaviour in complex hedonic services arises firstly from the vast range of online resources, compounded by the range information format options as outlined in Table 3.1. Secondly an “ecosystem” of influences also affects their preferences and utility derived from online interactions. Some of these influences include their (a) personal character and capabilities; (b) prior experience with the website and other websites; (c) prior use of the product sought and other products in the same category; (d) preferences of fellow travellers; (e) prior information on the product from personal contacts, expert and trade sources as well as media exposure; (f) information relating to the product from general news media, documentaries, films, books among other factors. This complex web of influences is the reason why positivist or materialist research methods will not be effective for the purposes of this research as shown by the methodological limitations in Chapter 2. Crabtree and Miller’s (1999, p xii) “ecosystem” concept of defining the influences on interactions between a clinician and a patient is adapted in Fig 4.1 to reflect the context of this thesis.



**Figure 4.1** Website interaction ecosystem – Adapted from Crabtree and Miller (1999, p xii)

The focus of this research will be on the shaded half of Fig 4.1 which represents the website visitor's side of the interaction to capture the meaning associated with patterns of consumer website interactions. The unshaded half of figure 4.1 illustrates the reality which the website visitor has to deal with and the divergence in purpose for the interacting parties.

To capture the required data in a way that is analytically valid, a materialist enquiry's search for an ultimate truth with associated need for control and predictability is unlikely to be helpful. An alternative research paradigm is required that allows for interpretation of meaning and the development of interactions over time between a consumer and a website. On this basis the appropriate research methods for this thesis are likely to be based on a constructivist research paradigm with elements of critical/ecological enquiry. Constructivist methods have their roots in phenomenology (Schutz, 1967) and hermeneutics (Heidegger, 1927/1962) and are also referred to as naturalistic enquiry (Kuzel, 1986) or interpretive enquiry (Gadamer, 1976; Guba and Lincoln, 1989). This thesis opts for the use of "constructivist" since the research aims to study human constructions that are co-created with texts that record subject activity on a website. The methods associated with constructivism facilitate understanding of research subjects' experiences based on the meaning of their activities while engaged in an actual task.

A related consideration is the need to capture the evolving dynamics of research subjects' task knowledge and their relationship with or trust of websites as they interact with them over time. In particular an individual's knowledge, skills and attitude to a

website develop over time so that a repetition loop in the individual's process may result in the revisited stage of the process being achieved with far greater ease. Notably an increased incidence of successful interactions with a website over time is a key factor in cognitive lock-in (Murray and Häubl, 2007) resulting in greater loyalty to a website and an important factor in online communication success. Dynamics such as these suggest a need for aspects of critical/ecological research paradigm methods (Bateson, 1979; Fay, 1987) for tracking changes over time. Such methods are also well suited to the study of systems and are typically participatory in nature, suitable for investigation of actual processes in performing an actual task.

In earlier denying the potential for materialist enquiry to discover the “truth” relating to this research problem, the issue of “truth” has to be addressed in regard to the validity of the required phenomenological data. Notably the potential for the researcher to attach subjective “meaning” to the data has to be addressed. This research will use the validation identified by Sandberg (2005) as relating to intentional fulfilment as a test for the “truth” generated by the specified methodology. Sandberg's approach echoes Crabtree and Miller (1999) in identifying the need to establish knowledge of reality based on intersubjective experience or the phenomenological base of qualitative research. As Sandberg (p 43) states “person and world are inextricably related through lived experience of the world” which reflects the fundament of this research's approach. Beyond his persuasive argument for the potential for truth based on intentional fulfilment, Sandberg identifies criteria for justifying the validity of interpretive data. His “truth constellation” of three factors requires *perceived fulfilment* (Husserl, 1931/1962), *fulfilment in practice* (Heidegger 1927/1981) and *indeterminate fulfilment* (Derrida, 1984). These three factors respectively provide *communicative validity*, *pragmatic*

*validity* and *transgressive validity* for interpretive data and will be used as the standard for validity in this thesis.

The chapter is structured as follows: First, the research setting for observing subjects while engaged in the performance of the defined task in keeping with the defined research paradigms is detailed. The section also explains the recruitment of research subjects so in effect the “who,” “where” and “when” of data collection is covered. The subsequent section outlines the range of resources provided for the subjects to interact with in the course of their activity so as to capture the widest possible range of activities. In other words this is a partial explanation of the “what” description of research activity. The third section details the interactions and interventions in the data collection process and the means of determining the challenging “why” dimension to complement the “who,” “what” and “how” of research subject activity. The fourth section outlines the collection, management, editing and analysis of the data and the novel software applications required for these purposes. The final section of the chapter details the reporting of customer activity based on the analysis and using the methods outlined in structural functional linguistics in the previous chapter.

## **4.2 Research Setting: Usability Laboratory**

This section describes the research setting or venue for data collection with a focus on the requirements for facilitating naturalistic activity on the part of research subjects. The function of the setting where the research is conducted is that it should facilitate the ability to “generate practical and theoretical truths about human life grounded in the realities of human existence.” (Jorgenson, 1989, p 14). The research setting employed in this thesis is the usability laboratory where data is collected. Crabtree and Miller (1999,

p 5) describe the venue for data collection as the research “field” in field research such as this. However, since the word “field” is a key dimension of Systemic Functional Analysis as explained in the previous chapter, this thesis will use the name of the facility used for data collection to avoid confusion. The term “usability laboratory” may raise concerns about the potential for naturalistic behaviour, but these facilities are designed to elicit such behaviour in usability studies. For example a number of reports published by the Nielsen Norman Group (for example Pernice and Nielsen, 2009) who use eye tracking and other methods in usability laboratories, reinforce the importance of naturalistic behaviour. The measures they recommend for achieving naturalistic behaviour in what is a somewhat artificial environment are reflected here and through the balance of this chapter.

The “ideal” research locus for this study may be to capture the interactions of research subjects with online resources using their own equipment in their own space. However such ideals are less clear with the increased use of portable devices for internet access from a range of venues not tied to the subject’s home or workplace. Therefore the use of a central location equipped with software for capturing data that reflects research subject online activity presents less of a problem. Further, ethical considerations of limiting data reflecting a subject’s activity to a specified task and avoiding unintentional observation of other activity requires use of a dedicated facility. Therefore, the locus of this research is defined as the computer mediated communication interface between the subject and the organisations they interact with in a usability laboratory. The usability laboratory desk used by research subjects in this study is depicted in Fig 4.2 below. Owing to the somewhat artificial nature of the data collection venue, a number of

measures are taken to encourage naturalistic behaviour. These measures are explained in the following two sub-sections.



**Fig 4.2** Usability laboratory, University of Wollongong

### **4.3 Achieving naturalistic behaviour**

To achieve unconstrained research subject interactions with online resources of their choice the collection environment has to offer a number of key features. Specifically, subjects must be provided with a reliable internet connection, using software they are familiar with and no restrictions on the resources they choose to access. In this way the “setting” for observation of activity is functionally equivalent at least to what they are likely to have in their own home or office. As a result, their interactions should be as

close as possible to actual “lived experiences” where the activity captured reflects sequences of activities as well as reactions to information accessed.

As will be seen in subsequent sections of this chapter, the key concern in providing information resources and design of observer interactions and interventions relating to data collection is naturalising the subject’s interactions. Since this may in many cases be a solitary activity, the “social” setting chosen for data collection, a usability laboratory in a regional University campus in Australia, offers minimal constraints.

In the event of a subject wishing to perform the activity in the company of a fellow traveller this can be readily accommodated. The laboratory is marked with a simple room number to indicate to those looking for it that they are in the correct location. There is no signage which designates the room as a “laboratory.” The room itself has natural light from a window to the left of the computer workstation which occupies one corner of the room. A small round table with chairs takes up the other corner and the only other furnishing in the room is a bookcase and a whiteboard so there is little distraction for research subjects in the course of their activity. The only other equipment in the room is a computer set up on the round table and equipped with a camera to record video of the subject at the computer terminal and interacting with other resources of their choice. A crucial concern in designing a research study of this nature is the consideration of the effects the research process has on respondents and this has been addressed by as neutral as possible an environment. This need for *reflexivity* (Crabtree and Miller, 1999, p. xv) is central to eliciting the most naturalistic data possible from research subjects and will be a recurrent theme in this chapter.

#### **4.4 Research subject recruitment**

The subjects invited into this facility are self-identified consumers actively engaged in researching a substantial recreational travel experience to an unfamiliar destination. Some were referred by local travel agents who agreed to e-mail invitations to clients currently engaged in travel planning. Others were referred by acquaintances of the researcher who elected to use only subjects not previously known to him to avoid interpersonal effects between the observer and subjects. Again this acts to minimise the effects of a pre-existing relationship between the researcher and the research subjects in further recognition of the need for *reflexivity*. Accessing subjects who are remote from the researcher but have a relationship with people or organisations known to the researcher was chosen as a method of “gaining entry” (Crabtree and Miller, 1999, p 52) to maximise unaffected activity and minimise compromise of the data. The selection of people engaged in a process which could be substantially continued with minimal constraints in the usability laboratory is an important part of eliciting naturalistic activity. As noted earlier, a good data collection session is characterised as one where the subject expresses satisfaction with progress made in the pursuit of their personal objective.

Subjects were invited to attend the facility at a time of their choosing so that time constraints would not be an issue. Letters of invitation were distributed describing the purpose of the research as observing activity of individuals performing the defined task in a room (not laboratory) at the University and requested contact if the recipient was prepared to help. The resources available in the room were specified with internet availability listed last so that subjects would only make it the focal point of their activity if this was their natural choice. Other elements of the letter included mandatory ethics



compliance statements and that (unspecified) payment would be provided to compensate for time and cost of attendance. In other words, the invitation sought to:

- a. Maximise ease and convenience for potential subjects
- b. Introduce the range of information sources provided
- c. Reassure that the research is bona fide academic research, and
- d. Encourage the participation of appropriate subjects.

This further supports the efforts to elicit natural behaviour from subjects as they interact with the various information resources provided.

The focus of the research is on the communication resources which subjects interact with in the laboratory. The following section details the resources available to the subjects in the laboratory followed by a section outlining the interactions and interventions applied during data collection sessions.

#### **4.5 Communication Resources**

As noted in the previous chapter there is a large variety of information sources and formats that consumers may access in the course of a complex purchase process. The primary communication resource of interest for the purposes of this research is a computer with a high speed internet connection. However, since the internet does not exist in isolation, the research also needs to investigate the effects of offline information resources between online interaction sessions where relevant. Some of these (e.g. personal interactions with vendors or friends) are exclusive to personal offline interactions and have limited potential for laboratory observation. The offline communication resources offered in the usability laboratory were selected to reflect the type of non-internet resources that a consumer may have access to in their personal

environment. Again this reflects the reflexivity of providing as natural as possible an environment where the interplay between different resources in a consumer process may be observed and recorded. Perhaps equally important is observing differences in activity which follow an observed interaction with offline printed materials or a phone conversation with a vendor or a friend. Offline or hardcopy information was available in the form of both commercial brochures and specialised guide books on the relevant destination. Further, a phone was provided for subjects to call personal and/or commercial contacts for verbal exchanges. Each of these information resources will be discussed in greater detail in the following subsections.

#### ***4.5.1 Online resources***

The primary information resource of interest for this research is an internet connected computer with a range of browser software available to subjects. To the greatest possible extent the purpose is to make the interaction with online resources as similar to a subject's "typical" experience of purpose driven internet activity. The technology in the usability laboratory features a 20" screen with a less than 2 year old computer directly connected to the AAR fibreoptic network. This is likely to deliver an online experience at least comparable to what research subjects experience in their home or office environment. Browser software available for research subjects included Microsoft's Internet Explorer and Mozilla Firefox. The principal loss of functionality is the unavailability of their "favourites" or website "bookmarks" on the browser to ease access or deep linking to preferred websites. The software which is loaded on the computer to capture the subject's online activity and verbalisation will be detailed in the section of this chapter titled "Data collection, management and editing."

#### **4.5.2 *Offline resources***

The other form of electronic communication resource is a telephone to enable calls to personal acquaintances and/or contacts identified online to facilitate their process. The phone is enabled for both local and national calls and in the event of a subject wishing to make an international call, the researcher's mobile phone is provided for the purpose. In the course of typically telephone communication to arrange the time for attendance at the usability laboratory for an interaction session is the opportunity to ask which destination the subject is interested in. This enables "commercial" tour operator brochures and "expert independent" destination guide books to be available in the room should the subject be interested in hardcopy information on the destination.

While these resources provide for the greatest possible diversity in materials to be made available to subjects, no information source or format should be promoted above any other. The measures taken to achieve this are first apparent in the invitation letter and information sheet provided as outlined in the previous subsection. Other than advising subjects of the options that will be available to them in the usability laboratory, their choices of what types of resource to access should be neither encouraged nor discouraged. Again the intention is to achieve the most unaffected behaviour possible for subjects in the interest of capturing naturalistic behaviour.

#### **4.6 Interactions and interventions**

As with the research setting and communication resources, the purpose of subject interactions and interventions is to achieve the most unaffected behaviour possible by subjects. This section firstly describes the interactions between the researcher and subjects to facilitate naturalistic activity primarily by making them comfortable in what

might for some be an intimidating environment. Then, the theory and practice for determining the “why” of subject activity is explained, providing a key element of interaction analysis that will add to the value co-creation research into the future.

#### ***4.6.1 Researcher/subject interactions***

Having negotiated entry to the subject’s world by means of the invitation outlined in the previous section dealing with “research setting” the requirement is now to win their trust in all interactions (Crabtree and Miller, 1999, p 53). This requires a sharing of self as subjects will likely be wondering about the nature of the person who will be observing their behaviour. To do this the researcher offers full disclosure of the research motives, the data collected and how it will be used. The interactions are intended to maximise the comfort of subjects who, if they have not attended university, may be intimidated by perhaps their first experience of a university campus. Interaction commences with the researcher’s response to the subject’s e-mail or phone call expressing interest in participating in the study. It continues with the subject’s arrival at the research venue and the welcome and the briefing provided to each subject.

Following the welcome to the research venue with thanks for their participation, the researcher briefs each subject to minimise the need for intervention while the subject is engaged in their defined task. The briefing revisits aspects outlined in the invitation and information sheet provided in advance of the data collection. In particular the subject is introduced to the facilities available in the room and is advised that the workstation computer has software that will record their activity online as well as what they say. Further, that the computer on the round table will record their interactions with other resources such as hardcopies although only their side of any telephone interactions can

be recorded. As part of the introduction the objectives of the research are explained in relation to the data collected by the workstation computer and the camera equipped computer on the table. The measures taken to protect the anonymity of the subject in presentation of the data in this thesis, conference papers and scientific journals is also explained to the subject. At all times the researcher stresses the need to engage in the natural behaviour they would perform if seated in their home or office rather than the room at the University. An element of this is to emphasise that the recording is more to identify system deficiencies rather than errors which the subject might make in their process.

To achieve an understanding of the “why” of subject activity this research uses Ericson and Simons’ (1993) *Thinking Out Loud* method of protocol analysis which will be explained in the following subsection. This is alluded to in the invitation and subsequent communication arranging for the subject’s data collection session but is explained in detail before the data collection activity commences. The researcher explains that the subject should verbalise their thoughts while interacting with resources of their choice and avoid justifying activity or other extensions of normal thought processes. Quite simply: “Just speak your thoughts out loud as you use whatever resources you choose. Talk about your reactions to the material you are using at any point and what you feel you should do as a result.” Subjects are encouraged to use all resources provided for their use for help with their task so that there is no undue emphasis on the computer to improve the naturalistic nature of the study.

The interaction data collected forms a text for analysis that is characterised as *communication in the work* being an integral component of the interaction itself. In the

same way, verbal exchanges with a service provider or personal contact which play a part in the subject's process is part of *language in the work*. To understand motives for activity choices and reactions to stimuli however, a further corresponding text, or *co-text*, is required for analysis, characterised as *language about the work*. There is a clear potential for imputation error if the analyst elects to interpret or ascribe the reasons for a subject's activities based purely on the activity itself. It is therefore necessary to ask the subject to *think-out-loud* about what they are doing and why they are doing it and capturing this verbalisation concurrently with their activity. Similarly, body language captured by the video camera monitoring off-screen activity may offer evidence that is inconsistent with the actions and/or the verbalisation of the subject.

Before the subject commences their purchase activity, questions are invited from the subject and they are advised that a short questionnaire will be administered following their purchase activity. Finally, the researcher asks if the subject would like a beverage while they are engaged in their activity. If so, the researcher advises that he will leave the room for a short period to arrange this once the subject is settled in to their activity, underlining that the data is being collected by the software and camera. The software used to capture the dimensions of website and other activity is detailed in the following section of this paper.

Following their process activities, a standard form survey is administered to collect data on their product experience, use of the internet in both a work and home context and demography. This data has a control function for the product of communication theory based analysis of their patterns of activity or behaviour. Specifically this research instrument enables the researcher to categorise the subject's product experience and

technology literacy (Swinyard and Smith, 2004) to deal with otherwise inexplicable variances in activity.

#### **4.6.2 The “why” of interactions**

The concurrent thinking-out-loud methods defined by Ericson and Simons (1993) in *Protocol Analysis* provide a well justified basis for this as evidenced in the brief outline following. It is surprising that despite Ericson and Simons’ well-argued case for the product of analysis using their methods to be used as “hard” data when justified by intersubjective agreement, it seems to have received little attention from marketing researchers. This research does not however apply Protocol Analysis to the data but rather elicits genre sequences using the thinking-out-loud method defined by Ericson and Simons.

Ericson and Simons’ Type 1 concurrent thinking-out-loud method seems best suited to the task with the validity of the insights it offers into cognitive processes. This method requires a subject to express their thoughts while performing an actual task, and cognitive process insights have been validated by studies of reaction times, rates of error and eye fixations. In contrast, the type 2 concurrent thinking-out-loud method prompts subjects for responses with advantages in the breadth of responses but interference in cognitive processes. Type 3 on the other hand, requires subjects to give explicit explanations of the reasons for their actions and improves the volume of data but is affected by seeking social justification and coherence which may not exist naturally. Type 1, or direct verbalisation, avoids the mediation before verbalisation associated with type 2 and type 3 verbalisations and is therefore the most naturalistic option. Ericson and Simons (1993) offer remedies for the issues with type 2 and type 3

verbalisations in transcription treatment protocols, but the naturalistic character of type 1 mandates its use in this situation. In particular the lack of intervention in the data capture is better suited to the phenomenological nature of the study.

Using Ericson and Simons' (1993) thinking-out-loud requires concurrent collection of specific website activities and the subject's reaction to the information as well as their consequent activity. Data from a range of subjects at different stages of engagement with the organisation enables differentiation between customer process needs with different levels of knowledge or experience. In addition the range of subjects also covers a range of technology literacy levels so that effects of different capabilities in using the internet may also be accounted for. Finally, the study recognises the likely roles and effects of offline customer interactions so that the context of a customer visiting a website following offline interactions may be identified.

This methodology provides both *communicative and pragmatic validity* as outlined by Sandberg (2005) with *transgressive validity* addressed in the editing and analysis of the data in the following section. Communicative validity is provided to demonstrate perceived fulfilment (Husserl, 1931/1962) by allowing subjects the opportunity to follow their personal interests within the research context. As a result a community of interpretation is developed within the specified research context with coherent interpretation possible based on fitting parts of the texts to the whole and vice versa. Notably the research further draws on both the language in the work and language about the work to cross check the coherence of interpretation. Pragmatic validity or the test of knowledge in action to demonstrate fulfilment in practice (Heidegger, 1927/1981) is



provided by the text of language in the work in the form of subjects' website activity and verbal engagement with others online or on the telephone.

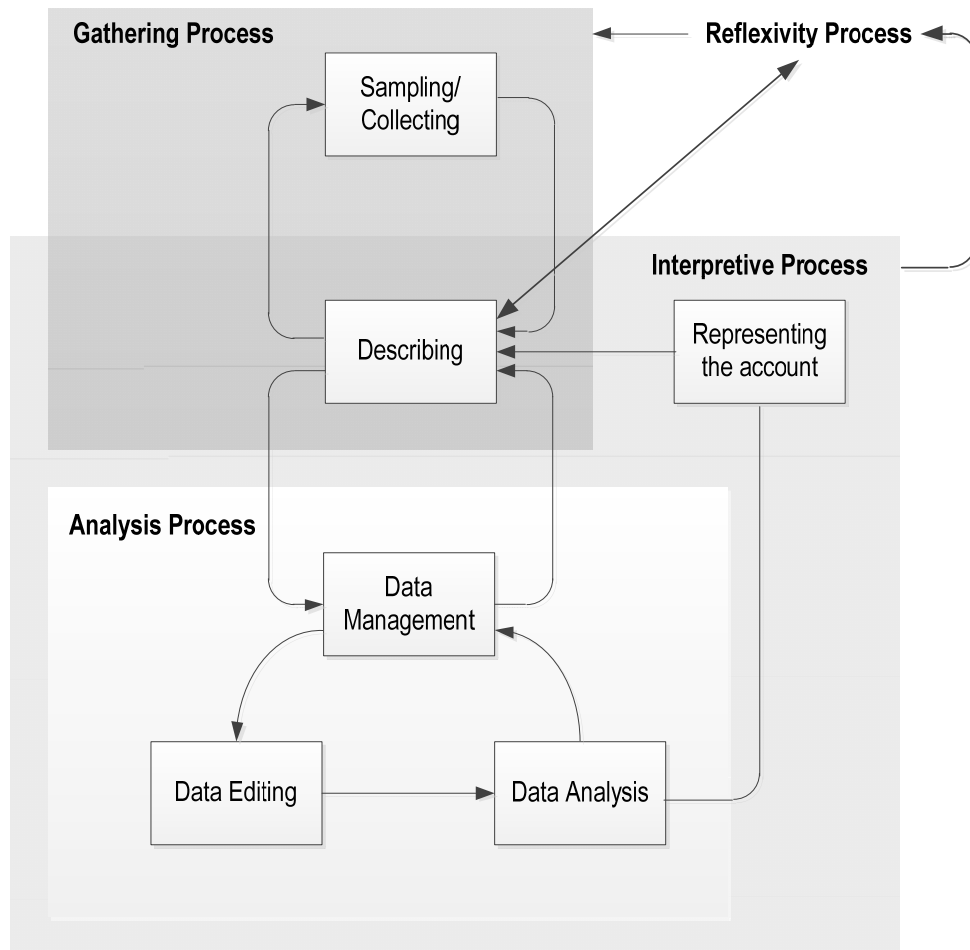
The following section outlines the processes of collecting, managing and editing the data for this research which is of a type not previously used in consumer behaviour research. Given the novelty of the data they require facilitation tools or software which are similarly new to the discipline.

#### **4.7 Data collection, management and editing**

This section of the chapter moves from what Crabtree and Miller (1999, p 16) describe as the gathering process to the interpretive process. They describe the interpretive process as starting with describing how the *collection* of data will be done before progressing to *organisation*, *connecting* and then *corroborating* and *legitimizing* the data. The first subsection of this section deals with data collection followed by data organisation in the subsection titled "data management." Crabtree and Miller's subsequent step of data connecting is dealt with in the subsection "data editing" while data corroborating and legitimizing are found in the subsection "data analysis." Their diagram of the interpretive process is adapted to the terminology of this thesis in Fig. 4.3.

While the term "reflexivity" in the earlier sections of this chapter refers to concerns about effects of the research process on data gathered from subjects, in this section it refers to the effects the research process and data may have on the researcher. This forms part of seeking the transgressive validity sought by Derrida (1984) to demonstrate indeterminate fulfilment by a continual questioning of interpretive validity. The

evolving nature of knowledge generated by this research is shown in the repetition loops back to description from reflexivity, the reporting of the analysis and data management. Preparedness to continually revise findings and methods is a recurrent theme in this section of the chapter.



**Figure 4.3:** Research process – Adapted from Crabtree and Miller (1999, p 16)

The section is structured as follows: First the mechanism used for collecting the data reflecting the research activity outlined in section 4.2 and the resources in section 4.3 is detailed in the subsection “data collection”. Second, the methods used for managing or transforming the data into a format that allows for editing or organising the data for eventual analysis and reporting. Third, the data editing process is detailed in how the

data is divided into analytically significant units for analysis and finally the analysis process based in structural functional linguistics is explained.

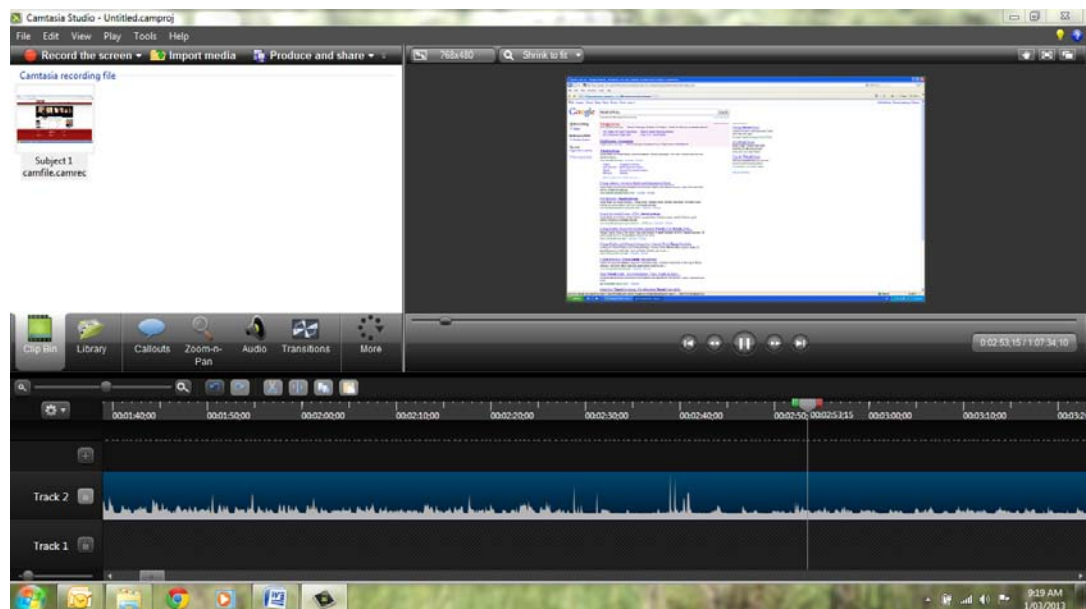
#### **4.7.1 Data collection**

The software used for data capture, Camtasia (<http://www.techsmith.com/camtasia/>), is primarily employed in usability studies by information systems researchers. In academic practice it is also used by educators to capture images of screens to illustrate computer based practices. It has been used by marketing researchers to track consumer process in a superficial way (e.g. Pan and Fesenmaier, 2006) but is used for extraction of meaning from online activity for the first time in this research. This sub-section offers a brief overview of the software's application in gathering consumer activity data and verbalisation related to Ericson and Simons' (1993) thinking-out-loud method.

In essence the key capability of Camtasia is the capture of everything that is happening on a computer screen that an individual is working on. For a subject researching options for a forthcoming trip to an unfamiliar destination, all of their activity is captured in the form of a video record of the screen and time logged. This video includes the movement of the mouse pointer, clicks on links or other interactive features and text entered as search terms, queries or in forums by the subject. In addition there is a camera which captures an audio-visual record of the subject's activity that does not appear on the screen. This captures audio of the subject's thinking-out-loud verbalisation and offline activities such as making phone calls or using hard-copy information sources as well as facial expressions and body language. Monitoring facial expressions and body language offers a check function for consideration in the event that inconsistent or unusual activities or thoughts are identified in analysis. The software therefore offers a time

logged video record of screen activity, the subject's verbalisation of thoughts and video of activity that takes place off-computer.

Where a subject is engaged in an actual research task for a high involvement purchase, the access to resources provides the most naturalistic setting for collecting data for phenomenological study. Interaction with a standard computer screen, using familiar software and with access to complementary resources is intended to naturalise the data collection environment as explained in § 4.2. A screen shot of Camtasia running a data file with its functional components indicated is provided in Figure 4.4, illustrating the screen shot at that point in time as well as the various editing functions provided.



**Fig 4.4:** Active Camtasia file review screen

Following the completion of a data collection session, Camtasia presents the data in a file that may be manipulated in a number of ways. For the purpose of this research, Camtasia files may be converted to a range of video formats for transcription as the first

stage of data management outlined in the following sub-section. The video file resulting contains a visual record of the subjects activity on the website, represented by the upper right window in the screen of Fig 4.4.

Corresponding to this, the audio record of their thinking-out-loud verbalisation provides insight into the reasons for what they are doing. In effect the content they are served by a website activity and their response to these stimuli provide a record of the what, who and how of their activity accompanied by the why for analysis based in structural functional linguistics as outlined in the prior chapter. This audio-visual record therefore provides the corpus for analysis of patterns of activity that may be represented as communication register and genre.

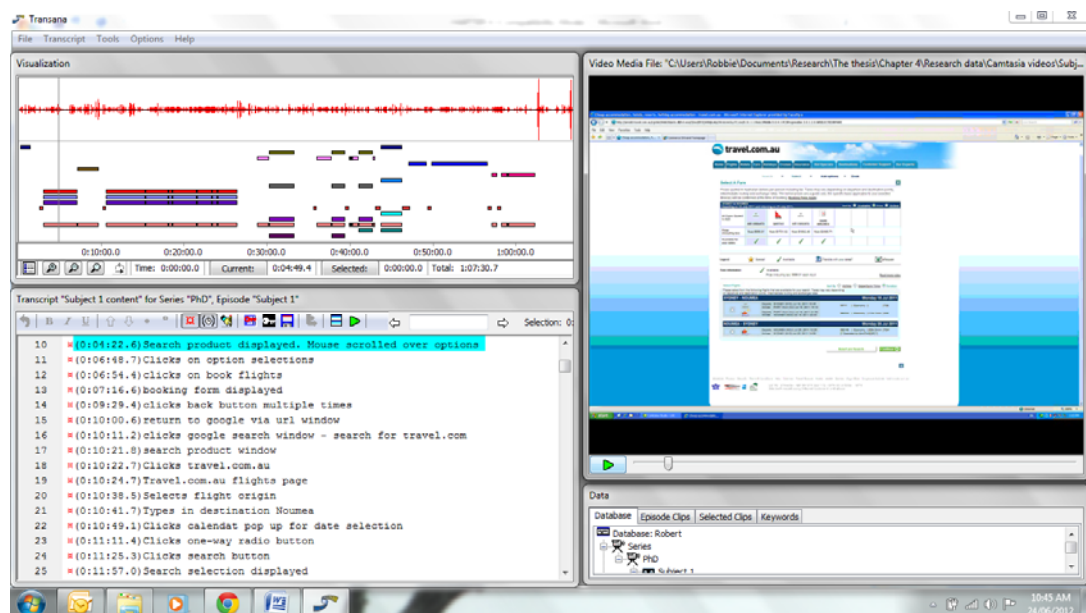
Different transcriptions are required to capture the texts dealing with language in the work and language about the work and these are detailed in the following subsections dealing with data management, editing and analysis.

#### ***4.7.2 Data Management***

The software used for data management of texts relating to language in the work as well as language about the work is Transana (<http://www.transana.org/index.htm>). This software was developed by educators investigating the effects of interactions between educators and students. Transana's first key function is the options it offers in preparing or editing the video data from Camtasia for analysis using Systemic Functional Linguistics as outlined in the previous chapter. This sub-section first outlines the data management functionality of Transana for producing the activity and verbalisation transcripts which are then edited and analysed.

At this point the research bridges from the “gathering” process to the “describing” process as depicted in Fig 4.2. The result is the basic texts which evolve through editing and analysis in the “analysis” process with amendments to the texts as insights develop through the process.

The input for Transana is the video and audio visual outputs from Camtasia reflecting online activity, offline activity and subjects’ concurrent verbalisations. This video is displayed in the “video media file” frame of the Transana screen illustrated in Figure 4.4. The functions of each of the frames on the Transana screen is introduced in the following paragraph followed by details of the protocols used for data management.



**Figure 4.5:** Transana interface.

The “video media file” frame at the top right of the screen gives the ability to play the video input so that it may be transcribed in the lower left “transcript” frame. The transcript frame contains a range of tools to facilitate Jeffersonian transcription

including rising or falling intonation, intakes of breath and whispered speech. Transana enables up to five time-logged transcriptions for each video record so that different aspects or dimensions of the interactions may be documented. The *text* for this research's analysis is comprised of two transcripts, broadly described as texts of language in the work and language about the work, supported by video and audio records of subjects' activity. The "data" frame in the lower right of the screen logs each video record as an "episode" in a "series" of related video records with the relevant transcripts for each episode filed under the episode. The "data" frame has a further range of data editing functions for filing parts of "episodes" as "clips" to which "keywords" and "notes" may be attached to aid analysis. These "clips" constitute the smallest unit of analysis and may be aggregated as "collections" with similar characteristics. The applications of these functions are outlined in following subsections on data management and editing. The primary task involved in organising the data for analysis using systemic functional linguistics is preparing the relevant transcripts for editing.

Two transcripts are produced for each episode covering the research subject's language in the work (screen activity and dialogue) and language about the work (thinking out loud verbalisation) at each point in time. The screen activity transcript details the (i) source of information (website owner and function), (ii) format of information (print, diagram, pictorial, audio visual, subject data input screen etc.) and (iii) details of other elements on the page such as advertising and special offers. The screen activity transcript evidences the *mode* element of *Register* and the elements of *field* and *tenor* may be dealt with by notes attached to clips as explained in the following subsection.

This text is typically a record purely of communicative activity *within the work* or process of the subject, detailing their interactions with others online.

The verbalisation transcript is a direct record of the subject's thinking-out-loud account as they move through their activities. The nature of this co-text is typically language *about the work* as it is predominantly the explication of the subject's thoughts about their experience in their process. There may be incidences of this text containing language *within the work* as the subject converses with others on the phone or through skype type applications online. Such incidences need to be explicitly identified and not included in the thinking-out-loud data analysis.

The researcher may import text files prepared by others from the video records for copying into the relevant transcript window to minimise the time and effort of transcript preparation. While Transana allows for the generation of up to five transcripts for an *episode*, this research uses two transcripts for each *episode* to identify elements for analysis using Systemic Functional linguistics. Once these time coded transcripts have been produced for an episode, the data is in a position to commence editing as outlined in the following subsection.

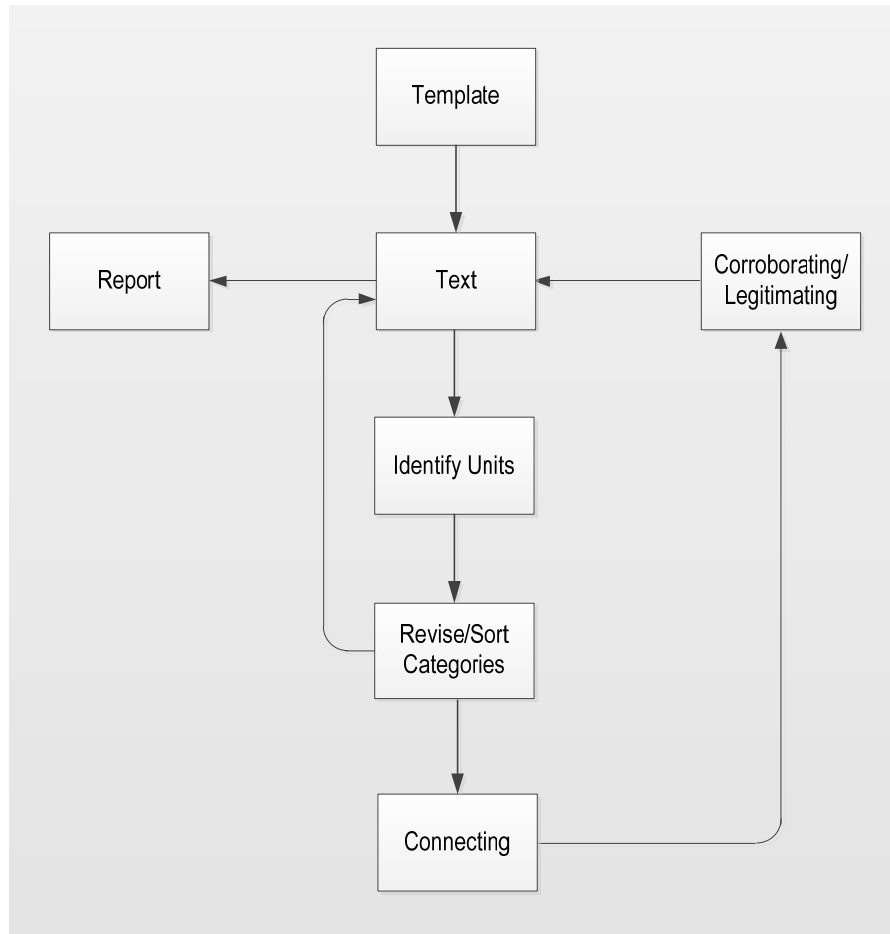
#### **4.7.3 Data Editing**

The research now moves to data editing as represented in Fig 4.2, where the data is edited or organised in a way which facilitates analysis based on relevant theory. In other words the texts are organised in a way that enables analysis between common features so that like is compared with like to develop consistency in data.



The editing phase of this research consists of three activities. Firstly each “episode” is divided into “clips” based on a classification of the type of activity being undertaken by the subject. Second, descriptive notes are added to each clip relating to the meaning derived from the purpose of the subject’s activity and the associated thinking out loud verbalisation. Another feature of clips is the ability to attach keywords to each which facilitates the validation of both communicative and pragmatic validity of clip classifications. Finally, the clips are filed as “collections” based on intersubjective commonality so that clip collections and nests of collections reflect the activities of multiple subjects for validation. Each of these steps is explained in the following paragraphs.

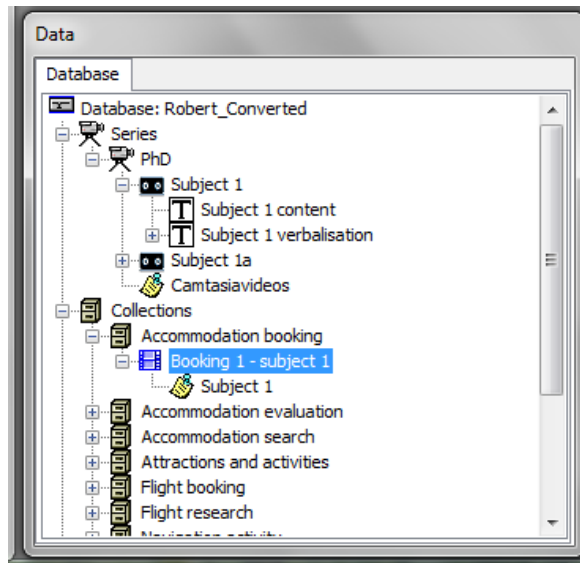
**Clip creation:** The first step of clip creation is attaching time codes to each subject’s content transcript at each point where the *field* changes based on the subject’s purpose. The content between time codes can then be selected and filed as clips within collections of common activity in the Transana data structure. Identical time codes are then applied to the subject’s verbalisation transcript so that the thinking-out-loud associated with each clip can be isolated and viewed concurrently with the content transcript. This editing is referred to by Crabtree and Miller (1999, p 21) as a template as it is based on theory derived from elsewhere. In this case we have used the classical “stages” of consumer purchase as featured in the structure of Chapter 2 of this thesis which offers clearly differentiated behaviour units for classifications. Diagrammatically, this data organisation style is represented by Crabtree and Miller as depicted in Fig 4.6.



**Figure 4.6:** Template data organisation style (Crabtree and Miller, 1999, Fig. 1.5, p 22)

Differences in activity relating to the various stages are readily apparent as demonstrated by Grant et al. (2010) in their review of research needs for online value co-creation. To file a clip, a name is required and in the first instance the clips are named on the basis of the purchase process “stage” they represent. The naming, structure and content of clips is however revisited as further editing and subsequent analysis of subjects’ “episodes” progresses. These revisions are indicated by the repetition loops back to the text from legitimating and corroborating and the revision and sorting of categories in Fig 4.6. These repetition loops also demonstrate researcher reflexivity and compliance with Derrida’s (1984) transgressive validity in addressing

indeterminate fulfilment. The first of these review steps happens with the attachment of the notes to the clips identified.

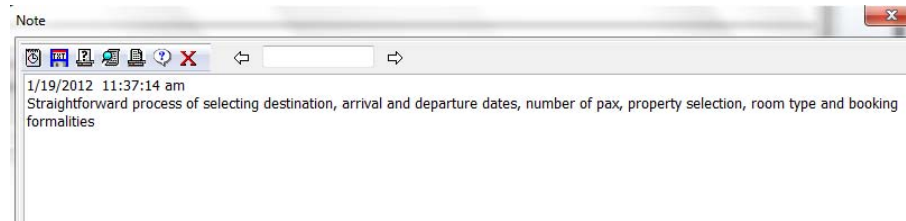


**Fig 4.7:** Representation of Transana clip

By aggregating defined activity types in collection in this way, subsequent analysis can focus on common types of activity to investigate commonality or divergence between subjects within the defined activity. The representation of the Camtasia data window in Fig 4.7 illustrates how a defined activity of subjects is grouped in a collection which may then be analysed collectively. The finalisation of these activity typologies follows further work in the data management process which is explained in the following paragraphs dealing firstly with notes attachment and then with collection compilation. Further fig 4.7 shows an icon attached to each subject activity record in a collection which represents a reflective note, the properties and purpose of which are described in the following paragraph.

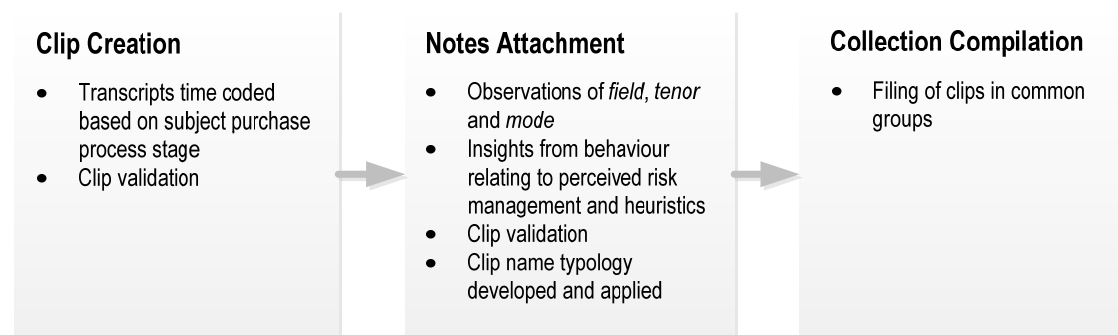
**Notes attachment:** The clips of online activity are sequentially reviewed in conjunction with each subject's verbalisation transcript. Based on the content characteristics and associated verbalisation, *notes* are attached to each clip which reflect the purpose (*field*), character (*tenor*) and information format characteristics (*mode*) of the activity on the screen. The notes also reflect the motive for the activity in the clip and the subject's level of satisfaction with the interaction based on the verbalisation transcript. Beyond the characterisation of activity for determining the purpose or field of the activity, useful theory to inform the insights drawn in notes may be perceived risk management as defined by Conchar et al. (2004) and/or constructive choice processes or heuristics as outlined by Bettman et al. (1991). As noted earlier in this chapter, the complexity of factors associated with these theories is unworkable in an explanatory role but is likely to help interpreting the activity of subjects. For example, a subject's focus on particular variables may indicate the heuristic being used by a subject or the perceived risk being managed in their search or evaluation processes.

As illustrated in Fig 4.8, each note is dated and timed so that the process of reflection over time can be clearly represented as well as offering clarification of the communicative activity in the clip. These reflections are represented in the process map of the research in Fig 4.3 as the loop back from the "analysis process" to the "interpretive process" or representing the account. As a result it is likely that clip classifications may be revisited on the basis of reflexivity as an understanding of meaning within the dined activity is developed. As a result higher levels of communicative validity (Husserl, 1931/1962) and pragmatic validity (Heidegger, 1927/1981) will follow from revisiting such classifications over time.



**Fig 4.8:** Representation of Transana note

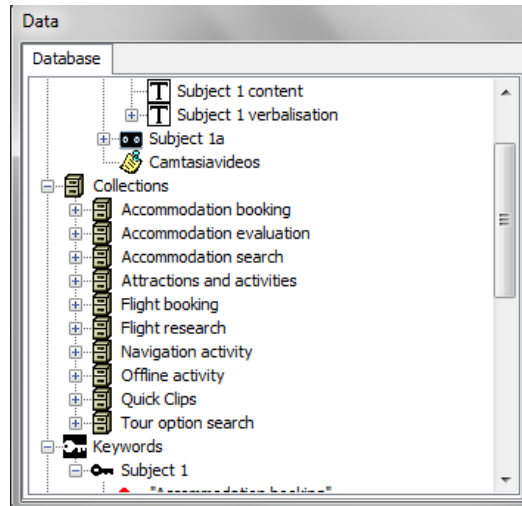
The insights reflected in these *notes* is a basis for revisiting the naming of *clips* based on the field, tenor and mode of a clip's register. In addition to the "stage" of consumer purchase process, the name may be extended by including the type of product (transport, accommodation, activities etc.) being sought. By using a naming typology, common names for the *clips* of different subjects with similar characteristics enables the filing of those clips in a defined *collection*. These collections may then be further nested in homogenous groupings across the research subjects. The notes developed in this stage of the data editing are also provide a basis for naming *collections* in a systematic way across subjects so that subjects' activity may be readily compared. These *notes* also inform the *keywords* attached to each *clip* as outlined in the following sub-section dealing with data analysis. A summary of the steps of data editing is presented in flow chart form in Fig 4.9.



**Figure 4.9:** Data editing steps

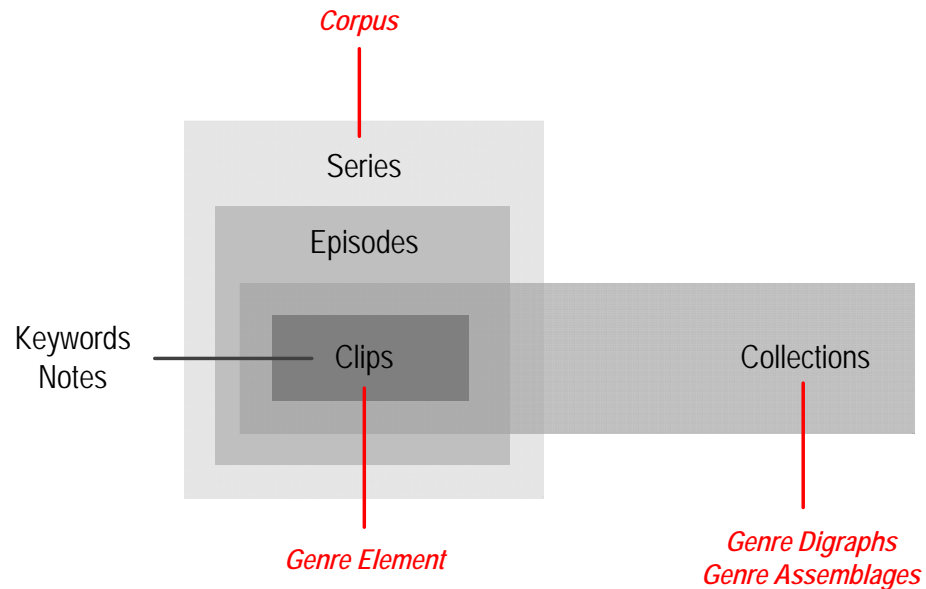
**Collection compilation:** The completion of data editing in the “analysis process” as depicted in Fig 4.3 is found in the finalisation of collections, derived from the initial filing in clip definition. These initial filings are modified based on the initial clip validation as well as subsequent editing in the process of reflection while attaching notes to each clip. The resulting *collections* comprise groupings of clips which represent activities with common purpose, between similar social subjects, using similar methods. As a result, these collections offer consistent data following the reflective processes in editing which may now be analysed as explained in the following sub-section.

For example, a *collection* such as information search for flights may include activities or process elements such as searching for airlines and intermediary websites which offer the desired flights by subjects in the research study. Within a selected website the options presented then need to be screened based on subjects’ heuristics such as airline preferences, schedule and pricing differences. Since multiple websites may be searched and considered in this way, this is taken as search activities represented by clips for each subject within the collection. A subsequent collection may be represented by evaluation activities undertaken when the preferred offerings of different vendors are compared to arrive at a final selection. Similar collections for each stage of a subject’s process relating to accommodation, ground transport, attractions, activities or general information about a new destination may be required. An initial collection assortment may therefore be comprised of three stages of purpose-directed consumer behaviour (search, evaluation and purchase) for each of five consumer requirements (flights, accommodation, ground transport, attractions, activities and destination information.)



**Fig 4.10:** Transana collection map in data window

The culmination of the editing phase is represented by the organisation of the collection map in the Transana database depicted in Fig 4.10, showing the collections for analysis as explained in the following sub-section. At this point therefore the data editing component of the “analysis process” depicted in Fig 4.3 is concluded and data analysis commences. This analysis refines groupings of clips and potentially reclassifies clips and collections as new insights develop. The relationship between the various Transana features described above and the concepts being used from systemic functional linguistic theory to provide the analysis are shown in Fig 4.11. Analysis of the activities in clips grouped in collections of *register* based on Communication Theory is detailed in the following sub-section.



**Fig 4.11:** Relationship between the units of analysis and features in Transana

#### 4.7.4 Data Analysis

This subsection of the chapter moves to the final phase of the “analysis process” as represented in Fig 4.3. As noted in Fig 4.3 however the loop back to the interpretive process ensures that there is a continued refinement of the data through this process to achieve the validity sought for the interpretation.

The data management and editing described in the previous sub-sections results in data being grouped by activity for analysing meaning by applying Communication Theory to the activity and verbalisation transcripts. Firstly the transcripts of an episode in Transana with associated notes comprise the equivalent of a *text* in Communication Theory. As outlined in the previous chapter a *text* may be analysed to determine situational and cultural context at any point taking into account preceding and subsequent activity. The data analysis has to demonstrate the validity of *register* and *genre* based on the theory outlined in the previous chapter. To do this the consistency of

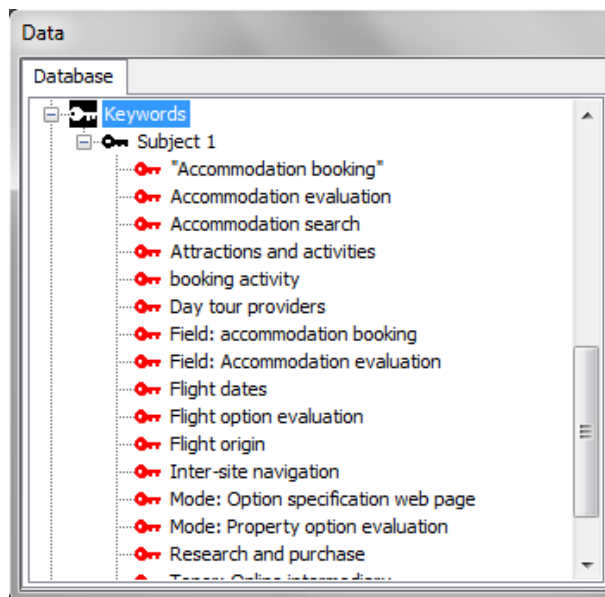


variables within *register* or defined collections has to be demonstrated for all research subjects as well as the sequencing of activity within and between *genres*. The following paragraphs detail the ways in which Transana's functions assist with this. Notably, the analysis provides further validation of the communicative and pragmatic "truth" of the data interpretation as defined by Husserl (1931/1962) and Heidegger (1927/1981). In particular the focus on sequencing and content of process elements lends weight to the test of coherent interpretation (Sandberg, 2005) in communicative validity in showing that parts of the text fit the whole and vice versa. In addition transgressive validity (Derrida, 1984) is provided by the search for differences and contradictions as well as coherence.

Validation of the *field*, *tenor* and *mode* in the clips of each subject's activity has to show the consistency of *register* or situational context defined in the collections of multiple subjects. The *field* component of *register* is defined by the editing of the episode into clips based on the subject's purpose as described in the previous sub-section and subsequent review in firstly naming and attaching notes to each clip. The first analysis step is to again review each of the clips in conjunction with the notes and assign *keywords* which reflect the *field*, *tenor* and *mode* dimensions of each clip for each subject. Since keywords are a critical part of the validation process, a consistent typology should be used to enable consistency validation between subjects in collections of clips. The notes attached to each clip relating to the field, tenor and mode of *register* for each subject's clips as described in the previous sub-section provide a good basis for these keywords. Beyond the dimensions of *register*, a further keyword for each clip is required that defines the collection or *genre* it is placed in. The further reflection in assigning keywords to each clip in each collection offers a further

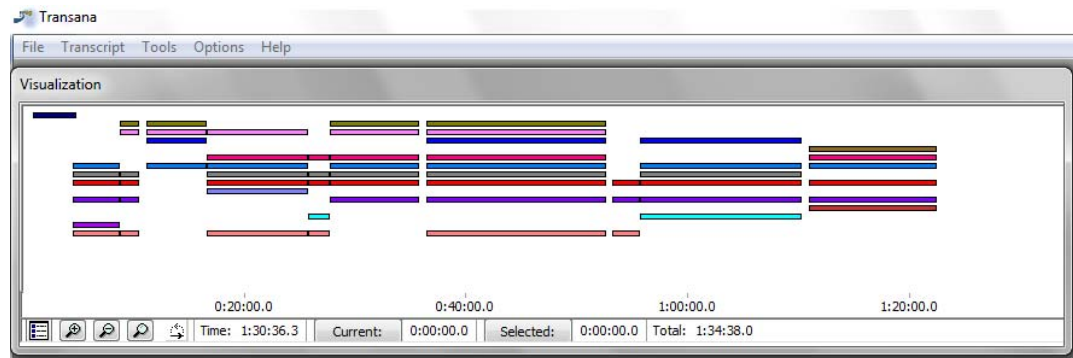
opportunity to review the validity of the data from the loop back to the interpretive process as represented in Fig 4.3. As a result of this, changes may be made to clip classifications and the collections they are assigned to with reasons documented in the relevant clip note for a record of the reasoning.

Once all of the subjects' clips have keywords relating to the dimensions of *field*, *tenor* and *mode of register* and the associated *genre* added, Transana can generate reports on the notes and keywords for each of the collections. A right click on the icon of a collection in the data tree in Transana offers a menu of options which include a collection report and a collection keyword map. The collection report provides a text summary of the transcripts, notes and keywords for each subject with a clip in the collection. By content analysis of the text, the consistency of *field*, *tenor* and *mode* dimensions as well as motivation reflected in the notes attached to clips in a collection may be validated.



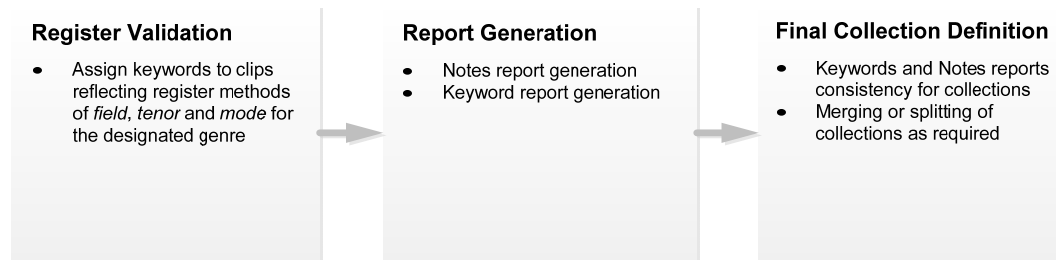
**Fig 4.12:** Keyword database list for episode

Keywords are represented in the Transana database in a listing of all keywords associated with a specific episode as represented in Fig 4.12. In this way the database lists all of the activities engaged in by a research subject. Of greater significance to the analysis however is the collection keyword map which offers a graphic representation of the keywords attached to each subject's clip in the collection. Since each keyword is uniquely colour coded this gives a visual representation of consistency for all subjects within the collection. An example of the keyword map for a collection of the clips from all subjects who engaged in the defined activity is represented in Fig 4.13.



**Fig 4.13:** Keyword map for an episode

Where inconsistencies occur between subjects, suggesting failure in Derrida's (1984) transgressive validity, the researcher revisits the data to resolve the reasons for the failure as explained in the following paragraph. Again, a further opportunity to return to the interpretive process from analysis as when keywords are assigned and represented in Fig 4.3 should improve the validity of the data and its interpretation. The elements of process for data analysis are represented in Fig 4.14 below.



**Figure 4.14:** Data analysis process elements

Since each collection relates to a potential *register* and associated *genre*, the collection defining keywords for multiple subjects should be consistent for all dimensions of register. Where inconsistencies arise with a clip in a collection, the clip should be revisited to determine whether keyword revision or re-assignment of the clip to another collection is required. Alternatively a new collection may need to be established to consolidate a new *register* and associated *genre* of activity. Further, some reconfiguration of clips may be required with some split and others being merged because of inconsistency within clips and between clips in collections. For example, if a subject's screen characteristics or information source changes within a defined screen format, a clip may be split to represent the differences in *register*.

However, a subject using a search engine to identify websites offering a particular flight may be best positioned as part of a "flight search" collection. While there is a clear change of source and interface with the move from Google to selecting search product elements for viewing, Google is a neutral facet of process that does not result in change in purpose or nature of activity. On this basis it may be worthy of merging into the other clip as there is no apparent change in meaning resulting.

The ability to nest collections in Transana therefore gives us three levels of classification for consumer purchase process variables. These are represented in Table

4.1 using the classical marketing purchase process stages as applied to a range of aspects of a travel experience.

<i>Transana classifications</i>	<i>Groupings of activities</i>	
Nested collections	“Search” stage	“Evaluation” stage
Collections (Genre)	Flights, accommodation, attractions, activities etc.	Flights, accommodation, attractions, activities etc.
Activities (Genre elements)	Option identification, channel choices, screening, availability check, consideration set formation	Attribute comparison, heuristic development, testimonial seeking,

**Table 4.1:** Classification of process variables

Based on this typology, the study will result in 6 genres based on four different product types at each of the two “stages” of basic consumer purchase behaviour. Within each of these genres a range of genre elements representing the actual activities of consumers in sequence will be detailed. The final stage is representing the account, which requires detailing the activities which comprise genres in the form of digraphs and the arrangement of genres in genre assemblages as defined by Communication Theory explained in the previous chapter.

#### **4.8 Data Reporting**

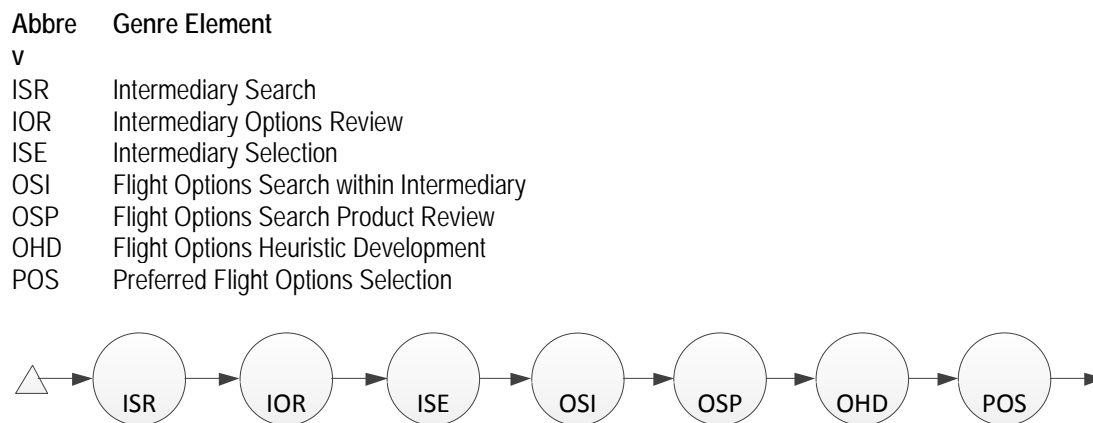
Following the development of consistency within each collection as described in the previous paragraph, each collection represents a distinct *register* of activity across all subjects. Since *register* and *genre* are co-dependent, these collections also represent the different *genres* of activity. The *genre* characteristics of interest however are not the common elements of the interface but their representation of the subjects’ activities and sequencing. The keywords attached to clips or activities within each collection or *genre* therefore define the clips of each collection or activities of each *genre*. Since Transana

collection reports deliver sequential keyword occurrence, this offers a sequence of all subjects' activities in a *genre*. As importantly, the absence of some activities for some subjects indicates that these activities are optional and the reason for their absence may be gleaned from revisiting the transcripts. The review and reporting of activity linkages and sequencing defined by the texts of subjects within a process or genre further demonstrates communicative validity and pragmatic validity as explained in the previous subsection on data analysis (Sandberg, 2005).

Two theoretical possibilities may explain the absence of some activities by consumers. First, the process may have taken a repetition loop to revisit part of the process which is then completed without some activities which become redundant having been recently performed. Activity of this nature evidences the critical/ecological dimension of the enquiry as discussed in the introduction to this chapter. Alternatively, the subjects' technology literacy and/or product experience, as determined from the survey data gathered at the conclusion of observation sessions may explain differences in information need. Regardless of the reason for not undertaking the activity, a list of conditions that make activities optional in a *genre* may thus be developed. Conversely, all activities undertaken by all subjects may be classified as mandatory until such time as a condition that renders it optional can be identified. Another option is to generate a graphic representation by selecting the collection keyword map for any given collection. The graphic represents the sequencing of activity within the collection for all subjects and so that inconsistencies may be identified and the conditions for these determined.

This sequence of activities within a collection that identifies the optional and mandatory elements of the process is the basis of a digraph representing consumer activity in a

defined phase of a process. As noted earlier, a digraph provides a basis for a computer programme detailing the customer's activities and the resources related to each activity based on consistency between subjects. Figure 4.15 represents a simple digraph (without detailing optional and mandatory elements) of a possible flight search *genre*. The simplicity is evident in the lack of optional and mandatory elements in the digraph as well as the absence of expected repetitive loops that may be expected in a complex process. However, for the purpose of illustration, each of the activities represents a *genre element* or distinctive activity within a *genre* and is typically represented by an abbreviation with an explanatory legend.

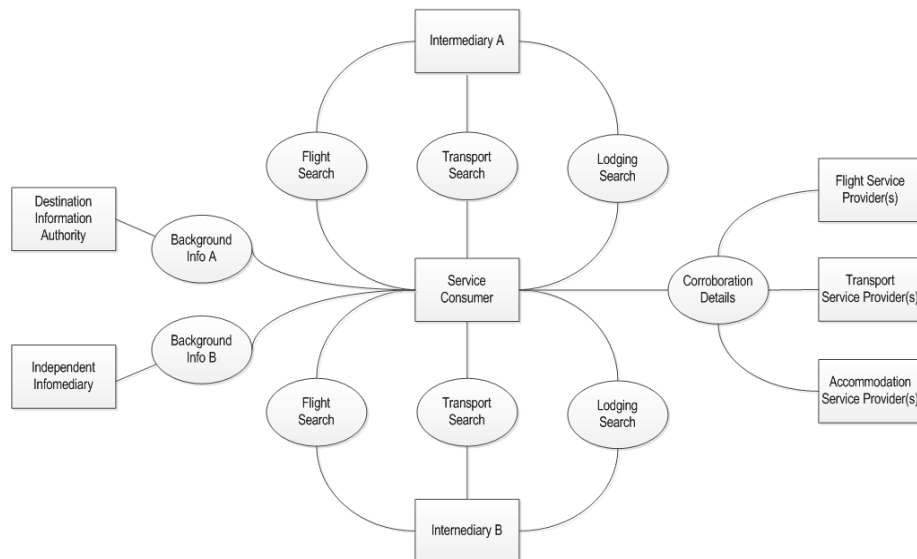


**Figure 4.15:** Simple exemplar digraph for flight search process

The start point of a process represented by a digraph is signified by a triangle and the end point by an inverted triangle. Each of the specific activities in the process are represented by circles which indicate the expected sequence of events with allowance for some to be optional as well as the possibility for repetitive loops. These possibilities are indicated by arrows which skip activities or elements of the process or indicate a return to an earlier stage of the process. The digraph shows the high resolution of

activity specified within a *genre*, but it is as important to be able to define the sequencing of genres within the wider consumer process. The basis for doing this by developing genre assemblages is outlined in the following paragraph.

To determine the sequencing of collections or *genres* within a series or complete process, a right click on the series icon provides a further range of report options. In addition to a series report which provides a text report of the transcripts, notes and keywords for the collections within a series, graphic options exist for a series keyword sequence map, series keyword bar graph and series keyword percentage graph. Again, this provides a graphical means to view the sequencing of genres within the wider consumer process. In communication theory this is represented by a genre assemblage which for a series of search genres for different aspects of a trip may be represented as in Figure 4.16.



**Figure 4.16:** Genre assemblage for search processes



This diagram provides an effective summary of the research in conjunction with the digraphs which represent the activity within the genres or processes represented in the genre assemblage. In a genre assemblage, social subjects are represented by rectangles, and the genres or specified processes between them are represented by ovals. Fig. 4.16 illustrates a service consumer undertaking multiple genres with intermediaries and accessing different social subjects for one type of activity or different social subjects for similar but different information needs. Genres may differ between intermediaries based on the consumer's prior experience with the relevant intermediaries or different interaction protocols resulting in different activity sequences.

An important consideration is that this is not a process flow diagram but rather a state diagram which represents the range of genres undertaken by a consumer. In other words, there is no direct sequencing implication and the genre being undertaken by a subject is defined by the succession of activities in the digraph. This diagram is relatively simplistic as a theoretical representation of the genres or collections relating to search activities and similar diagrams are required for the evaluation and purchase stages of consumer activity. The data collected in the course of this research will be the focus of the following chapter.

#### **4.9 Conclusions**

This chapter demonstrates a research methodology to capture naturalistic data of consumer online behaviour with verbalisation that offers insights into “meaning” associated with consumer online activity. Based on adapting a process defined by Crabtree and Miller (1999) to determine the effects of interactions between clinicians and patients, the research has an emphasis on reflexivity to achieve naturalism. This

chapter documents the attention to the research setting, communication resource provision, interaction management and research process to apply reflexivity for naturalistic data. This reflexivity works to limit the effects of the research process on subjects as well as on the researcher and is a contributor to the communicative, pragmatic and transgressive validation identified by Sandberg (2005). These validations address the reality of subjects' *perceived fulfilment* (Husserl, 1931/1962), *fulfilment in practice* (Heidegger, 1927/1981) and *indeterminate fulfilment* (Derrida, 1984) respectively.

The “truths” of *perceived fulfilment* (Husserl, 1931/1962) and *fulfilment in practice* (Heidegger, 1927/1981) is derived from combining research subjects' activity observation and the associated thinking-out-loud method of Ericson and Simons (1993). This novel approach to interaction analysis offers potential to greatly refine the understanding of value co-creation in marketing at the level of activities within processes. For online interactions, it offers the possibility of real-time information serving responsiveness that is directly linked to the customer's situational and cultural context. The other “truth” of *indeterminate fulfilment* (Derrida, 1984) derives from the established practice of repetition loops in qualitative research process as specified by Crabtree and Miller (1999). The communicative and pragmatic validation is further reinforced by the application of systemic functional linguistics by specifying the sequences of activities within processes (genre elements in digraphs) and between processes (genre assemblages). As noted in §3.5 *Communication Genre* together with the elements of *Communication Register* effectively address the aspects of Context described in §2.4.4.

The following chapter outlines the effect of using the defined methods and software for data capture, editing and analysis in a pilot research project. This more fully illustrates the complexity of online consumer behaviour and some divergence from the traditional models of consumer purchase behaviour documented in the literature. Based on these findings, the effect of using these methods for online customer engagement and relationship management are discussed in subsequent chapters.

## **CHAPTER 5: DATA ACQUISITION AND REPRESENTATION**

### **5.1 Introduction**

The data required for Systemic Functional Analysis as explained in Chapter 3 requires representation of naturalistic consumer process in dealing with complex hedonic service products. The crucial elements of this include (a) facilitating naturalistic consumer behaviour in a laboratory setting and (b) using the data to unambiguously determine the “meaning” of their activity based on the activity together with the research subjects’ thinking-out-loud verbalisations. To achieve this the individual’s preferences and choices must take precedence with minimal interventions so that the “truth” about what consumers actually do and what it means may be accurately construed.

This chapter firstly outlines the process used in acquiring and then managing and editing the data into a form that is suitable for modelling consumer activity and resource selection. In effect this is an account of using a new method of research and details the learning derived from applying new methods and software applications. This includes some generalised observations regarding the data as a precursor to the description of its representation. Next, since the data required for this study is new to Marketing, the resulting data and its representation in the appendices is explained. This includes the methods used to generate the three different types of Appendices that are the foundation of the analysis in the following chapter and how they relate to Systemic Functional Analysis. In particular, the form and function of the Appendices where the data is presented is explained so that the reader may better understand the research findings presented in Chapter 6.

## **5.2 Data collection**

Subjects were recruited on the basis of having a current engagement in planning a significant recreational travel experience, part of which they could engage with in a usability laboratory setting. Several local travel agents distributed invitations by e-mail to clients currently planning recreational travel to participate in the research by e-mail. An example of the invitation is included in appendix 2. The key points of the invitation were that subjects would be required to attend a room at the local University to conduct some of their travel research at a time of their choosing. To outline the purpose of the study and the resources provided, the invitations offered unspecified monetary compensation for their cost and time attending the University. Respondents from the travel agents were supplemented by other recruits from a local social club with a strong travel profile. None of the recruits were known to the researcher to avoid the possibility of behaviour or activity being affected by acquaintance.

As per the procedures outlined in § 4.4 subjects were welcomed on arrival in the usability laboratory and reminded about the purpose of the study and what was expected of them before being seated at the computer. As the subjects commenced their activity, the researcher activated the Camtasia software loaded on the computer to record the on-screen activity and any verbalisation. Subjects were then left to their own devices in the interests of capturing behaviour that was as naturalistic as possible. There were some marked differences in subjects' conduct within the session reflecting different stages of the buying process. In one case the researcher encouraged verbalisation of the subject's thoughts and this will be reviewed in § 5.4 with some general observations on the data. The session concluded with subjects completing the survey instrument (Appendix 3)

seeking details of demographics and factors in technology literacy (Swinyard and Smith, 2004), after which they were paid and farewelled.

The researcher adopted the role of an observer, seated at a desk behind and to the right of the subjects, with another computer used to video the subject in case evidence in the form of body language was required in the analysis. The researcher remained in the room throughout the session, apart from a brief absence to get beverages for those subjects who took up the offer of a refreshment while they worked.

16 sessions of data gathering in the Usability Laboratory at the University of Wollongong, see Fig 4.2, yielded 12 episodes of usable data totalling 13 hours and 46 minutes. The data was collected over a period from October 2010 to February 2011. The gender and age profiles in the Genre summary tables (Appendix 4) reflect mixed gender and a range of ages for the research subjects. Unfortunately an apparent technology malfunction resulted in 4 of the sessions' Camtasia files being corrupted and as a result unusable. The usable files were converted to MP4 video format for management and editing in the Transana software package introduced in § 4.5.2 and § 4.5.3. These steps are described in the following 2 sections.

### **5.3 Data management and editing**

First, the data management steps (§ 4.5.2) of transcribing their activity and verbalisation with time coding of those transcriptions was performed. The researcher transcribed both the subjects' verbalisations as well as their activity on the screen using the Transana interface illustrated in Fig 4.4 and as described in § 4.5.2. A major functional benefit of Transana is the possibility of inserting time codes on the transcripts at points where

subjects' activity or selection of resources changes. This resulted in the *texts* required for systemic functional analysis comprised of language about the work as well as language and activity in the work. As discussed in § 4.4.2 and § 3.4, these *texts* provides the *communicative and pragmatic validity* from the unbroken sequences of “naturalistic” activity.

With the *texts* organised, the process of editing can then be undertaken. As explained in § 4.7.3, the editing process is where the data is organised to facilitate analysis of the meaning of activity and sequencing to identify patterns of behaviour. The first step of this involves filing the Transana clips between the time codes (assigned at points where subjects' activity or selection of resources changes) in *collections* in the Transana data window. The *collections* in this research were based on a template of consumer behaviour as outlined in § 4.7.3 in the expectation of behaviour differences by stages of the process and service components of subjects' travel experience. This framework is supported by the work of Grant et al. (2010) outlined in § 3.1 and illustrated in Fig 3.1. However, since the clips in each collection are based on a relatively cursory examination of the subjects' activity, further analysis is required for validation or, as Crabtree and Miller (1999, p22) describe it, *legitimizing* the collections. This requires reviewing clips within collections and, in the process, adding keywords and notes to specific clips. The Transana reports function which offers the ability to generate reports on collections, keywords and notes helps in validating the consistency within the collections and differences between them.

The collections in the Transana database represent genres of activity based on context identification (as outlined in § 3.2.1 and § 4.7.3) and form the basis of the consumer

process and resource utilisation analysis. The data in this study failed to show the desired consistency within collections based on the template of stages of consumer process and different categories of service the subjects were engaging with. As a result the collections were recast at a lower level of resolution where process stages were aggregated so that collections related to the different categories of service.

There are a number of possible explanations for this which will be discussed in greater detail in the following section of this chapter as well as in the following chapter. However the primary reason seems to be the heterogeneity of resources selected by subjects. As explained in §3.4, taking a communicative approach to the analysis requires consideration of both sides of the communication interface. In the case of online interactions, a key element is the content presented on the website page or the options provided for the consumer to interact with or respond to. Because the information content and format varies between different websites, subjects' activity varies in response based on the options provided. For example some intermediary sites require details of dates and numbers of passengers in order to provide information that is seasonally correct while others do not. In this instance there will clearly be differences in the genre elements of the same consumer on the different sites as they have to respond to the site's offering. A purpose designed study of interactions by research subjects with a single website with consistent information for all interactions may yield a higher resolution of consumer process. The challenge in this case will be to design a study where the behaviour is sufficiently naturalistic despite a directed focus on a single defined website.



In total 122 Camtasia file clips were assigned into 4 genre collections as detailed in Table 5.1.

**Table 5.1: Transana collection summary**

<i>Collection name</i>	<i>Number of clips</i>	<i>Duration of clips</i>
Accommodation	37	1 : 43 : 38
Attractions and activities	42	3: 19 : 57
Travel experiences	28	3 : 11 : 19
Utility transport	17	2 : 20 : 42
Totals	122	10 : 35 : 36

The revision required in this study to the theoretical scenario in § 3.1 exemplifies revision on the basis of the interpretive and reflexivity processes resulting (as per Fig 4.3) from analysis within collections. It is also evidence of the inductive approach of the analysis which follows the reality of the data collected and does not try to get the data to fit the theory. However, in the light of this change to expectations, a review of the data generated in the study in a general sense is provided in the following section.

#### **5.4 Data review**

Given the need to recast the theorised template from § 4.7.3 and Table 4.1 as explained in the previous section, it is appropriate at this stage to review the data generated by the collection, management and editing process. This also provides a useful introduction to the data representation provided in the appendices to this thesis.

It may be noted that these genres, represented by collections as detailed in Table 5.1, amount to less than the total data collection. The complete data set totals 13 hours and 46 minutes with the balance 3 hours and 09 minutes comprised of what may be termed as miscellaneous or offline activities conducted by subjects. A sizable part of this unutilised data was considered as an additional genre characterised as itinerary planning but the context varied from subjects seeking the distance and time for travel between 2 points to subjects seeking exchange rates or working offline on budget calculations. The problem of “forcing” such activities into a single genre is apparent in the diversity of objectives and purposes and was therefore not pursued further.

As noted in the previous section, the data generated did not result in the expected genres based on the theory outlined earlier in this thesis. Careful consideration of the data suggests that this relates to the heterogeneity of website formats which, as the primary stimulus that subjects were responding to, resulted in different responses as explained in § 5.3. Further research will be required to determine whether the higher resolution on consumer activity may be achieved by more site specific studies or an isolation of specific site activities in a much larger study which provides sufficient site-specific activity. It is however important to note that the finer resolution level of genre definition does not hinder insights at the specific activity or task level as the data still provides for such analysis as will be seen in the following chapter.

Another consequence of the quest for naturalistic data is the diversity of subjects’ activity, since research subjects were not directed to specific activity and encouraged to do what was relevant to them. This will be discussed in greater detail in the following chapter, which reports the findings of the analysis, but at this stage the different

destinations, stages of process and aspects of the journey that subjects engaged in are noted. For example no subject is represented in all four genres identified with some only being represented in a single genre. In two data collection instances the subjects' activity could be characterised as hedonic browsing rather than purpose-directed purchase activity. In contrast the activity of the subjects in other data collection sessions had a very clear purpose or objective that they were pursuing. These differences in the character of activity may be a factor in the lower level of resolution achieved in the genre definition although the following chapter shows, there is a high level of rigour in the defined genres. Perhaps as a consequence of this non-purposive activity, there was a disappointingly low amount of verbalisation from these subjects. This raises the question of what level of intervention or elicitation could be considered appropriate for this kind of study. In this case, the researcher eventually resorted to indirect verbal encouragement of these subjects by commenting on their activity rather than directly prompting the subjects which might have been viewed by the subject as confrontational. The result of these efforts seems to have been negligible with little change in the level of desired verbalisation.

In hindsight, it may have been advisable for the researcher not to engage in any way with these subjects and rather rely on the activity for analysis even though there is no apparent effect on activity of these interventions. While analysing activity is not as explicit as the analysis of language as explained in §3.4.2, the sequencing of content sought by subjects in their interactions with the websites indicates an apparent purpose of subjects' interactions with websites. Since the data used to achieve this is the "pure" activity data of the research subjects, there is additional assurance in the Pragmatic Validity (Heidegger, 1927/1981) associated with deeds rather than words. The final

“pillar” of “truth” in the form of Derrida’s (1984) transgressive validity is potentially problematic in the few instances of subjects whose thinking-out-loud verbalisations were less complete. However, reviewing the isolated activity sequences of the majority of subjects who had effective verbalisation shows that sequential activity on its own may be taken as reliable. Perhaps of even greater significance is that when compiling the genre element sequences for the directional graphs in the following chapter, a number of errors in activity classification were identified by their failure to fit the generalised sequence. In other words, the effectiveness of the activity sequencing in the defined genres was demonstrated by their ability to highlight classification errors that may not otherwise have been identified. This is a key component of the validation of genres based on Systemic Functional Analysis explained in §3.4.2.

While data was collected on subjects’ demographics and technology literacy, the activity data was sufficiently clear that no recourse was required to this data. On reflection, the literature identified in Chapter 2 which points to the irrelevance of demographics is upheld while the technology literacy of subjects affects the efficiency of their process but not the actual activity. Technology literacy seemed to be fairly standard between subjects and did not seem to affect their engagement with websites selected by the subjects. In two instances, usability issues drove subjects to use the phone provided to achieve their desired outcomes. In one of these cases, the subject called the service provider and was offered a solution in the form of an inclusive arrangement that was not apparent on the website. In the other the subject was struggling to reconcile the offerings of different service providers and called a trusted intermediary for advice to help solve the problem. In both cases the subjects achieved

outcomes that were unlikely with the resources accessed online so Technology literacy cannot be taken as an issue.

No attempt was made to collect data on subjects' need for cognition, optimum stimulation levels or any of the other factor based analytics identified in Chapter 2 for the practical reasons given there. The inductive analysis of the subjects' activities using Systemic Functional Analysis was deemed sufficient for the purpose of the study. The following section of this chapter explains the analysis process and the data which is provided in the appendices for this chapter.

An important consideration in the analysis is the determination of when a subject engages in repetitive behaviour as part of a single genre and at what point the activity changes to a degree where a new genre of activity results. The approach adopted by this research is that where the subject engages with a different website or changes the focus of their research, a new genre is commenced. Multiple attempts for the same objective with the same intermediary or principal on the other hand was treated as repetitive behaviour within a single genre.

While the researcher expected that the Transana report generation functions would play an important role in the analysis (see § 4.5.4), these proved to be of most use in defining and validating the genres as outlined in § 5.3. The analysis that led to the definition of genre elements and the formulation of directional graphs or digraphs to define consumer process required an alternative representation of the data. The following section explains the form and function of this data representation which is provided in the appendices and will be helpful to the reader in understanding the analysis process.

## **5.5 Data representation**

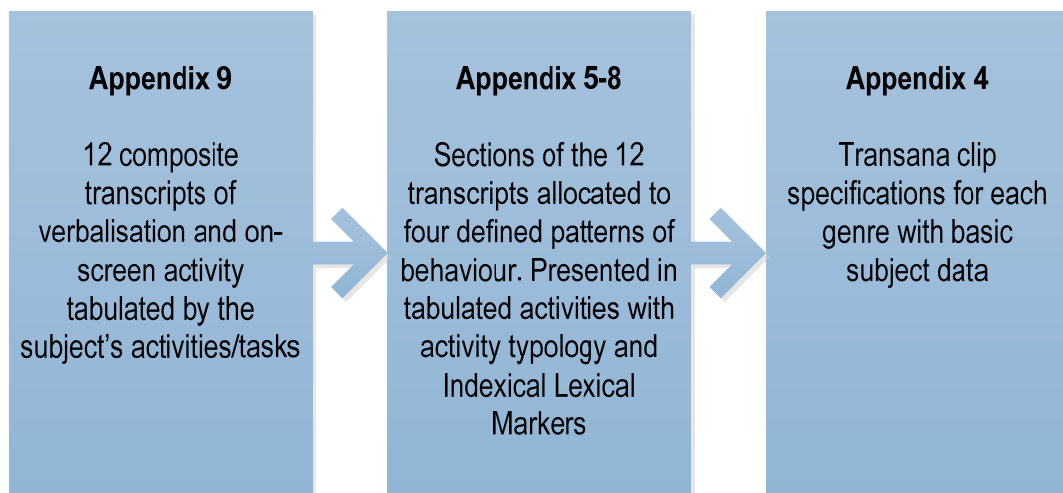
As explained in the previous chapters, a major objective of the research is to classify consumer activity based on the activity and thinking-out-loud verbalisation of subjects. To do this an alternative representation of the data is required and the purpose of this section is to explain the role of the appendices provided and the contribution it makes to the analysis. Since data in this form has not been used before, it is important that the reader understand the formulation of these appendices to appreciate the reporting of the research findings outlined in the following chapter. Moving from the most detailed to the most generalised, first the composite activity and verbalisation transcripts of Appendix 9 is discussed in § 5.5.1. Following this the genre activity appendices (Appendices 5-8) which are the key focus in the analysis are discussed in § 5.5.2 and the genre summary tables (Appendix 4) in § 5.5.3. The appendices are presented in reverse order since their numbering has been done from the most generalised to most specific in the expectation that this will be how they are used by a reader. Their description however is better suited to follow the process of their creation from the data resulting from the editing process described earlier.

### ***5.5.1 Detailed transcripts (Appendix 9)***

The simplest and most detailed of the appendices is also the largest as it is a composite of the activity and verbal transcripts developed for each of the twelve successful data collection sessions. These have been tabulated so that the relevant time codes may enable the reader to identify the relevant part of each subject's activity and verbalisation should greater detail be required. Each time-coded row of the table contains the record

of a single task or activity with an account of the on-screen activity in bold and the subject's thinking-out-loud verbalisation in standard font. Where the researcher responded to a query from a subject or tried to encourage greater verbalisation, the words are recorded in italic font.

In the absence of being able to provide the MP4 files derived from the Camtasia recordings, this is the most complete rendition which can be offered. It offers the ability to review the summarised meaning of the data provided in appendices 5-8 (see the following sub-section) in greater detail should that be required. The relationship between this most specific of appendices and the derivatives which are the basis of the analysis is shown diagrammatically in Fig. 5.1 as an introduction to the following sub-sections.



**Figure 5.1:** Appendices flowchart

### **5.5.2 Genre formulation (Appendices 5-8)**

These appendices are the core of the analysis process and have a number of features that were used in the analysis process leading to the results reported in the following chapter. Appendices 5-8 feature three distinct components in the form of a *Genre*

*Element Inventory*, a series of *Activity Description Tables* and a table of *Indexical Lexical markers*. The bulk of each of these appendices is comprised of the *Activity Description Tables* for each of the Transana clips in the genre. Individually the clips constitute *candidate genres* as no generalisation can happen on the basis of a single instance. The defined genres are derived from the common patterns identified across all of these clips. Second, the *Genre Element Inventory* at the beginning of each of the genre formulation appendices provides a listing and description of each of the genre elements identified and the code which is listed next to each activity in the clip summaries. The sequencing of these types of activity is the basis for defining consumer process in the form of directional graphs as will be explained in the following chapter. Finally, the table of *Indexical Lexical markers* at the end of each of these appendices is drawn from the Transana keywords applied in the data editing process. These keywords offer insights into the diversity and nature of activity within the genres which will be more apparent in the following chapter. Each of these three parts of each of these appendices will be more fully explained in the following paragraphs with a template of each component for illustration.

The *Activity Description Tables* which form the bulk of these appendices are based on the clips filed in Transana under each of the collections or genres. In other words the activities and verbalisation of subjects are grouped in the clips created in Transana with the appropriate time codes. To make the data more user friendly activity descriptions are presented as a “gloss” or summary of the full transcripts provided in Appendix 9. These descriptions were developed by observing each subject’s activity while listening to their verbalisation so that the account reflects the motivation and effects of the subject’s activity as well as the activity itself. As such these tables provide a reliable abbreviated



interpretation of the “meaning” of each subject’s activity in the relevant genre groupings as explained in Chapter 4. The activity description tables and the sequence of activities within each are numbered for ease of reference in reporting of results and are time coded so that they may be located in the full transcript for each subject. A template of this part of these appendices is provided in Table 5.2.

**Table 5.2: Genre activity description table template**

2.1 Subject X clip name

Legend: Genre element typology codes listing

Seq	Time code start	Time code finish	Activity description	Genre element
1				
2				
3				
4				
5				
6				

The right hand column of each of the tables specifies the genre element classification for each activity that are explained in the following component of these appendices. The sequencing of these element classifications provide the basis for development of the directional graphs or digraphs that are used to define the process within each genre. For ease of reference, a legend or key with the full name of each Genre Element type is provided at the top of each table.

The Directed Graphs in the following chapter are derived from the Genre Activity Tables Appendices 5.8. Each activity row is classified as a *candidate genre element* as explained in § 5.5.2 based on the interpreted “meaning” of the individual subject’s activity. Collectively, these *candidate genres* reveal patterns of activity in the genre that

this thesis generalises as the behaviour of consumers or website visitors at an individual task level.

The second element of these appendices is a *Genre Element Inventory* for each genre so that the coding attached to each candidate genre element may be understood. This is a far simpler table and lists the genre element classifications derived from consideration of the activities of the subjects' clips represented in the genre. A brief description is provided for each of the genre elements to explain what activity and "meaning" it represents so that the elements are clearly differentiated. A template of this part of each of these appendices is provided in Table 5.3 below.

**Table 5.3: Genre element inventory table template**

Genre element inventory

Genre element	Typical activity	Coding

Finally, each of these appendices concludes with a table of *Indexical Lexical markers* identified for each of the genres in the form of keywords that add further insight to the content of each genre. As explained in Chapter 3, these Indexical Lexical Items offer a useful indicator of communication field or the intent or purpose of subjects based on their verbalisation and patterns of activity. The term Indexical Lexical Items is maintained despite intent or purpose being signified by both words and actions in this study since subjects' actions are interpreted communicatively. The reference provided for each term relates to the clip numbers for each subject used in the first component of these appendices. These Indexical Lexical markers were derived in most cases from

subjects' actions confirmed by their transcribed verbalisations providing for correspondence between actions and words. In cases where subjects were silent when performing actions the *empty corpus* problem is dealt with by inferring their intent or purpose and the effects of their actions from the sequence of their actions. In effect this is applying Husserl's (1931/1962) Communicative Validity as explained in §3.4 by inferring meaning based on what has preceded and what follows a subject's actions. A template for the tables that constitute this part of each of these appendices is provided in Table 5.4 below.

**Table 5.4: Indexical Lexical marker table template**

Indexical Lexical markers for keywords associated with clips of XXXXXXXX Genre

Transana keyword	Indicators of activity for each keyword by subjects (columns) and clips						
	1	1a	2	2a	3a	8	8a

### 5.5.3 Genre summaries (Appendix 4)

The most general of all the data representations is in effect a summary report of the clips within each genre together with basic demographic data of the relevant subjects. This details the numeric code assigned to each subject, their age and gender, the Transana clip name and the names for the sections of the clip. These clip portions relate to the clips listed in the appendices 5-8 and also list the duration of each for an overview of each subject's activity within a genre.

**Table 5.5: Genre summary table template**  
**Genre Summaries**

XXXXXXXXXX genre summary

	Subject information			Clip	Observation/clip portion	Duration
Seq	Code	Age	Gender			
A						
B						
C						

## 5.6 Conclusion

This chapter outlines the data collection process for this study as well as the data management and editing following the methodology described in Chapter 4. It firstly describes the process of data collection, management and editing following the methodological framework developed in Chapter 4. It then reviews the data generated with some reflections on the nature of the data captured and processes used in the management and editing of the data. This explains the need to move from the analysis template theorised in Chapter 4 to the alternative used in the analysis as well as some practical aspects of the novel data collection. Finally it addresses the challenge of representing subjects' interactions with websites supported by thinking-out-loud verbalisation as data for analysis using Systemic Functional Analysis as described in Chapter 3. The key to this is developing the two transcript types for each of the Transana episodes as candidate genres where the elements of may be classified as a precursor to developing the sequencing of the elements as the specified genres presented in the following chapter.

## **CHAPTER 6: DATA ANALYSIS**

### **6.1 Introduction**

This chapter presents the analysis of the data in Appendices 4 – 9, as genres of activity which model consumer process and information needs associated with complex hedonic services. The efficacy of Systemic Functional Analysis is evident in identifying sets of similar activity sequences into genres that describe complex hedonic services. Three of the four complex hedonic service genres suggest aspects of the theoretical “stages” of consumer behaviour outlined in § 1.3 but show important differences between online behaviour and the classical model. The other genre highlights the value of this analysis in identifying genre activity that does not conform to established theory but provides an alternative actionable process model. Importantly the analysis shows the process complexity where consumers may suspend activity in one genre to switch to a different genre as issues come to their attention. Such changes in activity can however be responded to systemically in real time so that relevant information content and links are served on a continuous basis.

Each of the following four sections (§ 6.2 - § 6.5) is broken into 3 sub-sections which broadly follow the analysis procedure outlined in the previous chapter. First, the genre elements are specified in terms of their role in consumer process and the content required by consumers for each genre element. Second, the sequencing of elements with particular reference to repetition loops, optional and mandatory elements in each of the genres is specified as the basis for programmed dynamic content serving. A key behavioural insight here is that the online consumer purchase process is more diverse than the rational linear process specified in classical theory. Specifically consumers do

not accumulate a full consideration set prior to evaluation, but evaluate options of interest as and when they are identified. In other words, the information search and option evaluation stages of the classic marketing model of the consumer purchase process are integrated rather than discrete. Third, multi-task genre elements (which are found in all but one of the genres) are discussed in regard to the different tasks or activities associated with each of them. These multi-task genre elements represent instances where multiple tasks are associated with a genre element in contrast to the management studies of simpler processes where genre elements represent discrete tasks (Clarke and Nilsson, 2007 and 2008). In contrast, the complex hedonic services studied in this research have instances where related activities occur in no particular order and therefore cannot be represented in a sequence. For the genres where these multi-task genre elements occur, the more complex modelling required for content programming is described in a dedicated sub-section.

To provide an overview of the relationships of the genres to one another, the penultimate section (§ 6.6) presents the Genre Assemblage state diagram. As previously described, the functions of the Genre Assemblage are to (a) identify the specific genres that website visitors are involved with when undertaking routinised actions and activities, (b) to provide a *static representation* of those genres in a high level pictorial form that also identifies those social subjects engaged in enacting them (only constituent genres are named and no genre staging is provided), and (c) to act as a point-of-departure when considering the order and frequency of enactment of these genres for a particular customers and transactions – effectively a *dynamic representation* of the represented genres. The final section briefly summarises key findings of the chapter as

an introduction to the final chapter, the conclusions of this research and further research applications.

## **6.2 Accommodation Genre**

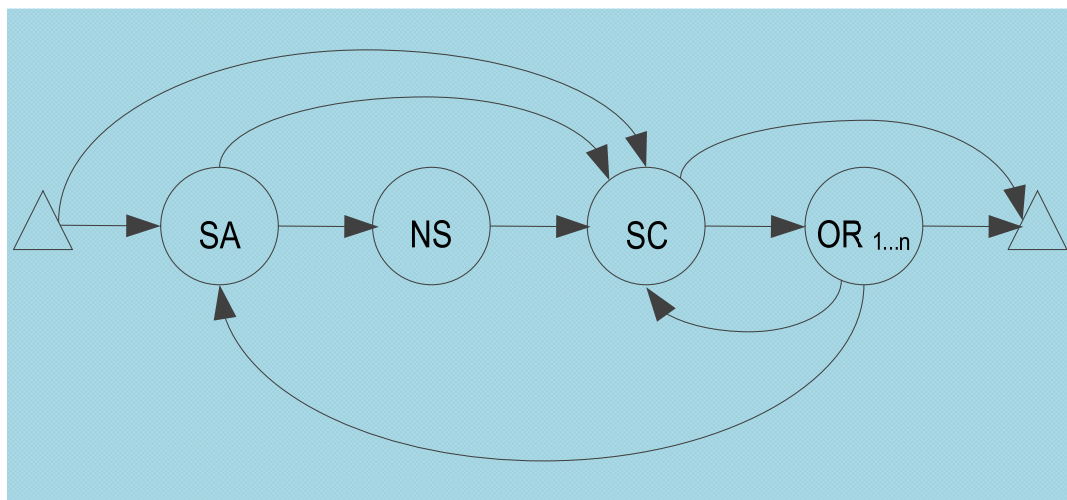
The Accommodation Genre represents activities relating to subjects researching accommodation options at their destination. It relates to utilitarian accommodation, where the accommodation itself does not provide the motivation for travel but rather a place to stay while the sought travel experiences are enjoyed. In contrast, accommodation such as an eco-resort where the venue and services provide the experience that motivates the travel are detailed in § 6.4 which deals with the Travel Experiences Genre. The activity expected in this genre is therefore expected to reflect utilitarian and lower involvement approaches by subjects than those for the Utility Transport and Attractions and Activities Genres.

The clip references provided in these sub-sections are drawn from the Genre Activity tables that represent the subjects' activity and are detailed in Appendix 5 (p.67) of this thesis. Additionally it should be noted that the term “subjects” is used in reference to isolated subject activity whereas generalised activity is characterised as that of “consumers” or “website visitors.”

### ***6.2.1 Genre elements***

The first step in the analysis process is developing a typology of different activities that may be represented in a process diagram which takes the form of a directed graph or digraph. The resulting directed graph for this genre drawn from the Genre Activity

description tables (5.1-5.37) is provided in Fig 6.1. The generalised sequences are derived from the sequencing of genre elements in the Genre Activity tables as explained in § 5.5.2. These genre elements are listed in the genre element inventory table in Appendix 5 (p. 67) with brief descriptions of each to clarify the differentiation between them. This sub-section details the role of each of the genre elements as *core* and *contingent* elements followed by the information *content* and *format* required for each element.



**Figure 6.1:** Accommodation Genre Directed Graph (Key: Search Activity, Need Specification, Screening, Option Review)

The core genre elements in this genre are those of *Search Activity* (SA), *Screening* (SC), and *Option Review* (OR) while *Need Specification* (NS) is a website process requirement. The *Screening* (SC) element is the only core element found in every genre activity description table in Appendix 5 while the other two core elements are situation dependent. *Search Activity* (SA) is the initial step in the information search stage of the consumer purchase process defined by Narayana and Markin (1975) and outlined in § 1.3. The second step in the information search stage is represented by the *Screening* (SC) Genre element where subjects review options and select those of interest for



further evaluation. Transition from the Information search stage to Evaluation and preference development occurs when subjects move to the *Option Review* (OR) Genre element. The *Option Review* (OR) Genre element is multi-task and is discussed in the following subsection § 6.3.3.

The contingent genre element, *Need Specification* (NS), is dependent on interfaces which require specified actions by the consumer for progression. It occurs when an intermediary requires a subject to specify their destination, dates and number of passengers before options are served. While most intermediaries employ this step to serve specific availability and pricing options, some do not have this requirement. This is evident in Genre Activity Table 5.4 where the intermediary selected does not require these details in contrast to the intermediaries in Genre Activity Tables 5.1 – 5.3 and 5.5 – 5.6. The positioning of the *Need Specification* (NS) genre element between the *Search Activity* (SA) and *Screening* (SC) genre elements makes it part of the defined information search stage in the classical model.

Satisfactory outcomes to subjects' process (recording details for further action or ready to move to purchase) are represented in the Genre Activity Tables in Appendix 5 (p. 67) with an asterisk and not included in the Digraph since they are artefacts of the laboratory environment.

Two interactions in the Genre Activity tables have not been included in the genre sequence as they represent isolated incidences of activity. The first of these has the subject in Genre Activity Table 5.13 using an aggregator website requiring a choice of intermediary options based on their prices for the property selected. Such a step is

crucial for the aggregator (Kayak.com), but it represents an exception to the activities of this study and is therefore not included. In the other instance, the subject's attention in Genre Activity Table 2.20, the subject's attention and subsequent activity is caught by the idea of a haunted Inn. This is clearly incidental to the subject's accommodation needs, does not represent generalised activity and is therefore not classed as optional elements and omitted.

In addition to specifying the elements it is also necessary to consider the content and format of information for each element so that content relevant to the individual's process needs may be served. The content requirements for the first three elements of the Fig. 5.1 are highly specific with Google being the predominant option for *Search Activity* (SA). In contrast, *Need specification* (NS) requires a form with defined fields for entry, typically from drop down options, defined by the website while *Screening* (SC) requires a list of relevant options with key attributes. The key attributes heeded by subjects include the grading, price and location of a property. These are represented by text augmented by photo illustrations to help a website visitor select appropriate options for evaluation. Another key consideration is the type of accommodation property (e.g. hotel, motel, resort, bed and breakfast, etc.), typically determined in the initial search terms. Where the accommodation property type is not specified in the consumer's search it is a key variable and the range of categories should be provided to website visitors for their screening process.

As noted earlier, the *Option Review* (OR) genre element features multiple tasks with different content and format requirements that require appropriate service. This issue is addressed in the sub-section following the next which deals with activity sequences.

### **6.2.2 Activity sequencing**

This sub-section reviews the sequencing from each of the defined genre Elements in turn. Starting with the options taken by subjects from the *Search Activity* (SA) genre element and followed by the most common genre elements engaged with in the process sequence.

#### **Genre element sequencing from *Search Activity***

The initiation point for most of the sequences in the Genre Activity Tables in Appendix 5 (p. 67) is the *Search Activity* (SA) genre element with a limited number (5.7-5.8 and 5.25-5.33) starting in the *Screening* (SC) genre element. *Search Activity* (SA) is redundant in the case of subjects working within an intermediary and initiating a new *Screening* (SC) activity within the intermediary. This pattern is particularly evident in the engagement of subject 8 with a highly valued intermediary represented in Tables 5.24 - 5.33 in Appendix 5. The *Screening* (SC) genre element is therefore not represented as a commencement point in the digraph because all instances result from a repetition loop from the subsequent *Option Review* (OR) genre element. However, as these subjects are initiating a new search within the same intermediary, they are represented in Appendix 5 as new genre sequences. For the majority who start in *Search Activity* (SA) there are only two options, completing the fields for the *Need specification* (NS) genre element or, in the few instances where intermediaries offered a generalised rather than specific offering, Subjects move to the *Screening* (SC) genre element.

### **Genre element sequencing from *Need Specification***

The *Need Specification* (NS) genre element is an intermediate step of website process required by the website owner and there is only one genre element to which consumers transition from here. Clicking “search” following completion of the data fields that specify service needs delivers a list of options in the *Screening* (SC) genre element for the consumer’s consideration.

### **Genre element sequencing from *Screening* (SC)**

Two options are available for consumers following review of the options in the *Screening* (SC) genre element. Where one or more option(s) of interest is/are identified they move from *Screening* (SC) to the *Option Review* (OR) multi-task genre element discussed in the following sub-section. Bypassing of the *Option Review* (OR) genre element occurs where the options presented for screening are unsuitable leading to process termination or initiation of a new search.

### **Genre element sequencing from *Option Review***

Where the *Option Review* (OR) genre element delivers a satisfactory outcome the subjects may record details for future action or move directly to the purchase sequence defined by the vendor. Alternatively where the option reviewed is unsatisfactory, or the subject wishes to review other options, there are repetition loops back to earlier genre elements. In the first instance a new *Search Activity* (SA) may be initiated or the subject may click back to the list of options in *Screening* (SC) to select other options for review.

As the following sections of this chapter show, this is the second least complex of the genres with typically only two path options from each of the core genre elements with

the only repetition loop originating from the *Option Review* (OR) element. Similarly, genre elements are bypassed by a website's defined process or where website visitors are dissatisfied with the offering provided in *Screening* (SC) or *Option Review* (OR) and elect to terminate their process.

In summary the table below offers as list of the link or content options that are likely to be required from each of the elements following genre initiation through *Search Activity* (SA) or *Screening* (SC). The final step to termination may be from any of *Screening* (SC) or *Option Review* (OR). There are however "internal" sequences in the *Option Review* (OR) genre element which, as a multi-task element, requires a range of different content as described in the following sub-section.

**Table 6.1: Link options required from each of the Accommodation genre elements**

	Search activity	Need specification	Screening	Option review
Search activity		X	X	
Need specification			X	
Screening				X
Option review	X		X	X

The website owner may therefore reliably conclude that in the event of a visitor to their website not progressing as per the digraph in Fig. 6.1, alternative offerings are required. In this event the dynamic information serving programme needs to review what aspects of the content have been viewed and therefore which areas require changes. It may be for example that an alternative accommodation type is required or a different price range or location is required by the visitor. They are then able to serve prompts offering the alternative options to the visitor. Alternatively the website visitor may be switching

to another genre, identified by the navigation search term or link to content selected, and the appropriate information required for the new genre is brought into use by the system derived from the modelling.

### ***6.2.3 Multi-task genre elements***

This sub-section addresses the complexity of the multiple tasks identified in the *Option Review* (OR) genre element. At this point the classic marketing consumer purchase process model moves from information search as defined in § 1.3 to the option evaluation and preference development stage. The data does not offer a consistent pattern of activity between subjects within this multi-task *Option Review* (OR) genre element. While subjects clearly consider the price, location, grading and/or other attributes of their desired accommodation this is not done in any specified sequence. This is likely because of differing attribute salience between subjects and the variance in stimuli that they respond to on the range of different websites used. Because of the range of distinct activities in subjects' Option Review, that occur in no apparent pattern, these are characterised as OR<sub>1</sub>, OR<sub>2</sub>, OR<sub>3</sub> etc.

Despite the lack of an apparent pattern of activity across research subjects in the laboratory, these tasks can still be analysed at an individual activity or task level as noted in § 5.4. In the absence of a defined content sequence, serving links that meet a known range of information needs of website visitors engaged in a task reduces the potential for information overload. The means of doing this is the final table in Appendix 5 (p. 67) which lists Indexical Lexical markers by subject with specified genre Activity table numbers based on Keywords attached in the Transana software. With the exceptions of the keywords “screening,” “intermediary selection” and

“specifications,” which relate to the preceding genre elements, all other keywords in this genre relate to the multi-task environment of the *Option Review* (OR) genre element.

Within the *Option Review* (OR) genre element, there are two distinct classes of information sought by subjects in this study. The first of these is of a functional or utilitarian nature and the other reflects needs for hedonic experiential information relating to the desired accommodation. Each of these are now discussed in turn.

### **Functional utilitarian information content and format**

The keywords relating functional or utilitarian aspects of accommodation in the *Option Review* (OR) genre element include “grading,” “price,” “date availability,” “specifications,” “location” and “property facilities.” These reflect content that is likely to be required shown by the generalised engagement of subjects across the Indexical Lexical items table. These accommodation property attributes confirm the expected utility focus of the service represented in the genre. Given the utility focus, the information content and format required for such attributes is factual and text based with the exception of “location” and “property facilities.” Aspects such as the star grading of a property, the price and specifications such as the number of rooms are well represented by text. A greater challenge arises with “property facilities” such as restaurants, bars and other recreation options such as swimming pools and tennis courts that are better represented pictorially. Photo representation is also helpful in relation to attractive beach-side locations but requires support from a map or schematic with supporting text showing the location relative to the town centre, airport and major tourist attractions. Attractive photography is also very effective in conveying the general character of a property to help website visitors in their evaluation.

### **Hedonic experience information content and format**

In contrast, the other attributes are of interest to a limited number of research subjects such as the “aesthetics” keyword which is limited to subjects 8 and 8a. Similarly, “room details” are largely confined to subjects 1 (5 instances), 1a (3 instances) and 8 (8 instances). These instances point to the need for content that offers cues to the hedonic experience of lodging at a property. “Room details” requires information such as configurations of beds and furnishing as well as facilities such as in-room refreshments and ablutions facilities. Such attributes are best portrayed photographically or by video with complementary descriptive text.

But while a website visitor may reveal their interest in the specifics of different types of room offered in a hotel, for example by clicking on links to different room types, this is not the case with “aesthetics.” Identification of interests such as “aesthetics” could not be discovered other than by research such as this study. While this is a likely a background factor for most website visitors, related to the general character of an accommodation property, it is apparently of particular interest to some as shown by subject 8. The importance of aesthetics to this person is shown in comments on practically all websites and even appreciation for streaming music (Genre Activity Table 5.33) on one of the websites visited. An indication of the subject’s aesthetic inclination is found in their motivation for travel is to study the architecture of Frank Lloyd Wright in the Adirondacks region of Pennsylvania. Further clues to the subject’s orientation are found in other culture related searches in the Attractions and Activities genre.



Offering a range of prominent links for likely information needs facilitates access for a website visitor in the absence of a process sequence. The key point here is to avoid the frustration caused for a number of the subjects who express considerable irritation at the lack of a price for a property where specific dates were required for a quote (e.g. Genre Activity Tables 5.24-5.26 and 5.29-5.33). Other insights may be derived from an absence of activity such as subjects 2 and 2a's relative lack of attention to date availability" and "specifications." Such an absence of activity may be an effective indicator of these subjects engaging more in browsing activity than purpose directed search.

In summary, this section shows the ability to specify different activity types in the consumer process of researching accommodation options at a destination. These activities can be defined in terms of the information content and format required for each, which together with the sequencing of activities, provides a basis for contextually relevant information serving in real-time. Since the sequence does not appear to conform to the classical marketing consumer purchase process model (compiling a consideration set and then evaluating options comparatively) it is crucial to note the use of repetition loops where evaluative activity for a fresh option commences.

### **6.3 Attractions and Activities Genre**

The Activities and Attractions genre represents activities relating to subjects researching options for what they are going to do and experience at their destination. This genre may therefore be expected to result in higher involvement for the consumer as it reflects the motivation for them to undertake the travel. The evidence however suggests that the activity patterns in this genre are different to the classic marketing consumer purchase

process model as outlined in § 1.3. Based on the analysis discussed in this section there are three likely factors for this alternative model of consumer behaviour.

It appears that in this genre, consumers are filling in the gaps between the key components of accommodation, transport and inclusive services. The resulting genre is a blend of option exploration and investigation with little or no sense of a need for securing a “result” in key components such as accommodation and/or flights. It is therefore more like the “hedonic browsing” behaviour identified by Moe (2003) and discussed in § 2.2.4 but with clear differences in the demonstrated potential to detail patterns of activity with related information needs.

Second, in most cases the subjects explore options from an almost zero knowledge base to define the possibilities available to them and then to further investigate those of interest. In only three of the Genre Activity Table sequences (6.11 – 6.12, 6.14 – 6.17 and 6.35 – 6.36) does the subject click on a SERP option that they were aware of beforehand. The foreknowledge of, and the subjects interest in, these attractions is further underscored by the use of multiple investigations of each interrupted by other activity. In contrast we see more typical activity of subjects in exploring day tour options, museums, entertainment, recreation and dining options that they have no prior knowledge of for a region or town of interest.

Third, in addition to the attractions and activities sought, this genre also includes searches for background information such as means of access to points of interest as well as destination cultural and lifestyle information. In a sense this is making sure that

the attractions and activities are “doable” practically and may be likened to cement that holds the bricks or major components together.

The purpose of subjects’ activity differs depending on the relative depth or breadth of their information search. Where subjects engage in a relatively superficial review of options that may not require pre-booking but are available following arrival, this is referred to as “exploratory.” Alternatively where subjects are aware of, or become aware of, specific attractions or activities at their destination and seek more detail, this is referred to as “investigative.” This follows the principle of defining task context by identified Grant et al. (2010 p 54) explained in § 3.1 and illustrated by Fig 3.1 of this thesis. The activity does not however reflect the classic consumer purchase process but rather an alternative browsing model of consumer behaviour that can be effectively modelled. Modelling the exploratory and investigative activities as distinct genres was considered in the analysis but is not an option since the activities are closely integrated in the genre sequences.

Further, within each of these activity types, this genre deals with a wide range of information source types used by subjects, each of which has a range of content that is duplicated in other sources. The apparent lack of social context discussed in § 5.4 is evident particularly in this genre given the apparent disregard shown by subjects in selecting information sources. The best example of this is a sequence of activity by subject 2a represented in Genre Activity Tables 6.21 – 6.27 in Appendix 6 (p. 81) where Tourist Authority and Peer review websites are used interchangeably with no apparent difference.

As part of this complexity, there are a number of multi-task genre elements in this genre. The multi-task genre element (like *Option Review* in the Accommodation genre) is found early in the genre sequence followed by further multi-task genre elements. The proliferation of multi-task genre elements results firstly from the range of tasks undertaken relating to specific topics within each of these genre elements. Further subjects' engage with a variety of topics ranging from day tours to specific attractions of interest, dining options and general or background information. In dealing with this, subjects use diverse information sources including tourist authorities, peer review websites, independent content providers and service provider websites. This contrasts with the almost exclusive use of a limited number of commercial intermediary and service provider websites and one single multi-task element in the Accommodation genre discussed in the previous section of this chapter.

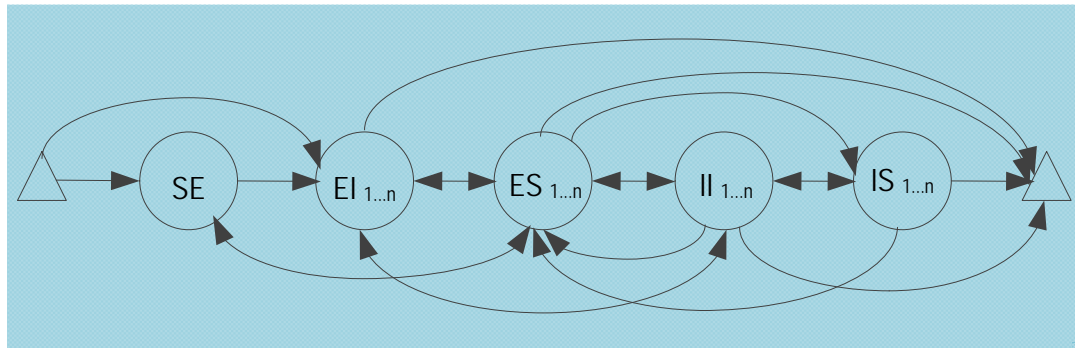
The clip references provided in these sub-sections are drawn from the genre activity tables that represent the subjects' activity and are detailed in Appendix 6 for this thesis. Further, as with the previous section, the term "subjects" is used in reference to isolated subject activity whereas activity that has been generalised is characterised as that of "consumers" or "website visitors."

### ***6.3.1 Genre elements***

As with the Accommodation genre, the first step in the analysis process is development of a typology of genre elements that comprise the directed graph or digraph representing the consumer process. This genre is atypical in that rather than having a set goal such as securing accommodation at, or transport to, a destination it is more of a knowledge building process. The genre elements resulting therefore represent different levels of

information specificity from two different types of information source. It is however important to note that the differentiation of sources is not the basis for the genres but rather their function or the role they play in the observed sequences of activity.

The resulting directed graph for this genre is presented in Fig 6.2 based on the genre activity description tables (6.1-6.42) in Appendix 6. This sub-section describes the role and content requirements for each genre element and is followed by sub-sections dealing with the sequencing of the genre elements and then the multi-task genre elements.



**Figure 6.2:** Attractions and Activities Directed Graph. (Key: Search Activity, Explore Infomediary or Intermediary, Explore Service supplier, Investigate Infomediary or Intermediary, and Investigate Service supplier

Given the exploratory nature of consumer behaviour, it is not surprising that the vast majority of genres Activity tables commence with the *Search Activity* (SE) genre element. This is a direct parallel with the *Search Activity* (SA) element in the Accommodation genre with almost exclusive use of Google as a search engine. Unlike in the Accommodation genre, there are no core, contingent or special case genre

elements in the Attractions and Activities genre. There is rather a far broader distribution of activity across genre elements within a general trend of discovery of options and, in some cases, investigation of those options. The following paragraphs outline the functions of other genre elements in consumer process in this genre with pointers to the content and format of information sought.

The typology of Attractions and Activities genre elements are as noted earlier based on two different activities in two different website types. This typology forms a hierarchy that the browsing patterns appear to follow. The activities are differentiated as either *exploratory* or *investigative* while the websites are differentiated as *infomediaries* or *service provider*. The first of these is the *Explore Infomediary or Intermediary* (EI) genre element that attracts a similar weight of traffic to the *Search Activity* (SE) element in this genre as the first step for subjects seeking options. Given their typical lack of prior knowledge, this is a conduit to more specialised information through infomediaries such as tourist authorities, peer review, specialist travel and even the Wikipedia website by clicking on the links provided. In effect this is the manifestation of the website functionality that Ylikoski (2005) termed Heuristic search as explained in § 2.2.3 and reviewed Appendix 1 (p. 38).

For example, in Genre Activity Table 6.1, the subject seeking information on sightseeing in Noumea selects the About.com South Pacific travel link from the SERP. That link then offers About.com's list of activities in Noumea for the subject's consideration, effecting transition from the *Search Activity* (SE) to the multi-task *Explore Intermediary* (EI) genre element. A further click on the link to "trekking and guided visits" delivers a list of trekking options for consideration as a second step

within the *Explore Intermediary* (EI) genre element. The subsequent click on one of the presented options then redirects the subject to the service provider's website effecting transition to the *Explore Service Provider* (ES) genre element. The alternative path from the *Explore Infomediary or Intermediary* (EI) genre element is to the *Investigate Infomediary or Intermediary* (II) genre element. In this case the subject seeks information on a specific topic within the Infomediary or Intermediary as the subject in Genre Activity Tables 6.3 and 6.4 clicks to specific topics on Noumea in the Lonely Planet website.

In summary, the Attractions and Activities genre elements that are exploratory typically deal with lists of options while those that are investigative deal with specific topics. Infomediaries and intermediaries may take the form of content providers (e.g. About.com or Lonely Planet), peer review (e.g. Tripadvisor or Virtual Tourist – 6.18-6.19, 6.22-24) or Tourist Authority (at National, regional or city/town level – e.g. 6.10-6.11, 6.20-21, 6.25-6.34 and 6.41-6.42) websites. Service suppliers on the other hand include day-tour operators, attractions, activities, entertainment and dining options that consumers visit or utilise at the destination. With the exception of the *Search Activity* (SE) genre element, all of the other elements in the Attractions and Activities genre are multi task and the information content and format required for this will be discussed in the subsection following the next, which deals with the sequencing of these genre elements.

### **6.3.2 Activity sequencing**

This sub-section reviews the sequencing from each of the defined genre Elements in turn. Starting with the options taken by subjects from the *Search Activity* (SE) genre element and followed by the most common sequence of genre elements engaged with.

#### **Genre element sequencing from *Search Activity* (SE)**

As noted in the previous sub-section, the vast majority of Attractions and Activities genre commencement happens in the *Search Activity* (SE) genre Element. The few instances of commencement in the *Explore Infomediary or Intermediary* (EI) genre element all follow prior activity within the infomediary but with a new genre based on different activity. For example in Genre Activity Table 6.10, the subject's previous activity is related to accommodation but the availability of a link enables a switch to information regarding an attraction of interest.

Given the potential to link direct to highly specific information in a website, the low incidence of clicks from the *Search Activity* (SE) genre element to *Investigate Service Supplier* (IS) is surprising. This however reflects the low prior knowledge of subjects in this genre element that is a major factor in the different activity observed.

#### **Genre element sequencing from *Explore Infomediary or Intermediary* (EI)**

Following the *Explore Infomediary or Intermediary* genre element, there is an almost equal split of subjects moving to either the *Investigate Infomediary or Intermediary* (II) or *Explore Service Supplier* (ES) genre elements. The split is determined by the nature of the information sought by the subject in genre Activity Table 6.1 searching for information on “tours” clicking to a *service supplier*. In contrast the subject in Genre



Activity Table 6.9, searching for information on “places in New Caledonia” clicks deeper into a more specific topic within the *infomediary*. The replication of this pattern in other Genre Activity Tables suggests that selection of these two options is relatively predictable based on the consumer’s initial search.

The only other two transitions from the *Explore infomediary or Intermediary* (EI) genre element are the termination of the sequence and the repetition loop back to *Search Activity* (SE). Where the subject moves on to new activity (e.g. Genre Activity Table 6.4), this results in the initiation of a new genre indicated by the information selected. Alternatively where the information accessed in the *Explore Infomediary or Intermediary* (EI) genre element accessed from the search process is unsuitable, the subject clicks back to the *Search Activity* (SE) genre element to try again as in Genre Element Table 6.15.

#### **Genre element sequencing from *Explore Service Supplier* (ES)**

The two most significant genre element transitions from *Explore Service Supplier* (ES) are split between movement to *Investigate Service Supplier* (IS) and termination of the genre. Where a consumer finds a service supplier of interest, the step to deeper investigation of that supplier is logical and may result in multiple forward and back movements between exploratory and investigative activity. For example, the subject in Genre Activity Table 6.27 identifies a number of aspects of a National Park of interest in exploratory activity and clicks to investigate each of those aspects in turn. Alternatively, where the options reviewed in the Service Supplier’s website either satisfy the subject’s information needs the process may be terminated as the subject moves on to another genre sequence. Frustration of their information needs however

results in a restart of the process with a repetition loop to the *Search Activity* (SE) genre element. The only other genre element transition from *Explore Service Supplier* (ES) is a repetition loop to *Explore Infomediary or Intermediary* (EI) in cases where subjects explore different supplier options from the intermediary. This results in a back and forward movement between the two exploratory genre elements as the subject reviews (but does not investigate) one or more suppliers from the infomediary or intermediary website.

### **Genre element sequencing from *Investigate Infomediary or Intermediary* (II)**

The most frequent sequence option from the *Investigate Infomediary or Intermediary* (II) genre element is to terminate the genre sequence, following the completion of multiple tasks in some cases. In a sense this defines the investigative activity as the end point of consumer activity in this genre. The only other two sequences are transition to the *Investigate Service Supplier* (IS) and a repetition loop to *Explore Infomediary or Intermediary* (EI) genre element.

The repetition loop back to the *Explore Infomediary or Intermediary* (EI) genre element follows a back and forth pattern as subjects click to investigate specific topics pointed to and then back to their exploratory activity. This is illustrated in Genre Activity Table 6.22 where the subject's exploratory activity is in the list of categories in Tripadvisor for Wales. In the course of exploring these categories, the subject selects links to forums such as a chocolate making and the Llandudno cable car which are classed as investigative because of their specificity. Following the review of the specific topic however the subject clicks back to a category listing from where another specific topic may be selected.

The other link to the *Investigate Service Supplier* (IS) genre element is limited to one subject's interaction with the Appalachians Travel Authority website (Genre Activity Tables 6.33 and 6.34). From investigating dining options in a specific area, the website provides links to the service provider where the subject progresses to investigation of menu specifics.

### **Genre element sequencing from *Investigate Service Supplier* (IS)**

As with the other investigative genre element in this sequence, *Investigate Service Supplier* (IS) is the other natural termination point for this genre sequence with a majority of transitions moving to an alternative genre from this element. The only other transitions from here are repetition loops to the *Explore Service supplier* (ES) and the *Investigate Infomediary or Intermediary* (II) genre elements. These repetition loops have already been discussed as part of the back and forward shifts between those genre elements and this one.

A summary of the link requirements for the genre elements of this genre sequence is provided in Table 6.2 below. An important insight in regard to the repetition loops in this genre is that they do not necessarily result from frustration with inappropriate content being served. Rather they may well result from the back and forward pattern of navigation as subjects move between exploration and investigation of topics in regard to an area of interest or a service provider's offering.

**Table 6.2: Link options required from each of the Attractions and Activities genre elements**

	Search Activity	Explore Infomediary/ Intermediary	Explore service supplier	Investigate Infomediary/ Intermediary	Investigate service supplier
Search Activity		X	X		
Explore Infomediary/ Intermediary	X		X	X	
Explore service supplier	X	X			X
Investigate Infomediary/ Intermediary		X	X		X
Investigate service supplier			X	X	

### ***6.3.3 Multi-task genre elements information content and format***

This sub-section discusses the differences in subjects' activity for the multi-task genre elements in terms of the information content and format needs associated with each. Before doing so however it is necessary to note that subjects used a variety of different website types in their activity including Tourist Authorities, Peer Review websites, other content providers and service providers. Because of the differences in objectives and business models between these types of website, the nature of information offerings is very different. Tourist Authorities for example are funded by local tourism industry members to promote their interests whereas most content providers rely on advertising on a pay-per-view or pay-per-click basis. Peer review websites such as Tripadvisor on the other hand present peer reviews as content as well as offering links to service providers on a pay-per-click or even commission basis. Because of these differences, the information content and format in this section is generalised to demonstrate the different tasks within these multi-task genre elements. Studies of activity on a specific website using Systemic Functional Analysis will likely offer a far higher level of resolution than is possible here.

### ***Explore Infomediary or Intermediary* multi-task genre element**

The *Explore Infomediary or Intermediary* (EI) genre element involves subjects using a range of information sources including Tourist Authorities, content providers and peer review websites that are typically the first point of contact. As noted earlier, the nature of exploratory activity is largely reviewing lists of options that cover a wide range of information categories from activities to attractions and entertainment and dining options as well as background information on the destination. Most subjects however initiate their exploratory process by searching in the geographic region they are travelling to and depending on the SERP link selected, this may require multiple steps or tasks. For example, where the initial link selected is to the country that will be visited, further clicks may be required to get options for a region or town of interest. Only then does the subject select whether they wish to get information on tours, attractions, activities sightseeing, entertainment or general background on the region. A subject's choice of a category within each of these broad areas represents the transition to investigative activity within an intermediary or exploration within a service supplier given their higher level of focus. These activities or tasks will be dealt with in discussing the investigative multi-task genre elements later in this sub-section.

The challenge for this genre is presenting information options in the way that fits consumer process which, on the evidence of the activity of subjects in this study, begins geographically. In the absence of prior activity by a website visitor records in the database, there appears to be no alternative to providing a full list of categories in the relevant region for the visitor to select from. Alternatively, the content previously accessed by a website visitor is a strong indicator of the individual's interests and

provides a basis for programming content. In practice these may be enhanced by offering other categories based on collaborative filtering where the consumer's profile of interests is clustered with others. New or alternative options may then be offered based on topics that others in the profile group have commonly selected but that have not been sought by the individual. This practice is effectively used by Amazon.com in suggesting options on the basis that "others who bought this book also bought....".

The information format requirements of this genre element are clearly in the form of lists of options that seem to work well in the form of thumbnail illustrations complementing short text descriptions. These option lists seem to function well with multiple instances of subjects clicking through multiple pages of list seeking their desired information (e.g. Genre Activity Tables 6.17, 6.18, 6.22, 6.24, 6.26, 6.30, 6.31). In contrast, it is unusual to see subjects progressing past the first page of links in a SERP in the *Search Activity* (SE) genre element.

An interesting exception to the use of options lists is found in the activity of subject 2 (Genre Activity Tables 6.13 and 6.15-6.17) seeking webcam and photo gallery content for exploring or orienting themselves to an area. Provided such format preferences are logged on the server system database, it is possible to offer highlighted links to such materials to facilitate the individual's process.

### ***Explore Service Supplier* multi-task genre element**

Where the *Explore Infomediary or Intermediary* (EI) genre element offers a link to a service provider of interest, then subjects will transition to the *Explore Service Supplier* (ES) genre element. The service suppliers accessed by subjects are diverse and include

entertainment options (e.g. spectator sports, events, theatre, dining), day tour operators, attraction operators (e.g. museums, castles, National Parks, walking trails) and facilitation services such as National Heritage passes. Again, the individual's information needs in this genre element depends on the nature of their task. In some cases this is similar to the *Explore Infomediary or Intermediary* (EI) genre element (for example a National Park with its many aspects in Genre Activity Table 6.27). The similarity of activity is borne out by subjects navigating through multiple pages of options in search of their interests. The potential for further exploratory activity in the different aspects of a complex service supplier, such as a National Park, is what makes this a multi task genre element.

In other instances (e.g. the eco-education attraction sought by the subject in Genre Activity Tables 6.11 and 6.12) the initial need is for basic information such as ticket prices, opening times and an introduction to the offering. Where further information is required, the higher level of information specificity is classed by the genre element typology as transition to the *Investigate Service Supplier* (IS) genre element. In the case of specific attractions such as these, the *Explore Service Supplier* (ES) is unlikely to be a multi task element.

### ***Investigate Infomediary or Intermediary multi-task genre element***

The other major process step from the *Explore Infomediary or Intermediary* (EI) multi-task genre element is to the *Investigate Infomediary or Intermediary* (II) genre element. Having selected a category of interest within their infomediary or intermediary of choice, subjects then engage with investigation of the activity, attraction, entertainment or background information options available. The multi-task characteristic of this genre

element arises from the need to further refine their search by firstly seeking the type of activity, attraction, entertainment or background information and then investigating within their selection.

Subjects in this area deal with a variety of websites as in the *Explore intermediary or Intermediary* (EI) genre element and it is necessary to generalise the information content and format requirements. The need for lists of options recurs within categories with a wide range of alternatives and beyond that information relating to specific instances is required. The option lists are similar in content and format to the exploratory genre elements in the sequence, but no instance of moving beyond the first page of options is noted in this genre element. The information on specific instances covers many topics some of which are utilitarian, such as modes of travel to access the area (e.g. Genre Activity Summaries 6.21 and 6.32). Others point to the motivation for travel such as information on events in a particular area (e.g. Genre Activity Summary 6.41) or the natural environment such as beaches (e.g. Genre Activity Summary 6.21). Clearly information on events requires details of content, costs and schedules as well as a sense of the experience of attendance while an appreciation of the environment is better served by high quality graphics or even video.

#### ***Investigate Service supplier multi-task genre element***

Most subjects accessing the *Investigate Service Supplier* (IS) multi-task genre element transition from the *Explore Service Supplier* (ES) genre element and are therefore moving to more specific information from a specific service supplier. This is the least utilised of the genre elements in the sequence, reflecting the lack of goal orientation of subjects in this sequence. As noted in the discussion regarding the *Explore Service*



*Supplier* (ES) genre element, this includes a range of different service provider types including day tour operators, entertainment options (e.g. spectator sports, events, theatre, dining), attraction operators (e.g. museums, castles, National Parks, walking trails) and facilitation services such as National Heritage passes.

The multi-task nature of the *Investigate Service Supplier* (IS) genre element is particularly evident in the Genre Activity Tables 6.12, 6.14 and 6.36 (all three instances where the subject had prior intent to research a specific attraction). It also is found in what is the result of less targeted browsing activity in activity tables 6.27 and 6.28 where the subject investigates the aspects of a National Park and the services of a photography tutor at the destination.

Within the specific service provider there is a need for utilitarian information such as tickets and prices, modes of access to the object of interest, schedules and conditions of the service. For example, subjects seeking more detail on Tours require costs, schedules and greater detail of transport mode and inclusions on tours for fit with their interests, schedule and budget (e.g. Genre Activity Table 6.12). Subjects seeking detail on attractions and activities require similar details from service providers such as menus from Restaurants (e.g. Genre Activity Tables 6.33 and 6.34) or times, costs and locations from attractions that they intend to access independently. As with utilitarian information in the Accommodation genre, much of this is best served by text with support from photographic images with maps or schematics to illustrate location, particularly for self-drive access.

Notwithstanding the apparent lack of active engagement with hedonic aspects of the Attractions and Activities of interest, this is not an aspect that can be disregarded. Offering visual cues to the hedonic nature of the experience is likely assist motivation to use the service of interest while at the destination and stimulate consumer anticipation. The use of high quality images and video is more appropriate for this purpose and is strongly evident in selections of a number of the Genre Activity Tables. These relate to the activity of three subjects in particular; Subject 2 in 6.14, Subject 2a in 6.28 and Subject 8 in 6.35. The activity of subjects 2 and 2a in this genre suggests a strong visual information orientation with selections of photo galleries and web-cam material in both of the investigative genre elements. This information orientation is reinforced by a switch from browsing to far more directed activity when the possibility of a photographic course in the course of the holiday was discovered (Genre Activity Table 6.28). Similarly, where the subject 8a in 6.35 investigates a visit to examples of Frank Lloyd Wright's architecture (a major motivation for a trip to the Appalachians) the ability to view a video presentation online is clearly highly valued.

### **Indexical Lexical items for the Attractions and Activities genre**

As with the Accommodation genre in the previous section, the Indexical Lexical markers table at the end of Appendix 6 (p. 100) provide useful insight to the content required in the multi-functional elements of this genre. The remainder of the Indexical Lexical markers provide useful insight into required functional elements (e.g. Price, availability, location, transport mode and shopping) as well as motivation for travel reflected in interests (e.g. Cuisine, culture, education, entertainment, history and natural history). Since the keywords relate to information content sought by subjects, a database record of the content sought by individual website visitors would assist in providing

content or links to content. As with the Accommodation genre the potential exists to use collaborative filtering to usefully extend information served to individuals based on the interest of similar profile website visitors.

One peculiarity of the Indexical Lexical markers in this genre is the clear absence of verbalisation associated with the “Intermediary selection” keyword. There is no apparent explanation for this unusual incidence although it may suggest a reflexive or sub-conscious act on the part of subjects selecting intermediaries.

In summary, this genre describes action and activities that do not conform to any classical model of consumer behaviour in the marketing literature. It does however fulfil a need for consumer information relating to smaller aspects of the travel experience that complement the more costly necessities of flights and accommodation. The ability to model the information content and format needs of consumers as they browse the activities and attractions available at their destination in both breadth and depth makes the ability to provide contextually relevant information possible.

#### **6.4 Travel experiences Genre**

The Travel Experiences genre represents activities relating to subjects researching inclusive options that include multiple elements such as transport, accommodation, sightseeing, entertainment and meals. These activities range from packaged touring arrangements to signature experiences such as luxury rail travel, cruises or resorts which are a major motivation for the travel undertaken. These activities tend to be higher involvement products but with a considerably wider range of attributes to be considered by the consumer since they incorporate accommodation, transport, sightseeing and

meals. In the case of package tours, which effectively consolidate all of the other 3 genre elements in a single point, there are further considerations such as different modes of sightseeing. The expectation therefore is for greater complexity in the genre with more of a focus on value maximisation strategies rather than utilitarian satisficing.

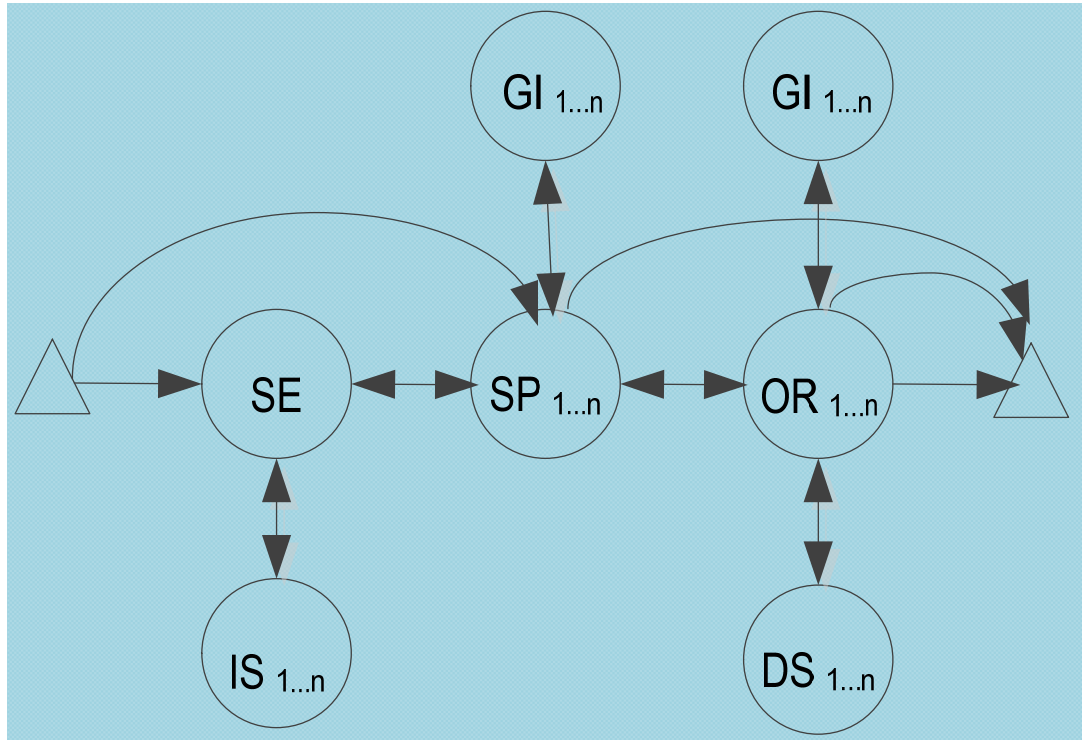
As with the Accommodation genre, the classic marketing consumer purchase process model has direct application to the Travel Experiences genre but again with important differences. This section will also be structured based on the analysis process which commences with subsections dealing with (a) the classification of genre elements with detail of information content and format requirements, (b) the sequencing of genre elements in the consumer process and (c) the complexity arising in multi-task genre elements and associated information content and format requirements.

The clip references provided in these sub-sections relate to the Genre Activity Tables that represent the subjects' activity and are detailed in Appendix 7 (p. 102). Further it should be noted that as in the previous sections, the term "subjects" is used in regard to individual activity whereas generalisable activity is characterised as that of "consumers" or "website visitors."

#### **6.4.1 Genre elements**

The typology of the genre elements in the *Travel Experiences* genre is distinctly different from the previous two genres and reflects the expected higher level of involvement. The Directed Graph of elements for the *Travel Experiences* genre is represented in Fig. 6.3 based on the sequences in the genre activity tables in appendix 7 (p 102). This sub-section details the role of each of the genre elements in the sequence

followed by sub-sections dealing first with the sequencing of the genre elements and then the multi-task genre elements.



**Figure 6.3: Travel Experiences genre Directed Graph** (Key: Search Activity, Initial Support, Service Provider search, General or background Information, Offering Review, and Decision Support)

The process complexity resulting from the higher involvement that subjects have with this genre is evident in two aspects of the genre. First is the existence of non-core genre elements alongside the three core genre elements in what are effectively support roles. Second is that all genre elements are multi-task with the exception of the Initial Search genre element, reflecting the range of considerations for subjects engaged in the process. The key focus of activity in this genre is the activity in the service provider websites, initially screening the range of offers provided as discussed above but then

moving on to review specific offerings in greater depth. There is little use for intermediaries in this genre as the service providers or the experiences they offer are highly distinctive and easily found through using a search engine. In one isolated case (Genre Activity Table 7.23) the subject does not apparently realise that he is interacting with an intermediary rather than the service provider.

### ***Search Activity genre element***

The *Search Activity* (SE) genre element is similar to the other genres discussed to this point and characterised by Google search and selection of an option from the SERP. This genre element signifies initiation of the information search stage in the classic marketing purchase process model and is the only one in this genre that is not multi-task. A peculiarity is the existence of a parallel *Initial Support* (IS) genre element which is introduced in the following paragraph.

### ***Initial Support genre element***

These are found in Genre Activity Tables 7.8, 7.11 and 7.19 and act to support the subjects' needs in the selections they make. As a multi-task element, the *Initial Support* (IS) genre element is discussed in the final sub-section § 6.4.3. The circumstances and reasons for the co-existence of this and a number of other elements in this genre alongside rather than in sequence with another genre element are discussed in the following sub-section § 6.4.2 dealing with genre element sequencing.

### ***Service provider Search genre element***

The *Service Provider Search* (SP) genre element represents the screening component of information search in the classic marketing consumer purchase process model and is the

only mandatory element in the Travel experiences genre. To serve the website visitors' requirements to screen options a listing of options with salient attributes will facilitate selection of those to investigate in greater depth. The multi-task characteristic of this genre element is unusual in its occurrence in the typically more simple information search stage of the consumer process. This results from subjects accessing multiple attributes as part of their screening activity in the information search stage and is discussed in the final sub-section § 6.4.3. The *Service Provider Search* (SP) genre has a further peculiarity with the existence of a *General or Background information* (GI) multi-task genre element that exists alongside rather than in sequence with it.

#### ***General or Background Information genre element***

The *General or Background Information* (GI) genre element serves subjects' need for information on seasonal climate conditions, local culture and customs, start and finish points of trips trip highlights and entry formalities. This genre element, like the *Initial Support* (IS) genre element, exists alongside rather than in sequence with two core genre elements. In addition to the *Service Provider Search* (SP) genre element the *General or Background Information* (GI) also exists alongside the *Offering Review* (OR) genre element that is introduced in the following paragraph. In both cases it complements the information in the genre element that it accompanies in a similar way to the *General or Background Information* (GI) in the Attractions and Activities genre discussed in the previous section. With the wide range of attributes taken into consideration for this highest of involvement genres, this is of necessity a multi-task genre element and is discussed in detail in sub-section § 6.4.3.

### ***Offering Review* genre element**

The *Offering Review* (OR) genre element represents the evaluation and preference development stage of the classic marketing consumer purchase process model. Given the complexity of the attributes and the importance of the components represented in the consumer's experience, this is a multi-task genre element. The sequence of "internal" interaction within this genre element are the longest of all the multi-task genres and is discussed in sub-section § 6.4.3. A further process support element, the *Decision Support* (DS) genre element, exists alongside the *Offering Review* (OR) genre element and is introduced in the following paragraph.

### ***Decision Support* genre element**

The *Decision Support* (DS) genre element shows one instance of a subject's need for confirmation from an alternative information source (Genre Activity Table 7.10). A further two instances (Genre Activity Tables 7.21 and 7.27) reflect a need for help with clarifying aspects of the information from an alternative mode of communication. As a multi-task genre element this will be also be discussed in detail following the section dealing with genre Element sequencing. The *Initial Support* (IS) and *Decision Support* (DS) genre elements suggest the first use of independent information sources for augmenting service provider information. This is the only evidence in this study of social context coming into play but given the task orientated nature of the genre element it seems more task than social context related.

The Genre Activity Tables in Appendix 7 also reflect off-screen activity in the form of subjects reviewing information in their thinking out-loud verbalisation. As with instances where they record details of information that they wish to access



subsequently, these are treated as artefacts of the laboratory and not recorded as genre elements.

#### **6.4.2 Activity sequencing**

The sequencing of Travel Experiences genre elements is rather more straightforward apart from the existence of the genre elements that sit alongside the core genre elements. The progression of subjects to more detailed information as suggested by Fig 3.1 (Grant et al., 2010 p54) through the classic stages of the consumer process are well supported by the data. The challenge is more in serving the complexity of information content and format needs to facilitate the subjects' need for information for important and costly aspects of their travel.

#### **Genre element sequencing from *Search Activity***

Most subjects did commence with the *Search Activity* (SE) genre element but then progressed directly to a Service Provider website apart from the exceptions where intermediary support was sought. The reasons for the representation of a number of “support” genre elements in parallel with the core elements of this genre is discussed in the following paragraph. The only mandatory Travel Experience genre element is that of *Service Provider Search* (SP) as *Search Activity* (SE) is optional if the subject is already engaged with the Service provider and varies the nature of their search.

#### **Genre element sequencing of “parallel” genre elements**

The key difference in this genre's sequencing of elements is the support elements (*Initial Support* (IS), *General and Background Information* (GI) and *Decision Support* (DS)) alongside each of the core genre elements. These are not characterised as optional

elements en-route to a subsequent genre element since a return is made to the genre element of origin before progressing further in the sequence. In the case of Genre Activity Table 7.7 for example, the subject clicks back from the *Offering Review* (OR) genre element to Google search to determine the location of the a cruise's terminus. Following this the subject returns directly to the service provider whose offering they were reviewing beforehand before terminating the genre sequence. The consistency of this pattern of return to the genre element of origin is evident in every instance across Activity tables 7.8 (X2), 7.10, 7.11, 7.14 (X2), 7.20 (X2), 7.19 (X2), 7.20, 7.21 and 7.27.

#### **Genre element sequencing from *Service Provider Search***

From the review of options within a Service provider in the *Service Provider Search* (SP) genre element, subjects who identified options of interest transitioned to the *Offering Review* (OR) genre element. This transition represents a shift from the screening process in the classic marketing consumer purchase process model information search stage to the evaluation and preference development stage. Alternatively, the options are to seek clarifying information from the *General and Background Information* (GI) genre element alongside the element or skip directly to termination or fresh search activity if the screening list provided does not offer information of interest.

#### **Genre element sequencing from *Offering Review***

As the final step in the process of the scope of this research, the *Offering Review* genre element is a natural point for the genre's termination. In the event of the option proving to be of interest, subjects in the laboratory recorded the details of the web page for

future attention, an artefact of the research method that is therefore not represented as a genre element. Alternatively, where other options of interest required evaluation, a repetition loop applies back to the *Service Provider Search* (SP) genre element to access links to those options. The other two genre element transitions from *Offering Review* (OR) are the links to the parallel elements of *General and Background Information* (GI) and *Decision Support* (DS) explained in an earlier paragraph in this sub-section.

A summary of the links required from each of the genre elements in the Travel Experiences genre is provided in Table 6.3 below

**Table 6.3: Link options required from each of the Travel Experiences genre elements**

	Search Activity	Initial support	Service provider search	General information	Offering review	Decision support
Search Activity		X	X			
Service provider search	X			X	X	
General information			X		X	
Offering review			X	X		X

With the relatively simple progression through the core elements of this genre, the challenge arises in serving the appropriate information content and format. This difficulty arises from the prevalence of multi-task genre elements and the sideways deviations to support genre elements which are also multi-task. The following sub-section discusses the information content and format requirements in these multi-task genre elements.

### ***6.4.3 Multi-task genre elements***

This sub-section will discuss the information content and format requirements for each of the multi-task genre elements in the Travel Experiences genre in sequence order. It also details the use of Indexical Lexical markers as an aid in targeting information within the wide range of options in each of these genre elements.

#### ***Initial Support multi-task genre element***

The use of the *Initial Support* (IS) genre element is limited to two of the Genre Activity Tables (7.11, 7.19) and common to a single subject. The first of these is at the start of the subject's session where guidance is being sought on where to begin with a clearly important task. The subject accesses the website of an intermediary where they login but find little beyond streaming audio of the services provided by the intermediary. The second instance has the subject seeking some guidance on the range of alternative tour operators from an alternative well known intermediary. In both instances the subject does not find the support sought with a focus on service promotion in the first instance and a product listing in the second that added no value to the service provider content. What seems to have been required is a section offering guidance to selecting tour operators or even a link to FAQ's as a facilitation service.

#### ***Service Provider Search multi-task genre element***

In simple terms, for the *Service Provider Search* (SP) consumers require basic information that rules options in or out of further consideration on the basis of price, schedule, route, duration and possibly service class. Given the unpredictability of what an individual's salient factors will be, a range of such attributes should be served addressing budget, timing and duration, motivation for travel and, where relevant,

service levels. In addition to text descriptions, the subjects in this study appear to value visual aids such as photos and maps which helped to frame their selections. For example the range of routes offered by rail through the Canadian Rockies (Genre Activity Table 7.6) or cruises up the inside passage (Genre Activity Tables 7.1, 7.3, 7.5, 7.7 and 7.8) is far easier for the website visitor to deal with when accompanied by a schematic map of each route.

As a usability issue these need to be presented by region of operations or category of service offered so that differences are apparent to help the website visitor make their selections. An inclusive tour operator for example with multiple destinations may group the destinations in regions, a cruise or a rail service with different classes of service may offer those as the primary options.

### ***General Information multi-task genre element***

The *General Information* (GI) genre element is found in a support role to both the *Service Provider Search* (SP) and *Offering Review* (OR) genre elements. There is little discernible difference in the information content and format sought by subjects so the two manifestations of the genre element are both discussed here.

This multi-task genre element shows the subjects' need for information on seasonal climate conditions, local culture and customs, start and finish locations of trips, trip highlights and entry formalities. This is similar to the general information sought by subjects in the *Explore Intermediary* (EI) and *Investigate Intermediary* (II) genre elements in the Attractions and Activities genre but with different context. For example, subjects require details of cruise termination locations that they are unfamiliar with

(Genre Element Tables 7.5 and 7.18) to identify onward travel arrangements. In the first of these instances the subject had to search for location (accessing the Wikipedia entry) while the second Service Provider offered a schematic map of the cruise routing for easier access. Given the purpose of the information, a summary of onward transport from the cruise terminuses may be of greater use, possibly with links to the service providers.

A further task in this genre element includes details of climate and seasons as in the case of Genre Activity Table 7.18 where the destination's seasonal climate is a key factor in scheduling the planned trip. The information content required is simply the appropriate annual climate data supported by a general description of seasonal trends (e.g. wet season and dry season) and charts of rainfall, temperature and wind. This may best be served by the service provider possibly complemented by a link to a specialised climate website where greater detail may be accessed.

The final tasks in the Travel Experiences genre element is seeking information on travel formalities (need for visa, vaccinations and permits) required for a destination and background information on a major attraction (e.g. Genre Activity Table 7.14). The information on required travel formalities are clearly best served by unambiguous text while the major attraction requires descriptive text supported by high quality graphics.

### ***Offering Review* multi-task genre element**

The subsequent *Offering Review* (OR) genre element is similar to the progression from the *Screening* (SC) to the *Option Review* (OR) genre element in the Accommodation genre. The key factor is the level of detail required based on the salient attributes such

as price, accommodation and the different experiences associated with different route options discussed earlier in regard to the *Service Provider Search* (SP) genre element. The topics of (a) price, (b) accommodation, (c) package tours, (d) experiential dimensions and (e) information content and format are discussed in the following paragraphs.

Subjects' consideration of the price for example, is may be extended by investigation in greater depth for inclusions, conditions and concessions (e.g. Genre Activity Table 7.6). In the case of inclusive arrangements, information regarding inclusions such as meals, tips, sightseeing and other activities are sought (e.g. Genre Activity Tables 4.14, 4.15, 4.17, 4.18, 4.20). The failure of service providers to specify whether or not flights to and from the destination are included is a particular frustration in an extended sequence of searches for a package tour (Genre Activity Tables 4.11 – 4.20).

Another major focus of subjects is the accommodation configuration of train and ship cabins and resort rooms requiring similar scrutiny to the investigation of room options in the Accommodation Genre section (§6.2). In the case of trains and ships these vary by service class, so unless the subject has a clear understanding of the options, each of the service class offerings has to be evaluated in turn. In the case of the Canadian Rockies rail services, different service classes also offer different food and beverage service levels, different standards of pre and/or post tour accommodation. The option of a number of different routes that may be selected further complicate the offerings with the subject expressing uncertainty about the preferred option at the end of the genre sequence. This wide range of options illustrates why the subject in Genre Activity Table 7.6 undertakes an unbroken sequence of no less than 12 distinct Offering Review tasks.

Similar extended unbroken sequences of activity are found in the subject investigating package tour options (e.g. Genre Activity Table 7.15) where further details such as the mode of touring transport are required. In this case the options of road, rail or riverboat transport for touring attract considerable attention from the subject in addition to inclusions and accommodation offered. In one case, the service provider offers drop down menus for dates, passenger numbers so that details of availability and prices for specific scheduled departures may be served (Genre Activity Tables 7.15 and 7.20). This is similar to the *Need Specification Function* (NS) in the Accommodation genre but satisfies a very different need with this higher involvement genre.

Subjects did not seem to seek information regarding the experiential dimensions of the offering of interest as much as expected. Even in regard to the investigations regarding accommodation and meals, there was very little attention to detail as in the previous two genres discussed. Even in the case of the subject investigating rail routes through the Rockies, there is no apparent effort to evaluate the merits of the different routes at any point in genre Activity table 7.6. A lack of evaluation applies to the route options taken by cruise ships up the inside passage and the relative merits of each of them (e.g. Genre Activity Tables 4.1 – 4.6). A similar effect is found in the subject evaluating package tours where itineraries seemed to be sufficient information with no apparent interest in the experiences to be enjoyed at the highlights. There is no clear evidence to suggest why this may be the case but it suggests a different focus of activity, perhaps because of the greater import of the eventual choice. An alternative explanation may be that consumers using the convenience of inclusive arrangements put their trust in expert “packagers” opting for the best value options available. Such determinations are



however beyond the scope of this research. However, the clearly different focus of investigation does however add further weight to the validity of the genre differentiation derived from this method of analysis.

The information content and format required to service these information needs follow those identified for utilitarian aspects of the genre elements discussed in § 6.2 and § 6.3. In other words, objective data such as schedules, departure dates, lists of inclusions, booking conditions and prices are best represented in simple text. However the use of schematic maps to illustrate routes or itineraries will clearly complement the text descriptions and high quality photo illustrations are also important notwithstanding the lack of conscious attention from website visitors.

An important usability issue is the use of menus in web pages that cater for specific *Offering Review* (OR) genre element tasks which allow the user to switch between specific offerings with a single click. For example the subject in clip 7.18 was able to click a range of Vietnam tour options from within the detail of a specific offering under review. This has the effect of eliminating the need to click back to the page where the full range of options is presented for *Service Provider Search* tasks and being able to select a new option without an intermediate step.

A final useful content element is providing an enquiry function to enable website visitors to raise questions where they are not clear on the information provided on the website. In the instance of Genre Activity Table 7.28 for example the subject uses a text entry function to request specific detail of an inclusive accommodation and tour arrangement. In some instances however the complexity of the consumer's query is

such that a direct dialogue is required. These instances are discussed in the following paragraphs dealing with the *Decision Support* (DS) genre element.

### ***Decision Support* multi-task genre element**

In Genre Activity Tables 7.21 and 7.27, the subjects reach a point toward the end of their observation sessions where they require direct dialogue to resolve questions. In the case of subject in Genre Activity Table 6.21, the difficulty is evaluating the merits of a range of package tour operators given the complexity of their offering attributes. The subject requires the advice of an expert and calls the intermediary whose website was visited at the start of the session in Genre Activity Table 7.11 as discussed in under the *Initial Support* (IS) genre element earlier in this sub-section. This first and last resort is clearly a resource of considerable value to the subject and suggests a level of trust in the advice which is accepted at face value.

The subject in Genre Activity Table 7.27 has a different problem in that the ability to break an extended rail journey for sightseeing is not clearly indicated on the website. Again a conversation with a customer service person resolves the issue and the subject has a successful conclusion to their session. While both of these activities ended up offline, there is the possibility of providing such direct interactions online through live chat through an application such as Skype. They have therefore been included as online activities owing to the potential to provide such a service as part of an unbroken sequence.

### **Indexical Lexical Items for Travel Experiences genre**

In contrast to the Accommodation genre and the Attractions and Activities genre where the Indexical Lexical items could be classified in distinct categories (hedonic and utilitarian interests for Accommodation genre; topics for investigation and personal interests for Attractions and activities), the Travel Experiences genre presents a different challenge. The challenge is somewhat mitigated by the surprising lack of engagement with information relating to the hedonic experience of the arrangements investigated. The utilitarian information that subjects deal with in this area is semantically simpler, but common topics extend across multiple genre elements.

The list of Indexical Lexical Items in Appendix 7 (p 120) relates to distinct topic areas that visitors to a website are likely to indicate their interest in by their selection of links or search terms. Some of these are useful as they are only found in the *Offering Review* (OR) genre element in instances such as “Dates/season,” “Inclusions,” “Routing,” “Schedule” and “Terms and Conditions.” In these cases the information content and format specified earlier in this sub-section are required. In the case of the *Service Provider Search* (SP) the only keyword unique to the genre element is that of “Option Search” where the need for multiple options for the individual to screen is relatively straightforward.

The challenge arises where keywords such as “Accommodation,” “Duration,” “Price,” and “Travel Mode” arise in both the *Service Provider Search* (SP) and the *Offering Review* (OR) genre elements. The difficulty is determining the depth of information required by the consumer as they move from the screening function in the *Service Provider Search* (SP) to the evaluative function in the *Offering Review* (OR) genre

element. This requires the system to review the depth or breadth of information being sought by the consumer and draw on the principles of task context outlined by Grant et al. (2010) and discussed in § 3.1. In essence where the navigational trend is broader the task is likely to be screening based and the information needs relating to the *Service Provider Search* (SP) genre element are required. On the other hand, where the navigational trend is deeper into a single topic the information needs relating to the *Offering Review* (OR) genre needs are required.

In summary, the Travel Experiences genre shows another highly distinctive model of consumer behaviour that while having elements that resonate with the classical model of purchase behaviour shows differences in what is done online. As with the Accommodation genre the information search and evaluation and preference development stages of the process are not discrete but integrated in the genre. Perhaps the greater surprise is the apparent lack of attention to the experiential hedonic aspects of what is likely to be the highest involvement of all the genres.

## **6.5 Utility Transport Genre**

The Utility Transport genre represents activities relating to subjects researching transport options that are a means to an end or simply a requirement to access the travel experiences sought. The genre includes arrangements for flights to and from the desired destination as well as utility rail travel (distinct from the inclusive arrangements in the Travel Experiences genre) and car hire at the destination. As a result there is a higher focus on price rather than the expected quality of experience. Like the Accommodation genre, these tend to be lower involvement products but with a different range of attributes affecting consumer choices apart from price such as considerations of routing

and stopover durations. This genre is certainly the least complex of those identified in this study, evidenced by the fact that it is the only one not to feature a multi-task genre element.

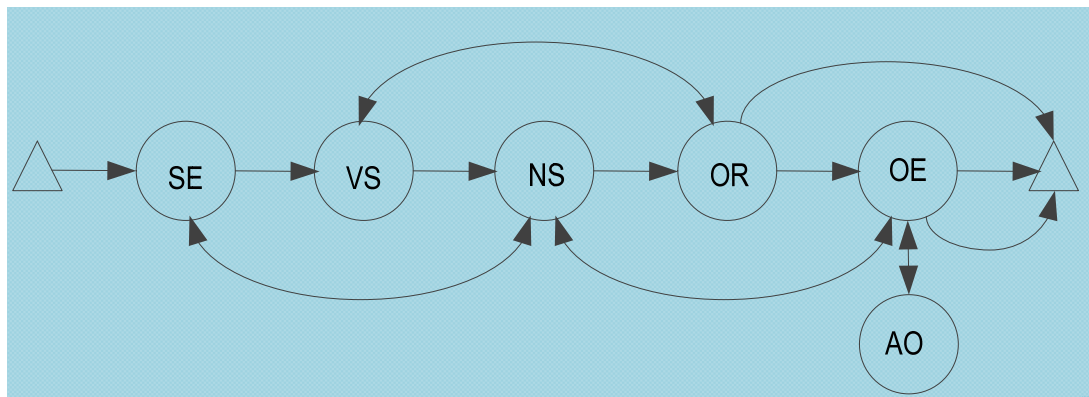
As the least complex of the genres identified in this study (with subjects having the best knowledge of the options available to them in terms of intermediaries and service providers), surprisingly this genre gives rise to the greatest dysfunction with subjects recording a high proportion of failures in their process. In some cases this was associated with transport types where the subjects are unfamiliar with the options such as the attempts to identify train travel options in Europe in Genre Activity Tables 8.11, 8.12 and 8.13. However, there are also cases where apparently well known options did not deliver the desired results as in Genre Activity Table 8.2 with the subject selecting a single flight rather than multipoint travel in their *Need Specification* (NS). As a result the intermediary fails to deliver any onward flight options resulting in the subject resolving to use an offline agent for the flights.

As with the previous sections, this will also be structured based on the analysis process which commences with subsections dealing with (a) the identification and classification of genre elements associated information needs and (b) the sequencing of genre elements in the consumer process. As with the Accommodation and Travel Experiences genres, there is resonance (and similar differences) with the classical marketing purchase process model stages of information search and option evaluation and preference development.

The clip references provided in these sub-sections relate to the Genre Activity Tables that represent the subjects' activity and are detailed in Appendix 8 (p 122) for this thesis. Further it should be noted that as in the previous sections, the term “subjects” is used in regard to individual activity whereas generalisable activity is characterised as that of “consumers” or “website visitors.”

### 6.5.1 Genre elements

The genre elements for the Utility Transport genre are listed in the Genre Element Inventory in Appendix 8. The sequencing of these into a directed graph which models consumer activity is based on the generalised sequencing of the Genre Activity Tables as explained in § 5.5.2. This sub-section details the role of each of the genre elements and outlines the information content and format associated with each. The directed graph for the Utility Transport genre is presented in Fig 6.4.



**Figure 6.4: Utility Transport genre directed graph** (Key: Search Activity, Search within Vendor, Need Specification, Options Rewiew, Option Evaluation and Add-ons consideration)

In all instances subjects commenced their activity in the *Search Activity* (SE) which is the basic search for options with consideration of the SERP to select a website. This genre element is common across all genres but this is the only one where it represents 100% of genre commencement with no work-arounds used. As with the other genres this represents the start of the Information search stage of the classic marketing consumer purchase process model.

### ***Search within Vendor genre element***

The majority of subjects selected links which took them to the website of either an online intermediary or a specific airline of their choice for the *Vendor Search* (VS) genre element. In this genre element, subjects interact with the homepage of the vendor, typically as an intermediate step to the subsequent genre element (e.g. Genre Activity Tables 8.2, 8.4, 8.7, 8.9). In some cases however there is an apparent interest in special offers (e.g. Genre Activity Table 8.1) or guidance in dealing with an unfamiliar topic such as rail travel in Europe. In the latter case (Genre Activity Tables 8.12 and 8.13) the multiple iterations of the element in the sequence are not classed as a multi-task genre since the subject is effectively repeating the same task unsuccessfully. In one other sequence (Genre Activity Table 8.9) the multiple iterations of the element result from the subject trying to locate flights to a destination apparently not served by the airline. Again, given the single task, this does not qualify as a multi-task genre.

The information content and format required in this genre element is a primarily a prominent link to the *Need Specification* (NS) genre element. Complementing that link, a navigation bar with options to explore destinations served, fare types and conditions of carriage to assist those unfamiliar with the service. Schematic maps of route

networks are used in two instances, first where a subject is investigating whether Air Canada offers flights to Anchorage (Genre Activity Table 8.9). The second instance is where the subject is searching for rail services from Paris to a provincial centre (Genre Activity Tables 8.12 and 8.13).

In one instance the *Vendor Search* (VS) genre element of an intermediary offers a range of airline options serving the desired route from the SERP link selected by the subject (Genre Activity Table 8.6). It is interesting that the subject in this case rejects all but one option on the basis of not being direct flights with transit through a disliked airport. Noting the higher expected price for the direct service, a new search is initiated for flights with the airline directly.

### ***Need Specification* genre element**

The *Need Specification* (NS) genre element has precisely the same function as the eponymous genre element in the Accommodation genre but with different variables. It is an intermediate step leading to the presentation of a list of options for consideration based on the specifications of the service required. The drop-down menus for specifying dates, number of passengers are common with the Accommodation genre but other input requirements are for origin and destination, class of travel and single, return or multi-point travel. The prominence of these variables is a usability issue with one subject (Genre Activity Table 8.2) failing to secure onward flights by clicking one-way rather than multi-point. This failure resulted from the website's system not offering any options to the subject's search for flights to the intended subsequent port of call. Transition to the *Option Review* (OR) genre element in the form of a list of options for consideration is effected by clicking "search" following correct entry of these variables.



In the case of subjects seeking car hire, the data input is far less with subjects (genre elements 8.14, 8.15 and 8.16) required by the website to enter the destination, date of hire and their country of residence.

### ***Option Review genre element***

In effect the *Option Review* (OR) genre element is the screening component of the information search stage of the classic marketing purchase process model. It is very similar to the eponymous genre element in the Accommodation genre but again with different variables. Even more so than the Accommodation genre the information content and format sought is highly utilitarian with the key variables of price and carrier being the salient factors in determining selection for further investigation. In some instances where the routing is specified as part of the *Option Review* (OR), the need to transit other ports en-route becomes a factor that subjects heavily discount (e.g. Genre Activity Tables 8.2, 8.6, 8.8, 8.13 and 8.17). In other cases though this detail is only provided when a flight option has been clicked on meaning the subject has progressed to the *Option Evaluation* (OE) genre element that is discussed next. The information content and format in this genre element for public transport is almost exclusively plain text, underlining the utility focus of the information sought. In the case of car hire however, the option list offers images of the vehicles are offered along with the price, mileage allowance insurance arrangements and passenger and baggage capacity. The images of the vehicles appear to help the subject in Genre Activity Tables 8.14, 8.15 and 8.16 with their selection of which options to evaluate.

### ***Option Evaluation genre element***

The *Option Evaluation* (OE) genre element is where the consumer's process shifts to the option evaluation and preference development stage of the classic marketing consumer purchase process model. The needs for information in this situation are again for greater detail, particularly in regard to routings, schedules and the need for transiting other ports en-route. As noted earlier, subjects heavily discount the value of flights where transit stops are required, demonstrating a clear preference for more costly direct flights. The timing of flight departures and arrivals is also raised by a number of subjects (e.g. Genre Activity Tables 8.1, 8.3, 8.4, 8.7 and 8.17) although the impact of this on price is not as clear as the effects of transit points. There is no evidence of subjects, for example, opting for an alternative based on the timing of flights as happens with carrier options and lengthy transits at airports en-route. In the case of subjects investigating car hire arrangements, the content here is more detailed specification for the vehicle of interest and options for items such as snow tyres where appropriate

### ***6.5.2 Activity sequencing***

The Utility Transport genre is unusual in that 100% of subjects commence with the *Search Activity* (SE) genre element. The function of this does however seem to be location of a well-known intermediary and the possibility exists that using their own computer such navigation may be by a bookmark or favourites link from their browser.

### ***Transitions from the Search Activity genre element***

There is a relatively even split in the transition from *Search Activity* (SE) to the subsequent *Search within Vendor* (VS) and *Need Specification* (NS) genre elements. Where subjects enter their destination as part of their search term, a deeper link is

provided to the *Need Specification* (NS) genre element, rendering the *Search within Vendor* (VS) genre element optional.

#### **Transitions from the *Search within Vendor* genre element**

The majority of successful interactions resulted in transition to the *Need Specification* (NS) genre element (Genre Activity Tables 8.1, 8.4, 8.7 and 8.13) with only one intermediary website offering a direct link to a list of carriers for review (Genre Activity Table 8.6). All of the other subjects' interactions in this genre element (Genre Activity Tables 8.5, 8.9, 8.12 \*3 and 8.14) are unsuccessful and result in a repetition loops back to *Search Activity* (SE). As noted in the previous sub-section, these unsuccessful interactions arise from usability issues and, given resolution of the way in which the website leads consumers through their process, need not necessarily occur. As a result they are not included in the summary table (6.4) of required links.

#### **Transitions from the *Need Specification* genre element**

With one exception, all subjects move to the *Option Review* (OR) genre element from this genre element. The exception is the case of Genre Activity Table 8.2 where the website fails multiple times to deliver onward flight options to a subject who selects a one-way rather than multi-point flight. Since this is a systemic error, it is also not included in the summary table (6.4) of required links.

#### **Transitions from the *Option Review* genre element**

The majority of transitions from this genre element are to the *Option Evaluation* (OE) genre element with only a limited number (Genre Activity Tables 8.4, 8.6 and 8.9) terminating their process following this interaction. Terminations from this suggest that

the subject's objective was to scope the offerings available rather than to get a detailed understanding of the options. All other subjects who reached this point clicked through to review an option in greater detail in the *Option Evaluation* (OE) genre element.

### **Transitions from the *Option Evaluation* genre element**

With one exception all interactions in this genre element conclude with subjects recording detail for later action or stating that they would progress to the website's purchase sequence. Movement to the purchase stage of the classic consumer process represents termination of the scope of this research's defined scope and therefore termination of subjects' genre activity. The one exception is Genre Activity Table 8.7 here the subject engages with the consideration of add-ons offered such as selecting their seat, entry of loyalty card details and other services at the destination.

A summary of the links required from each of the genre elements in the Travel Experiences genre is provided in Table 6.4 below

**Table 6.4: Link options required from each of the Utility Transport genre elements**

	Search Activity	Vendor Search	Need Specification	Offering review	Option evaluation
Search Activity		X	X		
Vendor Search			X	X	
Need Specification			X		
Offering review					X

With the exception of the usability issues that result in repetition loops, this genre offers by far the most simple of sequences with no multi-task genres and a single isolated parallel genre element.

In summary, the utility focus of this genre is clear in the simplicity of the sequence and the nature of the genre elements. This seems likely owing to the lower involvement of the genre compared to others as well as the apparent familiarity of the subjects with both the intermediaries selected and the task at hand. While there is an apparent familiarity with intermediaries in the Accommodation genre, the subjects are dealing with properties that they are unfamiliar with, unlike airline options that have been used many times before. The clear preferences expressed for particular carriers and avoidance of transit stops with carrier changes point to the potential for relationships with airline customers in this genre. The same does clearly not apply to transport options such as rail and car hire where consumers, like those in the Accommodation genre, are unfamiliar with the options and the intermediaries and service providers.

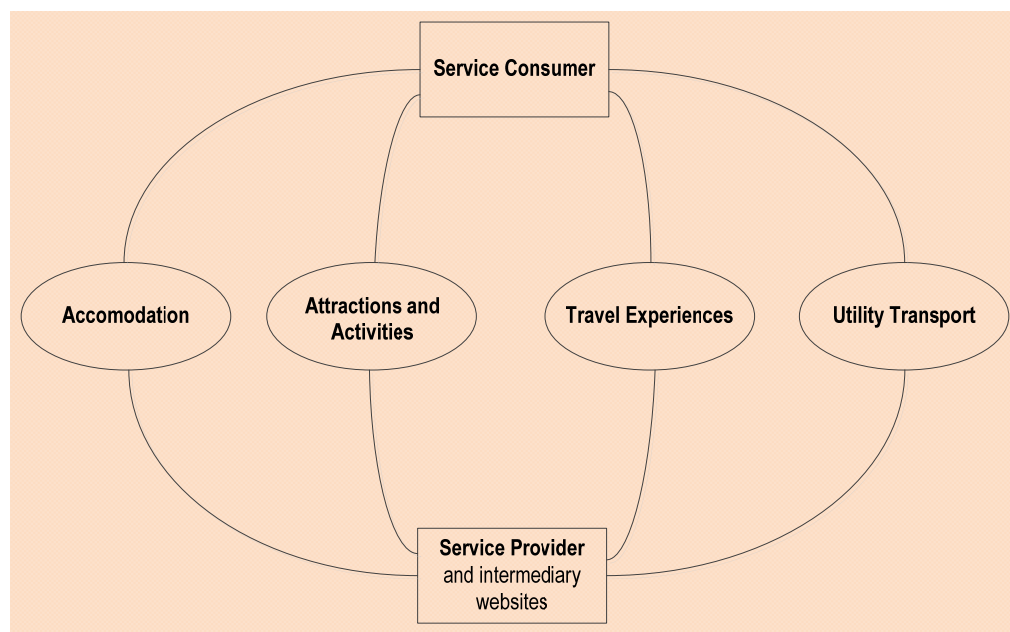
The final challenge is how to deal with the frequent changes of genre that are evident as subjects work through the different components of the travel experiences that they each required.

## **6.6 Genre Assemblage and Systems application**

A critical requirement for enabling the systemic application of this theory and the associated data is how the digraphs of the activities associated with each of the genres detailed in the previous sections of this chapter translate into a workable system. As noted in §5.3, this study has not shown the expected complexity anticipated in §3.4.2 and represented in Fig 3.8. Notwithstanding the lack of complexity expected, the genre assemblage for the genres identified by this study represent a challenge that the Management researchers in § 3.4 (p. 113) did not have to deal with. In contrast to the Management studies of relatively simple processes within organisations, typically

completed without interruption, the subjects in this study suspend their activity in a genre and switch between genres. Further, it deals with a massively greater range of interaction options with different information sources offering a range of content and formats. To deal with this complexity an overview of the environment comprised of social subjects and the interactions between them is required. This takes the form of the genre assemblage resulting from this research is represented in Fig 6.5.

As explained in the explanation of genre theory in §3.4.2 and §4.6, the ovals in Fig 6.5 represent the genres as represented by the directed graphs detailed in each of the 4 preceding sub-sections. The social subjects are represented by the rectangles to provide a schematic representation of the genre types which occur. The value of this state diagram is in the ability to map and identify all of the activities expected between a consumer and the range of websites they may choose to access. Since this not a process model (unlike the genre sequences) it allows for switching between the genres based the consumer's needs.



**Figure 6.5: Genre Assemblage** (ovals are genres, rectangles are social subjects)

In contrast to the studies of the Management researchers mentioned earlier, the challenge for the system envisaged from this research is dealing with the changes between tasks as one is suspended and another starts. The key to doing this is the definition of information content and format across the genre element sequences which constitute the process models detailed in § 6.2 - § 6.5. Where a genre sequence is terminated as evidenced by the selection of content that does not match one of the genre elements specified as a transition option, the system matches the consumer's selection to content that matches the new genre. Without the level of detailed information content and format relating to each of the genre elements this would clearly not be possible.

The initial indication of the specific element in a particular genre engaged by a consumer is given by their selection of information source, content and format. As discussed earlier in this chapter, the potential for a study on a dedicated website may likely deliver an even higher level of resolution resulting in a more complex system. Such a system will provide more detailed definition of the resources associated with a potentially wider range of genres. The efficacy of the system is improved still further where individual consumers are tracked by a login or by cookies so that their progress and history through each genre sequence can be logged. Assuming progress through the genre sequence enables serving of links and/or information options relating to the genre element accessed on the previous visit as well as the transition options to allow for progress made in the interim. Where this coincides with the content definition based context determination, the system has an effective confirmation of the appropriate information service. Serving options that an individual has actively evaluated will enable still better targeted information offerings, particularly when the Indexical Lexical items engaged with by the consumer are used to define interests and motivation.

The most effective application of such a system will be an online intermediary website such as Expedia or Travelonline which offer accommodation, flights and other aspects of a consumer's desired travel experience. The database records of individual consumers across multiple aspects of the travel experience will offer the best depth of systemic insight. But for single service vendors such as airlines or hotels, the only data they have access to is the interactions on their website because of privacy legislation. The activity of subjects in this research suggests that airline offerings of car hire, accommodation and other add on services are unlikely to be accessed with a preference for shopping intermediaries for such services.

## **6.7 Conclusion**

This chapter demonstrates the application of Systemic Functional Analysis to define the context of online consumers based on their interactions. It identifies four clearly different genres of online activity for consumers engaged in the process of planning complex recreational travel arrangements. The genres differ in behaviour types, sequencing of interactions and the information sources, content and format required by consumers as they work through their process and are defined at a high level of detail. Beyond this highly specific definition of context there are a range of insights into online consumer behaviour, some of which challenge current theories and others which offer useful modifications.

### ***6.7.1 Consumer behaviour insights***

While the research is based on the classic marketing consumer purchase process model outlined in § 1.3, the Attractions and Activities genre specifies a browsing process



previously not observed in marketing research. The other three genres on the other hand reflect the basis of the classic model but point to a major variance to theorised behaviour. Most notably, the premise that a range of options are compiled and then evaluated alongside one another does not appear to hold online. This may be related to the convenient access to further information on a topic in a specific moment that has no parallel offline. In effect the stages of information search and option evaluation and preference development in the classic model are integrated for each option in turn rather than being discrete. Evidence from the subjects' verbalisation further suggests that the result of this is the use of satisficing rather than value maximisation strategies even for relatively costly aspects of their travel.

A second behavioural phenomenon is the demonstration of repetition loops in the process in one of two distinctly different situations. Clicking back to an earlier genre element happens based on either frustration with inappropriate material or a pattern of back and forth movement between a list of options and investigation of each topic in turn. It is therefore important not to take a back click as dissatisfaction as it may represent a different pattern of behaviour where the consumer is adding pieces to a greater puzzle one piece at a time. A related phenomenon is the way in which subjects suspend activities in a genre and then return to it later after activity in an alternative genre. Even in the few instances in the Attractions and Activities genre where subjects seek out a specific attraction, they break their sequence of exploration and investigation to engage with accommodation options for example.

The research challenges other theoretical models such as the importance of social context, particularly in the stand-alone Attractions and Activities genre where

consumers engage in browsing rather than purpose-directed behaviour. While it is possible this relates to the impersonal nature of online information identified in Chapter 2 as a major limitation to online information value, further research is required in this area. It is possible that finer grained analysis of interactions on a single website where the defined processes and stimuli offered for interaction provide homogeneity of options may offer alternative views. Similarly the lack of engagement by subjects with hedonic aspects of the Travel Experiences genre is contrary to expectations and requires further investigation. These issues suggest a need for further research in the area for deeper understanding of the reasons for these phenomena.

A major area for deeper investigation is the potential for relationships which appears to only occur in the Utility Transport genre in this study. While this seems to relate to the tasks which consumers are most likely to be familiar with such as air travel, the potential for leveraging this better based on the trade-offs for higher price tickets will help improve value for consumers. A greater challenge however arises for less familiar options such as accommodation and travel experiences where subjects appear to have very little prior knowledge and demonstrate a propensity to “shop around.”

#### ***6.7.2 Characterising genres associated with Complex Hedonic Services***

This thesis represents the first study into the generic characterisation and exploration of complex hedonic services. There appear to be two unusual properties that are associated with complex hedonic service genres that are not present in simpler administrative procedures and operational services genres (see respectively Clarke 2000, 2007). All four identified genre digraphs exhibit considerable backtracking of elements. This is not present in simpler services because they have been designed to achieve one or two

purposes at best, especially if supported by bespoke information systems. Complex hedonic services therefore may represent an extreme end-point along a genre service analysis continuum. Simple processes and services, and those that are designed for information systems, have a strong linear ordering in the enactment of elements in those genres (*element dependency*). In the case of complex hedonic service genres described here, there are weak ties between elements (*element interdependency*). An example of element interdependency is when an information search stage may reveal new options that require existing elements within the genre to be revisited. This is likely to be a consequence of the fact that unlike simple administrative processes and services, complex hedonic service genres have multiple goals that are addressed by converging on a satisfied enactment of genre elements. A further compounding factor is multiple online technologies, in the form of websites and social media platforms, are likely being used rather than a single integrated platform or application (as is the case with simple business processes and services examined in earlier studies).



**Figure 6.6: Proposed Intra-generic Complexity Continuum**

### ***6.7.3 Characterising the Complex Hedonic Service Genre Assemblage***

The complex hedonic service genre assemblage provided in § 6.6 is also simpler than expected given the complexity indicated in the hedonic service literature. In this sense, the use of a systemic perspective on complex hedonic services like those associated

with holiday activities, provides a degree of clarity from the perspective of the number of distinct types of action and activity (as represented by generic patterns of communication). While the complex hedonic service genre assemblage looks simple from a *static perspective*, that is the number of genres and the arrangement of participants (roles for example customers, or companies for example travel agents) that use them, they are none-the-less complex when viewed from a dynamic perspective. A *dynamic perspective* of a genre assemblage refers to the order in which constituent genres are normally undertaken and the frequency with which these genres might be revisited by a given individual customer or user. Following Clarke (2000) simple administrative procedures and operational services genres are usually only enacted once work practice. For example a book may be borrowed from a library and the associated generic staging is only ever enacted once by a borrower, if they decide to return the book immediately then a reciprocal work practice in the form of a return genre is enacted. In contrast, the complex hedonic service genre assemblage consists of genres (accommodation, attractions and activities, travel experiences, and utility transport) and these may be revisited many times as the customer attempts to globally optimise and converge on the appropriate balance between these genres.

The conclusions to this chapter will be further addressed in the following final chapter of this thesis which specifies the contributions and applications of this research and discusses some channels for the further research.

## **CHAPTER 7: CONCLUSIONS AND FURTHER RESEARCH**

### **7.1 Introduction**

The key outcome from this research is the modelling of distinctly different patterns of online activity identified in the previous chapter with the ability to relate each of the activities to consumer information needs. This demonstrates the potential to apply linguistic based theory to determine the “meaning” of consumer activity in a way that enables modelling of the activity as the basis for contextually relevant website information provision. The different sequences of genre elements in each of the defined genres with highly specified associated information content and format needs of consumers offers a basis for systemic information serving that is responsive to individual context. In effect the ability to use the online activity of consumers as data for such a system opens a way for systemic co-creation of customer value with a wide range of potential applications.

The following sections of this chapter first review the substantive, methodological, theoretical and disciplinary contributions to knowledge established by the research. It then revisits the research questions posed in Chapter 1 to affirm that the questions arising from the initial discussion of the research problem are addressed by these contributions. Finally, the limitations of this research are reviewed and avenues for future research to address the limitations and apply the theories and methods developed are discussed.

## 7.2 Substantive contributions to knowledge

This thesis represents the first exploratory study into the generic characterisation of complex hedonic services in general and recreational travel in particular. Aspects which make complex hedonic services different from simple services include the fact that there is considerable backtracking or revisiting of genre elements within complex service genres. This distinction between simple and complex services has been referred to as element dependency and element interdependency. These concepts have been empirically identified and described for the first time in this thesis.

The methodological application of Sandberg's (2005) "truth constellation" of *perceived fulfilment*, *fulfilment in practice* and *indeterminate fulfilment* respectively provides *communicative*, *pragmatic* and *transgressive* validity to the data. This validity is crucial given that the Systemic Functional Analysis used to ensure rigour and a lack of subjective interpretation of the data is inductive and relies on correct data. The new form and treatment of data resulting from this method developed in this thesis offers insights into online consumer behaviour in four key areas. Firstly, distinct genres of activity are identified with distinctive patterns of activity modelled for each with related information needs for each step of the process. Second, the attributes of interest to consumers are revealed based on their activity with motivation illustrated by the thinking-out-loud verbalisation. This offers insights into the attributes that consumers are interested in for particular types of service product. Third, observing the process of consumers as they speak about what they are doing offers insights into the way in which they evaluate services and make choices. The heuristics used by consumers in evaluating options for complex services with different expected levels of involvement are counter-intuitive in some cases. Finally, and following on from the insights in to

consumer option evaluation, the role of reference prices becomes considerably more important online. These three points are discussed in the following sub-sections.

### ***7.2.1 Identification of activity genres***

Distinct genres of activity are identified in the process of consumers dealing with the search for a complex hedonic bundle of recreational travel services. The genres are defined based on differences in purchase motivation, level of involvement and complexity between the types of service in the bundle. At the lower level of involvement with a strong focus on utilitarian outcomes with consumers seeking a means to an end is the Utility Transport genre detailed in § 6.5. This is relatively straightforward process with the least amount of repetitive loops in activity but nonetheless proved to be one where research subjects struggled most to achieve desirable outcomes. In contrast the Travel Experiences and Attractions and Activities genres were far more complex with multiple repetitive loops and a number of parallel facilitation elements as explained in § 6.3 and § 6.4.

Three of the genres identified reflect elements of the classical marketing model of the consumer purchase process but show the stages as being integrated rather than as discrete. The fourth genre where consumers engage with Attractions and Activities at the destination of their choice however has practically no explanation in current marketing theory. It is better represented as a mix of exploratory and investigative activity that can nonetheless be modelled based on the content sought by the research subjects in this study.

The specification of these genres provides a basis for modelling of consumer behaviour at a level that has not previously been done and includes details of the specific information needs for each step. Given the representation of the activities within the process as a directed graph with specific information source, content and format requirements, a systemic context based information service may be programmed based on this. Origination of such a system is beyond the scope of this thesis. The modelling also provides insights into the attributes considered by consumers in each of the genres and how they evolve as a consumer moves through the process. This point is addressed in greater detail in the following sub-section.

### ***7.2.2 Insights into attributes of interest to consumers***

In genres, where the *information search* and *evaluation and preference development* “stages” of the classic consumer purchase behaviour model are present, the attributes considered differ by process stage. The attributes considered also differ based on the relative utility and hedonic values associated with the service type. Such differentiation is particularly clear in the cases of the Accommodation and Utility Transport genres. The Utility Transport genre’s focus is clearly evident in having the least complex of the genre sequences as well as the most differentiated information needs between stages of the process. For example, in the case of consumers researching options for flights to their destination. In the *Screening* (SC) genre element where consumers review options for evaluation, the salient attributes are the price and the carrier. When the consumer then selects an option and transitions to *Option Review* (OR) for evaluation more detail is required on routing, transit points and schedules but in no instance did subjects seek information about the flight experience. In contrast, the Accommodation genre has similar utility interests in the consideration given to price, grading, location and type of



property in the *Screening* (SC) genre element. However in the evaluation stage represented by the *Option Review* (OR) genre element, the leisure facilities, room options and aesthetics of the property which affect the consumer's consumption experience come into play.

The other two genres are considerably different with the Attractions and Activities genre being unrelated to theorised consumer behaviour models. As pointed out in § 6.3 it seems the Attractions and Activities genre has an integrative function rather than a clear outcome goal for subjects searching for such information. The Travel Experiences genre on the other hand does show the two classic stages of the marketing process model but the attributes considered are surprising given the expectation of high level hedonic motivation. The complexity of the Travel Experiences genre is evident in the incidence of a multi-task genre element where consumers screen options for evaluation in the *Service Provider Search* (SP) genre element. The complexity results from the wide range of attributes that consumers engage with in the screening process and is evidenced by the need for a parallel support genre element. Attributes such as price, accommodation, schedules, routes, duration, attractions and service class are taken into account in selecting options to review in the *Offering Review* (OR) genre element. The Travel Experiences genre differs from the others in that rather than considering different attributes in the following stage of the process, the same attributes are considered but in far greater depth. However, the surprise is in the utilitarian nature of the attributes considered with little activity directed to investigating the nature of the experience associated with the inclusive arrangements sought.

The reasons for this are unclear but may relate to Simons' (1982) concept of "bounded rationality" given the need for supporting genre elements in both stages of the process of the Travel Experiences genre. For example, processing the different multiple inclusions, accommodation and itineraries associated with a range of package tours, not to mention the brand effects of the tour operators is a substantial challenge. In addition to the need for support or advice in dealing with such a choice, the challenge of evaluating subjective experiences may be simply beyond consumer capability. Given the challenge faced by consumers in their process it is perhaps understandable that less complex heuristics are used in their evaluation of service options as discussed in the following sub-section.

### ***7.2.3 Satisficing rather than value maximisation in high involvement services***

Given the lack of attention to the hedonic elements of the Travel Experiences genre, discussed in the previous sub-section, questions arise about the nature of the heuristics used by consumers. Not engaging with, or limiting consideration of the sensory or indulgent aspects of a highly valued new travel experience, is inconsistent with a complex heuristic such as "weighted added average" (Bettman et al., 1998). With the utilitarian focus on specific topics in the Travel Experiences genre, it could be said to be closer to Bettman et al.'s "satisficing" rather than the more complex options outlined in § 3.3. This is surprising given the high involvement expected with consumers dealing with such a service class.

While resolving the reasons for the existence of this phenomenon are beyond the scope of this thesis a couple of possible avenues for further exploration come to mind. First is the fact that subjects enter the laboratory with a clear objective to research specific

aspects of a recreational travel experience. Therefore the motivation for travel, which likely includes the desired experiences, is a pre-existing condition based on whatever stimuli have drawn the consumer into the purchase behaviour. A desire for an African safari, for example, may arise from the consumer's experience of films, books, magazine articles or even the experience of friends who have already taken such a trip. The desired experience may therefore be taken as a "given" and therefore the focus shifts to the means by which it is delivered. Alternatively, apart from association with the bounded rationality discussed in the previous sub-section, it may simply be a result of the limitations of online information limitations detailed in §2.2. This includes the impersonal nature of the interactions, raising issues with the value of subjective information, or the lower levels of recall for online information.

The apparent complications in consumer evaluation of options raises issues for the major issue of pricing online for vendors. The higher pricing transparency online with ready access to alternative vendors available in a few short keystrokes or mouse clicks raises questions for the key element of competitive pricing which is briefly discussed in the following sub-section.

#### ***7.2.4 Application for reference pricing***

With the integration of screening and option evaluation evident in the consumer's process, on what basis do they use price as a basis for deciding to further evaluate a service? In the two genres where consumers have experience of prior service consumption, Utility Transport and Accommodation, the process in § 6.2 and § 6.5 suggests that price is a major screening factor. While they may not have direct experience of Accommodation costs at a destination, their expectations are likely to

have been shaped by using such services elsewhere. This is a classic manifestation of reference pricing (Mazumdar et al., 2005), where prior experience informs attitudes to what is good value or otherwise and/or the budget defines the range for selection. Mazumdar et al.'s review of the topic offers three types of reference pricing, two of which apply in the context of this thesis. The first is *expectation based* use of reference prices by consumers where high competition (multiple options) and transparent pricing result in stable prices over time. On the other hand, *aspirational benchmarks* are used where significant variation occurs in pricing, citing the discriminatory pricing of airlines as an example in their paper. The evidence of this study, even in Utility Transport genre outlined in § 6.5, suggests that expectation based pricing may be used. As a result vendors will benefit from logging the price range selected by individuals in their database records to inform the likely price ranges of interest.

### **7.3 Methodological contributions to knowledge**

This thesis pioneers the use of genre theory in a usability laboratory setting where relatively naturalistic activity data can be captured and stored for later analysis. This is the first time this has been undertaken. Usually genre analysis occurs well after the actual transcripts and texts have been collected. In this study, video observations enabled the genres to be more clearly identified. The analysis could be revisited again and again through the video recordings which was also a novel and necessary aspect of this kind of complex customer-interaction study. To make sense of the data however a rigorous theoretical basis is required for the analysis to avoid the potential for subjective interpretation of the “meaning” of research subjects’ activity. It has also required the development of a means to represent video of activity combined with research subject verbalisation as data in a form that can be identified as discrete genre elements.

### 7.3.1 Theoretical rigour

The thesis employs Systemic Functional analysis **genre theory** to identify, document and analyse the recurrent patterns of research subjects' activity when interacting with websites and other online resources. Crucially, this theory addresses the functional, structural, purpose and semantic/semiotic dimensions of context identified as imperative for the research in § 2.4.4. Further the rigour of the analysis is reinforced by three distinct validation methods to ensure objective representation of the “meaning” of research subject activity. First is the ability to represent the process in a schematic structure of a directed graph which provides communicative validity through Husserl's (1931/1962) perceived fulfilment. Second, the ability to relate different genres to each other in the form of a genre assemblage which captures the range of related but different activities provides pragmatic validity through Heidegger's (1927/1981) fulfilment in practice. Finally the co-dependent **register** of Halliday's (1978) Communication Theory where any change in the *Field*, *Tenor*, or *Mode* of activity signals a change in genre by definition.

### 7.3.2 Novel methodological framework

The new research methodological framework developed in this thesis enables the analysis of individual interactions using this theory to define context with the full rigour described in the previous paragraph. By combining naturalistic behaviour observation and thinking-out-loud methods from Ericson and Simons' (1993) Protocol Analysis, the “meaning” of the activities that constitute online interactions may be reliably construed. Importantly this delivers an understanding of all of the elements of Lasswell's (1948) communication model as explained in § 3.5 including the crucial understanding of the effect of each interaction. Based on this, it is possible to follow Day's (1998, p47) call

to use “information *from* the customer rather than information *about* the customer” for interactive marketing.

A major methodological contribution is that it removes the need for the limitations of factor based analysis of customers for modelling. The limitations of these methods are clearly detailed in § 2.2.3 and § 2.3.3 and the alternative offered here of using behaviour as the manifestation of emotional and cognitive needs effectively dispenses with them. In this way with the massively complex construct of perceived risk (Conchar et al., 2004) that is such a barrier to online consumer purchasing is effectively dealt with.

The solid theoretical underpinnings of the new research framework developed for the analysis of audio visual data are apparent in the clear differences in the sequencing and content of the different genres identified. The rigour derived from the use of schematic structures, realisation patterns and register definition for validation of genres as explained in § 3.4.2 are compelling. Further, the experience of the researcher (who identified errors in Genre element classifications in the based on sequence anomalies Genre Activity Tables in Appendices 5-8) as explained in § 5.4 adds further weight to the validity of the activity models developed.

The primary methodological contribution of this research is the extension of Systemic Functional Analysis to complex consumer process analysis based on online interactions. The key to this contribution is the way in which “meaning” may be extracted from such interactions.

### **7.3.3 Extension of Systemic Functional Analysis**

As pointed out in § 3.4, Systemic Functional Analysis has been used in management studies of organisation processes extracting “meaning” based on symbols, activities and language in the workplace. In addition to drawing on a wider range of data, those studies were also typically of less complex processes where genre sequences involved relatively few social subjects and were brought to completion in relatively few exchanges (Clarke and Nilsson, 2007 and 2008). In contrast the interactions analysed in this thesis provide for a social subject interacting with the full expanse resource options of the internet. The processes are also more extended and subject to suspension and possible change while other complementary services are investigated. For example, the dates for an accommodation booking may have to be changed if the flights are not available for the relevant dates. Further, unexpected costs in one area may lead to a need to reduce costs in another, although this is likely to happen at the point of purchase and therefore beyond the scope of this research.

The specified genre sequences show the clear ability to identify when a different genre is being engaged by a consumer and therefore such interruptions and later resumptions can be dealt with. To avoid the consumer having to navigate through multiple website pages to access the point at which they left off, tracking by cookies or a username and login has the ability to return them to the last visited page. They then have the option of making changes to what they are looking at or moving further into the process if current selections are still suitable. The results reported in the previous chapter confirm the ability of Systemic Functional Analysis to deal with this challenge.

#### **7.3.4 Representation of customer interaction data**

A further contribution to method is the representation of video of research subjects' online activity combined with their thinking-out-loud verbalisation in a form that enables identification of discrete genre elements. The process for developing the data format in Appendices 4 – 9 is explained in § 5.5 and represented in Fig. 5.1. This is the first time that Audio visual data has been presented in a form that enables genre definition based on consumer activity with the information resources associated with each activity. These same methods could potentially be extended to investigate consumer behaviour in other settings including testing the validity of the classical marketing models of offline behaviour.

These methodological contributions offer the possibility of considering further applications for analysing interactions which seems likely to be useful for customer service and relationship management development. Such possibilities offer a rich avenue for further application of these methods and will be discussed further in § 7.5 following that deals with disciplinary contributions of the research.

#### **7.4 Theoretical contributions to knowledge**

One of the major theoretical advances of this thesis is **the ability to describe complex hedonic services in terms of semantic patterns** of action and activity, as realised through those actions and activities together with spoken language descriptions provided by those subjects themselves. The systemic theory selected for use in this thesis provides **a contextual theorisation of those actions and activities** in terms of situational and cultural contexts.



The ability to apply this systemic analysis makes theoretical contributions in two major areas. First is the modelling of consumer purchase behaviour for different aspects of the desired recreational travel experience. The behaviour models specified in this research show differences between service types and are also notably different to the classical marketing model of the consumer purchase process. Second, modelling complex hedonic services adds to the theory of Systemic Functional Analysis which has hitherto been used for relatively simple organisational processes. The contribution in each of these two areas is discussed in the following sub-sections.

#### ***7.4.1 Advancing the conceptualisation of online consumer process***

The classical consumer purchase process model illustrated in Chapter 1 suggests a linear process with distinct steps and few deviations. The process models arising from this research suggest that consumer behaviour online is substantially different. Firstly there are clear differences in process based on the type of service the consumer is engaging with. The differences between the genres are defined by both the activities and the information required for consumers to progress their process. Perhaps of even greater significance is the unexpected lack of engagement with the hedonic aspects of what was expected to the highest involvement of all the genres and the occurrence of a genre that offers a process model that bears no relationship to established theory.

Second, the formation of a consideration set (Narayana and Markin, 1975) for comparative evaluation does not appear to happen in online interactions. The process seems to rather be one of identifying likely options and moving directly to evaluation rather than compiling a set for subsequent comparative analysis. A possible reason for why this may be the case is found in the clickstream analysis insight that a major factor

in shopping cart abandonment is the lesser time and effort invested by consumers in getting to that point (Johnson et al., 2004). In contrast, offline consumers are more likely to seek an outcome or result from the substantially greater time and effort of visiting an offline shop. This effect is obviously increased when consumers “shop” multiple offline retailers where further time and travel investment is required between retailers. In other words the speed and ease with which online options can be identified and reviewed result in consumers investigating and reviewing apparently suitable options. Once a preference is developed it is a simple matter to return to that point and progress the purchase process further.

Third, there are multiple repetitive loops and parallel process support activities that exist alongside the genre elements and are important for facilitation of the consumer’s process. Failing to understand the existence of these elements and the role they play in facilitating consumer process will compromise the discourse of the process with sub-optimal outcomes. Similarly with the evaluation activities being integrated with the information search, it is necessary to understand when a repetition loop has recurred to enable a restart for a new option for a consumer.

#### ***7.4.2 Extensions to genre theory***

By applying genre theory and methods, we find that hedonic online purchase studies provide a domain in which genre theory is more fully exercised. Previous research has applied genre analysis to organisational processes of far less complexity such as those associated with administrative operational information systems. The effect of this is to add features to the directed graphs that represent genres that have not previously been seen in the less complex organisational process analysed. In addition, there are

interactions between the genres that have not been observed in previous studies based on dependencies between the different genre service types. This represents a major theoretical advance of this thesis in **the ability to describe complex hedonic services in terms of semantic patterns** of action and activity. These patterns are realised through the activities and verbalisation of the research subjects themselves based on the systemic theory selected for use in this thesis that provides a situational and cultural **contextual theorisation of those activities**. The additions to theory beyond the studies of less complex processes within and between genres revealed by this study are detailed in the following paragraphs.

### **Within genres**

The first major difference between previously published studies of genres in business contexts is the **degree of optionality** for many of the constituent genre elements within genres. The sequencing of actions and activities, as represented by genre elements, has a wider range of options than those found in business contexts that involve standardised work which have been the focus of prior studies. This range of options results from complex hedonic service customers dealing with various service providers which do not cover all aspects of the hedonic service offering. Therefore, one measure of complexity in complex hedonic services is the **high degree of connections between genre elements and the optionality of genre elements within observed genre directed graphs**.

A second major difference is that the process complexity in this research requires process support genre elements that have not been seen before. As noted in the previous sub-section, these elements are crucial for consumers undertaking a complex process

that is likely to stall without such support. In addition, the nature of optional genre elements and repetitive loops are also different from those in the previous studies of organisational processes. The subject of repetitive loops and the process support elements are discussed in the previous sub-section, the occurrence of optional genre elements is discussed in the following paragraph.

Compared to the previous management studies, the representation of optional genre elements in this study is firstly more extensive based on the different processes required by different websites. In the management studies (Clarke and Nilsson, 2007 and 2008), the focus on a single organisation's defined process standardises interactions with little space for variation. In contrast the different websites engaged with by consumers have different process models. For example in the Accommodation genre (§ 6.2) most websites require subjects to specify their dates before being offered a list of options, while others serve a list of accommodation options directly from the SERP link. In cases where a list of options is provided without the consumer specifying their desired dates *Need Specification* becomes redundant and is therefore an optional genre element. The optional genre elements in the Management studies on the other hand result from once-off activities such as registration that do not need to be repeated in subsequent iterations.

### **Between genres**

The complex hedonic service genre assemblage in Fig. 6.5 is structurally simple from a static perspective, that is, the number of genres and the arrangement of participants. However, this complex hedonic service genre assemblage exhibits considerable complexity from a dynamic perspective, that is, when we consider the fact that genres

enactment appears to be globally optimised across the assemblage. The customer is forced to revisit a previously enacted genre (say limited date availability for a resort) which may necessitate revisiting another genre to consider the effect on the overall trip (for example changing the dates of flights). These concepts of static and dynamic perspectives of genre assemblages have been empirically identified and determined for the first time in this thesis.

In contrast, previous management studies reveal a rather strict sequencing of genres within the assemblage; they are initiated and completed and rarely if ever revisited unless a new transaction or a new customer is about to undertake a given pattern of action or activity (Clarke and Nilsson, 2007 and 2008). In complex hedonic services, constituent genres in the assemblage are frequently revisited prior to purchase commitment. The identification of an entirely new mode of interaction between genres and their assemblages represents another theoretical contribution of this thesis. Therefore, another measure of complexity in complex hedonic services is **the frequency with which customers must revisit constituent genres within the genre assemblage.**

## **7.5 Disciplinary contributions to knowledge**

The combination of the substantive, methodological and theoretical contributions of this thesis offer insights into the behaviour of online consumers dealing with complex service products. The application of these to improved information serving practices in commercial website operations extends beyond complex service products to general website operations. In addition to generalised improvements in consumer website

navigation options however there is a clear potential in developing the underperforming practice of online relationship management.

The ability to analyse the “meaning” of interactions offers the possibility to greatly improve the returns for online relationship management or e-CRM. While the literature in this area points to a number of issues for these poor returns, this thesis offers the potential to address context identification as a key component in relationship management (Reinartz et al., 2004; Labus and Stone, 2011). The qualitative nature of many aspects of a relationship requires individual responsiveness across multiple touch points while the customer is engaged in interactions. It is simply critical to understand what is happening in the relationship “space” if a relationship is to be properly fostered. For example Reinartz and Kumar (2002) illustrate the effect of different industry dynamics and individual customer attitude effects on the profitability of loyal customers.

But the most startling insight from a qualitative approach to relationship analysis comes from Fournier and Avery (2011) who contend that CRM failure stems from the focus on a *customer* rather than a *person* with all of their inherent complexity. They propose moving beyond context to the “meaning” associated with interactions for a deeper insight into the nature of brand relationships. To do this they classified relationships based on the customers’ investment and engagement with the supplier rather than the conventional CRM measures of frequency, recency and magnitude of purchases. Their illustration of a single quadrant of “emotionally and identity invested” customers with a “strong and deep engagement” containing both ‘best friend’ and ‘adversary’ relationships is particularly compelling. The relationships identified in this quadrant

also include ‘addictions’ as well as the not so subtle differences between ‘marriage partner’ and ‘fling’ relationships. There are clearly very different tactics and responses required for interactions with these different customer types based on the different nature of the relationships. Further the quadrant typified by “weak and superficial” customers who are “functionally orientated” includes the relationship classified as of “business partner” and “neighbour.” The diversity of relationships within apparently desirable qualitatively defined quadrants and the existence of potentially strong relationships in superficially undesirable quadrants highlights the need for deeper understanding of interactions. In these conditions it seems unlikely that a supplier will sustain effective relationships at anything less than an individual customer level unless they are treated as “people.”

An important component of this is serving the correct information to a consumer at the point that they require it. In the words Ahuja and Medury (2010 p. 95)

‘it is important for an organization to make sure that the right information reaches the right people at the right time. A higher perceived value by the customer in the organizational information will stimulate consumer interest leading to a desire to interact, achieving “engagement” from the organisational perspective.’

The ability to systematically deliver context relevant information content to individual consumers based on the research developed and reported in this thesis has the potential to enable such effects. As a result, the potential to greatly enhance the effects of online customer relationship management is potentially greatly enhanced.

## **7.6 Addressing the research questions**

In Chapter 1, six research questions are identified that require answers if the problems that gave rise to this research are to be solved. This section briefly reviews the questions posed in § 1.5 based on the contributions to knowledge arising from this thesis specified in the previous sections of the chapter.

*Research question 1: How does an organisation define the meaning of a consumer's online activity in real time so that they are able to serve information that addresses the consumer's information needs?*

The first of the research questions summarises the motivation that underlies the research reported in this thesis. In effect this requires the understanding of the “meaning” of a consumer's online activity based on patterns identified in that activity. The specified genre sequences or process models (§ 6.2, § 6.3, § 6.4 and § 6.5) with associated information needs evidence that such “meaning” may be defined using the methods developed and specified for this study.

*Research question 2: What theoretical frameworks should be used to analyse online activity in a way that reveals the meaning of such activities?*

The second of the research questions calls for identification of an appropriate theory to enable analysis of online activity to define context from the activity. The application of Structural Functional Analysis addresses the need to deal with the functional, structural, semantic and purpose directed dimensions of context identified in § 2.4.4. These aspects of context are covered in two key areas as explained in § 3.4.2 and § 3.4.3. First, the cultural context of genre is validated by schematic structures in the form of directed



graphs as well as realisation patterns in the form of genre assemblages. Second, any change in any of the field (purpose), tenor (nature) and mode (format) of the co-dependent *communication register* signals a change in genre. As a result there is little room for subjective interpretation of “meaning” in the analysis of online activity.

*Research question 3: How do we relate the meaning of activity to consumer purchase processes at the level of individual interactions such as entry of search terms or selections of hyperlinks by an individual?*

The directed graphs detailed in Figs. 6.1 – 6.4 present models of consumer behaviour for the different genres identified generalised from the activities of research subject in the usability laboratory. These are rigorous generalisations based on the validation methods described in the previous paragraph. Further, where no clear sequencing of genre elements is defined, in for example the multi-task *Option Review* genre elements, the Indexical Lexical markers offer an alternative means for prioritising link or content service to a consumer as described in § 6.2.3, §6.3.3 and § 6.4.3.

*Research question 4: How do we define the preferred information sources and formats for an individual relating to a particular activity or stage of their purchase process?*

The clear and differentiated information needs associated with each genre element provide the clues for website visitor information needs. In each of § 6.2, § 6.3, §6.4 and §6.5, the preferred information needs for each of the genre elements as well as the individual tasks within multi-task genres are specified. Where there is a change in genres that results in a different process coming into play, the genre assemblage detailed

in § 6.5 draws on the break in sequence and content selected to define which process model to use.

*Research question 5: How do we combine the defined process and preferred information sources and formats in a system for real time responsive information service?*

The activity sequences defined in the directed graphs combined with the related information sources, content and format provide the basis for an executable programme for a contextually relevant dynamic information service system.

*Research question 6: Which research methods may be used to resolve these questions which have not been addressed to this point?*

The new methodological framework developed and documented in this thesis successfully synthesises the strengths of research methods discussed in Chapter 2. The introduction of thinking-out-loud methods from Ericson and Simons' (1993) Prospect Theory to observed activity data for Systemic Functional Analysis achieves the desired purpose.

## **7.7 Research limitations**

The main limitation of this research, notwithstanding the measures taken to achieve naturalistic behaviour explained in § 4.2.2, is the laboratory setting. The anomalies associated with this include the fact that subjects were not necessarily familiar with the PC format computer provided. In addition, they did not have access to “favourites” or “bookmarks” in their internet browser as an option to assist their navigation and were similarly unable to record website pages of interest using such a function. The degree to

which these limitations may have affected the activity of subjects cannot be estimated but is thought to be inconsequential given the measures taken to minimise such effects.

The requirement for using the thinking-out-loud method while browsing the internet appeared to affect only one of the subjects to a limited degree. For all of the other subjects this did not seem to be any kind of hindrance. However, since the activity of the one affected subject is consistent with other subjects undertaking the same genres, intersubjective consistency suggests no material effect to the data generated.

It is possible that the lack of process definition in the multi-task genre elements identified results from different interaction options between the range of websites used by subjects. A study that enables study of activity on a single website and therefore has homogeneity on one side of the communication interactions may possibly enable a higher level of process resolution in such genre elements. As noted in the thesis however, defining the subjects' scope of interactions is a likely limitation in achieving naturalistic activity.

The qualitative nature of this research and the relatively small number of research subjects represented in the data care should be taken in generalising the data reported. A larger study may offer some variance on the proportions of subjects reported in taking specified options in the genres identified in the research. However this traditional caveat on qualitative research is not as applicable here with Ericsson and Simons' (1993) argument for quantitative application of their methods given intersubjective agreement as explained in §4.6.1. Further, the units of analysis in this study are not the subjects but the individual interactions they make within defined Genres.

## **7.8 Avenues for future research**

The new methodological framework method developed here offers a broad range of options for further online consumer behaviour research. They fall into three broad areas that will be discussed in the following sub-sections. First is the need to answer questions raised by this research that will help with understanding the reasons for apparently strong theory being questioned by the behaviour observed in research subjects. Second is the possibilities for research into online marketing practice improvement using the research methods developed and reported in this thesis. The final sub-section canvasses some alternative research lenses which may assist with dealing with the unanswered questions raised in § 7.8.1.

### ***7.8.1 Answering questions raised by this research***

A major surprise in the research findings is the apparent lack of social context in the observed online interactions expected from the discussion in § 3.2.2. With the strong theoretical basis of perceived risk management and information source roles for such a phenomenon it seems likely that social context may add even greater effect to the systems envisaged in this thesis. While some speculative possibilities are raised for this earlier in this thesis (see § 5.4 and § 6.7), definitive answers may suggest a way that social context may be stimulated for the benefit of both consumers and vendors. This will require deeper investigation of online social context using different research methods from those employed here.

A second unexpected result is the lack of hedonic information sought by subjects engaged in the high involvement Travel Experiences genre. Again speculative reasons for this are raised in this thesis (see § 5.4 and § 6.7) but a deeper understanding of the

phenomenon may help in improving the dynamic information serving capability of such a system still further.

### ***7.8.2 Applications for marketing practice***

The potential for improved relationship marketing practices online is raised as an example of the disciplinary contribution offered by this research in § 7.5. The potential for operationalising a system which treats customers as “people” rather than members of categorical groups may offer significant improvements in practice. This will however require a greater depth of analysis than is offered in this thesis but given the potential return on investment from greater depth and breadth of relationships presents a worthy challenge. A range of further applications exist for marketing practice and are briefly outlined in the following paragraphs.

#### **Advertising targeting**

A further improvement may be the targeting of online advertising messages beyond the subject specific targeting conducted by organisations such as Google. While subject specific targeting does ensure that objects of interest to an individual are served as advertising, improved identification of context has the potential to improve this still further by making it more contextually relevant. For example the serving of options for flights to Hawaii for an individual who has already purchased the flights is of little value to the individual, vendor or advertising broker.

#### **Website performance metrics**

With the higher levels of process definition there is also the potential for more precise performance metrics for websites based on the progress made by consumers through a

website. While process completion rates are an important measure in website performance, the ability to define process in far greater detail improves the ability to identify fail points and improve function. In a sense the ability to attach “meaning” to online consumer activity data delivers insights based on the analysis used in this research that would have previously been purely speculative.

### **A/B testing**

Testing the effects of different information source, content and format treatments in genre elements has the potential for defining causal effects by experimental methods. Combining such research with agile website development software (Chaffey and Ellis Chadwick, 2012 p. 378) has the potential to further improve the effects of website interactions for organisations. Such practices may be applied to both the value added by websites in facilitating consumer process as well as eventual online transactions where appropriate.

### **Segmentation practices**

While the research in this study is designed to identify contextual information needs, the individual’s information needs reflect their specific product or service needs. The context of this study is for recreational travel and travel service providers will need to evaluate how needs differ in the case of other market segments such as travel for business or other motivations which will result in different information needs and processes. More generally however, this is an alternative to the weak option of demographic segmentation (Ansari et al., 2000; Ratchford et al., 2003; Klein and Ford, 2003) classifying customers in terms of information need differences based on different

genres or patterns of genre use may help to more reliably shape strategy based on segmentation.

### ***7.8.3 Alternative behaviour models***

This research uses the template of the classical marketing consumer purchase process model as explained in § 4.6.3 and represented Fig. 4.6. While this represents perhaps one of the better defined models of consumer behaviour there are a wide variety of other process models that may be investigated using these methods. For example Chaffey and Ellis-Chadwick (2012, pp 80-91) suggest a range of alternatives such as experience seeking, multi-channel, trust development and social interaction models of consumer behaviour. While the empirical evidence for these may not be as strong as that for the template used in this thesis, these are important dimensions of consumer behaviour that may add further insight and therefore value to organisations' online interactions.

### ***7.8.4 Wider theoretical bases***

The limitations and advantages of online information identified in the literature in Chapter 2 have wide ranging effects. For example the findings of lower levels of recall from electronic media than from hardcopy sources is identified by a well-structured experiment, giving causality, but no reasons are given for this. If reasons for the phenomenon could be identified it may lead to developing ways to improve the effects of online information still further. This may have far wider implications for the use of electronic media including for education.

The solution to understanding the lack of engagement by subjects with hedonic information in the Travel experiences genre or the browsing nature of activity in the

Attractions and Activities genre may also require a different approach from behavioural economics. The work done by Gigerenzer (2007) for example which documents the effects of sub-conscious on behaviour and human choices may be a worthy alternative for consideration. Gigerenzer's work addresses the problems faced by consumers dealing with uncertain outcomes where the rational, logical approaches of behavioural economics have limited application. In these cases he documents the surprisingly effective use of intuition and rules of thumb in making important decisions in both personal and professional situations. Notably, Gigerenzer also relates the application of intuition or "gut-feel" to situations where bounded rationality precludes the use of logic and rationality. Payne et al.'s (2008) assertion that activity is the manifestation of the quest to satisfy individual logical and emotional needs may reasonably be extended to the application of intuition and rules of thumb. If the combination of thinking-out-loud and activity data is able to capture such consumer processes the possibility exists to identify a completely new dimension of customer insight.

**THE END**



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## APPENDICES

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## **APPENDIX 1: DETAILED DISCUSSION OF PAPERS REVIEWED**

### **1.1 Information content utility**

Eighmy and McCord's (1998) seminal research deals with sources of gratification and utility for consumers from information on popular commercial websites across six industries ranging from services such as broadcasting to products such as packaged food and sportswear. They surveyed consumers following standardised exposure to five selected websites and identified nine factors which contribute to user gratification derived from online information. Their study highlights the complexity associated with computer mediated communication which offers consumers a massively greater range of information sources than are conveniently available offline. They adopted the "uses and gratifications" perspective which investigates the consumer's behaviour (uses) as well as the gratification (both emotional and rational) or motivation for the behaviour. They identified three major areas that commercial websites should pay attention to in their design in the interests of achieving an enduring engagement with consumers based on utility that facilitates a continuing relationship: (1) That consumers expected elements of entertainment along with information on websites; (2) that the website design and content organisation should fit with consumer expectations and purpose for visiting and (3) that design features and graphics should not impede usability with excessive page loading times. This suggests an implicit experiential dimension of search utility online as one of the effects of computer mediated communication which may result in greater behavioural variance based on differences between individuals. The challenge arises from the need to individualise information exchanges based on

gratifications that differ between individual website visitors to spark a sense of personal involvement as a basis for continuing engagement that will result in repeat website visits.

Interestingly, one of Eighmy and McCord's (1998) conclusions was that "computer mediation does not mean that there needs to be an absence of humanity" suggesting a requirement for deep understanding of individuals to achieve a meaningful engagement. However they did not monitor individual behaviour while respondents were on the websites so there are no links between the types of pages that respondents looked at on each site and resulting satisfaction and no way of identifying needs to serve information which may be more appropriate for individuals in real time. Further the research did not identify the importance of each of the product types surveyed to each of the respondents and the effects of this, or other personal factors, on gratification and eventual behaviour online is left as an area for future research.

Klein (1998) reviewed literature dealing with the economics or cost benefit analysis underlying offline search behaviour and differences between "search" and "experience" type product information search. While her literature dealt with research into offline behaviour, she noted that the costs and benefits of online search relative to offline search are essentially perceived, stressing the individual character of both benefits and costs which are in the eye of the beholder. She proposed a conceptual model where consumer characteristics are expected to interact with differences between online and offline information sources such as customisability, user control, interactivity,

credibility and presentation format to determine eventual search behaviour based on individual perceptions of costs and benefits. Her primary focus was how to communicate subjective “experience” attributes, for which consumers tend to prefer interpersonal information sources, online relative to more objective “search” attributes where consumers are more accepting of vendor or commercial sources. Interestingly, Klein (1998) points to literature which shows the additive effects of consumer search costs in the overall cost of a product or service, suggesting the ability to add customer value by lowering search costs for consumers. As a major advance on Eighmy and McCord’s (1998) methodology, Klein (1998) highlights the potential to use real time monitoring of consumer behaviour online as the basis of experimental research into consumer search behaviour online. As a seminal paper this research has contributed to the field by focussing attention on the likely differences in behaviour between product types and the effect of individual characteristics on behaviour however it does not address the qualitatively different effects for computer mediated communication, particularly for subjectively evaluated product attributes.

McGaughey and Mason’s (1998) literature review identified a major difference between online and offline information sources, based on the need for a vendor’s website to be sought out and selected by a consumer in contrast to ambient exposure in offline media of interest. Using the classic process model of consumer buying (including the information search, decision making and purchase point selection activities of interest to this study) they reviewed the theoretical basis of how consumers may react to the availability of online information sources. Independent to Klein’s (1998) review, they

also identified the potential to add customer value by providing information access, proposing use of hyperlinks to third party information sources to satisfy consumer needs in the search process. This suggests that the idea of being self sufficient as an information provider online is flawed and realistically marketers may be reliant on external or independent sources to satisfy consumer information needs. They identified the myriad options available to consumers searching for product information and the potential for web-site traffic to derive from offline pointers or a wide range of search term possibilities, suggesting the challenge in effectively drawing consumers to a website. Their study extends our understanding of the complexity of the internet and points particularly to the reliance that online marketers may have on other websites to satisfy the needs of consumers searching for information. However, how consumers make those choices and the nature of trade-offs between various online information source types is not addressed in their review.

Schlosser et al (1999) did the first empirical work to compare consumer attitudes to online advertising or information relative to offline information sources using telephone interviews to survey an internet active sample and a demographically matched sample of the general population. Their objective was to identify consumer attitudes to online advertising relative to offline advertising, including the relative values of each. Interestingly they found that consumers reported that internet advertising was more informative but less entertaining than offline advertising and, paradoxically, that despite higher levels of trust in internet advertising it was used less in purchase decisions. These and some other results, e.g. lower indignation for internet advertising, may be affected

by the internet's novelty at the time of data collection (1996) and the limitation of telephone interviews in clarifying understanding of what was a relatively new concept to most respondents of the internet user sample at the time. Indeed, Schlosser et al (1999) point out changes in attitudes to offline advertising over time in research reported on to establish their research's theoretical base. Apart from the need for an update on current attitudes to internet advertising, future research may also achieve greater clarity by differentiating between banner advertising, e-mail promotions and website information. Further the difference in consumer behaviour based on search or experience product attributes identified by Klein (1998) and differences between individuals (Eighmy and McCord, 1998; McGaughey and Mason 1998; Klein 1998) may also offer greater clarity. Finally, the methodological limitation of telephone interviews may be addressed by face to face interviews with examples of different information sources for greater clarity or to follow Klein's suggestion to use online monitoring of experiments to capture data of actual online consumer behaviour.

Brown and Sellen (2001) used qualitative interviews to investigate generalised consumer information seeking behaviour on websites to offer suggestions for improved usability within sites based on consumer needs. This represents the first empirical study of consumer needs in using the internet with minimal risk of misunderstanding as the interviews were conducted with the participants at their point of internet access so that functionality and behaviour could be observed to corroborate consumer reports. They found great utility for consumers arising from customised web pages but frustration from inconsistent information formats between websites and higher levels of perceived

risk of fraud and privacy abuse associated with online purchasing. Further, they identified differences in consumer needs online between consumers using a website for purposive purchase behaviour relative to browsing behaviour for each individual. This suggests the potential for consumer utility through customised offerings but a big challenge in developing consistency across different websites and helping consumers to manage the additional perceived risks associated with online information exchange. While Brown and Sellen (2001) point to the need for consistency across websites, their review of consumer content need is limited to single websites. Further differences in behaviour related to personal characteristics, or how they might be characterised, and the suitability of different information source types for different types of attribute information (Klein 1998), particularly semantically complex “experience” attributes are other aspects to be addressed by future research.

Yoon and Kim (2001) studied preferences for online or offline information sources based on different product types based on functional attitude theory which measures the link between consumer attitudes and motivation for purchase based on product classifications. They surveyed experienced internet users on (1) attitudes to internet advertising, (2) perceptions of internet and offline media characteristics (3) perceived relevance of media types to different product types and (4) demographic characteristics. Instead of the search/experience product attribute classification proposed by Klein (1998) they used the FCB product grid that classifies products based on the level of involvement and level of emotion or rationality attached to the purchase. They then looked for associations between the different product classifications and preference for



information from the internet, TV, radio, newspapers and magazines. The introduction of rational or emotional aspects of products being searched for is an important contribution to online search behaviour knowledge, given the associated differences in consumer behaviour, with their finding of internet preference for rational information suggesting a major limitation in its utility. These effects are particularly notable since respondents unusually characterised motor cars and luxury watches as rational purchase decisions despite their high visibility and high involvement for many consumers. The evaluation of internet suitability for information in making such purchases may have been even less favourable had the potential for emotional aspects, such as ego involvement of such purchases, been taken into account.

There is scope to extend Yoon and Kim's (2001) study by investigating the range of information source types (commercial, public and private) online and offline and recognising that choice of one information source does not preclude use of other information sources in a search process. Methodologically, using online behaviour experimentation advocated by Klein (1998) or the deep qualitative approach used by Brown and Sellen (2001) may give more accurate insights of emotional aspects of consumer behaviour relative to different product types. Further, a wider demographic representation, to include higher income and older age groups may offer better data, on car and luxury watch purchases in particular, than students and unemployed people.

Xiao and Dasgupta (2002) used an end user computing satisfaction (EUCS) instrument, which, with minor alterations from a pilot study, was validated for monitoring web use

satisfaction. Their study focussed on consumer conceptualisation of internet use and was not grounded in a specified context such as a type of product or the role that consumers expected the internet to fill in their information search process. They surveyed a student sample to validate the utility dimensions identified by the EUCS based on respondent recall of website portal (as the highest traffic websites) use, confirming validity of website content, accuracy, format, ease of use and timeliness. This provides a useful check list for future researchers investigating online utility and/or a focus for further investigation of utility for each of these dimensions individually for future research. Opportunities for future research include evaluating the weight of these dimensions for various information source types (commercial, public and private) and adding differences based on product types and individual characteristics.

Peterson and Merino's (2003) review of literature relating to consumer information search behaviour offline and internet characteristics offer some of the deeper insights to date on where future research in this area should be focussed. Through an objective engagement with solid offline theory, they effectively challenge the "unprecedented hubris surrounding the benefits that the internet offers consumers." They offer 14 highly insightful propositions grouped into four general areas with a direct bearing on this study so this review will deal with each of the groups in turn.

Their first group of propositions (pp 106 – 108) points to the value of pre-internet research in understanding and researching the likely behaviour of consumers online, addressing research methodology and sampling as well as the probability of online

search aids such as robots being used by consumers. Methodologically, Peterson and Merino (2003) point to the potential for using experimental research, particularly in addressing issues such as the potential for information overload relating to online information search. This independently echoes Klein's (1998) call for monitoring consumer behaviour under experimental protocols to determine the causality of different search behaviours online. The second proposition in this group recognises the reality that not all consumers have access to the internet, and access is not equal with those who do and since some only use the internet for e-mail access. Therefore, research on online information search should be limited to those who use the internet for this purpose. They also caution against the generalisability of research using student samples since students have distinctive uses and an ease or familiarity with the internet that may skew results relative to the general online population. The third proposition relates to the potential for personalisation of online offerings and suggests that intelligent agents will be increasingly used for online search owing to their ability to "learn" individual personal preferences of consumers.

Their second group of three propositions (pp 108 – 110) address the likely quantum of consumer search given the lower time and effort costs of accessing information online, pointing out the limitations of Stigler's (1961) theory of information economics. The first of this group of propositions suggests that the internet is unlikely to increase the amount of information gathered for directed or purposive search as the limitation of cognitive cost in handling information, combined with pre-existing knowledge, suggests that the internet will simply become an alternative to offline information. Further,

choice of information sources is heuristic for consumers, resulting in set routines for individuals based largely on their prior experience. The second proposition in this group however suggests that for general or nondirected searches the internet, activity is likely to increase based on decreased mass media use in favour of time devoted to the internet. The final proposition in this group is effectively a product of the first two, suggesting that because of faster access and the knowledge acquired from general or nondirected search preceding purposive search, the overall time devoted to purposive search will decrease.

The third group of four propositions (pp 111 – 112) addresses the nature of consumer search for those who use the internet for purchase related search activity suggesting firstly that the internet will become both the initial as well as the primary source of external information. This also follows the heuristic nature of consumer search where, with expertise increasing over time with use, the complexity of the internet may be less daunting and ease and convenience of information access of greater value to an individual. An important qualification is the need for websites to build trust over time with consumers, owing to the dubious and sometimes incorrect information which may be found at times online. Since the overall quantum of search is expected to remain the same, it therefore follows that the use of offline information sources will reduce but, as Peterson and Merino (2003) importantly note, are unlikely to be entirely replaced by offline information. The final proposition in this group suggests that ability to understand the heuristics used by an individual will be important in understanding their needs for information and resulting behaviour as online information search is likely to

be far more systematic or programmed based on individual routines which will develop over time.

The fourth and final group of four propositions (pp 113 – 115) developed by Peterson and Merino (2003) relate firstly to the size of consideration sets resulting from online consumer search and secondly to the type of information that will be sought online. Consideration sets are proposed to be larger and more heterogeneous from general search because of search engine ability to deliver vast amounts of potentially relevant information. On the other hand, purposive search is likely to deliver smaller and more homogenous consideration sets based on the ability of recommendation agents to filter and personalise information once a consumer has generated sufficient knowledge about the options from general search to appropriately programme such an agent. Finally Peterson and Merino suggest that consumers are likely to pay more attention to product attributes than brands in their search behaviour and that more rational than emotional behaviour is likely to result.

Whether all of Peterson and Merino's (2003) proposals are upheld or not by empirical research remains largely an open question, but their identification of possible qualifications of online information search utility may be a more realistic reflection of consumer situations. Their review differs from some others in the systematic engagement with literature dealing with the complexity of consumer information search behaviour offline and the complexity of the "technical and conceptual phenomenon that is the internet." Beyond their individual proposals are a number of important underlying

themes such as the role of heuristics in search behaviour and their conclusion that survey based research is likely to be less effective in this area than experimental research given the ability to monitor consumer behaviour on a computer. Also they point out that because of the intersect between complex human behaviour and a complex technological and conceptual phenomenon, the internet is unlikely to be an information panacea and building trust is likely to be an important aspect of website operations. Perhaps most significant is their identification of interactions between moderators like personal characteristics, information types and product types as important determinants of online search, reinforcing the findings of other authors (Eighmy and McCord 1998; Klein 1998; McGaughey and Mason 1998; Schlosser, Shavitt and Kanfer 1999; Brown and Sellen 2001; Yoon and Kim 2001). To these previously identified variables they add motivation for search, which is likely to further complicate personal variables, and information sources selected which supports this study's interest in the relative values of information source types. Extensions of Peterson and Merino's (2003) research may be in the area of individual search expertise effects (the basis of their recommendation to not use student samples) on search behaviour and the complementarity or interaction effects between various information source types.

Lee and Lee (2004) researched the potential for information overload online in consumer information search for purchase of a CD player by evaluating the effects of varied option numbers and varied numbers of attributes with varying attribute levels for those options. This extends the study of information overload by combining traditional

(varied option and attribute numbers) and structural (varied attribute levels across options) approaches. In an online experiment they exposed the student sample variations of option numbers (18 or 27 CD players), attribute numbers (9 or 18 attributes for each option) and attribute levels (equal or unequal across alternatives). Following timed exposure to controlled stimuli, each of the subjects then completed a survey on their preferred choice, the number of options and attributes considered and their subjective state following decision making.

The study confirmed that consumers under information overload felt less confident, more confused and made poorer choices which is not an ideal scenario for customer process or outcome satisfaction. Importantly they found that information overload was more likely with more attributes of varying levels than by increasing the number of options or alternatives on their own, suggesting that fewer consistent attributes across options is an ideal situation. The vast amount of information available online makes this unlikely, and if information variance causes problems with a relatively simple “search” product such as a CD player, this review suggests greater problems with the subjective or “experience” type product attributes of wine, restaurants or holiday resorts. Even in the area of “search” type products, many vendors deliberately vary their attributes to make price comparisons between options impractical as an examination of mobile phone contracts, for example, will show. Notwithstanding the artificial standardisation of timed exposure in an experimental setting which limits generalisability, Lee and Lee (2004) identify an important utility limitation of online information content that future research needs take into account.

Moon (2004) reviews consumer choices between online and offline information search based on Bettman et al's (1991) concept of contingent decision making which considers the role of personal characteristics, the nature of the decision problem and the social context in consumer choices. In doing so, he introduces an important theoretical construct to information source choice and also opens a discussion where offline information sources are presented as a potential alternative to online information sources. Moon suggests the personal characteristics in contingent decision making, affecting choice between online and offline information sources, are product knowledge, attitude to the internet and usage skill as well as lifestyle and demographic variables. The nature of the problem introduces whether the search is purposive or generalised and the characteristics of the products under consideration while the context considers the functionality of an individual website together with the perceived benefits and additional risks from online search. Moon's review shows the potential for well grounded offline theory to be applied to online behaviour as his focus on consumer choice, the outcome of perceived utility, effectively draws together aspects of the other papers. In particular the effects of personal and product factors identified by other authors and the potential for interactions between the many variables associated with these two factors highlight the problem's complexity. This review suggests a further key common factor between the paper used by Moon for his conceptual base (Bettman et al 1991) and the literature reviewed to this point is the potential for understanding heuristics (McGaughey and Mason 1998; Peterson and Merino 2003) as a basis for consumer choice. Other areas with potential to extend Moon's (2004) research include



the possibility of a consumer choosing an online public media information source but offline information exchange with a retailer, or multimodal search behaviour. Further, in Moon's connection between information search and purchase, he does not review the intervening decision making activity, which, as discussed in the previous chapter, does have distinctive behaviour which needs to be understood as part of the consumer purchase process.

## **1.2 Information technology utility**

Brown and Duguid's (2000) review literature regarding use of information by people and organisations and offer interesting insights to the benefits as well as the limitations of online information. As they put it (p 2): "With the information spigot barely turned on – the effect has seemed more like breaching a dam than turning a tap – controlling the flow has quickly become a critical issue. Where once there seemed too little to swim in, now it's hard to stay afloat. The 'third wave' has rapidly grown into a tsunami." While the ease and convenience of using digital data exchange for everyday chores such as banking is not disputed they point to the availability of information (critical for personal and organisation decision making) reaching overwhelming proportions. Brown and Duguid (2000) point to the paradox of growing computing power and information link options creating a problem with information overload, compounded by need for information on options to deal with multiple sources and massive volumes of inconsistent information. They argue that a focus is required on the format and context of information and its usefulness beyond simple availability to understand the meaning

and the impact that it will have on people's lives. They point to the counter intuitive endurance of the pencil in the face of alternative drawing and writing options and the failure of the paperless office, predicted by Business Week in 1975 (Issue 2387, Page 80), to materialise. In contrast to what Brown and Duguid (2000 p 10) characterise as the "information logic-based 6-D's" of demassification, decentralisation, denationalisation, despacialisation, disintermediation and disaggregation they offer examples of organisational use of digital information leading them in precisely opposite directions. Their key argument is that social structures and society shape the way information is used rather than the reverse so the appropriate focus of study in understanding the convenience and communication utilities of online information should be to place people at the centre. This view is also advocated by later researchers such as Porter (2001), Wind and Mahajan (2002) and Urban (2004 p5).

Li et al (2001) used protocol analysis to investigate the effects of the "virtual" experience in online mode on consumer experience and cognitive outcomes to test this emerging technology. Their experiment exposed 30 undergraduate students to four "experience" type products (bed linen, laptop computer, ring and watch) with the ability to move, rotate, zoom, animate and customise the products on a computer screen in a laboratory setting. The participants were trained in the use of the software and in expressing their thoughts and feelings while they inspected the representations of the product so that their views of the experience could be recorded and transcribed for analysis. A range of psychological activities relating to product attributes (attention, evaluation, association, questioning and information seeking) were identified by the

researchers that illustrate the potential of such a virtual experience to improve the quality or utility of product information available online.

While the “affordances” or different ways that consumers can inspect 3D products online does not equal personal physical inspection in a retail store, they demonstrated that it goes well beyond the capabilities of traditional non-personal media, greatly increasing the utility for consumers. This represents a major shift in moving to investigate the effects of online communication based on its multimedia and interactive capabilities, and the implications for this on consumer behaviour. It also addresses online communication as the experiential phenomenon implicit in Eighmy and McCord’s (1998) paper and is one of very few papers to address more complex “experience” type products. However 63% of informants explicitly cite the lack of tactile stimulus as a major limitation, a figure that might have grown had the study focussed on a realistic purchase simulation rather than media capabilities. It is possible therefore that a more realistic approach for the investigation of the capabilities of the internet may involve its potential as part of the consumer’s need satisfaction (alongside physical inspection in a retail store if required) rather than as a complete solution in its own right.

Jensen et al (2003) studied the effects of internet advertising featuring a reference price on consumer intentions to engage in further search and their eventual choice of online or offline purchase point for a DVD player, a highly familiar “search” type product. They conducted experiments with a student sample (n=137), an online sample (n=344) and a

mail sample (n=243) with differing demographic profiles and varying levels of access to the internet. Respondents were given an advertisement, that they were told was from the internet, which varied between respondents on the basis of a reference or comparison price being included or not. Respondents then completed a survey, with the advertisement to hand, that firstly queried their perceptions of a fair price and lowest price estimate for the DVD player if it were to be purchased (a) online and (b) offline. Secondly they were queried on their likely intention to search for a better price online or at local retail stores.

This is effectively a test of perhaps the most objective key attribute of a product (its price) on intended search activity in both online and offline environments. All three samples were consistent in showing expectations of lower prices online but the online sample alone (where the only difference was presentation on a computer monitor) showed insignificant main effects of reference price inclusion or exclusion. Since all students in the first sample had internet access, the different result cannot be ascribed to internet access, as may be the case with the third sample, and must reflect the different mode of presentation. Further, hypothesised higher search intent online was not evident, even for the internet sample, suggesting the probability that consumers will search both online and offline, or multimodally, for significant purchases. This may be based on lack of consumer experience and/or expertise in using the internet but also possibly represents a limitation of the internet which cannot deliver the communication effects of face to face contact with a sales person or tactile, gustatory or olfactory sensory stimuli. In summary, Jensen et al's (2003) research suggests important limitations of online

information exchange and different computer mediated communication effects that may result in different consumer utility and possible complementarity between online and offline formats. As the authors suggest, further research is required in these areas.

Klein (2003) conducted experiments into the effects of user control (a key element of online interactivity) and media richness (the number of sources and quality of data within each source). These variables were used to investigate the level of “telepresence” which is a heightened level of engagement with computer mediated communications that moves toward achieving a reality of presence sense and its effect on consumer cognitive responses. This follows Li et al’s (2001) research on the effects of 3D product representations online discussed earlier in this section and extends the very limited research on “experience” as opposed to “search” type products. In two experiments Klein (2003) tested effects of low and high media richness (text and graphics vs full audio visual) and user control (prescribed order of information acquisition vs self directed website navigation) in a 2X2 factorial design. Belief and attitude levels following exposure were tested as dependent variables of each of the experimental conditions with the level of perceived “telepresence” achieved treated as a mediating factor. The first experiment dealt with information on a red wine and the second with information on a popular face cream. In each case, participant navigation behaviour was monitored following which they completed a survey on their perceptions of the experience and the beliefs and attitudes that they held about the respective products.

These experiments found that use of rich media and interactivity resulted in greater “telepresence” than offering standard print and graphic information and ordered information access. The effects of “telepresence” were found to include strongly positive cognitive responses in regard to attitudes to both the products and the “experience” type attributes of those products. This relatively simplistic experiment suggests the potential for online information exchanges to deliver great utility for consumers with relatively simple design rules of empowering consumers combined with using the audio visual capability. Klein (2003) suggests that differences between the two experiments’ results may reflect better effects from using a “mediated personality where the user perceives a social relationship with an actor within a medium” based on a person presenter. This may echo Eighmy and McCord’s (1998) findings of the importance of moving beyond impersonal data presentation online, and that this may be of heightened value with “experience” type products.

Ratchford et al (2003) contrasted the reported information source use of consumers before the internet (1990) and after the internet (2000) with a replicated mail survey of recalled information sources used in the process of purchasing a car. Their primary objective was to investigate the level of offline information source substitution by online information and changes in levels of search since the introduction of the internet. Both surveys used a mail sample of new car private buyers to identify differences in information search behaviour both pre and post internet availability, with around 900 surveys returned (approximately 30% response rate) for each survey. Independent variables were taken as consumer product experience, demographics, prior information,

perceived time costs and price paid for the car as determinants of the dependent variables which were the total time spent searching, the types of information source accessed and whether the sources were online or offline. They identify an important aspect of car buying is that it includes “search” attributes such as engine size, performance and physical properties, as well as “experience” attributes such as handling, comfort and ergonomics so consumers need search functionality that satisfies both types of attribute.

Among the findings of Ratchford et al (2003) is confirmation that consumers do use both online and offline, or multimodal, search and clearly prefer online information for more objective “search” attributes and offline for more subjective “experience” attributes. This is reflected by advocate or commercial sources (manufacturers and retailers) having the highest levels of offline information replaced by online information, while consumers tended to prefer offline access to public media and personal information sources. The availability of lower time and effort “cost” data on the internet, did not result in wider or deeper search, with consumers apparently taking the time and effort savings available from internet for a requisite amount of information. While Ratchford et al (2003) do not reference Stigler’s work on information economics, this seems to validate the failure of cost benefit rationality suggested by Peterson and Merino (2003) in the previous sub section. Notwithstanding methodological limitations, including changes in attitudes and knowledge between the two studies, the study confirms multimodal search, suggesting that to better understand online behaviour there is a need to understand the effects of offline behaviour on what is done online. In

addition the existence of similar or parallel information source types (characterised in this thesis as commercial, public and private) online and offline are confirmed, with possible preference for commercial information sources online and public and private information sources offline.

Jones et al (2005) investigated the effects on consumer recall and recognition of persuasive (advertising) and non-persuasive (information) communication based on hardcopy or print and softcopy or screen presentation. Their convenience sample of 48 subjects viewed persuasive and non-persuasive information (in varied order for between subjects effects) relating to a non-prescription cold remedy in either hardcopy or screen presentations. They then tested for recall and recognition effects of print and screen communication between subjects and advertising and information communications within subjects using questionnaires following timed exposure to the stimuli. Data was also collected on potential mediators and moderators of behaviour such as product familiarity, stated preference for information mode and comfort with using technology but were found to have negligible effect on recall and recognition between information type and presentation formats. Jones et al's (2005) study extends literatures dealing with human-computer interfaces and marketing communications which have consistently shown consumer preference for, and superior effects of, hardcopy print compared to audio or screen for learning. The results confirmed superior brand recall ability for both persuasive and non-persuasive information in print than for screen presentation based on better cognitive effects. Non-persuasive information, which is more likely to be actively sought by consumers, did perform better than persuasive information online but



was still not as effective as hardcopy print. The performance issue seems to be retrieval rather than storage of information as recognition, or aided recall, showed no significant differences between screen and hardcopy formats.

Notwithstanding limitations of lack of linkage between stimulus and need as well as lack of dynamics in stimuli in the experiment, this research shows important effect differences, based on standardised presentation, between screen and hardcopy information. What is less clear, and requires further research, is the trade-offs for consumers between lower cognitive effects from online information and the effects of “telepresence” based on media richness and interactivity shown by Klein (2003). In addition, the effects of sought and unsought information may be different in a situation of actual need or consumer arousal and may also differ between high involvement hedonic products and the low involvement utilitarian product used in the study.

Bickart and Schindler (2001) evaluated online forums as an information source for consumers relative to vendor sponsored website information by means of an experiment. The 5X2 experimental design required students, in return for extra course credit, to investigate either website information or online forums relating to one of cycling products, exercise equipment, nutrition supplements, photography or stereo equipment. At the end of the semester 61 students completed a survey which canvassed their purchase likelihood, expected spend, knowledge about the product, degree to which they had thought about the product and their interest in the product category. The results suggested higher purchase intentions, spend level and interest in the relevant

product area for participants that investigated forums rather than websites controlled for product knowledge and prior thought about the product. These results are particularly significant as the experiment covered a variety of product types with different characteristics and while there were differences in effects between product categories, the greater effects of online forum information was consistent across all categories. Online forums therefore seem to add substantial information utility for consumers online, including for “experience” type products and further research into whether this leads to better cognitive effects is warranted. Unfortunately the research does not help in understanding the relative utility of offline personal and peer group information sources and online peer group information exchanges. In particular it will help understanding of consumer online search behaviour if the effects shown by Bansal and Voyer (2000) of the effects which offline personal contacts have in refining and focussing a search are shown to apply to greater or lesser degree online. The issue of potential credibility problems in exchanging information with typically anonymous online forum participants is answered in the next paper dealt with in this review.

Bagozzi and Dholakia (2002) extended prior work on online forums with a survey of regular participants to determine their motivations and perceived roles in an online forum environment. They surveyed 157 active online community participants regarding attitudes, subjective norms, perceived behavioural control, past behaviour, anticipated emotions, desires, group norms and social identity in online forum participation. Using structural equation modelling they showed that intent to engage in collective action or “*we-intentions*” were based on positive emotions and a sense of social identity acting

through the mediating role of desire. The power of this collective action is typically based on information exchanges between people in small groups over time with development of behavioural norms and understanding of meaning from a focus on the content of text in the absence of non-verbal communication in face-to-face interactions. Over time, online virtual communities create and maintain shared conventions, social roles, rituals and the effective anonymity within such groups results in deindividuation effects which increases the susceptibility of members to group norms. This is supported by the common interests and jargon that draws group members together and their mutual interest in gaining from online information exchange. Their model is based on conceptualising community participation as *intentional social action* and the model of Goal-Directed Behaviour to develop a “we-intentions” concept to help explain the influence of forums in online consumer behaviour.

In addition to giving foundation to the growing influence of online forums for consumer information search this research also helps to explain why consumers may trust anonymous participants in online forums. In addition the existence of clear roles for individuals within an online community may also provide understanding of different treatment that may be justified such as special attention or privileges for opinion leaders and advocates in the online community. Finally the development of text communication norms and protocols also suggests that much may be learned from closely examining the information exchanges of consumers engaged in online forums. Such information may offer useful clues into aspects of their product needs, such as otherwise difficult to

elicit motivations for purchase, as well as information needs to enable customer value adding by offering links to appropriate information within their site or elsewhere.

Redmond (2002) reviewed literature dealing with artificial shopping agent use and the role of agents in consumer markets to develop insights into the likely impacts of consumer use of online shopping agents. He covers all activities of the buying process so this paper will be revisited in a later section of this chapter but at this point is confined to reviewing the impact of using agents for information search. A major source of online consumer frustration is identified in using search engines and robots for information search and in contrast to information overload Redmond points to the paucity of relevant information within the vast quantities of information that the internet can deliver. The root cause of the problem is identified as the inflexibility of search engines and technological agents which require use of the exact search terms mandated by the vendor from a potentially wide array of options. When consumers describe products in terms that differ from those of perhaps the best suited supplier of information the law of adverse selection comes into play and sub-optimal options are offered to the consumer. Such inflexibility of technology can only be remedied by revisiting and changing the instructions provided to the technological agent or search engine and only if the consumer is aware of their information's defects. Further the inconsistency of attribute descriptors between websites offering similar products makes it impossible for technological agents to effectively rank the competing offerings as such choices require subjective human judgements. This problem is even greater in product categories where consumers may have different buying motivations or in

categories where attributes have attributes that are more “experience” based or subjective in character such as fashion products. It therefore seems that the utility derived by consumers from using online shopping agents and search engines is diminished not only by the information overload identified earlier but also by lack of accuracy and delivery of inappropriate information.

Johnson et al (2003) observed the behaviour of consumers on websites dealing with the sale of books, music and travel to identify the potential for consumer site loyalty based on learning effects or familiarity developed over time. They measured time spent on selected high traffic websites by Media Metrix panel members (n=19466) over multiple visits, controlling for sites visited in error and sites that were accessed and then left idle while the user may have attended to other matters. The results showed a consistent decrease in duration of access across all websites with market leaders such as Amazon.com showing the sharpest rates of decline resulting from user facility as a function of learning and a rising propensity for purchase from the relevant site. The superior performance of the non-linear power law model over the linear model of learning is remarkable given the dynamic nature of websites, but indicates clearly the importance of not changing basic website schemas to minimise needs for consumer relearning. Its effect is also remarkable since prior visits, which would have resulted in an even steeper learning effect cannot be accounted for by research that engages with consumers’ actual behaviour at a given point in time. These findings are particularly important for this study as they suggest rising utility from familiarity with a website

over time, suggesting that the benefits of achieving repeat visits from consumers compound themselves over time.

Johnson et al's (2003) research differs greatly from other laboratory based experiments in the use of actual consumer observations rather than simulations, showing a median duration between visits to websites of over 4 days rather than contiguous laboratory behaviour. This showed lower learning effects with greater duration between visits, a result that would be open to question in laboratory experiments and highlighting the importance of this key element of online consumer utility. The decrease in cognitive costs over time using the power law of practice and associations with repeat visits and online purchase incidence suggests a strong basis for relationship development with consumers, particularly if vendors are able to identify information sources and types that will better suit their needs in a search process. An interesting extension to the reported data would be the transaction sizes that resulted from this effect as while books and music are typically "search" type products, travel has elements of "search" (airline flights, car hire, major hotel chains) as well as "experience" (resorts, guide services, boutique lodgings) type products. With the relatively higher volume of activity associated with travel sites reported in their data, it would be interesting to know the ratio of visits to purchases and whether there was a slant toward purchase of "search" or "experience" type travel products.

Murray and Häubl (2007) offered a deeper explanation of cognitive lock-in with experiments that showed how skill based usage habits influenced consumer behaviour

online. They used laboratory based research to enable controlled exposure of different treatments to participants of a content based website offering various categories with hierarchical subdivisions below them. Treatments offered identical content but differed in offering either pull down menus or radio buttons for the navigation interface with participants required to navigate to a specific spot with guidance from error messages when they strayed from the path to the required information. Over three experiments participants performed varying numbers of trials using one of the navigation interfaces to show the effects of (a) perceived and actual ease of use based on error rates in the course of the trials; (b) effects of task complexity or relative ease of trials and (c) goal activation in the selection of or preference for navigation interfaces. Following a final trial with their chosen interface participants responded to a short survey of manipulation checks and rating scale measures. Ease of use was measured by reduced task completion times (RTCT) and was found to improve with the number of trials performed by participants while perceived ease of use is related to number of errors and mediates the impact of errors on eventual preference. Task complexity was varied by different numbers of screens that participants had to navigate through to complete a trial and showed that in less complex tasks preference was established with a single trial while more complex tasks required multiple trials to establish preference for one interface over another. Finally goal activation was tested by assigning different tasks in the form of search or opinion posting on a website as the other variable to complement the different navigation interfaces.

The importance of Murray and Häubl's (2007) research is their establishment of the importance of context with cognitive lock-in applying to a specific product or service in a situation where the consumption goal fits with that when the skill-based habits were developed. This suggests that the habits developed have similarities to the heuristics used by consumers for decision making, with specific patterns arising for specific tasks based on product type and motive for purchase. However, experience or repetitive performance on its own will not result in consumer preference as if the consumer perceives the site as difficult to use, typically through incidence of errors made, they are likely to opt for an alternative. Their finding of the negative effect of errors on perceived ease of website use raises the bar for performance as presumably it follows that by offering better suited information sources to consumers, marketers will increase perceived consumer ease of use and their preference for the website. The focus of the research is however an abstraction of consumer behaviour as it is tested in consumer preferences for different tasks and does not engage with the behaviour of a consumer engaged in a purchase task, let alone differing motivations associated with buying hedonic indulgences relative to utilitarian staples.

### **1.3 Factor based search modelling**

Degeratu et al (2000) investigated consumer integration of online and offline information with the information stored in their memory when making choices for packaged grocery products. Based on information integration theory, they determined importance weights and scale values of brands, sensory and non-sensory attributes and



price sensitivity for packaged grocery items in online and offline store environments. Data from two consumer grocery shopping panels were used, the first of online shoppers enlisted by an online store operator and the second of offline shoppers recruited by a research organisation. The data reflected individual panellist grocery purchases over 25 months for the offline panel and 15 months for the online panel as well as frequency and size of shopping activity. They also had access to pricing and sales promotion in effect at the time of purchase and developed typologies of attributes for liquid detergent, soft margarine spread and paper towels as the product categories researched.

Specifically Degeratu et al (2000) investigated the differences in search costs for four categories of attributes being (a) brand name, (b) price, (c) sensory or “experience” based attributes and (d) non sensory or “search” based attributes. A two stage model was developed based on a primary choice to use either online or offline store based on binary probit modelling followed by brand choice modelling for the selected products with observed and unobserved heterogeneity using multinomial logit. Their results indicated that brand switching was less common online than offline across all product types attributed to higher levels of sales promotion in offline supermarkets than online stores. Further, online consumers were less price sensitive, with lower levels of brand switching in response to promotional pricing by brands although online panellists were more responsive to sales promotions accompanied by a price cut. Online consumers are also more brand orientated with the highest share brand enjoying higher proportional shares and with less inclination to trial new brands online than offline. These

behavioural differences suggest clear differences between online and offline consumer behaviour based on the actual behaviour of panel members over time particularly the adoption of brands as a surrogate for tactile, or olfactory sensory stimuli that are not available online. Such behavioural factors may be useful for inclusion when modelling likely behaviour of consumers online using structural equation modelling. However, assuming deliberate cognitive processes for low involvement, low differentiation products may not reflect possible routine repurchase of such items or the development of heuristics determining product selection and further research is required in the context of higher involvement infrequently purchased products. Further a fuller range of factors should be investigated for the lower level of price sensitivity in online shoppers including the possibility that a major motivation for online shopping is to remedy a cash rich / time poor lifestyle. Note that this is not just a function of income but also includes a need to save time which may lead to less deliberation or weighing of options and a higher level of brand loyalty as a result.

Lohse et al (2000) also used online panel survey data from two points in time for modelling changes in consumer behaviour over the period of a year to predict future online spending. The survey was completed by 2,549 respondents, 41% of the available panel who answered the same questions a year earlier, and analysed to identify emerging trends in online consumer behaviour. They collected data on purchase behaviour online, respondent internet use (e-mail activity, searching for information or news, duration and frequency of online sessions and time online), how much they spent online and what they spent it on. Factors associated with online purchasing were

modelled using logistic regression and information search activity and volume of e-mails received each day were identified as the two most important factors followed by willingness to use other non-store shopping options. Dramatic increases in such online activity between surveys was borne out in a growing trend to online purchase and although 14% of respondents who reported online purchases in the first survey did not do so in the follow up survey, 31% reported purchasing for the first time. The overall proportion of people purchasing online rose from 55% to 72% from one survey to the next with online purchasers tending to having higher incomes, work longer hours, have been online for longer, spend more time online and being less likely to have privacy concerns.

For the purposes of this review Lohse et al's (2000) key finding was higher probability of online purchase based on the individual's duration of internet use and growing duration of use over time, given the continued growth in adoption. As importantly was identification of the "time starvation" and "wired" lifestyle factors associated with internet adoption, roughly analogous to the cash-rich time-poor situation referred to in the discussion of Degeratu et al's (2000) research. The lack of importance of demographic factors for predicting online purchase is also interesting and although it contradicts some earlier studies, has subsequently been validated by more recent studies which will be covered in the online purchase utility section of this review. Critically, the importance of information search and use of other online applications like e-mail in predicting purchase suggests a generalised behavioural basis for modelling use of online resources.

Hill's (2001) review of literature relating to nonverbal communications and mental processing by consumers suggests a different aspect that has to be accounted for in modelling online behaviour, namely their responses to the information that they encounter on the internet. The review was not conducted with a view to improving modelling activity but nonetheless suggests an important aspect of consumer behaviour that needs to be accounted for. Individual responses and subsequent behaviour are likely to differ depending on the degree to which the consumer's information needs were satisfied or frustrated by website content accessed. Further an understanding of whether a consumer is acting emotionally or rationally will indicate what type of information the consumer may require next. The science which has established the importance of non-verbal communications and the propensity of limbic or emotional responses to stimuli is certainly important and suggests that ability to understand the impact and appeal of stimuli will greatly improve ability to serve appropriate information sources and predict subsequent online behaviour. Ideally the data needs to reflect both their conscious and subconscious responses to online stimuli to develop an understanding of future needs. Notably Hill (2001) is the only research found advocating a need to identify and understand the reactions of consumers to the stimuli that they encounter online. This is likely to be of particular significance for complex behaviour buying process behaviour where high risk products are highly differentiated (Assael et al 2007, p 90).

Spink and Gunnar (2001) analysed the search terms used in search engines to develop insights into online search behaviour. They randomly sampled 10,000 search records

from each of the two major search engines (Excite and Ask Jeeves) in use in 1999 and qualitatively analysed the search terms to identify the content of searches and the most common query terms used. The searches were then categorised and counts done of each category for basic descriptive analysis. Their finding of the diversity of search terms used, with very few achieving a high count, reflects the scarcity Redmond (2002) (reviewed in the earlier section on technology application utility) found of successful online searches. This is particularly surprising given the small average of 2.4 elements in each enquiry across their study and illustrates the degree of potential for unsuccessful online searching. Spink and Gunnar's (2001) methodological importance for this thesis is their use of content analysis in search terms, which, while not as sophisticated as the work done by Li et al (2001), shows the potential to monitor customer expression data inputs.

Klein and Ford (2003) investigated the relative perceived benefits of online and offline information sources for consumers engaged in search for a major purchase decision to develop an understanding of the depth and breadth of online information search. Drawing on the conceptual base of information search behaviour they importantly included personal factors such as demographics, internet use, education and prior knowledge on search behaviour expressed as duration of search and number of information sources accessed. This solid grounding in information search theory identifies important factors which are likely to affect the volume of consumer search as well as preference for various types of information source. Two groups of respondents for Klein and Ford's (2003) survey were recruited firstly in the process of purchasing a

new car through automotive dealer websites and secondly recent car purchasers by e-mail to lists of recent buyers. Both groups in the sample completed questionnaires that canvassed consumer attitudes to various information source types online and offline as determinants of information source preference by individuals. The data was similar to prior information search studies with massive variance in search behaviour ranging from short duration and limited numbers of information sources to long duration and multiple varied information source types.

Their findings contribute to online information search behaviour knowledge in the two areas of (a) personal factors affecting volume of search and preference for information source types and (b) differences between effects of similar information source types online and offline. Personal factors such as higher income and self perceived (subjective) knowledge of cars were negatively associated with search volume while car ownership experience or objective knowledge had a positive association with search volume. The best predictors of consumer internet use for information search in Klein and Ford's (2003) study were the individual's duration of internet access and education indicating that these are important variables for modelling. The other major contribution made by Klein and Ford (2003) was the identification of different effects for similar information source types online and offline. For example, offline personal or dealer information exchanges were preferred to online contacts, suggesting that online and offline information sources should be differentiated in an information source typology. On the other hand, the internet was preferred for information on performance data such as reliability, reputation, use factors and performance, with "search" attribute

information preferred from manufacturers and “experience” attribute information from independent sources. There was no apparent substitute however for personal inspection of a car suggesting that online and offline information source use is not mutually exclusive and may be complementary. Similarly, the internet was unlikely to be used in price negotiation by consumers, a point which will be revisited when this review turns to consideration of online purchase utility.

Interestingly, Klein and Ford’s (2003) research contradicted other research in some important aspects that require resolution. Their finding that search activity increased with the introduction of the internet is contrary to other authors (Jensen et al 2003; Ratchford et al 2003) who cited increased cognitive costs as the basis of reduction in information search activity associated with the internet. Also in contrast to these authors, they found the internet equally preferred for access to both subjective and objective information types although the highest level of offline substitution by online information sources were commercial sources (dealers and manufacturers). The reasons for this are not immediately apparent with one study using a recall based survey for the same product type and the other using online recruitment of participants so this contradiction will have to be resolved by further research.

Using such insights in modelling consumer behaviour however requires understanding the roles and complementarity of information sources relative to each other and particularly how these might differ as the consumer progresses through the activities of a buying process. For example what is the value of online forums relative to seeking the

opinion of a friend or acquaintance who owns the car model of interest to the consumer? Also there is a need to understand the roles of commercial relative to independent information sources for consumers seeking data on performance data or reliability and how these are activated during a consumer search process. To understand this a greater focus may be required on the attributes of information sources at the level of information format (print, video, interpersonal etc) and perceived independence and utility of different levels of attributes both online and offline for a given consumer. Further, to use the personal factors identified for modelling behaviour requires identification of the consumer's duration of internet use, income and objective and subjective levels of product knowledge preferably based on behaviour rather than a need for site visitors to complete what could be an onerous survey.

Ward and Ostrom (2003) demonstrated the benefits of effective customer information service online by showing the pitfalls for unwary or unskilled internet information searchers. By performing online searches for 16 pairs of a range of products and services they demonstrated the effect of Redmond's (2002) review of literature on the law of adverse selection. They performed a content analysis on the results of a standardised search process for each of the 32 selected products for comparison within the pairs and across the group to evaluate the degree of search success for each of the products and variations between product types. Within the pairs of products, the difference between options was relative market share with one high market share and a lower market share option tested. They used a metasearch engine that drew on the databases of the leading search engines at the time and recorded the details of 1141 sites



delivered in response to a search on the brand names. The data they recorded was firstly whether the site offered was a bone fides offering from the brand or brand partner such as a dealer or affiliate or whether from an unofficial third party source but still relevant to the brand of interest. Second they recorded whether the information found on the website was positive for the brand owner's objectives, negative (e.g. boycott advocacy, news about product failures or instructions to modify a Sony Playstation to enable use of illegally copied software) or both in relation to the brand of interest.

They found 65% of website hits were from unofficial third party sites such as media, unauthorised resellers, user groups, competitors and advocacy groups and while the majority of hits were positive 24% were negative and 19% were neither negative nor positive in character. In case studies on selected organisations they illustrated the pitfalls of antagonising employees, customers and interest or advocacy groups who can easily establish sites with negative content that may substantially erode the organisation's online marketing communications. They identified online strategies for organisations beyond avoiding antagonising stakeholders through best practice management practices. A key strategy is developing multiple sponsored websites and working with supply chain partners to develop supportive information offerings to achieve a critical mass of information online. In addition, a positive engagement with stakeholders in forums and other online information exchanges further extends the range of websites which support marketing objectives that might be found by search engines. The critical point is the need for collaboration and interaction with third parties online to minimise the likelihood of consumers being offered negative information

online. This is particularly relevant to consumers who are seeking an organisation online for the first time or who have limited product experience in a particular category and may be engaged in generalised search for information. For modelling therefore, the potential to use activity data from a cooperative network of alliance partners may have to be addressed. Further, hosting and promoting use of online forums will offer benefits beyond the consumer utility derived from such forums and increase critical mass online and may also offer useful data for tracking consumer needs based on identified linguistic and behavioural norms (Bagozzi and Dholakia 2002).

Richard and Chandra (2005) modelled browsing behaviour within a website based on a range of personal and situational factors and the effects of flow and web navigation effects on an eventual intention to purchase the product. They collected data through a survey on the product page of a major non-prescription pharmaceutical product to elicit a range of behavioural constructs as well as antecedents of “flow” and website navigation effects. The behavioural constructs included the personal factors of optimum stimulation level (OSL), need for cognition (NFC) and motivation for search and context factors of site involvement, nature of search behaviour and attitude to the site. The results of structural equation modelling showed prepurchase intention was most affected by the challenge dimension of the “flow” construct and site involvement although attitude to the site was not related despite sharing an association with site involvement. Another important association with attitude to the site was the nature of exploratory behaviour which in turn was associated with a range of cognitive measures such as OSL and NFC as well as the skill dimension of “flow.” However asking

consumers to complete surveys to gather data required for determining OSL and NFC may be problematic and skill characteristics present an even greater challenge as they will develop through the buying process. Use of such variables therefore seems an unlikely solution for real time predictive modelling of consumer information needs.

Their research offers a very useful description of exploratory behaviour and the factors associated with prepurchase intention and positive attitudes to a website but may lack some aspects required for a fuller understanding of online consumer behaviour. The focus on the site as the object of consumer behaviour seems to miss the point that it is a means to an end for consumers, in this case medication to hopefully solve a consumer's need for some form of health relief. Would this be the same based on varying acuity of the consumer's condition and would it be different again for something that was purchased as a personal indulgence rather than a remedy? In addition to different product types and motivations for purchase an understanding of consumer psychological traits, such as levels of risk aversion, and mood states may expand knowledge of online consumer behaviour for modelling purposes.

Ylikoski (2005) took a different approach to modelling information search by approaching it from the level of different online search activities specified in the theoretical base of "heuristic" search relative to analytical search. Ylikoski's use of the word "heuristic" is different from the more widely accepted use of the word in consumer behaviour literature (Bettman, Johnson and Payne 1991; McGaughey and Mason 1998; Peterson and Merino 2003). He specified a search task of seeking

information for the prospective purchase of a camcorder for a student sample (n=149) and asked them to record their activity defined by sites and pages visited, navigation methods used and the nature of searches conducted. “Heuristic” search activities were characterised as starting with direct navigation to an information content site, reacting to information presented, identifying useful sites and navigation through hyperlinks. Analytical search activity on the other hand was characterised by formal search typically using query operators such as “AND,” “OR” and “PHRASE,” refinements of prior searches and systematic site analysis. Using qualitative analysis the incidence and sequences of activities were identified followed by cross tabulation of frequencies for summarisation in a sequential network. Finally, a multiple regression was performed with diversity of information use reported as the dependent variable and the numbers of analytical and “heuristic” search events as independent variables to indicate the level of search success. The results suggest an overwhelming preference for “heuristic” search with higher levels of information flexibility resulting which helps to deal with the problem of data incompatibility for comparative purposes. The regression showed significantly better performance for “heuristic” search activities in finding flexible data to enable comparisons across products although the  $R^2$  measure is only 17% and the metric properties required for regression of the dependent variable are questionable.

Ylikoski’s (2005) research is important in characterising the most preferred and effective search activities for consumers and is a particularly important addition to Moe’s (2003) characterisation of page contents as a means for extending the bare bones approach to modelling offered by clickstream analysis. There are however issues with

generating self reports of activity from consumers online to help with classification of behaviour so alternative methods may have to be considered for the classification of search activities online. In addition the use of student samples is, as pointed out earlier in this review, inappropriate for a number of reasons so these findings require validation by slightly differently formulated research.

#### **1.4 Clickstream search modelling**

Chatterjee et al (2003) monitored “click through” behaviour of unique site visitors exposed to two site sponsors’ banners recording the incidence of clicks by consumers seeking information within and between sessions. They investigated variables affecting consumer behavioural responses to online stimuli by studying responses to online banner advertising and methods for modelling such responses. Their data was derived from the browsing behaviour of 3,611 visitors to a content provider (“e-zine”) website over a period of 7.5 months where individual behaviour was assured by requirement for unique usernames and passwords for access to the website. They found the probability of a consumer clicking on a banner ad declines with each exposure within a session in a non-linear function that shows increases in the marginal value of exposure following the 11<sup>th</sup> exposure. However only 20% of respondents reached 11 exposures which suggests that it is important to offer a link relevant to their needs early in each search episode to increase the chances of them clicking on a link. Between sessions, click probability increases based on time elapsed between the sessions perhaps reflecting the inferior recall effects online identified by Jones et al (2005) and the increase is even higher if

they have clicked on the link or banner in a prior session. Click probability did however decline overall over cumulative numbers of sessions.

The data enabled Chatterjee et al (2003) to model the probability of a consumer clicking on one of the selected sponsor banners at a given point of a given session over the duration of the monitoring period. The improved performance from modelling behaviour both within and across online information search sessions represented a major advance in modelling which had previously used current data in isolation. However it seems likely that modelling performance could be improved if knowledge of the personal factors, identified as affecting consumer behaviour earlier in this chapter, could be used to release the heterogeneity. In addition the use of advertising banners rather than information as customer service to assist an information search process may have affected the incidence of clicks. Schlosser et al's (1999) work reviewed in the section dealing with online search content utility suggests advertising response may be lower than information offerings so the negative trend in click probability over time requires validation for information service links. Other possible extensions to this research are the effects of targeting communications that are relevant to the consumer's needs, which requires an analysis of content that the consumer has engaged with in their clickstream. It also requires understanding of search paths associated with different needs for particular product types based on investigation of purposive purchase related search activity rather than what is essentially hedonic browsing behaviour.

Moe (2003) showed the potential to identify the information objectives of consumers on a website by analysing the content of pages viewed as in addition to the timing of their movement between website pages. Using data provided by a market research organisation gathered for an online supplier of health supplements, she firstly categorised the pages on the site into information, search, category, brand and product levels. She then analysed activity of 5,730 unique visitors in the course of 7,143 visits over 7 weeks based on the total number of pages visited, the average time per page, types of pages, diversity of page types, repeat visits to pages and purchases where applicable. Their behaviour conformed to four expected types derived from the conceptual bases of different types of search behaviour with different purchase horizons based on cluster analysis which produced the four types expected plus a fifth type of “shallow” visitor who did not engage meaningfully with the website. The clusters were based not only on numbers of pages and average time devoted to each page in a session but also on depth and breadth of search within each page type and ratios of information pages to category pages, category pages to product pages and other permutations of the variables measured.

The first cluster of “knowledge building” sessions represented consumers building knowledge for a future possible purchase from the site and concentrated on information pages such as company information, product advice and community forums. The second cluster of “hedonic browsers” sought information for information’s sake rather than purchase and concentrated their activity on multiple category level pages rather than brand or product related pages. The third cluster of “directed buyers” spent most time

on limited numbers of product level pages with high levels of repeat page viewing and little attention to information or category or brand level pages, based on their focus on a product they are contemplating buying. The fourth cluster of “search/deliberation” expended the greatest effort in visiting the largest number of pages, searching a range of product options in a single or limited number of categories with a low level of repeat visits to specific pages. A smaller number of variables is however preferable for modelling purposes so Moe (2003) then used discriminant analysis to determine which of the metrics contributed the most to predictive ability for consumer behaviour. She identified the metrics of category variety viewed and repeat page views as the most important overall with two or three clearly dominant metrics for each of the clusters identified. In general, however higher levels of variety in pages viewed indicated browsing behaviour while low variety and high levels of repeat page viewing suggested short term purchase motivation which was demonstrated by significantly higher ratios of eventual purchases for buyers and searchers in particular.

Moe’s (2003) research is however limited to brand standardised products that are likely well known to consumers and may require extra dimensions to deal with highly differentiated and possibly semantically complex products. While there will certainly be a variety of different motivations for buying health supplements ranging from weight loss to physique enhancement and health benefits these are still utilitarian products based on defined chemical compounds. Further research is required to investigate how consumers deal with semantically complex products such as “fun” or “adventure” in



recreational travel experiences where the meanings of such words and motivations for choice can be vastly different between individuals.

Johnson et al (2004) researched the quantum of search undertaken by consumers over 12 months for standardised commodity products such as books, music CD's and air tickets to determine whether lower search costs online led to greater levels of search. They observed the search behaviour of over 10,000 panellists across multiple high traffic websites for the products of interest (in contrast to earlier studies which rely on data from individual vendors that this review will deal with in the section on purchase utility online) to identify factors in search that may assist in modelling consumer behaviour online. Firstly they examined the number of vendors visited in a typical month of active shopping activity and found that search activity was low in the first month (1.1 stores for books and 1.8 for air travel) and increased slowly over subsequent active months of shopping. This resulted from a high level of loyalty to a single site on the part of many shoppers throughout the duration of observation. To identify possible underlying trends at an individual level, they decomposed the data into firstly depth of search or multiple vendor visits in a single month, secondly changes in numbers of vendors visited over time and thirdly the overall volume for each household by product category.

Johnson et al (2004) then applied probability logs and hierarchical Bayesian modelling to the data and found that search activity was indeed low with the exception of higher search on the part of more "active" households. The air travel category showed higher

search propensity, most likely as a result of higher costs and higher variance in prices over time between vendors. A key finding was that households which access higher numbers of site visits are not necessarily those with more experience of online shopping but rather characteristic of some households being more “active” than others. The findings are surprising given price variance between vendors in these categories shown by prior research (e.g. Brynjolfsson and Smith 2???) suggesting potential gains from higher levels of search. Such low levels of activity raise questions about the rationality or cost benefit relationship underlying search activity, possibly based on cognitive lock-in (Murray and Häubl 2007) from prior use. There was however definite, albeit slow, growth in the number of sites searched over time which may reflect growing consumer utility with internet use given that the data was collected in 1997/8 when the internet was more of a novelty than it is now. This low level of search for highly standardised products with easily searchable attributes raises questions about behaviour of consumers engaged in more complex search activities. Highly differentiated products and complex attributes, like services, present a far greater challenge for online search activity and may attract even less search activity.

Park and Fader (2004) extended modelling to data on consumer clickstreams across two sites for each of the book and CD product categories and significantly improved the predictive ability of clickstream models in doing so. They also used clickstream data from a panel but applied it in developing associations between the timing and coincidence of panel member visits to different sites as the basis of a multivariate model to predict future visits by consumers. From logs which specified the dates and times of

visits from specified households they were able to determine patterns of comparative timing and frequency of visits to each of the two websites in each category to develop latent propensities for future visits to each of the category options. The data supported Johnson et al's (2004) finding of the sparsity of search with only 25% of panellists visiting either one or both of the two book vendors and 12% visiting either one or both of the two CD vendors at an average of around 2.4 visits per visitor over the 8 month period. This sparsity of search also results in a minority of panellists (24% for books and 17% for music) shopping across the two sites monitored although they accounted for a far higher proportion of the number of site visits (books 47% and music 41%). Nearly one third of these cross site visits were within a week of each other, growing to just under 50% over a period of 30 days showing substantial early temporal coincidence of visits. Based on this they developed and tested one model based on site centric data and another two models which included each of the correlated visit timing and correlated visit frequency measures. The fourth model, which incorporated both the correlated visit timing and correlated visit frequency measures, offered the best fit and was shown to eliminate a systemic bias to overestimation that results from site centric data.

This research by Park and Fader (2004) is important in establishing the importance of multiple data sources for improving the predictive ability for models even for relatively simple standardised products with low levels of search and comparative shopping. Panel data such as that used in their research is likely to be useful for planning customer acquisitions but is unlikely to assist in modelling consumer information needs in real

time to enable improved information serving. This would require pooling of complete vendor databases which is unlikely on the basis of both competitive and privacy legal issues arising in many countries. It does however offer options for intermediaries such as travel vendors who offer a variety of different products for the fulfillment of a consumer's needs or related business units of a corporation to develop better predictive ability of likely consumer behaviour. In addition this may be a further benefit of establishing cooperative groupings (Ward and Ostrom 2003) of supply chain and other alliances online for organisations. This may be further extended by using content analysis (Moe 2003) to better understand the motivation for different visits and perhaps the customer's motivation for purchase to enable dynamic offering of information sources tailored to a customer's specific needs. As discussed earlier, such considerations become a lot more problematic when dealing with products characterised by more semantically complex attributes.

## **2.1 Option evaluation content utility**

The literature in this area is void. While the key to content utility may be assumed to be the depth as opposed to breadth of information valued for information search, many of the issues identified for online information search may apply to decision making. The trade-offs between information volume and overload for example may persist as may preference for offline information for some types of information or sources but will the same effects apply? The frustration shown with lack of personal interaction in accessing information online is also likely to apply with decision making as consumers weighing

up options seek guidance on distinctions between seemingly similar options. New information sources or substantially different use of the same information sources may be required for the different attributes likely to be considered in making decisions. Similarly the personal and product factors that bear on information search behaviour are also likely to affect behaviour with dynamic state, stable trait and motivation for purchase effects applying to decision making as they do to information search. Patterns of behaviour can be expected to change however as Moe (2003) showed differences in frequency of website page visitation and differences in page type use as consumers moved from purposive search to purchase intention. Since consumers may shift back and forth between information search and decision making it is important for vendors to distinguish between the two types of behaviour to enable serving of appropriate information sources and formats.

Purpose specific research is also required to identify roles and usage of online information sources in decision making as distinct from information search activity. Since the contact point options are common this is largely a matter of defining different behaviour typologies associated with choosing between options as distinct from option search and screening. A key question however is whether consumer membership of heuristic behaviour pattern groups varies between information search and decision making. In other words are behavioural groupings identified for information search likely to remain the same for decision making or do those groups fragment and realign in different groupings for decision making activity?

## **2.2 Option evaluation mode utility**

As with decision content utility, the literature dealing with decision mode utility is void. In this case the focus is on the relative convenience and consumer preference for online information sources based on the effects of online information. The importance of personal, product and motivation factors identified for online information search content and mode utility may well carry through to decision utility. Other aspects of online search mode utility that may require differentiation in decision making include investigation of the effects of the various information formats available online. For example, is there any change in the lower level recall of online print format information associated with information search when used for decision making? Since making choices suggests a different type of cognitive engagement with information to that associated with information search it possible that such effects may differ. Also, do the positive effects of “telepresence” and P2P online information exchanges identified in information search for evaluating complex attributes change based on the expected different level of engagement with sources? These holes in consumer knowledge have to be addressed for an understanding of consumer activity online related to decision making activity as part of a purchase process.

## **2.3 Option evaluation technology utility**

The main focus of the limited literature dealing with online technology utility relates to decision aids online and particularly the development and operation of recommendation systems. These systems address the potential for frustration through information

overload online and the interest of this study is in their effects on online consumer decision making. In common with the other sub sections in this section, there is little research addressing decision making activity with the majority of literature devoted to information search. While one paper (Redmond 2002) addresses both information search and decision making activity, other areas such as the effects of online forums on consumer decision making as distinct from information search activity are unfortunately void and require investigation to determine their role, if any, in decision making.

Ansari et al (2000) developed a model for a recommendation system to assist consumer choices of movie entertainment, a classic taste based product with highly subjective attributes. They employ principles of collaborative filtering (based on choice similarity between consumers) with content filtering (based on consumer attribute preferences) and add expert ratings and demographics as variables for their hierarchical Bayesian preference model. Their data was comprised of 75,000 consumer ratings of 1,628 movies with genre classifications and expert ratings of the movies and consumer age and gender as the basis for choice prediction in one of four conditions. The model conditions were for either existing customers (with prior activity data) or new customers (with no prior activity data) being offered recommendations for movies either rated by other consumers and experts or without prior ratings in the case of new movies. They used Markov Chain Monte Carlo methods to estimate their models of consumer behaviour.

The key implication for online consumer behaviour is their ability to predict preference for a taste based product to within a single rating point with a high degree of accuracy. Such systems clearly have great potential to ease the problem created by online information overload by simplifying consumer decision tasks. There may be potential to further improve further these methods by extending the product characteristics with the addition of leading actors and/or directors in each movie to the genre specification. Such additions would deepen insights into taste based choice factors beyond the relative degree of enjoyment of fairly broad movie genres. Additionally, if an understanding of the personal factors which appear to be so important in individual choice can be included, predictive ability may be further improved. The key measures of interest to this study however are the effects of such systems on consumer behaviour, an aspect not addressed by Ansari et al (2000).

Häubl and Trifts (2000) did investigate different effects of recommendation agents and comparison matrices on consumer behaviour and found that each tool has distinct and complementary roles for consumers. They used a  $2^4$  full factorial experimental simulation manipulating the use of agents and matrices between subjects and a within subjects subdesign of eight variations based on two product category offerings within each subject. For each product category, six brands with nine model options each were offered with only one option for each brand being a clearly superior or “nondominated” option. Differences between the model options were achieved by varying five of seven standardised attribute properties while a further two attributes were held constant. Following a pilot study, 249 undergraduate business students were exposed to a



simulated online store on the premise that they were pilot testing a new store by shopping for a back pack tent and micro stereo system. The shopping “tasks” were done separately and following completion of the second task subjects completed a survey containing the manipulation checks.

The study measured the effect of recommendation agents and comparison matrices on consumer effort expended (based on number of pages viewed and consideration set size) and both objective and subjective decision quality (based on correct choices and the level of confidence in the decision made). They found that such online tools do indeed have the potential to assist consumers in dealing with the vast amount of online information and also help consumers make more accurate decisions in which they typically have greater confidence. Also their findings suggest that recommendation agents and comparison matrices have distinctive roles in online consumer purchase behaviour. Recommendation agents seem have greater effect for information search activities based on size and quality of consideration sets while comparison matrices have greater effect in decision making support with greater objective and subjective decision quality associated with their use. There are however a number of limitations in this research, notably that the attributes are standardised which does not reflect the reality of information made available by vendors trying to differentiate and competitively position their products. The deliberate incomparability of mobile phone plan pricing is an excellent example of vendor attempts to frustrate consumer efforts to make direct comparisons between options based on a standardised attributes relative to price. Further, the attributes of micro stereo systems are typically performance and

function related and, like the physical attributes of a backpack tent, lend themselves to objective analysis. Since the review of online information search mode utility showed clear evidence of preference for objective sources online but for subjective sources offline, further research into the use of such online tools with non-standard attributes may help understanding. For example, the semantically complex and typically subjective attributes of a hedonic service such as the characteristics of a recreational travel experience may offer different results to those of Häubl and Trifts' (2000) study. Further, subjects in such an experimental simulation have no sense of risk as the choices that they make will not result in any direct or indirect cost to themselves. Further research in this area should therefore take account of the behaviour of consumers engaged in an actual purchase process.

Redmond's (2002) review has been covered in the previous section however his concern with the inability of technology to deal with complexity and volume complements Häubl and Trifts' (2000) research. As Häubl and Trifts show, lack of technology flexibility requires standardised attributes for direct comparison in recommendation systems and comparison matrices and while Redmond suggests that generational improvements over time will deal with such difficulties, the challenge is to determine how this will be done. The current shortcomings of technology applications online in serving consumer needs for search are likely to apply in serving consumer needs for assistance in making choices between complex products. This is a question of central importance to this thesis based on a better understanding of online consumer behaviour

requiring engagement with the complexity of human behaviour so that it may be effectively served by marketers online.

#### **2.4 Option evaluation factor based modelling**

The literature dealing with online factor based modelling of decision processes is rather sparse, again suggesting a rich area for future research. While commonality of resources used by consumers for information search and decision making activity suggests that literature on information search behaviour may be useful here, expected differences in activity point to the need for dedicated research in this area. Areas where there is no research include the indicators of reactions to stimuli both within and beyond the website, which should be investigated to identify differences from such indicators in information search activity and needs for information arising. As part of this, the differences in behavioural patterns between decision making and information search should also be identified to enable activity classification as part of a systemic information serving protocol. This will also require an appreciation of the roles and complementarity of information source types and formats for consumer decision making relative to information search activity. The sparse literature relating to factor based modelling for decision making offers insights into product selection and behavioural factors arising from recommendation systems and brand effects.

Kim et al (2002) identified key factors required for developing a process model using mixed methods of analysis to predict a consumer's likely product needs as a solution to

information overload online. They used server log data from an online mall dealing with beauty products that reflected activity of 116 consumers that purchased over a 24 day “model training” period and a subsequent 6 day trading period. While their use of server log data is common with clickstream modelling, the analysis of the data and the factors they identify mandate discussion of their paper in this subsection. Like Ansari et al (2000) they used collaborative filtering as one of their methods but extended it with the use of association rule web mining and application of a decision tree for their recommendation system. This research method offers possibility for identifying more complex patterns of activity and will be revisited in the later chapter of this thesis dealing with methodologies. At this point however, the interest is in the elements of their process model which suggest factors of interest for factor based modelling.

Their model suggests a four step approach to offering consumer recommendations with each step effectively a factor that is likely to be important for modelling purposes. The first step of their process model is identification of the consumer’s current activity levels possibly reflecting or resonating with Chatterjee et al’s (2003) finding of the importance of recency of activity in predicting future activity. The second step of the process is to identify the individual’s product category interest based on both browsing behaviour and purchase activity followed by identification of specific product interests. This differs from Moe’s (2003) inclusion of content dimensions in clickstream analysis in using item specific records at both category and product levels as well as the use of this data for collaborative filtering to identify options most likely to be of interest to consumers. Their research supports the contention of this study that using more specific

server log data has the potential to greatly extend the capabilities of clickstream modelling. This methodology may also possibly be applied to information search activity to investigate the potential to identify patterns of search behaviour as an antecedent to decision making. Further, adding factors that are strongly related to consumers' needs, such as the personal, product and motivation factors discussed in the previous section, may improve the performance of models based on such methods.

Erdem and Swait's (2004) study of the role of brand credibility in consumer brand selection or choice was not related to an online environment but is included as it addresses Degeratu et al's (2000) key point of brand effects on behaviour. Erdem and Swait (2004) investigated the effects of brand credibility across levels of perceived risk, quality and information cost in a study of five major brands in each of six product classes. The effect of brands on consumer information needs and choice quality were based on the model of information economics where consumers typically trade off information search against risk. A sample of 166 students each responded to one of eight questionnaires on perceptions of trust and expertise relating to the brands in three of the selected product classes and their likely purchase choices in each of the classes. They also responded to questions on the relative levels of perceived risk and quality of brands as well as the level of further information that may be required before purchasing the brand. To deal with possible effects of unfamiliarity with product classes and subjective quality of choices made they also asked respondents to rate their level of familiarity with and confidence in the choice made for each product class. The data was analysed using binary logistic regression to determine consideration set compilation and

multinomial logistic regression to analyse the basis of respondent choices of brands in each category.

They found that brand credibility resulted in lower information needs as well as greater confidence in choices of all categories of products. This applied even when consumers had a high level of familiarity with the products but had particularly strong effects when their familiarity was not as great. Further they found that the perceived trustworthiness element of credibility was more important than perceived expertise, perhaps reinforcing the importance of brands when consumers lack familiarity with products and the relative merits of brands. While this research adds great weight to Degeratu et al's (2000) findings, there is a need to investigate the irrational dimensions of consumer behaviour such as psychological factors that may affect brand choices. For example, an athletic shoe brand may have greater emotional attachment for a fashion conscious person than a computer valued for functionality while a technology orientated person's perspective on the two product classes may be reversed. While Erdem and Swait (2004) have dealt with variance between product attribute types, these need to be complemented by an understanding of personal and motivational factors to gain a full understanding of consumer behaviour.

## **2.5 Option evaluation clickstream modelling**

In the absence of literature applying clickstream modelling to consumer decision making behaviour, this review proposes that the insights drawn from information search

be applied to decision making behaviour. The key point will be to use server log data to identify patterns of behaviour to develop typologies of activity that may be related to heuristics used by consumers in their decision making. This will require a higher degree of content specification than typically used by clickstream analysis as well as the addition of the personal, product and motivation factors that appear to influence consumer behaviour so heavily.

## **APPENDIX 2 - INVITATION LETTER AND INFORMATION SHEET PROVIDED TO RESEARCH SUBJECTS**

Dear .....,

Thank you for using \*\*\*\*\* Travel for your travel arrangements in the past, we trust that you enjoyed wonderful experiences using services we arranged for you.

I am writing to invite you to participate in a research study on complex consumer behaviour that is being undertaken by an academic at Wollongong University. The purpose of the study is to better understand consumer needs as they move through a process of purchasing a complex product such as an unfamiliar travel destination.

Participating in this research will require you to consider options for travel to an unfamiliar destination that you would like to visit, which you may find both enjoyable and possibly useful. At the University you will be provided with travel brochures, books and articles regarding a travel destination of your choice. Also provided will be a telephone so you can call Figtree Travel or friend(s) for advice in researching a journey to your selected destination and an internet-connected computer. The researcher will ask you to spend an hour or so researching a trip to that destination during which your information source choices and duration of use will be monitored. Following the observation period, you will be asked to fill out a short (5 to 10 minutes) survey regarding your prior experience in making travel arrangements and preferences for methods of doing so. You will not be personally identifiable in any presentation of the data whether it is used in conference presentations, journal articles or teaching resources. Following successful observation and questionnaire completion, the researcher will offer you a token of thanks for your participation.

If you are willing to participate please call Debbie Critcher at the University of Wollongong on 4221 4707 to arrange a time convenient to you.



Thank you for considering participation in this research and we hope that we at Figtree Travel will have the opportunity of helping you with travel arrangements in the near future.

Yours sincerely,

## Research participant information sheet

TITLE: *Consumer purchase process context definition using communication theory*

PURPOSE OF THE RESEARCH: This is an invitation to participate in a study conducted by researchers at the University of Wollongong. The purpose of the research is to better understand consumer needs in the process of shopping for complex products of high importance to the consumer. Successful completion of this research will deliver greater insights into consumer needs and therefore enable better satisfaction of such needs by product and service providers.

### INVESTIGATORS

Associate Professor Rodney Clarke	Dr Elias Kyriazis	Robert Grant
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### METHOD AND DEMANDS ON PARTICIPANTS

To participate in this research, you will need to attend a room at the University of Wollongong where a range of information sources relating to a destination of your choice will be available. These information sources will include brochures, guide books, a telephone to call your travel agent or other people you may wish to ask for advice and an internet-connected computer. You will then need to investigate transport, accommodation, sightseeing, activity and attraction options for around an hour. Hopefully you will find this activity useful in planning a forthcoming trip!

While you are doing this your activity will be monitored by video camera and you will be asked to think out loud about why you are doing what you are doing and how successful each selected information source was for your purposes. This narrative will be recorded and later transcribed for analysis in conjunction with the video record of the resources you are using at any point in time. The researcher will be present in the room while you are doing this but will only observe your activity and perhaps offer you prompt cards asking you to express your thoughts out loud. On conclusion of the observation the researcher will ask you to complete a short questionnaire relating to your experience in making and purchasing travel arrangements and preferences for different types of interaction generally. All data gathered will be de-identified and at no stage will you personally be linked with your activity or comments.

#### POSSIBLE RISKS, INCONVENIENCES AND DISCOMFORTS

Apart from offering no more than 1.5 hours of your time in performing activity that will hopefully be useful for you in the future, we can foresee no risks for you. A nominal financial gratuity will be offered to you on completion of an observation session to compensate for time and travel costs and in thanks for your participation. Your involvement in the study is voluntary and you may choose to withdraw at any time if you feel inclined to do so. In the event that you do so you will have the right to choose whether the researcher is able to use the data gathered in the observation up to that point. If you choose to deny use of the data the researcher will erase the relevant tapes before you leave the room.

At no time will the video or audio recordings of your activity be used in reporting of this data to avoid possible voice or facial identification. Only transcripts of activity will be used in reporting the data with no personal identification clues attached. All audio and video data resulting will be stored in password protected folders on University computers. Hardcopies of voice transcripts, survey forms and activity logs will be stored in locked filing cabinets that are in offices which are locked unless attended by

authorised University staff. All data will be retained for 5 years in line with National guidelines for data storage.

For your information, some sample questions from the survey form at the conclusion of observation are as follows:

\*In the past 10 years, how many long haul travel arrangements have you made that involve a significant amount of commercial accommodation and travel or touring arrangements?

\*What was the duration of your most recent trip?

\*How long ago was your most recent trip?

#### FUNDING AND BENEFITS OF THE RESEARCH

This study is funded within the Commerce Faculty of the University and by one of the researchers, Robert Grant. The study is a major component of his Doctoral research and will be reported in his thesis as well as in conference paper and academic journal articles in the future.

Thank you for choosing to participate in this research project. The knowledge developed will help with the education of students and should therefore result in better service for consumers in the future.

#### ETHICS REVIEW AND COMPLAINTS

This study has been reviewed by the Human Research Ethics Committee of the University of Wollongong. If you have any comments or concerns regarding the way this research has been conducted you can contact the UoW Ethics Officer on (02) 4221 4457

### **APPENDIX 3 - SURVEY ADMINISTERED AT SESSION CONCLUSION**

#### **Questionnaire**

In the past 10 years, how many long haul travel arrangements have you made that involve a significant amount of commercial accommodation and travel or touring arrangements?

What was the duration of your most recent trip?

How long ago was your most recent trip?

Did you use a travel agent for information regarding

- a) some of the accommodation and transport or touring arrangements
- b) a majority of the accommodation and transport or touring arrangements

Did you use a travel agent for booking and paying for

- a) some of the accommodation and transport or touring arrangements
- b) a majority of the accommodation and transport or touring arrangements

Did you use the internet for information regarding

- a) some of the accommodation and transport or touring arrangements
- b) a majority of the accommodation and transport or touring arrangements

Did you use the internet for booking and paying for

- a) some of the accommodation and transport or touring arrangements
- b) a majority of the accommodation and transport or touring arrangements

When do you next expect to travel for recreation or to experience new attractions?

Do you use a computer at work or at home?

If yes is your computer use primarily

- a) For work?
- b) At home?

Please estimate your computer use for (number of times daily, weekly or monthly)

	Frequency (Daily, weekly or monthly)	Duration of average session
a) Office applications? (word processing, spreadsheets, presentations, databases etc.)		
b) Communication? (e- mail or skype etc)		
c) Searching for information on the internet? (using a browser such as internet explorer, this includes blogs and forums as well as web pages)		
d) Playing games?		
e) Socialising? (Using facebook, my space etc.)		
f) Purchasing products and services? (If so please nominate most recently purchased product)		
g) Downloading content for later entertainment? (music, videos etc)		

## Appendix 4 – Genre Summaries

### Accommodation genre summary

	Subject information			Clip	Observation/clip portion	Duration
	Code	Age	Gender			
A	1	40-55	Male	Noumea	Asia rooms 1	3:50
					Expedia	3:36
					Booking.com	0:25
					Rates to go	3:00
					Asia rooms 2	2:35
B	1a	40-55	Male	Noumea	Expedia 1	8:09
					Expedia 2	3:11
					Expedia 3	0:49
					Asia rooms 1	2:25
					Cheaperthanhotels	1:44
					Hotels.com	0:17
					Asia rooms 2	0:36
					Kayak/Booking.com	7:12
C	2	40-55	Female	Cornwall	Cornwall by Cornshlight 1	2:34
					Cornwall by Cornshlight 2	0:59
					Cornwall by Cornshlight 3	0:08
					Peer reviews	2:39
D	2a	40-55	Female	Wales	Abergavenny DTA	3:35
					Swansea DTA	2:06
				Wales 2	Wales TA	2:21
E	3a	55-70		Alaska	Expedia	3:41
				Whitsunday	Travelonline	4:28
				Heron Island	Principal	3:39
F	8	40-55	Female	Adirondacks search 1	Hampton Inn	6:34
					Dillon Hill	0:38
					Elm's cottage	1:22
					Fern Lodge	0:51
					Copperfield Inn	2:08
					Lake George B&B	2:31
G	8a	40-55	Female	Adirondacks search 2	Trails End Inn	1:39
					Townhouse lodge	1:19
					Silver Spruce Inn B&B	1:12
					Snow Goose B&B	1:13
H				Fallingwater	Carnegie Museum	1:01
					Hertzell House B&B	1:51

					Trip Advisor	2:24
I				Pittsburgh	Candleford Inn	3:12

#### Activities and Attractions Genre

	Subject information			Clip	Observation/clip portion	Duration
	Code	Age	Gender			
A	1	40-55	Male	Subject 1	About.com	2:16
					Lonely planet 1	1:43
					Lonely planet 2	5:00
					Arc en Siel	2:12
					P&O	3:28
B	1a	40-55	Male	Subject 1a	My Adventure Store and Tripadvisor	1:10
					Virtual Tourist	2:29
					Jasons	1:21
					Lonely Planet	5:27
C	2	40-55	Female	Subject 2	Cornwall 1	1:07
					Cornwall 2	3:02
					Cornwall 3	3:21
					Cornwall 4	5:57
					Cornwall 5	4:45
					Cornwall 6	2:30
					Cornwall 7	1:40
					Cornwall 8	3:49
					Cornwall 9	3:58
					Cornwall 10	4:51
					Wales 1	1:38
					Wales 2	1:55
D	2a	40-55	Female	Subject 2a	Wales 1	6:14
					Wales 2	3:32
					Wales 3	8:42
					Wales 4	2:52
					Wales 5	5:18
					Wales 6	6:52
					Wales photography	6:13
					Paddles and Pedals	8:55
					Wales 7	6:26
					Wales 8	8:42
E	8	40-55	Female	Adirondacks Tourism	Attractions	18:55
				Search 1	Dining 1	5:02
					Dining 2	3:34



F	8a	40-55	Female	Fallingwater	House and tours	6:04
				Kentuck Knob	House and tours	6:20
				Pittsburgh Penguins	Schedule	2:59
				Pittsburgh Culture	Carnegie Museum	2:40
				Pittsburgh Pirates	Schedule and tickets	8:25
				Pittsburgh Cuisine	Tastes of our town	4:05
				Pittsburgh Theatre	Pittsburgh Events	3:25
				Pittsburgh 'hoods	Various	3:25
				Pennsylvania attractions	Fallingwater	1:22

#### Travel Experiences Genre

	Subject information			Clip	Observation/clip portion	Duration
	Code	Age	Gender			
A	3	55-70	Male	Subject 3	Cruise/Ferry 1	8:38
					Cruise/Ferry 2	3:39
					Cruise/Ferry 3	1:44
					Cruise/Ferry 4	5:57
					Train 1	13:40
					Cruise/Ferry 5	4:13
B	3a	55-70	Male	Subject 3a	Cruise/Ferry	9:40
					Hamilton Island	3:44
					Heron Island	9:35
C	4	40-55	Female	Subject 4	Cambodia/Vietnam	3:38
					Wendy Wu Far East	4:15
					Bunnik Far East 1	1:43
					APT Vietnam, Cambodia, Laos	6:11
					APT Laos Indo-China	9:09
					APT SE Asia	2:01
					Scenic Tours Asia	7:49
					Wendy Wu Vietnam	17:00
					Alternative search	2:17
					South East Asia	14:36
					Intermediary telecon	10:16
D	5	55-70	Male	Subject 5	SYD/BNE Train	7:14

					BNE/CNS Train	6:16
					Sunlander	5:00
					Tilt Train 1	7:47
					Tilt Train 2	5:02
					Telecon	5:30
E	8a	40-55	Female	Subject 8a	Summit Inn Packages	8:59

#### Utility Transport Genre

	Subject information			Clip	Observation/clip portion	Duration
	Code	Age	Gender			
A	1	40-55	Male	Flights 1	Noumea return	6:08
					Multipoint	16:09
B	1a	40-55	Male	Flights 1	Noumea one way	4:40
					Noumea to Vanuatu	4:15
C	3	55-70	Male	Flights 1	Travel.com	1:27
				Flights 2	Best flights	2:44
				Flights 3	Air Canada	4:20
				Flights 4	Qantas	1:52
				Flights 5	Air Canada Domestic	9:27
				Flights 6	Ketchikan to Vancouver	1:30
D	4a	40-55	Female	Train 1	Amsterdam to Paris	27:44
				Train 2	Paris to Noyers	6:50
				Train 3	Paris to Montbard	11:50
				Car hire	Montbard	20:37
E	6a	55-70	Male	Flights	Sydney Copenhagen return	12:30

## Appendix 5 – Accommodation Genre Activity Tables

### Genre element inventory

Genre element	Typical activity	Coding
Search Activity	e.g. Google search and SERP consideration	SA
SCreening	Selection from a range of offerings from an intermediary or service provider for a defined property type	SC
Option Review	Consideration of attributes of a single offering such as grading, facilities, services, location, costs, peer reviews, photos etc.	OR <sub>1</sub> , OR <sub>2</sub> , OR <sub>3</sub> , etc
Need Specification	Entry of details such as dates, pax #'s, room type, accommodation type	NS
PURchase	Activity for acquisition or reservation of service	*
Special Interest	Special interests relating to lodgings	*I
Detail Recorded	Recording of information for later reference or action	*
Intermediary Selection	Where a choice of intermediary is offered for a specified property	*

### 5.1 Subject 1 Noumea – Asia rooms 1

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS, Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

Seq	Time code		Activity	
1	28:09	28:29	Google search for Asia Rooms. Click on SERP link	SA
2	28:29	29:33	Asia rooms home page. Need specification (destination, dates, pax#) and clicks search	NS
3	29:33	30:15	Asia Rooms Noumea hotels listing – 2 properties. Options reviewed, prices noted. Selects Le Surf hotel and clicks link	SC
4	30:15	31:28	Asia rooms Surf Hotel page. Subject notes proximity to town and room type and rolls mouse over photos for enlargements. Positive comment on room.	OR <sub>1</sub>
5	31:28	31:59	Clicks for further information, reads hotel description.	OR <sub>2</sub>
6	31:59	33:09	Roll over for comparison of room facilities. Expresses satisfaction with location and room. Minimises window.	OR <sub>3</sub>

### 5.2 Subject 1 Noumea – Expedia

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS, Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

1	35:45	35:56	Google search for Expedia. Clicks on SERP link	SA
2	35:56	36:41	Expedia hotel booking page served. Need specification (destination,	NS

			dates, pax#) and clicks search	
3	36:41	37:43	Expedia Noumea hotels listing multiple properties. Options reviewed, scrolls down page. Selects top option which displays price	SC
4	37:43	37:55	Ramada Plaza page on Expedia, subject clicks to picture gallery	OR <sub>1</sub>
5	37:55	38:16	Expedia Ramada Plaza picture gallery page. Subject clicks on photos, positive comment on room and view.	OR <sub>2</sub>
6	38:16	39:09	Clicks link to map and notes further distances to features while map loads. Clicks back shortly after map served.	OR <sub>3</sub>

### 5.3 Subject 1 Noumea – Booking.com

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS, Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

1	39:37	39:44	URL navigation to Google. Search for Cheap Hotels In Noumea. Clicks SERP link for Discount hotels in Noumea.	SA
2	39:52	40:02	Booking.com page served with links to hotels in Noumea with star ratings and nearby. Subject notes lack of prices and clicks Back to SERP.	SC

### 5.4 Subject 1 Noumea – Rates to go

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS, Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

1	40:03	40:13	Clicks SERP listing for e-hotels in Noumea.	SA
2	40:13	40:59	Rates to go Noumea hotel listing with multiple options served. Subject notes prices and gradings while scrolling down page. Clicks Le Nouvata option	SC
3	40:59	41:22	Rates to go Le Nouvata page served. Subject notes price and description of property.	OR <sub>1</sub>
4	41:22	42:05	Clicks link to photo gallery and clicks links to room photos noting room features. Clicks back	OR <sub>2</sub>
5	42:05	42:18	Rates to Go Noumea hotels listing. Brief review of list before click forward to Le Nouvata page.	OR <sub>3</sub>
6	42:18	43:03	Seeks required dates to check rate but finds not available. Clicks back to Google search page.	SC

### 5.5 Subject 1 Noumea – Asia rooms 2

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS, Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

1	43:20	44:19	Google search for Asia Rooms. Selects SERP link	SA
2	43:42	44:19	Asia Rooms home page. Need specification (destination, dates, pax#) and clicks search	NS
3	44:19	44:26	Asia Rooms Noumea hotels listing served. Clicks link to Surf Hotel.	SC

4	44:26	44:55	Asia Rooms Surf Hotel page. Initiates process to book hotel. Stops at point of entering details in booking form	*
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### 5.6 Subject 1a, Noumea Expedia 1

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS, Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

Seq	Time code		Activity	
1	11:22	11:45	Navigate to Google via URL	SA
2	11:45	12:01	Google search for specific intermediary entered and clicked on SERP	SA
3	12:01	12:45	Expedia Accommodation page. Need specification (Destination, #Rooms, # pax, dates) and search	NS
4	12:45	14:05	Review of alternatives. Subject heeds prices, gradings, settings and proximity to town	SC
5	14:05	14:13	Clicks on link to Le Surf Hotel	OR <sub>1</sub>
6	14:13	14:40	Clicks on photo gallery. Clicks on individual photos to enlarge	OR <sub>2</sub>
7	14:40	15:26	Clicks back to Le Surf Hotel Expedia page, scrolls down page and clicks "learn more"	OR <sub>3</sub>
8	15:26	16:51	Reviews details of hotel location	OR <sub>4</sub>
	16:51	18:19	Review of location trade-offs – no on screen activity	
9	18:19	19:31	Clicks on "see all reviews" and reviews ratings out of 5 and comments – negative conclusion. Clicks back to Expedia Noumea Hotels	OR <sub>5</sub>

### 5.7 Subject 1a Noumea – Expedia 2

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS, Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

1	19:45	20:49	Review of alternatives. Subject heeds prices and gradings	SC
2	20:49	20:55	Clicks link to Ramada Plaza	OR <sub>1</sub>
3	20:55	21:19	Clicks on photo gallery. Clicks on individual photos to enlarge. Heeds rooms and dining areas. Clicks out of photo gallery	OR <sub>2</sub>
4	21:19	21:47	Ramada Plaza Expedia page. Subject heeds price and hotel location. Clicks "learn more" link	OR <sub>3</sub>
5	21:47	22:56	Clicks on "Show all reviews." Negative conclusion. Clicks back to Expedia Noumea hotels	OR <sub>4</sub>

### 5.8 Subject 1a Noumea – Expedia 3

Legend: Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS

1	22:56	23:05	Expedia Noumea hotels listing. Clicks on Le Lagon	SC
2	23:05	23:45	Expedia Le Lagon page. Subject heeds price and room conditions. Negative conclusion. Clicks back to Google.	OR <sub>1</sub>

### 5.9 Subject 1a Noumea – Asia Rooms 1

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	23:53	24:14	Google search for specific intermediary entered and clicked on SERP	SA
2	24:14	24:53	Asia Rooms page. Need specification (Destination, #Rooms, # pax, dates) and search	NS
3	24:53	25:18	Asia Rooms Noumea hotels listing (2 properties). Subject notes options and prices. Identifies Le Surf as previously considered and notes higher price. Clicks back to Google search page	SC

### 5.10 Subject 1a Noumea – Cheaper than hotels

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	25:18	26:27	Google search for “Cheap hotels in Noumea.” Reviews SERP. Clicks non function link for “Hotel Club” then clicks alternative link	SA
2	26:27	26:47	“Cheaperthanhotels” page served with Noumea as destination. Clicks search	NS
3	26:47	27:04	Cheaperthanhotels listing served. Subject heeds Ramada and Le Surf Hotels and prices. Clicks back to SERP	SC

### 5.11 Subject 1a Noumea – Hotels.com

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	27:15	27:18	Clicks SERP link to Hotels.com.au	SA
2	27:18	27:32	Hotels.com.au Noumea hotels listing served and briefly reviewed before clicking back to SERP.	SC

### 5.12 Subject 1a Noumea – Asia Rooms 2

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	27:32	28:05	Reviews SERP. Selects link to Asia Rooms	SA
2	28:05	28:08	Reviews Asia Rooms Noumea listing. No change from prior visit. Clicks back to SERP	SC

### 5.13 Subject 1a Noumea – Kayak/Booking.com

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	28:12	28:43	Reviews SERP and clicks to 2 <sup>nd</sup> page of results. Clicks link to “cheapest hotels.”	SA
2	28:43	29:50	Kayak.com home page served. Subject enters dates and destination then clicks search	NS
3	29:50	30:32	Kayak Noumea hotels listing served. Subject reviews list. Notes option for Best Western Le Paris Hotel and clicks on link	SC
4	30:32	31:13	Pop-up served with choice of 5 intermediaries offering different prices. Subject notes different prices and selects Booking.com link	IS
5	31:13	31:43	Booking.com Best Western Le Paris page served. Notes acceptable price and rolls mouse over photos in gallery with positive effect. Clicks link to map.	OR <sub>1</sub>
6	31:43	32:29	Pop-up map served. Subject notes central location and proximity to attractions. Moves mouse pointer to hotel location and further pop up served with hotel features, noted by subject. Closes map box	OR <sub>2</sub>
7	32:29	32:56	Booking.com Best Western Le Paris page. Subject notes positive location and good rooms. Selects link to guest reviews.	OR <sub>3</sub>
8	32:56	33:22	No reviews available. Clicks back	OR <sub>4</sub>
9	33:22	35:04	Booking.com Best Western Le Paris page. Subject notes positive price and revisits roll-over blow ups of photo gallery. Clicks back to Booking.com.	OR <sub>5</sub>
10	35:04	35:55	Subject reviews Best Western Le Paris page. Notes unexpected 2 star grading of property. Revisits photos and expresses approval of rooms and location, air conditioning and satellite TV.	OR <sub>6</sub>
11	35:55	36:26	Clicks restore for Expedia Noumea Hotels Page. Briefly reviews listing then closes.	SC
12	36:26	36:49	Booking.com Best Western Le Paris page. Voices preference for Best Western option. Clicks close.	

#### 5.14 Subject 2 Cornwall, Cornwall by Cornshlight 1

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Sequence	Time code	Time code	Activity	
1	06:29	06:37	Google SERP for Cornwall sightseeing. Clicks link to Cornwall holiday seeking information on Eden Project	SA
2	06:37	06:50	Cornwall by Cornshlight page. Clicks link to Cornwall accommodation	SA
3	06:50	06:59	Cornwall by Cornshlight accommodation page. Clicks for B&B listings.	SA
4	06:59	07:35	Cornwall by Cornshlight B&B listings served. Reviews list while expressing interest in moderate grade lodging. Selects option based on price.	SC
5	07:35	08:48	Property page served. Subject reviews attributes scrolling down page and back up. Expresses requirement for en-suite, notes section on eating out, comments on interesting location, expresses interest in map. Clicks through to booking form.	OR <sub>1</sub>
6	08:48	09:03	Peruses fields on booking form before click back to Cornwall by Cornshlight	*

#### 5.15 Subject 2 Cornwall, Cornwall by Cornshlight 2

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	10:14	10:18	Cornwall by Cornshlight home page. Subject clicks B&B link	SA
2	10:18	10:26	Cornwall by Cornshlight B&B listing subject clicks St Ives link	SA
3	10:26	10:37	Cornwall by Cornshlight St Ives listings subject scrolls down listing and clicks Newquay B&B.	SC
4	10:37	11:13	"Alicia" B&B page served. Subject reviews page content and notes private parking, full English breakfast and proximity from Eden project. Clicks link to location map.	OR <sub>1</sub>

#### 5.16 Subject 2 Cornwall, Cornwall by Cornshlight 3

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	16:42	16:43	Clicks link from Eden Project page to places to stay nearby	SA
2	16:43	16:50	Cornwall by Cornshlight Accommodation listing. Subject briefly reviews list and then clicks to open window with Bing maps	SC



### 5.17 Subject 2 Cornwall, Peer reviews

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	43:01	43:03	Cornwall Travel forum page. Subject clicks link to B&B suggestions	SA
2	43:03	44:19	Scrolls down page of posts. Notes and records place of interest then clicks back	OR <sub>1</sub>
3	44:19	45:00	Virtual Tourist travel forum postings reviewed by subject. Notes age of earlier posts and then clicks back	OR <sub>2</sub>
4	45:00	45:08	Google SERP for Travel forum Cornwall. Clicks link to Tripadvisor Cornwall Travel forum	SA
5	45:08	45:19	Tripadvisor list of links. Subject clicks link to places to stay	SA
6	45:19	45:40	Tripadvisor Cornwall forum where to stay. Subject briefly reviews posts then clicks back to Tripadvisor forum listing. Clicks on forum relating to historic buildings passes to end clip	SC

### 5.18 Subject 2a Wales, Abergavenny DTA

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Seq	Time code	Time code	Activity	
1	37:14	37:23	Abergavenny & District Tourist association website. Subject clicks link for Bed & Breakfast / Guest House Abergavenny	SA
2	37:23	38:06	Lodging listings with thumbnail photos, brief descriptions of properties and facilities offered. Subject scrolls down page and then clicks to 2 <sup>nd</sup> page and then clicks to maximise map of Wales	SC
3	38:06	38:31	Subject peruses map to identify location of Abergavenny then clicks tab for Things to See and Do in Wales Swansea Bay	
4	38:31	38:46	Clicks back to Abergavenny and District Tourist Association page	SA
5	38:46	40:07	Clicks link to Abergavenny accommodation and further to B&B Guest Houses. Scrolls down listing, clicks to second page and scrolls to review listings, clicks to 3 <sup>rd</sup> page and reviews listings before clicking on link to Park Guest House	SC
6	40:07	40:49	Park Guest House page, subject reviews description then scrolls back to top of page and clicks on Tariff link. Notes free Wi-Fi availability then clicks back through multiple pages to England ,Scotland and Wales page	OR <sub>1</sub>

### 5.19 Subject 2a Wales, Swansea DTA

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	41:35	42:14	Clicks link to Swansea Bay. Reviews page content and then clicks Where to Stay	SA
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2	42:14	42:20	Clicks link for Where to Stay in Mumbles. Clicks further link to Mumbles Hotels, B&B's and Guest Houses.	SA
3	42:20	42:33	Reviews list and then clicks link to The Guest House	SC
4	42:33	43:02	The Guest House page subject scrolls down page then back to top and clicks back to listing. Clicks link to Langland Bay House	OR <sub>1</sub>
5	43:02	43:13	Reviews content and notes apparently unacceptable price then clicks back to listing	OR <sub>2</sub>
6	43:13	43:22	Reviews listing then clicks link to Patricks with Rooms	SC
7	43:22	43:41	Reviews information on Patricks with Rooms before terminating session	OR

### 5.20 Subject 2a Wales 2, Wales TA

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:  
Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	1:12:59	1:14:00	Wales Cymru accommodation listings. Subject reviews options and then clicks Regions link at top of page.	SA
2	1:14:00	1:14:24	Wales Cymru Where to now? Page. Subject reviews options and then clicks link to Wye valley and vale of Usk.	SA
3	1:14:24	1:14:40	Wye Valley and Vale of Usk page. Subject reviews options and then clicks link to Skirrid Mountain Inn	SC
4	1:14:40	1:15:17	Skirrid Mountain Inn. Subject clicks link to accommodation. Briefly reviews content before clicking link to Ghosts	OR <sub>1</sub>
5	1:15:17	1:15:38	Subject reviews text relating to haunted Inn and then clicks to close.	*

### 5.21 Subject 3a Alaska, Expedia

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:  
Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Seq	Time code	Time code	Activity	
1	00:59	01:54	Google search for Anchorage accommodation, Alaska. Subject reviews SERP and then selects Expedia link.	SA
2	01:54	02:49	Expedia listing of Anchorage hotels. Subject scrolls down page noting prices and star ratings. Clicks link to Inlet Tower Hotel.	SC
3	02:49	03:24	Inlet Tower Hotel and suites Expedia page. Subject reviews information noting acceptable standard accommodation.	OR <sub>1</sub>
4	03:24	03:44	Needs specification, enters dates and passenger number for specified room.	NS
5	03:44	03:51	Notes price served.	OR <sub>1</sub>
6	03:51	04:40	Notes ensuite and free airport shuttle. Notes location. Acceptable. Terminates by clicking close.	OR <sub>2</sub>

### 5.22 Subject 3a Whitsunday, Travelonline

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:  
Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Seq	Time code	Time code	Activity	
1	14:39	15:17	Google search Hamilton Island accommodation. Subject reviews SERP and clicks link to Travelonline.com.	SA
2	15:17	15:27	Travelonline.com Hamilton Island page, clicks link to Palm Bungalows	SC
3	15:27	16:43	Hamilton Island Palm Bungalows pop-up box. Subject reviews inclusions, accommodation and price. Scrolls further down page and notes other more costly options. Clicks back to SERP	OR <sub>1</sub>
4	16:43	16:55	Reviews SERP. Clicks link to Stayz.com.	SE
2	16:55	19:11	Stayz.com Hamilton Island accommodation listing. Subject notes range of accommodation options. Notes prices. Notes self-catering. Clicks to 2 <sup>nd</sup> page. Notes expected price.	SE

### 5.23 Subject 3a Heron Island Principal

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:  
Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Seq	Time code	Time code	Activity	
1	45:03	45:10	Heron Island website. Subject clicks 'Book Now'.	OR <sub>1</sub>
2	45:10	45:19	Heron Island booking options page.	PU
3	45:19	45:25	Subject clicks link to 'Return Boat Transfer'.	OR <sub>2</sub>
4	45:25	47:34	Enters dates. Specifies 'Reef Room'. Notes inclusions. Subject clicks link to 'Enhancements'.	NS
5	47SE:34	48:16	Enters specification for 'Return Boat Transfers'. Notes prices. Reviews other options, then clicks 'Continue'.	NS
6	48:16SC	48:43	Heron Island screen for 'Personal Details Completion for Booking'. Subject notes price. Subject clicks in 'Google' to terminate.	*

### 5.24 Subject 8, Adirondacks search 1, Hampton Inn

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:  
Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Seq	Time code	Time code	Activity	
1	24:05	24:58	Adirondacks Regional Tourist Page. Subject clicks drop down menu for 'Lodging' and clicks green 'Search' button. Expresses preference for B&B.	SA

2	24:58	25:58	Adirondacks Lodging Listings page. Subject clicks link to 'Hampton Inn' seeking prices.	SC
3	25:58	26:32	Hampton Inn page served. Subject reviews content. Notes hot breakfast inclusion.	OR <sub>1</sub>
4	26:32	27:05	Subject clicks 'Accommodation Guest Rooms' link. Positive comment on room. Notes room configuration. Inadvertent click.	OR <sub>2</sub>
5	27:05	27:21	Briefly reviews Suite. Then clicks on link to other guest rooms.	OR <sub>3</sub>
6	27:21	27:53	Reviews information on room. Frustrated with lack of pricing. Clicks link to 'Book Room Now'.	OR <sub>4</sub>
7	27:53	29:22	'Hampton Inn Booking Page'. Notes hotel features and selects dates.	OR <sub>5</sub>
8	29:22	29:53	Further room information served but no costs. Subject clicks back to 'Room Details'.	OR <sub>6</sub>
9	29:53	30:39	Clicks link to 'Rooms and Rates'. Link non-functional. Subject clicks back and closes 'Hampton Inn' page.	OR <sub>7</sub>

#### 5.25 Subject 8, Adirondacks search 1, Dillon Hill

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	30:39	31:05	Page returns to Adirondacks Lodging Listing. Subject scrolls down page and clicks link to Dillon Hill Inn	SC
2	31:05	31:05	Dillon Hill Inn website. Subject clicks on link to 'Rooms and Rates'.	OR <sub>1</sub>
3	31:19	31:52	Selection of photos served. Clicks link to 'Artist's Wife's Room'	OR <sub>2</sub>
4	31:52	32:37	Artist's Wife's Room details served includes photos, brief description and price. Subject notes reasonable price.	OR <sub>3</sub>
5	32:37	32:30	Subject closed Dillon Hill Inn page.	
6	32:30	32:34	Adirondacks Lodging Listing. Subject clicks to add Dillon Hill to trip planner.	*

#### 5.26 Subject 8, Adirondacks search 1, Elm's Cottage

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	32:34	32:45	Adirondacks Lodging Listing. Continues to scroll down page.	SC
2	32:45	33:12	Clicks link to 'Elm's Cottage'. Elm's Cottage page, subject clicks link to 'Lodging'. Subject expresses dissatisfaction with aesthetics. Clicks 'Close'.	OR <sub>1</sub>

#### 5.27 Subject 8, Adirondacks search 1, Fern Lodge

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	33:16	33:29	Adirondacks Lodging Listing. Subject continues to scroll down page.	SC
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			Clicks link to 'Fern Lodge'	
2	33:29	33:49	Fern Lodge website. Clicks link to Guest rooms and cabins	OR <sub>1</sub>
3	33:49	34:07	Page displays photos of rooms, descriptive text and prices. Subject expresses dismay at price and clicks close	OR <sub>2</sub>

#### 5.28 Subject 8, Adirondacks search 1, Copperfield Inn

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	34:07	34:20	Adirondacks Lodging Listing. Subject continues to scroll down page and clicks link to 'Copperfield Inn'.	SC
2	34:20	34:55	Copperfield Inn. Subject scrolls down page reviewing content. Clicks link to 'Lodging'.	OR <sub>1</sub>
3	34:55	35:48	Lodging displays rooms with availability noted by subject. Reviews room types, photos and descriptions. Scrolling down page. Clicks link to check availability for standard Queen Room.	OR <sub>2</sub>
4	35:48	36:15	Availability page requires details for dates. Subject clicks close.	

#### 5.29 Subject 8, Adirondacks search 1, Lake George B&B

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	36:15	36:31	Adirondacks Lodging listing. Subject continues scrolling down page. Clicks link to Lake George Bed & Breakfast.	SC
2	36:31	36:43	Lake George Bed & Breakfast website. Subject reviews content. Clicks link to rooms and reservations.	OR <sub>1</sub>
3	36:43	37:03	Listing of room types. Subject notes aesthetics of rooms and inclusions. Clicks on link to Room 1.	OR <sub>2</sub>
4	37:03	38:31	Lake George Bed & Breakfast. Check availability or make reservation page. Options for rooms presented. Subject specifies dates and notes prices served. Expresses satisfaction. Clicks back and then close.	OR <sub>3</sub>
5	38:31	38:46	Adirondacks Lodging listing. Clicks Lake George Bed & Breakfast. Add to Trip Planner.	*

#### 5.30 Subject 8 Adirondacks Search 2, Trails End Inn

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Seq	Time code	Time code	Activity	
1	44:05	44:51	Adirondacks Lodging listings Lake Placid region. Subject reviews listing, scrolling down page. Clicks link to Trails End Inn based on B & B category.	SC

2	44:51	45:43	Trails End Inn website. Subject scrolls down and clicks on guest rooms link. Reviews prices and facilities for different price categories. Clicks back to Adirondacks lodging listing.	OR <sub>1</sub>
3	45:43	45:44	Subject clicks to add Trails End Inn to trip planner.	*

### 5.31 Subject 8 Adirondacks Search 2, Townhouse Lodge

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	45:44	46:42	Continues scrolling down listing. Clicks on link to Townhouse Lodge based on in-room facilities in listing.	SC
2	46:42	47:03	Townhouse Lodge website. Subject reviews content. Clicks back.	OR <sub>1</sub>

### 5.32 Subject 8 Adirondacks Search 2, Silver Spruce B&B

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	47:03	47:21	Adirondacks Lake Placid Lodging listing. Clicks to 2 <sup>nd</sup> page. Clicks on link to Silver Spruce Inn B & B.	SC
2	47:21	47:38	Silver Spruce Inn B & B. Clicks link to rooms and rates.	OR <sub>1</sub>
3	47:38	48:15	Reviews listing of room descriptions with prices. Scrolls down page. Unsatisfactory aesthetics. Clicks close.	OR <sub>2</sub>

### 5.33 Subject 8 Adirondacks Search 2, Snow Goose B&B

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	48:15	48:30	Adirondacks Lake Placid Lodging listing. Subject continues review of options. Selects link to Snow Goose B & B.	SC
2	48:30	48:57	Snow Goose B & B website. Scrolls down page reviewing content. Clicks link to rooms and rates.	OR <sub>1</sub>
3	48:57	49:19	Reviews room descriptions and photos with rates. Expresses satisfaction. Clicks close.	OR <sub>2</sub>
4	49:19	49:28	Subject clicks to add Snow Goose B & B to Trip Planner.	*

### 5.34 Subject 8a Fallingwater, Carnegie Museum

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

Seq	Time code	Time code	Activity	
1	16:59	17:24	Google SERP for Falling Water accommodation. Subject clicks link to accommodation one mile from Carnegie Museum of Art.	SA
2	17:24	17:32	PDF document served detailing lodging options for Symposium.	OR <sub>1</sub>

3	17:32	18:00	Subject clicks back button to Google SERP.	OR <sub>2</sub>
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### 5.35 Subject 8a Fallingwater, Hertzell B&B

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	18:00	17:42	Reviews SERP and clicks link to Hertzell House Luxury B & B.	SA
2	17:42	19:18	Hertzell House Luxury B & B home page. Subject reviews content. Scrolls to bottom of page, clicks on link to specials and packages.	OR <sub>1</sub>
3	19:18	19:34	Specials page served detailing offers. Subject clicks back to home page.	OR <sub>2</sub>
4	19:34	19:51	Hertzell House home page. Subject clicks back button to Google SERP.	

### Subject 8a Fallingwater, Trip Advisor

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	19:51	20:41	Google SERP for Falling Water accommodation. Subject reviews list and clicks link to hotels near Falling Water.	SA
2	20:41	20:55	Trip Adviser page, Hotels near Falling Water. Subject clicks tab for Mill Run B & Bs.	SA
3	20:55	22:15	Trip Adviser map of Mill Run B & Bs. Subject reviews map. Scrolls down page. Frustrated by page, subject clicks back.	SA

### 5.37 Subject 8a Pittsburgh, Candleford Inn

Purchase – PU, Special Interest – SI, Detail recorded – DR, Intermediary selection – IS Legend:

Search activity – SA, Screening – SC, Option review OR<sub>1,2,3...n</sub>, Need Specification – NS,

1	54:11	54:28	Visit Pittsburgh website. Subject enters search term, Bed & Breakfast.	SA
2	54:28	55:10	Search results served as links to properties. Subject scrolls down page. Clicks link to first listing.	SC
3	55:10	55:44	Visit Pittsburgh website. Candleford Inn Bed & Breakfast page served. Clicks link to website.	OR <sub>1</sub>
4	55:44	55:55	Candleford Inn home page. Subject clicks on link to location.	OR <sub>2</sub>
5	55:55	57:23	Directions to lodgings served with map. Clicks to directions from North. Subject clicks close.	OR <sub>3</sub>

**Indexical Lexical markers for keywords associated with clips of Accommodation Genre**  
Incidences where the indexical lexical keyword is inferred from actions are indicated in *italics*.  
Where the indexical lexical keyword is explicitly derived from subjects' verbalisations are indicated in **bold**. Where both action and language confirm the indexical lexical keyword, the indicators are in ***bold italics***.

Transana keyword	Indicators of activity in clips						
Subjects	1	1a	2	2a	3a	8	8a
Aesthetics		5.6,				5.25, 5.26, 5.27, 5.29, 5.32, 5.33,	5.35,
Date availability	<i>5.1, 2.2,</i>	<i>5.6, 5.9, 5.13,</i>			<i>5.21, 5.23,</i>	<i>5.24, 5.28, 5.29,</i>	
Inclusions			<i>5.14, 5.15,</i>		<i>5.21, 5.22 (X2),</i>	<i>5.24, 5.29,</i>	
Intermediary selection	<i>5.1, 5.2, 5.3, 5.4, 5.5,</i>	<i>5.6, 5.9, 5.10 (X2), 5.11, 5.12, 5.13,</i>	<i>5.14, 5.16, 5.17,</i>	<i>5.18, 5.19, 5.20,</i>	<i>5.21, 5.22 (X2),</i>		<i>5.36,</i>
Lodging type	<i>5.1,</i>		<i>5.14, 5.15, 5.17,</i>	<i>5.18 (X2), 5.19,</i>	<i>5.21, 5.22 (X2),</i>	<i>5.24, 5.25, 5.29, 5.30, 5.31, 5.32,</i>	<i>5.35,</i>
Options review		<i>5.9, 5.13 (X4),</i>					
Price	<i>5.1, 5.2, 5.3, 5.4 (X2), 5.5,</i>	<i>5.6 (X3), 5.7 (X2), 5.10, 5.11, 5.13 (X3),</i>	<i>5.14, 5.16,</i>	<i>5.18, 5.19 (X2), 5.20,</i>	<i>5.21 (X2), 5.22 (X2), 5.23,</i>	<i>5.24, 5.25, 5.26, 5.27, 5.28, 5.29, 5.30, 5.32, 5.33,</i>	<i>5.35,</i>
Principal direct							<i>5.34,</i>



Room details	5.1 (X3), 5.4 (X2),	5.7, 5.8, 5.13,	5.14,	5.20,	5.21, 5.23,	5.24, 5.27, 5.28, 5.29, 5.30, 5.31, 5.32, 5.33,	
Specifications	5.1, 5.2, 5.5,	5.6, 5.9, 5.10, 5.13,			5.23,		
Location	5.1, 5.2 (X2),	5.6 (X4), 5.7, 5.13,	5.14 (X2), 5.15,	5.18, 5.20,			5.36,
Lodging grading	5.1, 5.4,	5.6 (X5), 5.7 (X2), 5.13,		5.19,	5.21,		5.35,
Specials/ deals							5.35,
Peer reviews		5.6 (X2), 5.7, 5.13,					
Property facilities	5.1, 5.2, 5.4,	5.6, 5.7, 5.13,		5.19,		5.25, 5.28, 5.30,	
Screening	5.1, 5.3, 5.4,			5.19,			

## Appendix 6 – Attractions and Activities Genre Activity Tables

### Genre element inventory

Genre element	Typical activity	Coding
SEarch	Initial search activity and SERP consideration	SE
Explore Intermediary	Scan list of options in infomediary or intermediary for more detailed investigation	EI <sub>1....n</sub>
Explore Service Provider	Scan list of options in service provider site for further investigation	ES <sub>1....n</sub>
Investigate Intermediary	Investigate specific aspects or topics in infomediary or intermediary	II <sub>1....n</sub>
Investigate service supplier	Investigate specific aspects or topics in service provider	IS <sub>1....n</sub>
Source search	Search for source in infomediary	*
Review Options	Call up summary of options for review	*

### 6.1 Subject 1 Noumea, About.com

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	46:36	47:13	Google search, sightseeing in New Caledonia. Subject reviews SERP listings. Clicks link to New Caledonia activities and sightseeing.	SE
2	47:13	47:24	About.com Hawaii/South Pacific travel. Subject clicks link to New Caledonia Tourism page.	EI <sub>1</sub>
3	47:24	48:11	About.com New Caledonia Tourism page. Subject reviews list of activity objects. Clicks link to trekking and guided visits.	EI <sub>2</sub>
4	48:11	48:24	Subject scrolls down page reviewing text. Clicks back to Activity listing.	ES <sub>1</sub>
5	48:24	48:31	Activity listing. Subject continues review of options. Clicks link to 'Glass Bottomed Boats'.	EI <sub>3</sub>
6	48:31	48:52	New Caledonia Glass Bottomed Boats page. Subject reviews photos and text. Clicks back to Activities listing.	ES <sub>2</sub>

### 6.2 Subject 1 Noumea, Lonely Planet 1

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

1	49:32	48:47	Google search 'Sightseeing in New Caledonia'. Subject reviews SERP and clicks link to New Caledonia Activities and Sightseeing.	SE
2	49:47	49:57	About.com listing New Caledonia Activities and Sightseeing. Subject clicks link to Lonely Planet.	SS
3	49:57	51:02	Lonely Planet introducing New Caledonia. Subject scrolls down page	EI <sub>1</sub>

			reviewing options. Reviews posts on Thorntree Forum discussion further down page. Clicks link to tips and articles	
4	51:02	51:15	Lonely Planet tips and articles page. Subject scrolls down page reviewing recommended travel books. Clicks back.	II <sub>1</sub>

### 6.3 Subject 1 Noumea, Lonely Planet 2

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

1	51:29	51:47	Google search Lonely Planet and New Caledonia. Subject reviews SERP. Clicks link to Lonely Planet Travel Information.	SE
2	51:47	52:18	Lonely Planet New Caledonia page. Introducing New Caledonia. Subject scrolls down page reviewing content. Clicks link "For Things to Do, Activities".	EI <sub>1</sub>
3	52:18	53:11	Lonely Planet Activities in New Caledonia. Subject scrolls down page reviewing text, descriptions of options. Clicks back.	EI <sub>2</sub>
4	53:11	53:21	Lonely Planet New Caledonia Page. Subject clicks link to "101 Things to Do in New Caledonia".	EI <sub>3</sub>
5	53:21	56:29	Lonely Planet text listing of Things to Do in New Caledonia. Subject scrolls down page reviewing content. Subject makes manual notes of key interests. Continues reviewing options. Clicks over to 2nd page. Subject clicks back to Google.	EI <sub>4</sub>

### 6.4 Subject 1 Noumea, Arc en Siel

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

1	56:47	57:05	Google search Day Tours Noumea. Subject reviews SERP, clicks link 'Noumea Sightseeing and Day Tours'.	SE
2	57:05	57:28	Noumea Sightseeing and Day Tours. Listing of thumbnails photos with brief descriptive text. Subject scrolls down list reviewing options. Clicks link to 'Arc En Ciel Voyages'.	EI <sub>1</sub>
3	57:28	57:42	Jasons Arc En Ciel Voyages Page. Subject briefly reviews content then clicks back.	ES <sub>1</sub>
4	57:42	58:03	Subject reviews Google SERP. Clicks link to Noumea Day Trips.	SE
5	58:03	58:59	City Discovery listing of Noumea Tours with prices. Subject scrolls down page reviewing options. Clicks back and returns to Google Search.	EI <sub>2</sub>

### 6.5 Subject 1 Noumea, P&O

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

1	58:59	59:07	Reviews Google SERP. Clicks link to P&O.com.	SE
2	59:07	1:02:27	P&O Find Noumea Tours page. Listing of tour options. Subject notes	ES <sub>1</sub>

			features of various options. Scrolls down page. Clicks to 2 <sup>nd</sup> page and continues reviewing options. Subject scrolls down page reviewing options. Clicks to 3 <sup>rd</sup> page. Scrolls down page	
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#### 6.6 Subject 1a Noumea, My Adventure Store and Tripadvisor

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	38:52	39:07	Google search "sightseeing on Noumea. Clicks on SERP link to "cheap tours"	SE
2	39:07		My Adventure Store home page served with generic touring options. No apparent Noumea content. Subject briefly reviews page and then	ES <sub>1</sub>
3		39:35	clicks back to SERP. Clicks link to "sightseeing in Noumea"	SE
4	39:35	40:02	Tripadvisor Noumea sightseeing page. Subject reviews and notes two options presented then clicks back to SERP.	EI <sub>1</sub>

#### 6.7 Subject 1a Noumea, Virtual Tourist

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

1	40:02	40:07	Reviews SERP and then clicks link to "attractions, things to see in Noumea."	SE
2	40:07	42:31	Virtual Tourist Things to do in Noumea page. Subject scrolls down page noting options reviewed by travellers. Notes options of primary interest. Clicks back to SERP.	EI

#### 6.8 Subject 1a Noumea, Jasons

Legend: Source search – SS, Intermediary search – IS<sub>1,2,3...n</sub>, Commercial Tours – CT, General Information - GI<sub>1,2,3...n</sub>, Specifics – SP<sub>1,2,3...n</sub>, Review of Options – RO, Detail recorded – DR, Exploration – EX

1	42:31	42:38	Reviews SERP and then clicks link to Noumea sightseeing and day tours.	SE
2	42:38	43:23	Jasons Noumea tours page. Clicks link to Noumea sightseeing and day tours. Reviews options scrolling down page. Clicks link to Noumea Explorer.	ES <sub>1</sub>
3	43:23	43:52	Reviews service details briefly and then clicks back to SERP.	IS <sub>1</sub>

### 6.9 Subject 1a Noumea, Lonely Planet

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

1	43:52	44:23	Google search for Lonely Planet Noumea. Reviews SERP and clicks Lonely Planet link	SE
2	44:23	45:01	Lonely Planet Introducing New Caledonia page. Subject reviews descriptive text. Clicks link to "Places in New Caledonia"	EI <sub>1</sub>
3	45:01	45:14	Lonely Planet Places in New Caledonia. Listing of New Caledonia listings A – Z. Subject clicks to introducing Noumea.	II <sub>1</sub>
4	45:14	45:28	Lonely Planet Introducing Noumea. Thorntree forum discussion. Subject scrolls down page reviewing entries. Clicks on 'Things to Do' option.	EI <sub>2</sub>
5	45:28	49:19	Lonely Planet Things to Do in Noumea page. Listing of text options. Subject scrolls down page noting options. Clicks to second page. Clicks to third page, scrolls down page noting attractions, activities and entertainment options. Clicks to next page, continues scrolling down options.	EI <sub>3</sub>

### 6.10 Subject 2, Cornwall 1

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	09:07	09:30	Cornwall by Cornshlight website page. Subject clicks link to Cornwall coast.	EI <sub>1</sub>
2	09:30	10:09	Cornwall by Cornshlight. Southwest Coastal Path page. Subject reviews link options presented. Clicks back to Cornwall Holiday Guide page.	ES <sub>1</sub>
3	10:09	10:14	Reviews options on Cornwall Holiday Guide page. Clicks link to towns and villages of Cornwall followed by click to "Bed and Breakfast."	EI <sub>2</sub>

### 6.11 Subject 2, Cornwall 2

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	13:40	13:47	Cornwall by Cornshlight clicks link to the Eden project.	EI <sub>1</sub>
2	13:47	14:48	Cornwall by Cornshlight Eden Project page. Subject scrolls down page reviewing content. Notes availability of tickets and opening times.	ES <sub>1</sub>
3	14:48	16:02	Recovers word document to note details	*

4	16:02	16:42	Returns to Cornwall by Cornshlight webpage and scrolls down the page. Scrolls back down page and clicks on link to places to stay.	El <sub>2</sub>
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### 6.12 Subject 2, Cornwall 3

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	17:49	18:29	Clicks to Google search for the 'Eden Project'. Reviews SERP, clicks on link to tickets and prices.	SE
2	18:29	18:33	Eden Project tickets and prices page.	IS <sub>1</sub>
3	18:33	18:57	Subject clicks for Word document. Notes price details in Word document. Returns to Eden Project page and clicks link to 'Whats Here'.	*
4	18:57	19:32	Eden Project What's Here page, subject reviews content and notes requirement for 5 hours on site. Clicks for word document to record detail. Continues reviewing content on 'Whats Here' page then clicks link to the Core.	IS <sub>2</sub>
5	19:32	20:32	Eden Project The Core page. Subject scrolls down page reviewing text. Scrolls back up page, then clicks in word document and notes detail before reverting Eden Project page and clicking back to Google SERP.	IS <sub>3</sub>

### 6.13 Subject 2, Cornwall 4

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

1	20:32	21:26	Google search for Lands' End England. Subject reviews SERP. Clicks link to Lands End Cornwall.	SE
2	21:26	22:50	Britain Express Lands' End page. Subject reviews content, then clicks to Word document and notes content of interest. Subject return to webpage, scrolls down to bottom of page then clicks link to Barbara Hepworth Museum and Gardens.	El <sub>1</sub> *
3	22:50		Barbara Hepworth Museum and Gardens page. Subject reviews content briefly and clicks link to photos. No result.	NF
4		24:42	Clicks alternative link for descriptive text on St Ives area. Clicks in Word document to note details, then returns to web page and clicks back.	El <sub>2</sub>
5	24:42		Clicks link on location map. Bing map served. Subject briefly reviews then clicks back to web page.	El <sub>3</sub>
6		25:46	Subject clicks new link to Bedruthen Steps. Subject notes content and clicks in word content to record details, then returns to web page and clicks link for further information. Notes content, returns to word	ES <sub>1</sub> *

			document to record detail.	
7	25:46		Subject returns to Britain Express page and clicks on link to Cornwall Cam. Briefly reviews Cornwall Cam page then	El <sub>4</sub>
8		26:29	clicks back to Britain Express Bedruthen Steps page. Reviews content.	ES <sub>2</sub>

#### 6.14 Subject 2, Cornwall 5

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

1	26:29	27:04	Google search for St Michael's Mount. Reviews SERP and clicks link to 'Plan Your Visit'.	SE
2	27:04		St Michael's Mount Plan Your Visit page. Subject notes access options.	ES <sub>1</sub>
3		27:47	Clicks link to tariff and opening times. Notes details then types in Word document. Reverts to web page and clicks link to Opening Dates.	IS <sub>1</sub> *
4	27:47	28:19	St Michael's Mount seasonal information presented. Subject clicks in Word document and records detail. Reverts to web page and clicks link on Island Life today.	IS <sub>2</sub>
5	28:19	28:48	Subject reviews web page content then clicks link to 'A Unique Lifestyle'.	IS <sub>3</sub>
6	28:48	29:15	St Michael's Mount Unique Lifestyle page. Subject reviews content. Clicks on map at left of screen.	IS <sub>4</sub>
7	29:15	29:39	St Michael's Mount Map served. Subject reviews map and clicks on link to transport links.	IS <sub>5</sub>
8	29:39	29:52	St Michael's Mount transport link page. Subject reviews rail, road and air options. Then clicks link to Black Flag Days page.	IS <sub>6</sub>
9	29:52	30:14	Mt Michael's Mount Black Flag Days page. Notes inaccessibility on Black Flag Days then clicks link on things to see and do.	IS <sub>7</sub>
10	30:14	31:14	St Michael's Mount Things to See and Do page. Subject reviews content then clicks in word document and types information. Then reverts to web page. Multiple back clicks to google SERP.	IS <sub>8</sub>

#### 6.15 Subject 2, Cornwall 6

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

1	31:04	31:23	Subject reviews google SERP. Scrolls down page and clicks on link to webcam.	SE
2	31:23	31:42	Webcam page served. Night-time. Clicks back to Google SERP.	EI <sub>1</sub>
3	31:42	31:52	Reviews Google SERP then click links to Karen Brown's World of Travel.	SE
4	31:52	32:09	Karen Brown's World of Travel. St. Michael's Mount page. Subject	EI <sub>2</sub>

			reviews map and content and finds no photos in gallery. Clicks back to Google SERP.	
5	32:09	32:32	Subject reviews Google SERP then types in new search for photos of St Michael's Mount. Selects link to webshots.	SE
6	32:32	33:34	Webshots page with photos of St Michael's Mount. Subject reviews content. Clicks for link to 2 <sup>nd</sup> page. Clicks link to 3 <sup>rd</sup> page, then clicks back to 1 <sup>st</sup> page. Then clicks back to Google SERP.	El <sub>3</sub>

#### 6.16 Subject 2, Cornwall 7

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

1	33:34	33:46	Google SERP for St Michael's Mount photos. Clicks link to places of peace and power.	SE
2	33:46	34:45	Places of Peace and Power page with sunset photo of St Michael's Mount. Subject reviews photo and text below, scrolling down page. Scrolls back to top of page, clicks back.	El <sub>1</sub>
3	34:45	34:51	Google SERP for photos of St Michael's Mount. Subject clicks link to Britain Express, St Michael's Mount photo gallery.	SE
4	34:51	35:14	Britain Express, St Michael's Mount photo gallery. Subject reviews photos then clicks back to Google SERP.	El <sub>2</sub>

#### 6.17 Subject 2, Cornwall 8

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

1	35:14	35:25	Subject reviews Google SERP, then clicks link to Bugbog St Michael's Mount pictures.	SE
2	35:25	36:15	Bugbog Photo Gallery with pictures of St Michael's Mount. Subject scrolls down page, appreciative of larger format photos. Scrolls down page reviewing photos, then clicks back up to Google SERP.	El <sub>1</sub>
3	36:15	36:23	Subject reviews Google SERP, scrolls down page and clicks link to Travepod.	SE
4	36:23	37:26	Travepod St Michael's Mount page. Subject clicks to close pop-up subscription box and reviews content of page. Scrolls down to photo gallery and clicks on photo. Places of Peace and Power page is served as well as an enlarged photo.	El <sub>2</sub>
5	37:26	39:03	Subject reviews photo and clicks through gallery. On completion of gallery, clicks back option and returns to Travepod page. Multiple back clicks fails to return to Google SERP so subject moves to Google search window at top right hand of screen.	El <sub>3</sub>



### 6.18 Subject 2, Cornwall 9

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

1	39:03	39:31	Enters search term Travel Forum Lands' End. Subject reviews SERP and clicks on link to Trip Adviser.	SE
2	39:31	39:44	Trip Adviser Visiting Land's End page. Subject reviews content and clicks link to Travel Forum.	EI <sub>1</sub>
3	39:44	39:52	Land's End Travel Forum. Zero content. Subject clicks alternate link for 'Things To Do'.	EI <sub>2</sub>
4	39:52	40:08	Trip Adviser Find the Best Things to Do page. Subject reviews content, then clicks in Google Search at top right hand of screen and enters search for Travel Forum Cornwall.	EI <sub>3</sub>
5	40:08	40:21	Google SERP for Travel Forum Cornwall. Subject reviews content and clicks link to 'Virtual Tourist', Cornwall Travel Forum.	SE
6	40:21	40:37	Virtual Tourist, Cornwall Travel Forum. Subject scrolls down page reviewing posts. Clicks on link to St Ansell to Penzance.	EI <sub>4</sub>
7	40:37	41:05	Virtual Tourist Cornwall Travel Forum. Subject scrolls down page reviewing posts. Scrolls back up and click 'Back' option, returns to 'Virtual Tourist Cornwall Travel Forum'.	EI <sub>5</sub>
8	41:05	41:21	Virtual Tourist Cornwall Travel Forum. Subject scrolls down page reviewing posts. Notes Fish & Chip Shop and clicks on link.	EI <sub>6</sub>
9	41:21	43:01	Virtual Tourist post for Rick Stein's Fish & Chip Shop served. Subject scrolls down page reviewing posts. Then clicks to restore Word document and records information. Clicks back in web page and continues reviewing Forum posts. Clicks back to Google SERP	ES <sub>1</sub> *

### 6.19 Subject 2, Cornwall 10

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	45:25	45:44	Trip Adviser Cornwall Travel Forum. Subject reviews list of links to posts scrolling down page. Click on link to National Trust vs English Heritage.	EI <sub>1</sub>
2	45:44	47:31	Trip Adviser Cornwall Travel Forum, National Trust Membership vs English Heritage. Subject scrolls down page reviewing posts. Clicks to activate Word Document and types information for reverting to Forum and continues scrolling down page. Clicks link to 'British Heritage Pass'.	EI <sub>2</sub> *
3	47:31	47:54	British Heritage Page served. Subject reviews content and clicks link at left to National Trust Properties by Region.	ES <sub>1</sub>
4	47:54	48:15	Clicks to 9 regions served. Subject clicks on link to South West Region.	ES <sub>2</sub>
5	48:15	48:58	Exploring South West England page served. Subject refers text of	ES <sub>3</sub>

			options, clicks on link to Tintangel Castle.	
6	48:58	49:19	Tintangel Castle page served. Subject reviews information. Scrolls down page then scrolls back up and clicks back button.	IS <sub>1</sub>
7	49:19	49:30	Screen returns to 'Exploring South West England', subject then clicks on link to 'Exploring London and South East England'.	ES <sub>4</sub>
8	49:30	50:16	Exploring London and South East England page served. Subject reviews text of options. Uninterested in content. Terminates session.	ES <sub>5</sub>

#### 6.20 Subject 2a, Wales 1

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	01:17	01:28	Google search for Wales Sightseeing. Subject reviews SERP and clicks on link to "See Wales.com".	SE
2	01:28	01:56	See Wales page. Subject clicks on See Wales photo gallery. Briefly reviews photo thumbnails then clicks on link to Quick Guide.	EI <sub>1</sub>
3	01:56	02:07	See Wales Quick Guide served. Subject reviews table with data. Subject clicks back to photo gallery and back to Google SERP.	II <sub>1</sub>
4	02:07	02:55	Subject reviews Google SERP for Wales Sightseeing and clicks on link. Extended delay waiting for content during which time subject requests help with opening Word document.	SE

#### 6.21 Subject 2a, Wales 2

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	04:34	04:55	Google SERP for Sightseeing in Wales. Subject clicks link to Sightseeing in Wales.	SE
2	04:55	05:21	World Travel Guide, Sightseeing in Wales page. Subject scrolls down page reviewing brief descriptions of main attractions. Clicks on link to 'Beaches in St Davids'.	EI <sub>1</sub>
3	05:21	05:41	World Travel Guide, Beaches in St Davids page. Subject scrolls down the page reviewing content then clicks on link to 'Getting There and Around'.	II <sub>1</sub>
4	05:41	06:10	World Travel Guide, Getting there and Around page. Subject scrolls down page reviewing options for road, rail and air travel. Subject clicks link to Travel by Road.	II <sub>2</sub>
5	06:10	06:29	World Travel Guide, Travelling in Wales, text relating to travel by road and travel by rail. Reviewed by subject. Subject dissatisfied with content and clicks window for Google search.	II <sub>3</sub>

### 6.22 Subject 2a, Wales 1

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	14:10	14:17	Trip Adviser, Wales Forum. Subject reviews list of links to Posts scrolling down page and clicks on link to Villages of Southern Wales.	EI <sub>1</sub>
2	14:17	15:04	Trip Adviser, Villages of Southern Wales. Subject scrolls down page reviewing posts.	EI <sub>2</sub>
3	15:04	15:58	Clicks on link in post back to listing to links to Wales Travel Forums. Scrolls down page and clicks on links to next page. Scrolls down page,	EI <sub>3</sub>
4	15:58	16:02	clicks link to following page. Clicks link to Chocolate Making in Cardiff.	EI <sub>4</sub>
5	16:02	17:04	Trip Adviser Chocolate Making in Cardiff Forum. Subject scrolls down page, reviewing posts. Subject clicks back to Trip Adviser Forum listing.	II <sub>1</sub>
6	17:04	17:10	Trip Adviser Forum listing page 4. Subject clicks link to Cable Car.	EI <sub>5</sub>
7	17:10	17:27	Trip Adviser Llandudno Forum: Cable Car. Subject scroll down page, reviewing posts.	II <sub>2</sub>
8	17:27	17:59	Clicks back to return to Wales Forum listings. Continues to review options and clicks on link to Castle Visits.	EI <sub>6</sub>
9	17:59	18:20	Trip Adviser Castle Visits Forum. Subject scrolls down page reviewing posts.	II <sub>3</sub>
10	18:20	19:31	Clicks back to Trip Adviser Wales Forums listing. Clicks to next page of listings, scrolls down page. Clicks to following page, scrolls down page. Clicks to following page, scrolls down page. Clicks link to Fish and Chips.	EI <sub>7</sub>
11	19:31	20:24	Trip Adviser Fish and Chips Forum. Subject scrolls down page reviewing posts. Clicks link to following page and scrolls down page reviewing content. Clicks back.	II <sub>4</sub>

### 6.23 Subject 2a, Wales 2

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	20:46	20:51	Google SERP Travel forum Wales. Subject clicks link to Virtual Tourist	SE
2	20:51	21:18	Virtual Tourist Wales Travel forums. Subject clicks link to Gwynedd travel forum	EI <sub>1</sub>
3	21:18	21:53	Virtual Tourist Gwynedd travel forum. Subject scrolls down page. Clicks new tab to open new page	II <sub>1</sub>
4	21:53	22:26	URL navigation to Google. Search for map of Wales and clicks on link to map	SE
5	22:26	23:12	National Gazetteer map of Wales. Subject peruses map then clicks	EI <sub>2</sub>

			back to previous tab	
6	23:12	23:36	Virtual Tourist Gynedd travel forum. Scrolls down page then clicks back to Google SERP	II <sub>2</sub>
7	23:36	24:12	and enters new search term Sightseeing in Wales.	SE
8	24:12	24:18	Clicks on link to World travel guide. Recognised as unsatisfactory from previous visit and clicks back.	EI <sub>3</sub>

#### 6.24 Subject 2a, Wales 3

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	24:18	24:24	Google SERP for best sightseeing in Wales. Subject clicks link to UK Student Life.com.	SE
2	24:24	25:33	UK Student Life page served as variety of links.	EI <sub>1</sub>
3	25:33	28:44	Subject clicks link to people and places. Variety of small photos served. Subject scrolls down page and remarks on trivia portrayed. Opens word document to record page link. Continues scrolling down screen perusing photos of castles, animals and Welsh food and drink. Scrolls back up page and clicks link to "links"	EI <sub>2</sub> DR
4	28:44	28:54	UK Student Life links page served, clicks on link to Swansea.	EI <sub>3</sub>
5	28:54	29:01	UK Student life Swansea page served as variety of links. Subject clicks link to Gower Coast	EI <sub>4</sub>
6	29:01	30:06	UK Student Life Gower Coast page served as range of photos of museums, markets, castle and other buildings. Subject scrolls down page and comments on aspects of interest. Clicks to open new tab	II <sub>1</sub>
7	30:06	30:38	URL navigation to Google subject searches for Swansea Jack – story about a dog. SERP served and subject clicks link to "Swansea Jack – This is Swansea."	SE
8	30:06	33:00	This is Swansea Swansea Jack page served. Subject scrolls down page reviewing text and photos. Remarks on story and then clicks back to SERP	II <sub>2</sub>

#### 6.25 Subject 2a, Wales 4

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	34:23	34:43	Enters Google search for "Visit Britain"	SE
2	34:43	35:14	Visit Britain.co.uk served, subject scrolls down page and clicks link to Abergavenny	EI <sub>1</sub>
3	34:43	37:15	Abergavenny tourism page served. Subject scrolls down page	ES <sub>1</sub>

			reviewing content. Remarks that link was chosen on the basis of a song she knew in the past. Scrolls back to top of page and clicks link to Accommodation page.	
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### 6.26 Subject 2a, Wales 5

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	43:41	43:44	Visit Britain Things to do page, Subject clicks link to Swansea, Mumbles and Gower peninsula	EI <sub>1</sub>
2	43:44	44:04	Swansea Bay page. Subject scrolls down reviewing content and then scrolls back up and clicks link to What to see and do	EI <sub>2</sub>
3	44:04	44:20	Swansea Bay what to see and do page. Subject briefly reviews content then clicks Link to Browse visitor attractions	EI <sub>3</sub>
4	44:20	44:40	Swansea Bay Visitor attractions page. Subject reviews thumbnail photos with brief descriptions. Clicks link to Chocolate Factory	EI <sub>4</sub>
5	44:40	44:58	Swansea Bay chocolate factory page served. Subject briefly reviews content and seems disappointed that bookings are required. Clicks back to Gower Coast attractions.	ES <sub>1</sub>
6	44:58	45:11	Swansea Bay Gower Coast attractions page. Subject clicks link to Gower cost adventures	EI <sub>5</sub>
7	45:11	45:18	Gower Coast Adventures page. Subject reviews content and clicks link to Gower gallery. Clicks through series of photos then	ES <sub>2</sub>
8	45:18	48:59	clicks a couple of links to content which are reviewed before clicking back to Gower Coast Adventures home page. Subject Clicks back through a few pages before recording website in word document for future access. Clicks back to Visit Britain page	IS <sub>1</sub> *

### 6.27 Subject 2a, Wales 6

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

1	48:59	49:15	Visit Britain page. Subject clicks link to Brecon Beacons National Park in Wales section	EI <sub>1</sub>
2	49:15	49:36	Brecon Beacons National Park page. Subject scrolls down reviewing content and clicks link to visitor centre webcams	ES <sub>1</sub>
3	49:36	51:03	Brecon Beacons webcam page. Clicks to review images from days of past week. Then clicks link at top of page to Things to see and do.	ES <sub>2</sub>
4	51:03	51:03	Brecon Beacons Things to see and do page. Subject clicks link to Walks and events	ES <sub>3</sub>
5	51:03	52:20	Brecon Beacons walks and events page. Subject scrolls down and up page a few times reviewing content and then clicks back to things to see	IS <sub>1</sub>

			and do and then clicks link to join our mailing list	
6	52:20	52:53	Brecon Beacons Tourism working together page. Subject reviews options for involvement with National Park scrolling down page then clicks link to map	IS <sub>2</sub>
7	52:53	54:05	Cluster map for Brecon Beacons Tourism. Pins indicate locations of attractions listed in scrollable list at right of map. Subject scrolls down page then clicks link to attractions at bottom of page – no result. Subject then rolls pointer over pins on map and clicks to review contents of pop-up boxes for each. Clicks on link in box for Brecon Mountain railway.	ES <sub>4</sub>
8	54:05	54:32	Brecon Mountain railway page. Subject scrolls down page reviewing content. Scrolls back up and clicks on link to showcaves.	IS <sub>3</sub>
9	54:32	55:19	Brecon Beacons showcaves page. Subject scrolls down page reviewing content then scrolls back up and clicks link to A day out in Brecon	IS <sub>4</sub>
10	55:19	56:09	A day out in Brecon page. Subject scrolls down page reviewing content and then scrolls back up and clicks link to Play Barn at Brynich	ES <sub>5</sub>
11	56:09	56:22	Play barn at Brynich. Subject scrolls down page reviewing content then scrolls back up page and clicks horizontal link to Shops and Galleries	IS <sub>5</sub>
12	56:22	56:51	Shops and Galleries page. Subject scrolls down page and clicks on link to photography tuition	ES <sub>6</sub>

### 6.28 Subject 2a, Wales photography

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	56:51	57:21	Brecon Beacons shops and Galleries Page. Subject clicks on Photography tuition link. Reviews options on page and clicks link	SS
2	57:21	58:13	Welcome to Photography tuition page. Subject reviews text and images and expresses interest in doing course.	ES <sub>1</sub>
3	58:13	58:33	Photography tuition page. Tuition charges for full day and part day served. Subject returns to top of web page and clicks on horizontal tab, photo gallery.	IS <sub>1</sub>
4	58:33	59:43	Photography Tuition photo gallery served. Subject scrolls down page reviewing images, then returns to top of page and clicks horizontal tab to Will Lewis, Photography Tutor.	ES <sub>2</sub>
5	59:43	1:00:43	Will Lewis Photography Tutor page. Subject scrolls down page reviewing text and images. Scrolls back to top of page and clicks on link to suggested itineraries.	IS <sub>2</sub>
6	1:00:43	1:02:11	Photography tuition suggestion itineraries page. Subject scrolls down page reviewing text and images. Subject notes attractiveness of idea. Subject clicks back.	IS <sub>3</sub>
7	1:02:11	1:02:42	Photography Tuition home page. Subject clicks on URL and copies into Word document.	IS <sub>4</sub> *

8	1:02:42	1:04:04	Welcome to Photography Tuition Homepage. Subject clicks on horizontal link to charges. Returns to page viewed earlier. Subject expresses happiness with having found content, then moves pointer to top right of screen and closes page. Returns to Brecon Photography Tuition page and clicks back to Brecon Beacons Shops and Galleries Page.	IS <sub>5</sub>
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### 6.29 Subject 2a, Paddles and pedals

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

1	1:04:04	1:04:19	Brecon Beacons Shops and Galleries Page, subject resumes scrolling down page and clicks on link to Paddles and Peddles.	EI
2	1:04:19	1:06:11	Brecon Beacons Paddles and Peddles page. Subject scrolls down page reviewing images and text. Expresses interest in content. Then scrolls back to top of page. Clicks to highlight URL and copies to word document. Returns to top of page and clicks back button.	ES

### 6.30 Subject 2a, Wales 6

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	1:06:33	1:07:05	URL navigation to Google. Search for Visit Wales. Subject clicks link to UK Holidays Visit Wales.	SE
2	1:07:05	1:09:36	Wales Holidays and Short Break Destinations Page. Subject clicks link to Search Attractions. Long delay in serving content. Nil result from link. Subject clicks back. Clicks link to National Parks.	NF
3	1:09:36	1:10:34	Wales National Parks Page. Subject scrolls down reviewing images and links options served. Clicks link to South Wales Valleys.	EI <sub>1</sub>
4	1:10:34	1:10:51	South Wales Valleys Page. Subject scrolls down page reviewing text and images. Clicks on link to Wales 1000 Things – View Stuff.	EI <sub>2</sub>
5	1:10:51	1:11:26	Wales 1000 Things Page. Subject scrolls down page reviewing thumbnail photos and associated links. Then scrolls back to top and closes page.	EI <sub>3</sub>
6	1:11:26	1:11:46	South Wales Valleys Page. Subject clicks again on Wales 1000 Things.	EI <sub>4</sub>
7	1:11:46	1:12:05	Wales 1000 Things Page. Subject clicks link to "Two Mushroom Here".	EI <sub>5</sub>
8	1:12:05	1:12:15	Two Mushroom Here page. Subject reviews content briefly then clicks back.	ES <sub>1</sub>
9	1:12:15	1:12:59	Wales 1000 Things page. Subject clicks close button. Returns to South Wales Valleys page. Subject scrolls down page reviewing	EI <sub>6</sub>

			text and photos. Subject clicks close.	
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### 6.31 Subject 2a, Wales 7

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:

Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	1:16:17	1:16:33	Wales regions – things to do in the Wye Valley page. Subject reviews content then clicks link to “Coastline and beaches”	EI <sub>1</sub>
2	1:16:33	1:16:58	Wales coastline and beaches page. Subject scrolls down page then clicks link to “useful links”	EI <sub>2</sub>
3	1:16:58	1:19:14	Flickr.com page subject clicks link to photo gallery and then to slide show. Reviews photos and then copies URL	EI <sub>3</sub>
4	1:19:14	1:19:27	Opens word document and pastes url into document for further reference	*
5	1:19:27	1:19:28	Returns to Wales “to do” page. Subject clicks link to Wales top ten	EI <sub>4</sub>
6	1:19:28	1:19:57	Wales top ten page, subject clicks link to Hay Festival	EI <sub>5</sub>
7	1:19:57	1:20:46	Hay Festival Hay-on-Wye page. Subject clicks tab link to arts and crafts	ES <sub>1</sub>
8	1:20:46	1:21:00	Hay-on-Wye arts and crafts page – single listing so subject clicks link to getting to Hay-on-Wye	IS <sub>1</sub>
9	1:21:00	1:21:28	Directions to Hay-on-Wye with map. Subject scrolls down page and reviews options for access to town the clicks link to further information	EI <sub>6</sub>
10	1:21:28	1:22:12	Medical, schooling and other general town information served. Subject reviews and expresses appreciation for trivia before clicking back to Wales top ten	EI <sub>7</sub>
11	1:22:12	1:22:17	Wales top ten page, subject clicks link to green events	EI <sub>8</sub>
12	1:22:17	1:23:06	Green events page loads slowly. Subject clicks link to forum. Following brief review of few entries, subject clicks back to green events and then clicks link to photo gallery	ES <sub>2</sub>
13	1:23:06	1:24:59	Green events photo gallery page with options to link to various galleries. Subject clicks first option and reviews thumbnails served and repeats for two further options before clicking on a thumbnail for an enlargement. Subject then views a number of other bog snorkelling enlargements before closing page to return to Wales top ten where session was terminated.	ES <sub>3</sub>



### 6.32 Subject 8 Adirondacks Tourism, Attractions

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	05:10	05:39	Adirondacks tourism page. Subject selects link to Search attractions.	EI <sub>1</sub>
2	05:39	08:32	Adirondacks attractions results page listing attractions with small photo for some down page. Subject scrolls down page reviewing options. Scrolls back to top and clicks on button for one attraction to add to trip planner.	EI <sub>2</sub>
3	08:32	15:00	Continues scrolling down page adding attractions to trip planner. Clicks to second page and continues scrolling down list adding attractions to trip planner. Clicks to 3 <sup>rd</sup> page and continues reviewing listed attractions and adding items of interest to trip planner. Subject reflects on functionality of alpha listing relative to groupings of attractions by type. Notes multiple items of interest located in Glen's falls. Clicks to 4 <sup>th</sup> page and then notes drop box to select attractions by region at top of page. Clicks to select attractions in Lake Placid region and Clicks search.	EI <sub>3</sub> DR
4	15:00	18:22	Adirondacks tourism Lake Placid attractions results page. Subject notes attractions in Lake Placid region already added to trip planner and adds further options. Clicks to 2 <sup>nd</sup> page and continues scrolling. Scrolls back to top of page and clicks on Trip Planner Items	II <sub>1</sub> *
5	18:22	18:43	Adirondacks tourism Your Trip Planner Items page served. Subject scrolls down page reviewing selects and expresses interest in locations of attractions. Scrolls back to top of screen and clicks link to map	RE
6	18:43	23:17	Adirondacks tourism map of selected attractions presented. Subject expresses satisfaction with result. Moves to drop down menus to seek location of Glen's Falls. Tries a number of maps for regions before selecting all regions map and locating Glen's Falls relative to expected access road. Reviews regions in drop down menu and muses which one might include Glen's Falls. Clicks link for Lake George	II <sub>2</sub>
7	23:17	24:05	Adirondacks tourism Lake George attractions served. Subject clicks on map tag and identifies Glen's falls as epicentre of Lake George region. Expresses intent to spend a couple of nights in each of Lake George and Lake Placid regions. Clicks for alternative search.	II <sub>3</sub>

### 6.33 Subject 8 Search 1, Dining 1

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	38:46	39:05	Adirondacks tourism page. Subject selects dining in Lake George region and clicks search	EI <sub>1</sub>
2	39:05	39:43	Adirondacks tourism Dining results for Lake George region listed down	II <sub>1</sub>

			page. Subject scrolls down and selects link to Adirondacks Pub and Brewery.	
3	39:43	41:15	Adirondacks Pub and Brewery page open in new window. Clicks link to download menu and notes options available before closing menu and restaurant windows to return to dining listing.	IS <sub>1</sub>
4	41:15	41:53	Adirondacks tourism Dining listing. Subject adds Adirondacks pub and brewery to trip planner and continues scrolling down page. Scrolls back to top of page and clicks link to Inn at Erlowest	II <sub>2</sub>
5	41:53	42:34	Innaterlowest.com page. Subject remarks on flashing "winner" banner at bottom of page. Subject laughs and closes page.	IS <sub>2</sub>
6	42:34	42:42	Adirondacks tourism Dining listing. Subject clicks link to 1000 Acres	II <sub>3</sub>
7	42:42	43:41	100 Acres page opens in new window. Subject notes that site is for resort not restaurant and clicks close	IS <sub>2</sub>
8	43:41	43:48	Adirondacks tourism Dining listing. Subject initiates new search	

#### 6.34 Subject 8 Search 1, Dining 2

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	49:28	49:41	Adirondacks tourism page. Subject selects search for Dining in Lake Placid region and clicks search	EI
2	49:41	50:14	Adirondacks tourism Dining in Lake Placid result page. Subject reviews options and clicks to add option to trip planner based on brief text description. Then clicks link to Baxter Mountain tavern	II <sub>1</sub> *
3	50:14	50:52	Baxter Mountain Tavern page opens in new window. Subject selects link to menu and scrolls down list of menu options before closing window.	IS <sub>1</sub>
4	50:52	51:13	Adirondacks tourism Dining in Lake Placid result page. Subject adds Baxter Mountain tavern to trip planner then scrolls down list reviewing other options and clicks link to Burgoyne Grill	II <sub>2</sub>
5	51:13	51:57	Best Western Ticonderoga Inn page served. Subject scrolls down page and clicks link to Burgoyne Grill. Images and text served not to liking of subject who clicks close	IS <sub>2</sub>
6	51:57	52:23	Adirondacks tourism Dining in Lake Placid result page. Subject continues scrolling down page and clicks link to Cobble Hill Inn	II <sub>3</sub>
7	52:23	53:02	New window opened with no content. Subject loses patience and clicks to close window.	IS <sub>3</sub>

### 6.35 Subject 8a, Falling Water, House and tours

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	01:38	02:03	Subject does Google search for Falling Water tour. Selects link to video.	SE
2	02:03	02:51	Website page Eye-on-design a tour of Falling Water video presentation. Subject expresses appreciation for content. Clicks back button to Google SERP.	IS <sub>1</sub>
3	02:51	03:01	Google SERP for Falling Water tour. Subject clicks link to Falling Water Tours & Tickets.	SE
4	03:01	07:42	Falling Water Tours & Tickets page. Subject notes range of tour options and expenses and costs for options. Scrolls down page for descriptions of tour options available. Notes conditions of tours. Subject notes relative times and pricings of tour options. Subject notes timing of tour offerings. Scrolls further down page and reviews content relating to lecture series. Scrolls further down page and reviews other tour options. Notes days of offering. Scrolls back to top of page and clicks back button.	IS <sub>2</sub>

### 6.36 Subject 8a Kentuck Knob, House and tours

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	22:15	22:47	Google SERP for Falling Water Accommodation. New search for Kentuck Knob. Selects link to Kentuck Knob Tours. Selects link to Reservations.	SE
2	22:47	24:56	Kentuck Knob Reservations Page. Subject reviews content relating to planning visit and tours and tickets. Notes detail for tour reservations. Scrolls down page. Reviews details of tour options with days of availability and timing. Subject notes absence of prices. Scrolls back up page. Subject scrolls back up page and clicks price details for regular tours.	IS <sub>1</sub>
3	24:56	25:23	Subject notes lack of prices. Clicks on more information button to get price details.	IS <sub>2</sub>
4	25:23	26:10	In depth Falling Water tour page includes detail of tour pricing. Subject makes manual notes then clicks back to tour listing, notes that previous options was for Falling Water, not for Kentuck Knob. Clicks for further information on In depth Kentuck Knob tour.	IS <sub>3</sub>
5	26:10	27:18	Page search details of in depth Kentuck Knob tour noting details. Subject notes price details manually. Notes that calendar signifies tours not operating on Wednesdays. Subject clicks links to after hours	IS <sub>4</sub>

			on Kentucky Knob.	
6	27:18	28:35	Page displays details of tours and costs together with calendar of days of operation. Subject clicks back. Subject notes that accommodation previously reviewed included tickets and decides to wait on response from accommodation before pursuing further information search. Clicks close to terminate session.	IS <sub>5</sub>

### 6.37 Subject 8a Pittsburgh Penguins, schedule

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	28:45	29:15	Google SERP. Subject initiates new search for Pittsburgh. Clicks link to Pittsburgh Steelers.	SE
2	29:15	29:25	New page, Wikipedia Professional Football Team. Subject notes that football teams will not be playing at time of visit. Clicks back to Google SERP.	EI <sub>1</sub>
3	29:25	29:30	Clicks new link to Pittsburgh Penguins.	SE
4	29:30	30:39	Wikipedia Ice Hockey, Pittsburgh Penguins Ice Hockey page. Subject scrolls down page reviewing content. Seeks detail on playing calendar. Scrolls back to top of page and clicks back to Google SERP.	EI <sub>2</sub>
5	30:39	31:13	Google SERP for Pittsburgh. Scrolls down page. Clicks link to Pittsburgh Penguins Schedule Analysis.	SE
6	31:13	31:44	Stanley Cups Play Off Page served. Subject expresses attraction for viewing Ice Hockey game. Reviews dates on which games are played, does not fit viewing schedule. Clicks back.	IS

### 6.38 Subject 8a Pittsburgh Culture, Carnegie Museum

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:  
Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	31:44	32:37	Google SERP for Pittsburgh. Subject selects link to Carnegie Museum of Art. New Google SERP search served for Carnegie Museum of Art Pittsburgh. Subject selects link to Current Exhibitions.	SE
2	32:37	33:16	Carnegie Museum of Art Current Exhibitions page served. Subject scrolls down page noting offerings. Subject clicks back.	IS <sub>1</sub>
3	33:16	33:24	Google SERP for Carnegie Museum of Art. Subject clicks link to Cathedral of Learning.	SE
4	33:24	33:53	New SERP Cathedral of Learning Pittsburgh served. Subject notes information on link, then clicks link to the Nationality Rooms.	IS <sub>2</sub>
5	33:53	34:24	Cathedral of Learning Page served. The Nationality Rooms text	IS <sub>3</sub>

			content. Subject scrolls down page reviewing text. Clicks back.	
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### 6.39 Subject 8a Pittsburgh Pirates, Schedule and tickets

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:

Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	34:51	35:06	Google SERP for Pittsburgh. Subject scrolls down page. Clicks link to Visit Pittsburgh.	SE
2	35:06	35:54	Visit Pittsburgh Page. Subject clicks on Menu Bar. Subject rolls mouse over Menu Bar to generate Drop Down of Text Boxes relating to various sports. Subject clicks link to Spectator Sports.	EI <sub>1</sub>
3	35:54	36:19	Visit Pittsburgh Spectator Sports Page. Subject reviews page with various sporting teams. Scrolls down page. Clicks link to Pittsburgh Pirates.	II <sub>1</sub>
4	36:19	36:46	Visit Pittsburgh Pirates Page. Reviews content then clicks link to Information for Baseball Games.	ES <sub>1</sub>
5	36:46	37:20	Pittsburgh Pirates Home Page served. Subject rolls mouse over Schedule Bar and clicks on link to Schedule by Month and selects June.	ES <sub>2</sub>
6	37:20	38:43	Pittsburgh Pirates Page. Subject attempts to scroll without success. Page reloads. Extended delay waiting for Page to serve. Subject revisits Schedule Menu and clicks on link to Schedule by Month, selects June.	IS <sub>1</sub>
7	38:43	43:16	Pittsburgh Pirates Schedule Page served. Subject notes availability of 'All You Can Eat Seats' and expresses disgust. Page displays details of games scheduled for April. Subject clicks forwards months to June. Subject relates scheduled games to expected presence in Pittsburgh. Subject determines which games are played in Pittsburgh and which games are played away from Pittsburgh. Subject notes times for games when they will be present in Pittsburgh. Subject selects Close. Returns to Visit Pittsburgh, Pittsburgh Pirates Page, then Clicks Back to Visit Pittsburgh Spectator Sports Page. Subject goes to Global Navigation Bar, selects Things to Do to generate Drop Down Menu of Categories of Activities to select next option.	IS <sub>2</sub>

### 6.40 Subject 8a Pittsburgh Cuisine, Tastes of our town

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II:

Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	43:16	43:39	Subject clicks link on Visit Pittsburgh Activities Page to Tastes of our Town. Subject reviews text about Pittsburgh Cuisine and clicks link to	EI

			Pittsburgh Food Festivals.	
2	43:39	46:46	Visit Pittsburgh Tastes of our Town Page, Pittsburgh Food Festivals Page. Subject clicks link to view Calendar and uses Calendar Search Function to specify expected dates in Pittsburgh and types in Search for Food Festivals. Clicks Search, zero result. Clicks Back to Visit Pittsburgh Events Page. Revisits Global Navigation Bar for Drop Down Menu and is served Page on Things to Do in Pittsburgh. Clicks link to Things to Do in Pittsburgh.	II <sub>1</sub>
3	46:46	47:21	Visit Pittsburgh Taste of our Town served. Subject scrolls down page to review content. Subject clicks back.	II <sub>2</sub>

#### 6.41 Subject 8a Pittsburgh Theatre, Pittsburgh events

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	47:21	49:24	Subject selects Events Calendar on Pittsburgh Things to Do Page and advances months to June. Subject then tries to manually enter date range. Selects Theatre category. Subject clicks search and is instructed to revisit date entry. Second attempt uses pop up calendar to enter dates and clicks search.	EI
2	49:24	50:46	Pittsburgh Events Page displays Theatrical Productions in defined time range. Subject expresses interest in one of the productions and clicks for more detail. Reviews text presented and notes dates when show is available. Clicks back and selects alternative from drop down from horizontal menu.	II

#### 6.42 Subject 8a Pittsburgh Neighbourhoods, various

Legend: SE: Search activity; EI: Explore Intermediary ES: Explore Service Provider II: Investigate Intermediary IS: Investigate supplier

Seq	Time code	Time code	Activity	
1	50:46	51:02	Subject moves mouse pointer to Global Navigation Bar at top of page and activates drop down menu from things to do. Moves mouse to link to neighbourhoods. Clicks on links to Neighbourhoods.	EI
2	51:02	51:21	Visits Pittsburgh, Pittsburgh Neighbourhoods Page. Subject clicks on link to Shadyside.	II <sub>1</sub>
3	51:21	51:47	Visit Pittsburgh, Shadyside Page. Subject reviews text description of Shadyside then clicks back to Visit Pittsburgh, Pittsburgh Neighbourhoods page. Identifies option in text and clicks link to Squirrel Hill.	II <sub>2</sub>
4	51:47	52:13	Visit Pittsburgh, Squirrel Hill Page. Subject reviews brief text description of Squirrel Hill and expresses interest. Moves to vertical	II <sub>3</sub>

			menu at left of page and clicks on link to Strip District.	
5	52:13	52:24	Visit Pittsburgh, Strip District Page. Subject reviews text as well as link to Westmoreland Museum of American Art and clicks link to Museum.	II <sub>4</sub>
6	52:24	54:11	New window serves information on the Westmoreland Museum. Subject reviews content, makes manual note of Museum name then scrolls down page And reviews list of coming events. Scrolls to top right of page and clicks close. Page returns to Strip District. Continuing reviewing text description of district. Clicks back to return to Neighbourhoods page and clicks back again to return to Squirrel Hill.	ES <sub>1</sub>

**Indexical Lexical markers for keywords associated with clips of Activities and Attractions Genre**

Incidences where the indexical lexical keyword is inferred from actions are indicated in *italics*.

Where the indexical lexical keyword is explicitly derived from subjects' verbalisations are indicated in **bold**. Where both action and language confirm the indexical lexical keyword, the indicators are in ***bold italics***.

Transana keyword	Indicators of activity in clips					
	Subject 1	Subject 1a	Subject 2	Subject 2a	Subject 8	Subject 8a
Cuisine			<b>6.14,</b> <b>6.18,</b>	<b>3.22,</b> <b>3.26,</b>	<b>6.33 (X4)</b> <b>6.34 (X7)</b>	<b>6.39, 6.40</b> <b>(X2)</b>
Cultural interests	<b>6.3, 6.5,</b>	<b>6.7,</b>	<b>6.12,</b> <b>6.13,</b> <b>6.19,</b>	<b>6.27,</b> <b>6.31,</b>	<b>6.32 (X2)</b>	<b>6.35,</b> <b>6.36, 6.38</b> <b>(X2),</b> <b>6.39, 6.41</b> <b>6X2), 6.42</b> <b>6X3)</b>
Day/date availability			<b>6.11,</b> <b>6.14,</b>			<b>6.35, 6.36</b> <b>(X3), 6.37</b> <b>(X2), 6.38</b> <b>6.39,</b> <b>6.40, 6.41</b> <b>(X2)</b>
Details recorded			<b>6.11,</b> <b>6.12,</b> <b>6.13,</b>	<b>6.26,</b> <b>6.28,</b> <b>6.29,</b>	<b>6.32</b> <b>(X12),</b> <b>6.33, 6.34</b> <b>(X2)</b>	
Education		<b>6.7,</b>	<b>6.11,</b>	<b>6.28,</b>	<b>6.32 (X3)</b>	<b>6.35, 6.36</b>
Entertainment	<b>6.3,</b>	<b>6.9,</b>		<b>6.27,</b> <b>6.31,</b>	<b>6.32 (X2)</b>	<b>6.37,</b> <b>6.39, 6.41</b> <b>(X2)</b>
History	<b>6.3, 6.5,</b>		<b>6.19,</b>	<b>6.22,</b>	<b>6.32 (X3)</b>	
Intermediary selection	<b>6.1, 6.2,</b> <b>6.3, 6.4,</b> <b>6.5,</b>	<b>6.6, 6.7,</b> <b>6.8, 6.9,</b>	<b>6.11,</b> <b>6.13,</b> <b>6.14,</b> <b>6.15,</b> <b>6.16,</b> <b>6.17,</b> <b>6.18,</b>	<b>6.20,</b> <b>6.21,</b> <b>6.22,</b> <b>6.23,</b> <b>6.24,</b> <b>3.25,</b>		
Location			<b>6.13,</b>	<b>6.23,</b> <b>6.27,</b> <b>6.31,</b>	<b>6.32 (X6)</b>	
Mode	<b>6.4, 6.5,</b>	<b>6.6, 6.8,</b>	<b>6.14,</b> <b>6.17,</b>			



Natural history	6.4, 6.5,	6.7,	6.13,	6.27, 6.29,	6.32 (X3)	
Option search	6.4,		6.10, 6.18,	6.20,		6.35, 6.37, 6.40
Price			6.11, 6.12, 6.14,	6.28 (X2),		6.35, 6.36 (X2)
Tours	6.4, 6.5,	6.6, 6.7, 6.8,				6.35, 6.36
Shopping		6.9,				
General info / browsing			6.10, 6.15, 6.16, 6.17,	6.21, 6.24, 6.25, 6.26 (X3), 6.27, 6.28, 6.30, 6.31,	6.32	

## Appendix 7 – Travel Experiences Genre Activity Tables

### Genre Element Inventory

Genre element	Typical activity	Coding
SEarch	Google and SERP consideration	SE
Initial Support	Seeking guidance in selection of service provider	IS <sub>1</sub> , IS <sub>2</sub> , IS <sub>3</sub> , etc
Service Provider	Overview and/or search for options <i>within</i> service provider website	SP <sub>1</sub> , SP <sub>2</sub> , SP <sub>3</sub> , etc
General Information	Information regarding location, weather and other destination conditions	GI <sub>1</sub> , GI <sub>2</sub> , GI <sub>3</sub> , etc
Offering Review	Deeper search within service provider website in search of prices, routes, itineraries, schedules, service grades, accommodation, photos, availability, duration, inclusions, peer reviews	OR <sub>1</sub> , OR <sub>2</sub> , OR <sub>3</sub> , etc
Decision Support	Resolution of questions arising with direct assistance to facilitate preference development	DS <sub>1</sub> , DP <sub>2</sub> , DS <sub>3</sub> , etc
Information Evaluation	Typically off-screen activity – review/summary of information	*

### 7.1 Subject 3, Cruise/Ferry 1

Legend: Search – SE, Initial Support – IS<sub>1,2,3...n</sub>, Service provider – SP<sub>1,2,3...n</sub>, General Information - GI<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, Decision Support - DS<sub>1,2,3...n</sub>, Information evaluation – IE,

Seq	Time code	Time code	Activity	
1	12:58			SE
2		13:08	Webpage Alaska Ferry.com. Subject clicks on link Seeking Package Price.	SP <sub>1</sub>
3	13:08	15:13	Subject reviews prices. Notes availability of cabins on Ferry. Subject notes applicable price. Subject returns to top of screen and clicks back to Google SERP Alaska Ferries Inside Passage.	OR <sub>1</sub>
4	15:13	16:16	Subject reviews SERP reflecting on his requirements	SE
5	16:16	16:39	Subject initiates new search for Alaska Tours Inside Passage. Reviews SERP, clicks link to APT.	SE

6	16:39	16:48	APT Canada Alaska and America's page.	SP <sub>2</sub>
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## 7.2 Subject 3, Cruise/Ferry 2

Legend: Search – SE, Initial Support – IS<sub>1,2,3...n</sub>, Service provider – SP<sub>1,2,3...n</sub>, General Information – GI<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, Decision Support - DS<sub>1,2,3...n</sub>, Information evaluation – IE,

1	16:48	16:52	Subject clicks back to Google SERP then clicks to link to Holland America line	SE
2	16:52	17:07	Holland America Line Inside Passage page. Subject clicks on find cruises.	SP <sub>1</sub>
3	17:07	18:40	Subject reviews page with maps of itineraries and prices for cabin details. Subject reviews prices for different cabin options. Subject clicks link to cruise details.	OR <sub>1</sub>
4	18:40	19:48	Page displays details of cruise ports of call with map. Subject clicks link to cabin.	OR <sub>2</sub>
5	19:48	20:27	Page displays cabin layout. Expresses approval. Subject reviews photo and text relating to cabin, then clicks back.	OR <sub>3</sub>
6	20:27	21:36	Subject returns to Cruise Options page. Scrolls down page reviewing various cruise options and price differences. Subject notes commencement and terminations of cruise availability dates. Subject clicks back to Google SERP.	SP <sub>2</sub>

## 7.3 Subject 3, Cruise/Ferry 3

Legend: Search – SE, Initial Support – IS<sub>1,2,3...n</sub>, Service provider – SP<sub>1,2,3...n</sub>, General Information – GI<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, Decision Support - DS<sub>1,2,3...n</sub>, Information evaluation – IE,

Seq	Time code	Time code	Activity	
1	22:25	23:18	Alaska Tour and Travel Packages Page. Subject scrolls down page reviewing detailed text of itinerary. Subject notes port of call on cruise and notes one way rather than return. Expresses desire to view map. Scrolls down to bottom of page, clicks on link for detailed information.	SP <sub>1</sub>
2	23:18	23:43	Alaska Cruise Fares.com. Photo of boat with five reasons to utilise service for booking. Clicks link to Anchorage.	SP <sub>2</sub>
3	23:43	24:05	Alaska Cruise Adventures webpage. Reviews range of cruises and clicks on first option.	SP <sub>3</sub>
4	24:05	26:04	Scrolls down page reviewing information regarding cruise and prices. Subject notes dates of cruise availability, duration of cruises and prices for various room types. Subject expresses satisfaction with price and notes that cruise visits all places of interest to subject. Makes manual note of webpage details. Clicks back to Alaska Cruise Fares.com.	OR DR

#### 7.4 Subject 3, Cruise/Ferry 4

Legend: Search – SE, Initial Support – IS<sub>1,2,3...n</sub>, Service provider – SP<sub>1,2,3...n</sub>, General Information – GI<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, Decision Support - DS<sub>1,2,3...n</sub>, Information evaluation – IE,

Seq	Time code	Time code	Activity	
1	26:04	26:28	Google SERP Alaska Tours Inside Passage. Subject clicks link to Small Ship Alaska Cruises.	SE
2	26:28	26:36	Unsatisfactory. Subject clicks back.	SP
3	26:36	27:48	Google SERP page. Subject clicks to next page of SERP. Reviews listings available. Scrolls back to top of page and initiates new search for flights from Vancouver to Alaska.	SE

#### 7.5 Subject 3, Cruise/Ferry 5

Legend: Search – SE, Initial Support – IS<sub>1,2,3...n</sub>, Service provider – SP<sub>1,2,3...n</sub>, General Information – GI<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, Decision Support - DS<sub>1,2,3...n</sub>, Information evaluation – IE,

Seq	Time code	Time code	Activity	
1	38:51	39:09	Google Search for "Alaskan Ferries." Subject reviews SERP and selects link	SE
2	39:09	39:19	Alaskaferry.com page. Subject clicks link to Alaska map with ferry routes	SP
3	39:19	42:36	Subject reviews map in regard to ferry origin and destination points. Clicks link to "schedules"	OR <sub>1</sub>
4	42:36	43:41	Subject enters to and from destinations using drop down menu dates and clicks search. No result. Adjusts search to May. Clicks search, no result. Subject clicks on link to schedules.	OR <sub>2</sub>
5	43:41	44:20	Screen displays link for daily schedules. Subject clicks on link and links to schedule document files are presented. Subject clicks back and clicks on Routes Option.	OR <sub>3</sub>
6	44:20	44:40	Subject reviews information on page and then clicks schedules link again.	OR <sub>4</sub>
7	44:40	46:03	Subject again enters origin and destination ports using drop down menus and clicks search for November then clicks search for a range of further dates. Clicks multiple dates seeking a sailing unsuccessfully.	OR <sub>5</sub>
8	46:03	46:17	Subject initiates new search for schedules changing origin to Anchorage and destination to Ketchikan and clicks search. Again tries a variety of months unsuccessfully. In frustration clicks Home option at top left of page. Returns to Alaskaferry.com page.	OR <sub>6</sub>
9	46:17	46:30	Reviews content on Alaskaferry.com page then schedules	OR <sub>7</sub>

			option. Page displays daily schedules page.	
11	46:30	47:04	Reviews sailings from Hollis to Ketchikan. Queries where Hollis is.	OR <sub>8</sub>
12	47:04	47:23	Enters Google Search at top right of screen for Hollis, Alaska. Reviews SERP and clicks on link.	SE
13	47:23	47:50	Wikipedia page for Hollis, Alaska. Subject clicks back then clicks on map on Google SERP. Clicks back to Alaskaferry.com daily schedules page.	GI
14	47:50	48:16	Enters search for schedules using drop down menus unsuccessfully.	OR <sub>9</sub>

### 7.6 Subject 3, Train

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	48:16	49:06	Google Search for Canada Trains. Reviews SERP and clicks link to Canadian Trains Rocky Mountaineer.	SE
2	49:06	50:37	Rocky Mountaineer webpage. Subject clicks Trip Search and enters origin and destination from drop down menus. Clicks Search.	SP
3	50:37	51:22	Rocky Mountaineer search results for options presented. Subject notes expensive proposition. Clicks on details for second option.	OR <sub>1</sub>
4	51:22	52:06	Rocky Mountaineer Classic Journey through the Clouds Vacation page. Subject reviews inclusions including hotel accommodation. Scrolls down page, clicks link to Gold Leaf Service.	OR <sub>2</sub>
5	52:06	52:43	Gold Leaf Service page. Subject scrolls down page reviewing content. Goes to trip search box and initiates new search.	OR <sub>3</sub>
6	52:43	54:21	Rocky Mountaineer Canada Rail Routes and Packages page. Subject reviews maps displaying various route options. Notes requirement to investigate merits of each route. Scrolls down page reviewing features of each route. Clicks link for First Passage to the West.	OR <sub>4</sub>
7	54:21	57:15	Rocky Mountaineer First Passage to the West page. Subject scrolls down page noting options available. Notes duration and difference in price between Gold Leaf and Red Leaf services. Subject notes price for two day, one night option. Scrolls down page for further options for four days and three nights. Clicks link to Classic First Passage.	OR <sub>5</sub>
8	57:15	58:05	Classic First Passage to the West Vacation, four days, three	OR <sub>6</sub>

			nights. Subject scrolls down page noting price differences for various levels of service. Notes hotels differs as well as accommodation on train. Clicks back.	
9	58:05	58:12	Clicks new link to two day Gold Leaf Service.	OR <sub>7</sub>
10	58:12	58:27	Reviews content page on page then clicks back.	OR <sub>8</sub>
11	58:27	58:37	Screen returns to trip options of various lengths. Clicks two day Red Leaf service.	OR <sub>9</sub>
12	58:37	58:53	Two Day Red Leaf Service, Vancouver Calgary. Subject peruses content briefly then clicks on link to Classic First Passage to the West Vacation.	OR <sub>10</sub>
13	58:53	1:00:56	Subject scrolls down page noting details and price differences for various search levels. Subject verbally summarises product from investigations through sessions, including flights, ferry details, ferry/cruise details and rail options including anticipated time with family. Subject notes needs to check merits of different service classes then clicks back to page summarising package options for First Package to the West.	OR <sub>11</sub> IE
14	1:00:56	1:01:56	Subject clicks back to Map of Routes from Vancouver to Calgary and Jasper. Notes possibility of bus transport from Calgary to Jasper.	OR <sub>12</sub>

### 7.7 Subject 3, Cruise/Ferry 5

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	1:05:10	1:05:31	Google Search Alaskan Ferries. Subject reviews SERP and clicks on Aslaskaferry.com.	SE
2	1:05:31	1:05:36	Alaskaferry.com home page. Subject reviews briefly then clicks back to SERP	SP
3	1:05:36	1:05:40	Briefly reviews SERP and clicks on alternative Google link to Alaska Marine Highway System.	SE
4	1:05:40	1:05:54	Alaska Marine Highway System page. Subject reviews content and clicks on link To Plan a Trip.	SP
5	1:05:54	1:06:05	Page displays 3 links to Sailing Search, Sailing Calendar and PDF Schedules. Subject clicks on Sailing Search.	OR <sub>1</sub>
6	1:06:05	1:06:35	Alaskan Marine Highways System Sailing Search, subject selects origin and destination and date options from drop down menus and clicks search.	OR <sub>2</sub>
7	1:06:35	1:07:45	Four search results listed down page. Subject clicks date to review date and renews search. Two options presented. Subject relieved that options are available. Closes tab to	OR <sub>3</sub>

			return to Marine Highway Systems Page then clicks Back to Alaska Marine Highway System Page Plan a Trip and clicks on link to Fare.	
8	1:07:45	1:08:55	Screen displays table of fares between different points for vehicles and passengers. Subject scrolls down page seeking costs for cabin accommodation on ferry. Closes tab. Returns to Alaska Marine Highway System Fares page. Scrolls down page, clicks link to Cabin fares.	OR <sub>4</sub>
9	1:08:55	1:09:23	South Eastern Alaska Cabin rates page displayed with costs in table form for options between ports	OR <sub>5</sub>

### 7.8 Subject 3a, Cruise/Ferry

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	04:49	06:28	Google Search for Inside Passage Cruises. Subject reviews SERP seeking one way cruise. Expresses preference for smaller vessel. Reviews SERP product using pop up boxes, clicks link to Holland America Line. Notes options for cruises, tours. Selects link to Travel Lady Magazine Article on Cruising the Inside Passage.	SE
2	06:28	06:56	Travel Lady Magazine article. Subject scrolls down page reviewing text and images and down to list of contacts at bottom noting one which has gone broke. Clicks back to SERP.	IS
3	06:56	07:15	Reviews SERP using pop up boxes and clicks link to Pacific Catalyst 2.	SE
4	07:15	07:38	Pacific /Catalyst 2 page. Subject scrolls down page reviewing photos and text. Clicks link to Southern Inside Passage.	SP
5	07:38	10:12	Scrolls down page reviewing options. Notes availability of southbound and northbound options. Subject makes manual note of webpage. Subject then copies URL and pastes into Word document for future access. Subject returns to Southern Inside Passage webpage and notes availability only from May onwards. Reviews link seeking price details. Clicks back twice to Google SERP.	OR
6	10:12	10:56	Subject continues reviewing options through Google pop up boxes. Clicks to second Google SERP page and continues reviewing options. Clicks link to About.com.	SE
7	10:48	10:56	Notes that content served relates to cruise operator who is no longer in business, Cruise West. Clicks back to SERP.	IS
8	10:56	11:11	Continues reviewing options in SERP using Google Pop up boxes. Clicks on link to Love to Know.	SE
9	11:11	11:55	Love to Know Alaska Inside Passage Cruises page. Subject	SP <sub>1</sub>

			reviews slide show presented and saves URL to word document. Clicks back to SERP.	
10	11:55	12:08	Continues reviewing Google SERP using pop-up-boxes. Clicks on link to Inner Sea Discoveries.	SE
11	12:08	12:42	Inner Sea Discoveries page. Subject scrolls down page reviewing content. Notes schedule commences May. Clicks link to order brochure and DVD.	SP <sub>2</sub>
12	12:42	13:15	Inner Sea Discoveries page for order brochures and DVDs presents fields which are not engaged with by subject who clicks back and copies URL of Inner Sea Discoveries to Word document then clicks back to Google SERP.	SP <sub>3</sub>
13	13:15	13:30	Subject continues reviewing Google SERP, clicks link to Holland America Line.	SE
14	13:30	13:39	Clicks link to view itineraries.	SP <sub>4</sub>
15	13:39	14:29	Holland America Lines page with tour options, dates and prices presented. Subject reviews content then clicks back twice to Google SERP. Notes start of new task.	OR

### 7.9 Subject 3a, Hamilton Island

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	23:51	24:24	Google search for package deals to Hamilton Island. Subject reviews SERP and clicks on link to Virgin Blue Holidays.	SE
2	24:24	24:45	Virgin Blue Holidays page. Subject uses drop down menu to identify Hamilton Island and clicks	SP
3	24:45	27:35	Page displays Hamilton Island package options listed down page. Subject notes prices for Palm Bungalows which had been reviewed as an accommodation option earlier. Subject reviews component costs for accommodation and flights to compare with package price. Subject notes that package price is marginally lower than individual component price. Subject notes package availability dates and scrolls down page to review other options. Returns to top of page and clicks back to SERP.	OR IE



### 7.10 Subject 3a, Heron Island

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	28:17	27:35		SE
2	27:35	29:05	Heron Island homepage. Subject remarks on attractive nature of property and commences entering dates in drop down menu. Clicks search	SP
2	29:05	29:57	Heron Island search results page with daily rates and transfer information. Subject notes requirements for transfers and options for meal packages and dive packages. Subject then clicks back to SERP.	OR <sub>1</sub>
3	29:57	30:12	Subject continues reviewing Google SERP for Heron Island accommodation using Google pop-ups to identify links. Clicks on link to Heron Island webpage.	SE
4	30:12	30:47	Heron Island Immerse Yourself in Reef Life page served. Subject reviews content then clicks link to Accommodation Options page. Notes options and prices then closes tab then clicks back to Google SERP for Heron Island accommodation.	OR <sub>2</sub>
5	30:47	30:55	Reviews SERP and clicks link to Wotif.com.	SE
6	30:55	32:44	Wotif.com accommodation page, subject enters destination and dates using drop down menus and clicks go button. Wotif Heron Island page served with range of options for different room types with prices per night across a range of dates.	DS <sub>1</sub>
7	32:44	36:01	Subject rolls mouse over hot deal price to peruse details of inclusions for Turtle Lodge. Notes inclusions and accommodation characteristics. Adjusts date for new range of price options. Subject continues reviewing options for rooms with prices and inclusions. Notes availability of upgrade. Reviews characteristics of rooms which would be provided as part of upgrade.	DS <sub>2</sub>
8	36:01	37:52	Subject double clicks one room option. Wotif.com book and pay securely page. Subject enters number of adults and dates required and notes inclusions. Calculates cost for 5 nights for 2 adults. Notes lack of alternative options on Island and comments on attractiveness of all meals provided.	DS <sub>3</sub>

### 7.11 Subject 4, Cambodia/Vietnam

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	00:39	01:13	Google search for Vacationclub.com.au. Subject reviews SERP	SE

			and clicks link.	
2	01:13	01:32	Accor Vacation Club website. Subject performs log on to access members page.	IS <sub>1</sub>
3	01:32	02:02	Options listed across top of page. Subject clicks Holiday Options.	IS <sub>2</sub>
4	02:02	02:18	Accor Vacation Club Holiday Options page. Subject peruses content and notes services provided by Flight Centre.	IS <sub>3</sub>
5	02:18	02:52	Subject clicks video option. Delay prior to video commencing.	IS <sub>4</sub>
6	02:52	04:05	Video screen appears top left. No video but audio. Audio promotes travel services provided.	IS <sub>5</sub>
7	04:05	04:17	Subject clicks box to make a reservation. Clicks close.	IS <sub>6</sub>

#### 7.12 Subject 4, Wendy Wu Far East

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	04:17	04:56	Google Search for Vietnam Tours. Subject peruses SERP, selects link to Wendy Wu Tours.	SE
2	04:56	05:21	Wendy Wu Tours homepage. Subject scrolls down page reviewing specials on offer. Clicks link to Rajasthan Panorama, 21 Days.	SP
3	05:21	05:52	Wendy Wu Rajasthan Panorama page. Subject scrolls down page reviewing detailed itinerary. Scrolls back to top left page, clicks on link to Yangtze River Luxury Cruising.	OR <sub>1</sub>
4	05:52	07:11	Wendy Wu Yangtze River 5 star Luxury Cruising page. Subject scrolls down page reviewing details of vessels used and services provided. Scrolls back to top of page and clicks on link to Treasures of Vietnam and China.	OR <sub>2</sub>
5	07:11	08:01	Wendy Wu Treasures of Vietnam and China page. Subject scrolls down reviewing detailed itinerary. Scrolls back to top of page and clicks on link to Classical Vietnam 4 – 5 star hotels.	OR <sub>3</sub>
6	08:01	08:32	Wendy Wu Classic Vietnam 4 – 5 star Hotels page. Subject reviews itinerary briefly and then closes.	OR <sub>4</sub>

#### 7.13 Subject 4, Bunnik Far East

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	08:37	09:24	Google search, Vietnam and Cambodia tours. Subject reviews SERP. Clicks link to Bunnik Tours Vietnam and Cambodia.	SE

2	09:24	09:34	Bunnik Tours Vietnam and Cambodia page. Subject clicks link to touring regions.	SP
3	09:34	09:40	Bunnik Tours Touring Regions page. Subject briefly reviews photos and text box of a range of touring regions then clicks back.	SP
4	09:40	10:05	Bunnik Tours Vietnam and Cambodia 18 Day Tour page. Subject clicks link on right hand side to see full itinerary.	OR <sub>1</sub>
5	10:05	10:20	Bunnik Tours Vietnam and Cambodia 18 Day Tour Detailed Itinerary with day by day description of activities together with map. Subject briefly peruses then clicks back to Google SERP.	OR <sub>2</sub>

#### 7.14 Subject 4, APT Vietnam, Cambodia, Laos

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	10:20	10:56	Google search for Vietnam and Cambodia tours. Subject reviews SERP, scrolls down page, clicks to 2 <sup>nd</sup> page, reviews 2 <sup>nd</sup> page of SERP. Clicks link to APT Vietnam Cambodia and Laos.	SE
2	10:56	11:59	APT Vietnam Cambodia Laos page. Subject reviews 5 link options presented, clicks on final link to Your Vietnam and Cambodia Experience. Text down page, subject briefly scans text going to bottom of page then scrolls back up page and clicks back to Vietnam Cambodia Laos page. Clicks link to Travel Documents.	SP <sub>1</sub>
3	11:59	12:06	APT Travel Documents page. Subject reviews content and clicks link to Discover the Forbidden City, Beijing, Important Information.	GI <sub>1</sub>
4	12:06	13:09	Pop-up-box with information on Beijing. Subject scrolls down to review important information in large type. Information on passports, visas, permits and health issues relating to region. Notes that visa is required to visit China. Subject clicks for pop-up-screen. Screen reverts to travel documents page. Subject enters search term in APT search box and clicks to proceed.	GI <sub>2</sub>
5	13:09:	13:42	Page displays search results. Subject scrolls to bottom of page and clicks link to Asia includes China, Vietnam, Cambodia, Laos.	SP <sub>2</sub>
6	13:42	14:07	APT Vietnam Cambodia Laos page. Subject scrolls down page reviewing links and images offered.	SP <sub>3</sub>
7	14:07	15:20	Clicks on link to Where You'll Go, What You'll Do. Reviews text down page noting options available including Freedom to Choose at no extra cost. Scrolls to bottom of page scanning	GI <sub>3</sub>

			information provided then scrolls back to top of page seeking costs. Clicks on Search and Book without entering content. Zero result. Subject clicks back button.	
8	15:20	16:23	Page returns to APT Vietnam Cambodia Laos page. Subject scrolls down page reviewing options and selects link to APT Tours and Cruises.	SP <sub>4</sub>
9	16:23	16:31	Page displays options for APT Tour Options globally. Subject clicks back.	SP <sub>5</sub>

#### 7.15 Subject 4, APT Laos Indo-China

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	16:23	16:31	APT Homepage with destinations for tourism cruises. Subject clicks on Asia link.	SP <sub>1</sub>
4	16:31	16:57	APT page Our Most Popular Asia Trips. Subject scrolls down page reviewing text and images relating to tour offerings. Clicks link to Laos, Indo-China and Mekong.	SP <sub>2</sub>
5	16:57	17:20	Laos, Indo-China and the Mekong APT page. Subject scrolls down page reviewing text describing tour. After brief review subject closes page. Subject clicks back to our most popular Asia trips page	OR
6	17:20	17:29	Subject revisits images and text on tour offerings and clicks link to Ho Chi Minh City, Mekong.	SP <sub>3</sub>
7	17:29	18:26	Ho Chi Minh City, Mekong Page, APT tours. Subject scrolls down page perusing itinerary details. Seeks details of whether flights are included or not. Scrolls to bottom of page and clicks link to peer reviews of tour.	OR <sub>1</sub>
8	18:26	18:40	APT Travellers Testimonials Page. Subject scrolls down page and clicks link to testimonial.	OR <sub>2</sub>
9	18:40	19:48	Drop down text box appears with customer testimonial. Apparently a positive review. Closes box and clicks on an alternative review for a different tour. Closes box when notices this is a different tour. Continues reviewing options then clicks on link at left hand side of screen to trip search.	OR <sub>3</sub>
10	19:48	19:52	APT page including China, Vietnam, Cambodia and Laos. Subject clicks on link	OR <sub>4</sub>
11	19:52	20:12	APT page Asia including China, Vietnam, Cambodia and Laos. Subject clicks on link to map of Asia.	OR <sub>5</sub>
12	20:12	21:05	Subject clicks on area of map generating pop up box where subject selects drop down menu from Asia. Drop down menu offers city or place options. Subject clicks on Saigon. Further	OR <sub>6</sub>

			options for duration, 14 days clicks, trip start option and clicks on rail tours. Subject enters start date in drop down box and clicks on search.	
13	21:05	21:52	Search result displays five trips meeting subject's criteria. Subject clicks on link to first cruise option.	SP <sub>4</sub>
14	21:52	24:00	APT page, Angkor, Mekong and Ho Chi Minh City. Subject reviews day by day itinerary scrolling down page notes that flights are not included in price. Commences detailed review of itinerary day by day. Subject clicks to link for testimonials regarding tour.	OR <sub>7</sub>
15	24:00	24:31	APT Travellers Testimonials page. Subject scrolls down identifies tour and clicks link to testimonial. Notes that option selected was not the tour she was looking at. Closes box and clicks back to Angkor, Mekong and Ho Chi Minh City tour page.	OR <sub>8</sub>
16	24:31	24:57	APT Angkor, Mekong and Ho Chi Minh City cruise page. Subject scrolls to top of page. Verifies tour title then scrolls to bottom of page to click on link to tour testimonials.	OR <sub>9</sub>
17	24:57	25:32	APT Travellers' Testimonials Page. Links to testimonials listed vertically down page. Subject clicks on link and determines this is not the tour she is interested in. Clicks back and out of page.	OR <sub>10</sub>

#### 7.16 Subject 4, APT SE Asia

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	25:32	26:12	APT Asia includes China, Vietnam, Cambodia, Asia page. Subject reviews map and clicks to generate text box to specify desired tour options in terms of region, duration, mode of travel and trip start. Clicks search.	SP <sub>1</sub>
2	26:12	27:33	Page displays 5 results. Notes which tours have been visited previously and clicks on 5 <sup>th</sup> link to Angkor, Mekong and Ho Chi Minh City. Subject clicks link to Angkor, Mekong and Ho Chi Minh City tour. Page states that incomplete details of information are owing to inability to book tour online. Subject notes that inbound flights are London and expresses dismay. Subject scrolls to page, clicks close and screen returns to APT our most popular Asia trips.	SP <sub>2</sub>

### 7.17 Subject 4, Scenic Tours Asia

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	27:33	28:05	Subject clicks in URL and <a href="http://www.scenictours.com">www.scenictours.com</a> .	SE
2	28:05	28:57	Google SERP. Subject reviews options presented. Clicks to second Google SERP page and continues to review options. Subject modifies search term to Scenic Tours Asia. Google SERP with 3 options presented. Subject clicks a third option.	SE
3	28:57	29:45	Scenic Tours Asia and India Tours page. Subject scrolls down page and rolls mouse over tour offerings generating maps with diagram of relevant itineraries. Subject clicks link to 25 days Jewels of Vietnam and Cambodia tour.	SP <sub>1</sub>
4	29:45	31:24	Scenic Tours 25 Day Jewels of Vietnam and Cambodia tours page. Subject reviews map with diagram of tour itinerary then scrolls down page to review day by day tour activities. Notes that inbound and outbound flights not included. Scrolls back to top of page, clicks link to view availability. Scrolls down to bottom of page and seems surprised at cost of tour. Scrolls back to top of page. Clicks link to travel specials.	OR <sub>1</sub>
5	31:24	32:04	Scenic Tours Travel Specials Page. A range of brief tour descriptions with thumb nail photos served down page for a variety of destinations. Subject scrolls down page reviewing options and identifies link to Vietnam and Cambodia tour and clicks.	SP <sub>2</sub>
6	32:04	33:03	Pop up box appears subject clicks close. New page served: Vietnam and Cambodia 2011. Subject scrolls down page reviewing maps and brief descriptions of each tour offered. Notes partner free airfare options on tours. Subject reflects that Wendy Wu appears to be least expensive option. Scrolls back to top of page and clicks close. Page returns to Scenic Tours Travel Specials webpage.	OR <sub>2</sub> IE
7	33:03	33:11	Scenic Tours Travel Specials webpage, subject continues to review options. Identifies an option and clicks link to Scenic Tours China and India Early bird Offers page.	SP <sub>3</sub>
8	33:11	33:49	Range of tours presented with maps of itineraries and brief description of tours. Subject briefly reviews options and moves to top right hand of page and closes.	SP <sub>4</sub>
9	33:49	33:56	Scenic Tours Travel Specials Page. Subject briefly reviews content then clicks on back option. Screen returns to Scenic Tours Asia and India page.	SP <sub>5</sub>
10	33:56	34:27	Subject reviews options for 25 day tour which generates a pop up box. Subject clicks close. New window generated which subject immediately closes. Clicks link to Scenic tours travel	OR <sub>3</sub>

			specials.	
11	34:27	34:46	Reviews list of Scenic tours specials and then clicks link to Scenic tours Vietnam and Cambodia.	SP <sub>6</sub>
12	34:46	34:51	Scenic Tours Vietnam and Cambodia 2011 tour listing. Subject scrolls down page reviewing options.	OR <sub>7</sub>
13	34:51	35:22	Subject clicks tab at top of page to return to Scenic Tours Travel Specials. Subject clicks back option and screen returns to Scenic Tours Asia & India Tours.	SP

#### 7.18 Subject 4, Wendy Wu Vietnam

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	35:36	36:16	Google search for Wendy Wu Tours. Reviews SERP and clicks link	SE
2	36:16	36:38	Wendy Wu Vietnam and Indochina page. Mouse hover over Vietnam on vertical left hand side menu generates pop-up of tour options. Subject clicks link to Classical Vietnam 4-5 star hotels	SP <sub>1</sub>
3	36:38	37:25	Classical Vietnam tour page. Subject reviews itinerary and modes of transport. Then moves back to top and selects alternative tour from left hand vertical menu	OR <sub>1</sub>
4	37:25	37:42	Vietnam and Laos Discovery tour page. Notes travel by Thai airways not desired. Selects alternative tour from left hand vertical menu	OR <sub>2</sub>
5	37:42	37:56	Vietnam Highlights tour page. Subject notes flights with Vietnam Airlines not desired. Clicks link to cruise options	OR <sub>3</sub>
6	37:56	38:55	Yangtze River 5* luxury cruising page. Subject notes cruise options and highlights described and that cruises are stand-alone options. Clicks link to current specials.	OR <sub>4</sub>
7	38:55	39:13	Wendy Wu current specials page – nil. Selects alternative tour from left hand vertical menu	SP <sub>2</sub>
8	39:13	41:02	Wendy Wu Vietnam Panorama page. Subject notes highlights and scrolls down to detailed itinerary. Notes lack of a cruise component and selects alternative tour from left hand vertical menu	OR <sub>5</sub>
9	41:02	41:48	Wendy Wu New Vietnam Trails Tour page. Subject briefly reviews content then selects alternative tour from left hand vertical menu	OR <sub>6</sub>
10	41:48	45:19	Wendy Wu Mekong-Pandaw River cruise page. Subject reviews content and records URL for later attention. Selects alternative tour from left hand vertical menu	OR <sub>7</sub>

11	45:19	47:20	Wendy Wu Introduction to Vietnam page. Subject reviews general travel information scrolling down page to tabulated tour offering summary at bottom of page. Clicks back to Mekong-Pandaw River cruise page	GI
12	47:20	49:23	Wendy Wu Mekong-Pandaw River cruise page. Notes cruise origin in Saigon and terminus in Siem Reap. Reviews drop down country and travel information menus at top right of screen and resolves to seek map. Continues review of river cruise page then selects link from vertical Left hand side menu	OR <sub>8</sub>
13	49:23	49:31	Wendy Wu Vietnam and Indochina travel page. Subject clicks on map at right	SP <sub>3</sub>
14	49:31	50:01	Reviews pop-up map of Vietnam highlights then clicks close	GI <sub>1</sub>
15	50:01	50:34	Wendy Wu Introduction to Vietnam page. Subject scrolls to tabulated tour offering summary at base of page and clicks on an offering	GI <sub>2</sub>
16	50:34	50:56	Wendy Wu Vietnam highlights tour page. Subject scrolls down page then selects link from vertical left hand pop-up menu	OR <sub>9</sub>
17	50:56	51:09	Wendy Wu New Vietnam Escape Tour page. Brief review of content then subject selects new link from vertical left hand side pop-up menu	OR <sub>10</sub>
18	51:09	51:17	Wendy Wu Vietnam and Laos discovery tour page. Subject briefly reviews content then selects alternative tour link from vertical left hand side pop-up menu	OR <sub>11</sub>
19	51:17	52:19	Wendy Wu Vietnam Panorama tour page. Subject reviews content noting duration and transport modes and then clicks alternative link from vertical left hand side pop-up menu	OR <sub>12</sub>
20	52:19	52:36	Wendy Wu Angkor to the Bay Tour page. Brief review of content then multiple back clicks to conclude.	OR <sub>13</sub>

#### 7.19 Subject 4, Alternative search

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	53:08	53:28	Google search for "cruises Vietnam." Subject reviews SERP and then clicks link to NRMA hot deals	SE
2	53:28	53:43	NRMA Hot Deals page. Subject scrolls down and then clicks back	IS <sub>1</sub>
3	53:43	54:02	Reviews Google SERP and clicks on link	SE
4	54:02	54:21	Mekong River Cruises page. Subject briefly reviews content then clicks back	IS <sub>2</sub>
5	54:21	55:02	Reviews Google SERP and clicks link	SE
6	55:02	55:25	Helen Wong's tour page. Scrolls down page then clicks back	SP



## 7.20 Subject 4, South East Asia

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	55:36	55:58	Google search for APT. Subject clicks link on SERP	SE
2	55:58	56:02	APT Country touring options page. Subject clicks link to Asia.	SP <sub>1</sub>
3	56:02	56:14	APT Our most popular Asian trips page. Subject reviews offerings and clicks link	SP <sub>2</sub>
4	56:14	56:25	APT Ho Chi Minh city, Mekong and Angkor tour page. Subject clicks link to view dates and prices	OR <sub>1</sub>
5	56:25	57:11	Subject selects dates from drop down calendar and specifies 2 pax	OR <sub>2</sub>
6	57:11	59:21	September departures served with colour coded availability. Subject selects alternative month and date and notes duration of and price of tour with cruise inclusion. Clicks back.	OR <sub>3</sub>
7	59:21	1:01:29	APT Ho Chi Minh city, Mekong and Angkor tour page. Subject scrolls down page reviewing itinerary and muses about seasons. Notes inclusions in price and records URL for further attention. Clicks close then back	OR <sub>4</sub>
8	1:01:29	1:01:53	Google SERP for APT Asia tours. New search for Vietnam weather seasons, Subject reviews SERP and clicks link	SE
9	1:01:53	1:02:12	Guide Vietnam.com weather page. Subject clicks link to weather by month for January	GI <sub>1</sub>
10	1:02:12	1:03:53	Guide Vietnam.com. Subject notes January weather and main rainy season.	GI <sub>2</sub>
11	1:03:53	1:04:03	Clicks back to SERP.	SE
12	1:04:03	1:04:40	APT Country touring options page. Subject clicks link to Asia.	SP <sub>3</sub>
13	1:04:40	1:04:47	APT Ho Chi Minh city, Mekong and Angkor tour page. Subject clicks link to view dates and prices	OR <sub>4</sub>
14	1:04:47	1:04:57	Subject selects dates from drop down calendar and specifies 2 pax	OR <sub>5</sub>
15	1:04:57	1:08:29	Subject selects "March" from drop down calendar. Infers popularity from limited availability. Clicks on date and notes higher cost. Reviews alternative months and dates, then reverts to March and notes price for preferred dates. Clicks back	OR <sub>6</sub>
16	1:08:29	1:10:12	APT Ho Chi Minh city, Mekong and Angkor tour page. Subject notes flights not included, revisits itinerary and notes cruise termination point. Clicks close.	OR <sub>7</sub>

### 7.21 Subject 4, Intermediary telecom

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	1:12:14	1:22:30	Discussion with agent. Subject specifies preferred tour and queries merits of different operators, airfares, routing, timing and resolves to follow agent's advice.	DS

### 7.22 Subject 5, SYD/BNE Train

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	02:08	02:37	Google search for "Train Sydney to Brisbane. Subject reviews SERP and selects link	SE
2	02:37	04:34	Countrylink home page. Subject enters origin and destination, dates, 2 pax and concession tickets from drop down boxes. Clicks search	SP
3	04:34	07:04	Pop-up box with 4 step process opens. Concession type required. Subject does not have detail for spouse to hand, enters "senior card" without success.	OR <sub>1</sub>
4	07:04	07:22	Subject revises entry to single pax, enters concession card # and clicks search.	OR <sub>2</sub>
5	07:22	09:22	Step 2 of process – service selection. Subject notes departure and arrival time options, prices and sleeper availability. Clicks close.	OR <sub>3</sub>

### 7.23 Subject 5, BNE/CNS Train

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	09:46	10:33	Google search "train Brisbane to Cairns" Subject reviews SERP and clicks link	SE
2	10:33	12:19	Travelonline "The Sunlander" page. Subject scrolls down page noting details of service classes. Notes inclusions and facilities then clicks link to floor plan	SP <sub>1</sub>
3	12:19	12:36	Pop-up box illustrates seating and sleeping accommodation. Subject clicks close	SP <sub>2</sub>
4	12:36	13:04	Travelonline "The Sunlander" page. Subject clicks link to journey planer seeking timetable	SP <sub>3</sub>

5	13:04	14:11	Travelonline map served of Australian rail routes. Unsuccessful clicks to get details of tilt train services. Clicks link to Cairns	SP <sub>4</sub>
6	14:11	14:50	Travelonline Cairns accommodation page. Not of interest to subject, frustrated by lack of timetable. Clicks tab at top of page for map.	SP <sub>5</sub>
7	14:50	15:40	Google map of Cairns with markers for accommodation. Subject reviews briefly then clicks back to journey planner. Clicks link to site map seeking timetable	SP <sub>6</sub>
8	15:40	16:02	Travelonline site map served in two columns of links for Australia and International. Subject scrolls down page then clicks close.	SP <sub>7</sub>

#### 7.24 Subject 5, Sunlander

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	17:32	18:08	Google search for "timetable the sunlander." Reviews SERP and clicks link	SE
2	18:08	18:28	Rail Australia The Sunlander fares and timetable page. Clicks link to timetable.	SP
3	18:28	18:40	Queensland Rail the Sunlander page. Subject clicks link to Northbound timetable	OR <sub>1</sub>
4	18:40	22:32	Queensland rail The Sunlander Northbound timetable. Subject notes days and times of operation and scrolls down page noting schedule detail. Unclear on some points. Scrolls back to top and clicks back.	OR <sub>2</sub>

#### 7.25 Subject 5, Tilt train 1

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	23:26	23:34	Google SERP for timetable the sunlander. Subject clicks link	SE
2	23:34	24:13	Rail Australia The Sunlander page. Subject clicks link on vertical left had menu to tilt train	SP
3	24:13	24:42	Rail Australia tilt train page. Subject reviews text content then clicks link to fares and timetables	OR <sub>1</sub>
4	24:42	24:50	Rail Australia tilt train fares and timetables page. Clicks link to view timetable	OR <sub>2</sub>
5	24:50	25:14	Queensland rail tilt train page. Subject clicks link to timetable	OR <sub>3</sub>
6	25:14	25:21	Queensland Rail tilt train page with timetable links. Subject	OR <sub>4</sub>

			clicks back to Rail Australia tilt train page. Clicks timetable tab	
7	25:21	25:30	Queensland Rail tilt train page with timetable links. Subject clicks CNS to BNE link	OR <sub>5</sub>
8	25:30	27:39	Queensland rail tilt train Cairns page with southbound timetable. Subject notes days and times of operation, arrival and departure times and 24 hour trip duration. Notes section transited overnight. Clicks back	OR <sub>6</sub>
9	27:39	28:29	Queensland Rail tilt train page. Subject reviews text then clicks tab for "seats"	OR <sub>7</sub>
10	28:29	31:13	Queensland rail tilt train seats and berths page. Subject scrolls down page and notes lack of sleeping accommodation. Subject reflects on information gathered to this point then clicks back	OR <sub>8</sub> IE

### 7.26 Subject 5, Tilt train 2

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	37:23	37:47	Queensland Rail tilt train page with timetable links. Subject clicks link	SP
2	37:47	38:45	QR tilt train Rockhampton page. Subject scrolls down page reviewing Northbound schedule. Notes bus interchanges for trip breaks. Clicks tab for facilities	OR <sub>1</sub>
3	38:45	40:55	Queensland Rail tilt train Cairns facilities page. Scrolls down page note American Express not accepted and other payment options. Lack of private showers and toilets undesirable. Subject clicks tab for fares	OR <sub>2</sub>
4	40:55	42:25	Queensland Rail tilt train fares page. Subject scrolls down page reviewing fares. Resolves to call Queensland rail.	OR <sub>3</sub>

### 7.27 Subject 5, Telecon

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	44:51	50:21	Subject outlines interests and requests brochures. Queries mechanism for breaking trip and responds positively to idea of set packages with stopovers and queries senior discount availability. Confirms ability to book everything through QR	DS

### 7.28 Subject 8a, Summit Inn Packages

Legend: Search – SE, Service provider – SP<sub>1,2,3...n</sub>, Offering Review – OR<sub>1,2,3...n</sub>, General Information - GI, Information evaluation – IE, Intermediary search – IS

Seq	Time code	Time code	Activity	
1	07:42	08:23	Google search for Fallingwater accommodation. Subject reviews SERP and clicks link	SE
2	08:23	09:04	Fallingwater lodging and food page. Subject clicks link to Summit Inn	SP
3	09:04	10:25	Summit Inn resort American Landmark Getaway package page. Subject scrolls down and reviews text. Notes distance to Fallingwater then clicks link to "view now"	SP
4	10:25	11:17	Summit Inn resort Wright overnight page. Subject scrolls down page the back up seeking more detail. Clicks vertical left hand menu link to vacation packages	OR <sub>1</sub>
5	11:17	11:28	Summit Inn resort vacation packages page. Subject scrolls down page and clicks link to American Landmark Getaway	OR <sub>2</sub>
6	11:28	13:17	Summit Inn Resort American Landmark Getaway page. Subject scrolls down and notes price range but frustrated by lack of inclusions detail. Clicks on link to "tour" at foot of page.	OR <sub>3</sub>
7	13:17	13:37	Summit Inn resort tour page. Subject notes tour is of Summit Inn. Clicks back	OR <sub>4</sub>
8	13:37	16:41	Summit Inn Resort American Landmark Getaway page. Subject clicks "contact us" link at bottom of page. Subject enters contact details and request for clarification of inclusions and charges in web form. Clicks to lodge query and pop-up affirms success. Subject clicks OK then closes contact us page then clicks back to SERP.	OR <sub>5</sub>

**Indexical Lexical markers for keywords associated with clips of Travel Experiences Genre**  
Incidences where the indexical lexical keyword is inferred from actions are indicated in *italics*.  
Where the indexical lexical keyword is explicitly derived from subjects' verbalisations are indicated in **bold**. Where both action and language confirm the indexical lexical keyword, the indicators are in ***bold italics***.

Transana keyword	Indicators of activity in clips				
	Subject 3	Subject 3a	Subject 4	Subject 5	Subject 8a
Accommodation	<i>7.1 (X2), 7.3, 7.6 (X2), 7.7,</i>	<i>7.10 (X3),</i>	<i>7.20,</i>	<i>7.22, 7.23 (X2), 7.25 (X2),</i>	<i>7.28,</i>
Activities		<i>7.10,</i>			
Ambience/ environment	<i>7.6,</i>	<i>7.10,</i>	<i>7.11,</i>		
Background information		<i>7.10,</i>	<i>7.18, 7.20,</i>		
Dates / season	<i>7.1 (X2), 7.5 (X3),</i>	<i>7.8 (X2), 7.10 (X2),</i>	<i>7.15, 7.16, 7.17, 7.18 (X2),</i>	<i>7.22,</i>	
Duration	<i>7.1, 7.6,</i>	<i>7.10,</i>	<i>7.12, 7.13, 7.15 (X3), 7.16, 7.17 (X3), 7.18 (X4), 7.20,</i>	<i>7.25,</i>	
Inclusions	<i>7.6, 7.7,</i>	<i>7.9, 7.10 (X2),</i>	<i>7.14, 7.15, 7.17 (X2), 7.20 (X3),</i>	<i>7.23,</i>	<i>7.28,</i>
Itinerary		<i>7.8,</i>	<i>7.13, 7.15 (X2), 7.17, 7.18,</i>		
Option search	<i>7.1 (X2), 7.4, 7.5, 7.6, 7.7,</i>	<i>7.8 (X4), 7.9, 7.10,</i>	<i>7.11, 7.12, 7.13, 7.14, 7.17, 7.18, 7.20,</i>	<i>7.22, 7.23, 7.24, 7.25,</i>	<i>7.28,</i>
Peer reviews / testimonials			<i>4.15 (X2),</i>		
Price	<i>7.1 (X4), 7.3, 7.6 (X2), 7.7 (X2),</i>	<i>7.8, 7.9, 7.10 (X2),</i>	<i>7.15 (X2), 7.16, 7.17 (X4), 7.18, 7.18, 7.20 (X2),</i>	<i>7.22, 7.26,</i>	<i>7.28,</i>
Price comparison	<i>7.1,</i>	<i>7.9,</i>			
Query			<i>7.21,</i>	<i>7.27,</i>	<i>7.28,</i>

Routing	<i>7.1</i> (X3), <i>7.3</i> (X2), <i>7.5</i> (X2), <i>7.6</i> (X3),	<i>7.8,</i>	<i>7.18,</i>	<i>7.25</i> (X2),	
Schedule	<i>7.1, 7.5</i> (X3), <i>7.7</i> (X2),	<i>7.8,</i>		<i>7.22, 7.23, 7.24, 7.25</i> (X3),	
Service class	<i>7.6,</i>				
Terms and conditions			<i>7.14,</i>	<i>7.26,</i>	<i>7.28,</i>
Travel mode			<i>7.12</i> (X2), <i>7.15, 7.16, 7.18</i> (X4),		
Vessel size	<i>7.1, 7.3,</i>	<i>7.8</i> (X4),			

## Appendix 8 – Utility Transport Genre Activity Tables

### Genre Element Inventory

Genre element	Typical activity	Coding
SEarch	Google and SERP consideration	SE
Vendor Search	Search for options within supplier or intermediary website	IS
Need Specification	Specifying details of origin and destination, date, one-way or return and passenger numbers to review options	VS
Options Review	Consideration of price, routing, schedule and stopover options presented by service provider or intermediary	OR
Option Evaluation	Consideration of details of a selected option. Multiple considerations such as price, routing, stopovers, carriers offered, vehicle types for car hire	OE
PURchase	Move to purchase process specified by intermediary or service provider	PU
Add-Ons	Consideration of offerings such as seat selection, loyalty card entry, travel insurance, accommodation, car hire and other services at destination	AO
Purchase process	Subject expresses willingness to progress to purchase	*
FAilure	Unsuccessful search	*

### 8.1 Subject 1, Noumea return

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	02:52	02:53	Google search for travel.com.au subject reviews SERP and selects first link	SE
2	02:53	03:18	Travel.com.au home page for search flights, subject reviews specials at right of page, none of interest	VS
3	03:18	04:28	Subject specifies origin and destination, dates, return flight for 1 adult and clicks search	NS
4	04:28	05:04	Travel.com.au select airfares page offers 4 fares, subject selects lowest cost option	OR
5	05:04	07:20	Flight details served, subject notes transit in Port Vila, expresses satisfaction with arrival and departure times. Selects flights and clicks continue	OE
6	07:20	09:00	Itinerary served with form for entry of pax details and payment.	*



## 8.2 Subject 1, Multipoint

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	10:10	10:30	Google search for travel.com.au. Subject reviews SERP and clicks first sponsored link	SE
2	10:30	12:01	Travel.com.au search flights page. Subject specifies origin, destination, date, one-way fare for single adult. Clicks search	NS
3	12:01	13:08	Travel.com.au select a fare page. Four flight options served, subject selects Air NZ option but then notes flight is via Auckland with overnight transit. Unsatisfactory.	OR
4	13:08	13:18	Subject selects 2 <sup>nd</sup> Air NZ option, notes unsatisfactory routing via Christchurch	OR <sub>1</sub>
5	13:18	14:53	Subject selects Air Vanuatu fare. Notes Port Vila transit and higher cost but preferred to cost of overnight in NZ. Clicks back to initiate search for flight to Port Vila	OR <sub>2</sub>
6	14:53		URL navigation to travel.com.au	SE
7			Travel.com.au search flights page. Subject specifies origin, destination, date, one-way fare for single adult. Clicks search	NS
8	16:39	17:59	Travel.com.au select a fare page. 7+ flight options offered. Air Vanuatu flight timing and cost noted as preferred, selects and clicks continue button	OR <sup>*</sup>
9	17:43	18:04	URL navigation to travel.com.au search flight page.	SE
10	18:04	18:30	Port Vila not available as origin option in drop down menu for 2 <sup>nd</sup> leg of flights.	NS
11	18:30	19:00	URL navigation to travel.com	SE
12	19:00	19:20	Travel.com home page, subject selects “flights” tab	VS
13	19:20	20:34	Travel.com search flight page. Subject specifies origin, destination, date, one-way fare for single adult and clicks search	NS
14	20:34	21:05	Processing	
15	21:05	21:11	No available flights	FA
16	21:11	22:01	New search with different date	NS
17	22:01	22:10	No available flights	FA
18	22:10	23:08	New search with different date	NS
19	23:08	23:10	No available flights, subject clicks back	FA
20	23:10	23:48	New search	NS
21	23:48	23:58	No available flights	FA
22	23:58	26:02	Subject clicks start again. New search initiated Prompt to enter departure city. Subject enters Port Vila and clicks search	NS
23	26:02	26:05	No flights try again	FA
24	26:05	26:19	Subject clicks back to travel.com.au and expresses intent to book flights offline	<sup>*</sup>

### 8.3 Subject 1a Flights 1, Noumea return

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review  
– OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	01:13	01:27	Google search for travel.com.au. Subject reviews SERP and selects first sponsored link.	SE
2	01:27	03:30	Travel.com.au search flights page. Subject specifies origin, departure, date, one-way fare for single adult and clicks search	NS
3	03:30	03:57	Travel.com.au select a fare page. 7+ flights offered. Subject scrolls through options and selects lowest cost Qantas fare	OR
4	03:57	04:38	noting good timing and direct flight	OE
5	04:38	05:53	Subject clicks continue to progress to page for passenger details entry and payment. Clicks out of browser	*

### 8.4 Subject 1a, Noumea to Vanuatu

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review  
– OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

1	07:07	07:47	Google search for "capital of Vanuatu." Subject reviews SERP without click Google search for "kayak." Subject reviews SERP and selects link	SE
2	07:47	07:52	Kayak home page. Subject clicks on tab for flights	VS
3	07:52	09:29	Kayak flights page. Subject specifies origin and destination, date, one-way fare for single adult and clicks search	NS
4	09:29	11:22	Flight details and cost served. Subject notes cost and duration of flight. Expresses satisfaction and then reviews arrangements before clicking back	OR

### 8.5 Subject 3 flights 1, Sydney to Anchorage

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review  
– OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	00:51	01:42	Google search for flights from Sydney to Anchorage. Subject reviews SERP and selects link to intermediary	SE
2	01:42	02:04	Travel.com.au listing of airline options. Subject not happy with selection, clicks back to Google SERP	VS
3	02:04	02:18	Reviews Google SERP then clicks to initiate new search	SE

### 8.6 Subject 3 flights 2, Best Flights

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

1	02:18	02:40	Google search for best flights. Subject reviews SERP and clicks link	SE
2	02:40	03:35	Best flights website. Subject specifies origin, destination, return economy flight and clicks search	NS
3	03:35	05:02	Flight options served. Subject unhappy with carrier options and routing via Los Angeles. Scrolls down to Air Canada option and notes price difference. Clicks back	OR

### 8.7 Subject 3 flights 3, Air Canada

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

1	05:02	05:18	New Google search for Air Canada. Subject reviews SERP and clicks link	SE
2	05:18	05:39	Air Canada website. Subject specifies country of residence and preferred language	VS
3	05:39	06:58	Subject specifies origin, destination, date and clicks search	NS
4	06:58	08:07	Flight options served. Subject reviews dates and prices and notes higher cost than other airlines. Selects lower cost days and clicks continue	OR
5	08:07	09:47	Details of flights served. Subject notes arrival and departure times then selects direct flight option and clicks continue	OE <sub>1</sub>
6	09:47	10:17	Return flight details served. Subject notes arrival and departure times and clicks continue	OE <sub>2</sub>
7	10:17	10:42	Travel options served for seat selection, loyalty card, car hire, accommodation and other options. Subject ends session	AO

### 8.8 Subject 3 flights 4, Qantas

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	10:42	10:51	Google search for Qantas. Subject selects link in SERP	SE
2	10:51	11:15	Qantas home page. Subject specifies origin and destination and clicks "go"	NS
3	11:15	12:15	Qantas flight options with prices served. Subject selects dates and notes higher costs then clicks to select preferred flights	OR
4	12:15	12:36	Flight details via Los Angeles served, not suitable.	OE

### 8.9 Subject 3 flights 5, Air Canada Domestic

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	27:48	27:56	Google search for Air Canada. Subject selects link in SERP	SE
2	27:56	28:24	Air Canada page. Subject selects origin and destination and clicks search	NS
3	28:24	29:52	Page requests further details. Subject tries alternative dates with no result. Clicks link to site map	NS
4	29:52	30:17	Site map for Air Canada website served. Subject selects tab at top for information and services	VS <sub>1</sub>
5	30:17	30:32	Air Canada Information and services page. Subject clicks link to "where we fly."	VS <sub>2</sub>
6	30:32	30:41	Where we fly page served, subject clicks link to route map	VS <sub>3</sub>
7	30:41	32:08	Air Canada route map served. Subject clicks to enlarge NW Canada section. No flight link to Anchorage found	VS <sub>4</sub>
8	32:08	33:10	Subject initiates Google search for Vancouver to Anchorage flights. Reviews SERP. Subject recasts search for Anchorage to Vancouver flights. Reviews SERP and selects link	SE
9	33:10	34:00	Fare compare page served. Subject enters origin and destination and dates. Various carrier options served, selects Air Canada	NS
10	34:00	34:58	Fare compare flight options served, scrolls down page reviewing popular choices and prices. Subject unsure of specific flights and returns to top of page and selects one-way and clicks search	OR <sub>1</sub>
11	34:58	37:21	Flight options served. Subject notes carrier options and scrolls down page seeking Air Canada option. Clicks to 2 <sup>nd</sup> page and further pages without success.	OR <sub>2</sub>

### 8.10 Subject 3 flights 6, Ketchikan to Vancouver

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	37:21	37:37	Google search for Ketchikan to Vancouver flights. Subject reviews SERP and selects link	SE
2	37:37		Farecompare website. Subject enters origin, destination and dates then clicks search.	NS
3		38:26	Intermediaries for comparison served, subject notes high price and muses ferry trip may be preferred. Clicks search	OR
4	38:26	38:51	Fare compare flight options served. Subject comments on high cost and resolves to revisit ferry transport option	OE

### 8.11 Subject 4a Train 1, Amsterdam to Paris

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	00:45	01:11	Google search for Amsterdam to Paris. Subject reviews SERP and selects link	SE
2	01:11	02:23	Subject enters date for service and pax #s. Frustrated by lack of single fare option and no concession fares	NS
3	02:23	02:55	Search unsuccessful – not available until closer to departure	FA
4	02:55	03:21	Subject clicks back to SERP and selects alternative link	SE
5	03:21	04:50	Subject reviews tables of fares and schedules but unsure of currency used in table	OR
6	04:49	05:07	Subject returns to SERP and selects alternative link	SE
7	05:07	07:01	Subject seeks advice on booking rail travel	VS
8	07:01	07:59	Subject returns to Google SERP and initiates new search	SE
9	07:59	09:01	Reviews general information page and selects link to Dutch Railways	VS
10	09:01	11:03	Inserts trip specifications using drop down menus in two attempts	NS
11	11:03	12:18	Reviews table of fares, notes that fares are in Euros but unsure of fare type options. Clicks back to SERP	OR
12	12:18	12:32	Reviews SERP and selects alternative link	SE
13	12:32	12:44	Reviews Travellers Point website page then clicks back to Google SERP	VS
14	12:44	13:50	Reviews SERP, clicks to 2 <sup>nd</sup> and then 3 <sup>rd</sup> pages of links before selecting link	SE
15	13:50	15:23	Reviews fares on Euro railways page and notes differences between fare types and that fares are in USD. Clicks back to SERP.	VS
16	15:23	16:26	Continues to review SERP, clicking to 4 <sup>th</sup> page. Adds AUD to search and reviews new SERP and selecting link to Eurostar	SE
17	16:26	18:32	Unable to find Eurostar details from Amsterdam to Paris. Clicks back to SERP	NF
18	18:32	18:51	Reviews SERP and selects alternative link	SE
19	18:51	21:47	European travel shop website page. Subject enters details of trip specifications four times to get a one-way fare sought.	NS
20	21:47	24:35	Reviews fares for different trip options and the relevant booking charges before selecting link to	OR
21	24:35	26:12	top tips for general information then clicks back to SERP	OE
22	26:12	26:50	Reviews SERP and selects link to European rail travel forum	SE
23	26:50	27:55	Reviews comments of other travellers on travel options from Amsterdam to Paris	VS

### 8.12 Subject 4a Train 2, Paris to Noyers

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review  
– OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	27:55	28:29	Enters new Google search and reviews SERP. Selects link to Tripadvisor	SE
2	28:29	29:15	Reviews post in Tripadvisor forum regarding train travel from Paris. Clicks back to SERP	VS
3	29:15	29:33	Reviews SERP and selects alternative link	SE
4	29:33	30:27	Subject reviews Rail Europe page and selects city finder to search for Noyers. No success	VS
5	30:27	31:02	Reviews SERP and selects alternative link	SE
6	31:02	31:23	Visit France web page for Noyers. Subject seeks information on access, clicks link to transport options	VS
7	31:23	31:36	Clicks link to French trains	VS
8	31:36	32:50	Enters trip specifications using drop down menus – cannot find option for Noyers. Clicks link to map of France	VS
9	32:50	33:04	Map with pins showing rail destinations. Unsatisfactory so clicks back to Google SERP	VS
10	33:04	33:36	Initiates new Google search and selects link	SE
11	33:36	33:40	Rail Europe page served, subject notes earlier visit and clicks back to SERP	VS
12	33:40	33:51	Subject reviews SERP and selects alternative link	SE
13	33:51	34:36	Rail plus Eurail passes page not suitable. Subject clicks back to SERP	VS

### 8.13 Subject 4a Train 3, Paris to Montbard

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review  
– OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	34:36	34:45	Subject reviews SERP and selects link to map of train routes	SE
2	34:45	36:21	Subject reviews map and then clicks on link to TGV. Served with list of rail destinations and selects Montbard	VS
3	36:21	37:50	Specifies origin and destination from drop down menus and is served weekly schedule	NS
4	37:50	39:58	Reviews times available and direct and indirect services then clicks back	OR
5	39:58	42:17	Realising that prices were not given subject clicks back to timetable and clicks “book” link seeking price	VS
6	42:17	42:44	Rail Europe page served to subject’s disappointment. Selects link to top point-to-point tickets	VS

7	42:44	43:05	Rail Europe Thalys page served. Subject cannot find pricing information clicks back to timetable	VS
8	43:05	43:44	Scrolls down timetable page and selects link to Australia.	VS
9	43:44	44:32	Rail Europe page served and subject enters origin and destination for desired travel. Subject frustrated	VS
10	44:32	45:43	Fares and timetables served in tables. Subject reviews fare options and selects link	OR
11	45:43	46:14	for fare conditions for 2 of the fares noting refund conditions and trip duration. Clicks back.	

#### 8.14 Subject 4a Car hire 1

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	47:10	47:44	Google search initiated and subject reviews SERP then selects link	SE
2	47:44	49:12	Car hire centre page. Subject specifies needs and clicks search.	NS
3	49:12	49:51	Zero return so subject clicks back to SERP	VS
4	49:51	50:12	Subject reviews SERP and selects link to Car Hire Montbard	SE
5	50:12	52:24	Sixt Montbard web page served. Subject reviews page and eventually specifies dates required and country of residence	NS
5	52:24	53:28	Range of vehicle options served. Subject notes prices and inclusions with conditions of recommended vehicle.	OE
6	53:28	55:45	Selects alternative vehicles and notes details. Clicks continue button seeking further details. Not provided so clicks back to SERP	OR

#### 8.15 Subject 4a Car hire 2

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

1	54:45	56:00	Reviews SERP and clicks link to Argus car rentals	SE
2	56:00	58:01	Argus car rental page served and subject enters rental specifications and clicks search.	NS
3	58:01	1:00:06	Range of vehicle options served. Subject seeks further details and clicks on Golf option	OR
4	1:00:06	1:01:45	VW Golf rental details served and reviewed by subject. Clicks back to Google SERP	OR

**8.16 Subject 4a Car hire 3**

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

1	1:01:45	1:02:20	Subject reviews SERP and selects link to Rhino car hire	SE
2	1:02:20	1:05:25	Subject enters rental requirements and clicks search after rectifying date entry error	NS
3	1:05:25	1:06:27	Subject reviews range of vehicles served and similarity of prices to previous option and high cost of automatic option. Terminates session.	OR

**8.17 Subject 6a Flights Sydney Copenhagen return**

Legend: Search – SE, Vendor search – VS, Need Specification – NS, Option Review – OR, Option evaluation – OE, Purchase – PU, Add-ons – AO,

Seq	Time code	Time code	Activity	
1	15:34	16:19	Google search for British Airways. Subject reviews SERP and clicks link	SE
2	16:19	18:39	British Airways page – trip specifications entered and search clicked	NS
3	18:39	19:24	Flight dates and charges served. Subject reviews noting higher cost than previous option found but with far shorter stop-over en route and morning arrival time preferable.	OR
4	19:24	21:26	Reviews schedule and costs for return with similar conclusion. Subject continues with comparison of self-organised trip to packaged arrangement	OE



**Indexical Lexical markers for keywords associated with clips of Utility Transport Genre**  
Incidences where the indexical lexical keyword is inferred from actions are indicated in *italics*.  
Where the indexical lexical keyword is explicitly derived from subjects' verbalisations are indicated in **bold**. Where both action and language confirm the indexical lexical keyword, the indicators are in ***bold italics***.

Transana keyword	Indicators of activity in clips				
	Subject 1	Subject 1a	Subject 3	Subject 4a	Subject 6a
Carrier preference		<i>8.3,</i>	<i>8.5, 8.6, 8.9,</i>		<i>8.17,</i>
Direct with principal			<i>8.7, 8.8, 8.9,</i>	<i>8.11,</i>	<i>8.17,</i>
Flight search	<i>8.1, 8.2 (X8),</i>	<i>8.3,</i>	<i>8.9,</i>		<i>8.17,</i>
Need specifications	<i>8.1, 8.2 (X8),</i>	<i>8.3, 8.4,</i>	<i>8.6, 8.7, 8.8, 8.9,</i>	<i>8.11 (x9), 8.13 (x2), 8.14 (x3), 8.15, 8.16</i>	<i>8.17</i>
Intermediary selection	<i>8.1, 8.2 (X2),</i>	<i>8.3, 5.4,</i>	<i>8.5, 8.6, 8.9, 8.10,</i>	<i>8.11 (x3), 8.12 (x4), 8.13 (x2), 8.14, 8.15, 8.16</i>	
Option search				<i>8.11 (x4), 8.13, 8.14, 8.15</i>	
Price	<i>8.1, 8.2 (X3),</i>	<i>8.3, 8.4,</i>	<i>8.6, 8.7, 8.9, 8.10,</i>	<i>8.11 (x9), 8.12 (x3), 8.13 (x2), 8.14,</i>	<i>8.14</i>
Routing	<i>8.1, 8.2 (X2),</i>		<i>8.6, 8.7 (X2), 8.8,</i>		<i>8.17,</i>
Schedule / timing	<i>8.1, 5.2,</i>	<i>8.3, 8.4,</i>	<i>8.7 (X2), 8.8,</i>	<i>8.11 (x3), 8.13,</i>	<i>8.12 (x2),</i>
Special deals	<i>8.1,</i>				
Vehicle type	<i>8.14 (X4),</i>				

## Appendix 9 – Composite transcripts in full

### Subject 1

(0:02:52.6)	Google search Travel.com
(0:02:56.9)	Travel.com.au home page. First sponsored link travel.com and rest of page cheap flight options. Travel.com.au home page multi tabs for selecting flights, hotels, cars etc.
	So on travel.com.au you can get the cheapest fare but there are also a few interesting things on here, some special deals but I can't see any special deals on the front page to New Caledonia and so will just go and book a flight to Noumea,
(0:03:18.1)	Subject selects to search flights (1.1.2.5) Page shows options for destinations, comparisons and airfare advertising for European and Australian destinations.
(0:03:18.1)	Subject selects search a city, specifies dates, return flight, 1 adult.
	so departing Sydney and the date 18th July, so I am going to go on 18th of July and I will get a return flight a week later on the 25th and so Sydney to Noumea and one adult, economy, 18.7.13, that looks about right.
(0:03:56.9)	Subject clicks search
	and so let's see what they come up with.
(0:04:28.3)	Search offers Select a Fare and it offers three different airfares with Qantas and Air Vanuatu.
(0:04:32.4)	Subject scrolls along airfares, clicks on cheapest airfare.
(0:05:04.2)	Subject clicks on cheapest flight looking at flight times. Subject looks at legend which shows the flight has a stop off in Port Vila. Subject affirms flight OK.
	So we have three fares, so very obviously one is a very cheap fare, \$900 return and the other three are almost twice that price and so obviously I would be taking on that basis the half priced airfare and so I can get there and back for under \$1,000. So let's see where this departs, so this departs
(0:05:04.4)	Sydney Airport July 18th at 10:45 and so that's okay, it means you have to be at the airport probably about 9 o'clock, arrives in Port Vila same day 3:10 and then on the return it will be departing at 9:50 and I would be getting in fairly late, sorry this says it goes via Port Vila, okay that's interesting, so actually I would then have to change planes in Port Vila and I have to hang around at the airport for about seven or eight hours, but that is already right, I don't mind hanging out at airports when I am travelling and then it is pretty quick flight to Noumea, probably about an hour, less than an hour, I get there at 10:55, about 11 o'clock. So that's okay as I said I don't mind hanging around at airports when I am travelling, you can read a magazine, have a cup of coffee, whatever. Then on the way back it departs Noumea at 12:25 and arrives back at Sydney at 14:50 with a time change, that's fine. So for under \$1,000 dollars I think that is reasonable, so I would take the Vanuatu flight on that day, so I would then go and proceed to book it on the internet, so I

	would then continue, I would click it,
(0:06:53.7)	<b>Subject clicks on Sydney - Noumea and Noumea - Sydney and clicks 'continue'</b>
	click, click and as its only a fairly simple booking, then I would just book my flight,
(0:07:03.5)	<b>Screen shows subject's request is being processed.</b>
	get an e-ticket on the internet and what I would normally do is I also set up a Hotmail account via the internet so that I can always access, I then transfer the e-ticket booking,
(0:07:20.6)	<b>Travel.com.au page shows Itinerary, number of adults, contact details and payment options.</b>
	<p>I would have a hard copy, I would transfer it across to my Hotmail account on the internet, so if anything happens, I lose anything, I can just go into any internet café, anywhere in the world and bring it up and just run it off, and I have another copy of it. I find that to be a very, very useful strategy and once or twice I have actually been in that situation where I have lost something and it's so helpful to just be able to go and just run it off and present something at a counter.</p> <p>Okay so that's it, this is my flight done and dusted and so do you want me to run it off.</p> <p><i>Actually maybe just go through some of the steps short of that you put in your credit card?</i></p> <p>Okay, well this is basically I have got it up and so there is the total fare including taxes, \$1,010.96, so I just put in the name, destination, do you want me to type it in?</p> <p><i>No okay.</i></p> <p>I will just type in the day and destination, my email address and then what would then happen is I would print a copy of the final thing for myself and then I would go to my email account and after I paid for it with my credit card and I would then find that there would be an email confirmation which as I said, I would run it off, I would keep it and then I would transfer it across to my Hotmail account and so I could then access it in case I lost it at any stage.</p>
(0:08:48.4)	<p>So that's what I would do.</p> <p><i>Just maybe one question, would you be looking for a flight that takes in both centres rather than a single destination?</i></p> <p>Well if I was going to book a flight to both, I would, that would be more complicated, and here I am just booking a flight.</p> <p><i>I would be interested to see that. Like you said it is more complex but that is something that is of interest to us, because when it does get a bit more complex.</i></p> <p>Well it's not extremely complex but if it gets more complex I would possibly let my travel agent handle it but I could quite easily do this. Okay no problem.</p> <p><i>Lets see how it goes</i></p>
(0:09:32.7)	<b>Subject clicks on 'back' button to return to Travel.com.au home page. Subject identifies new task.</b>
	<p><i>and if you find it is getting difficult just say well at this point I go to my travel agents.</i></p> <p>I don't think it would be difficult but I can show you, but I would be going then let's say via Vanuatu and so spend some time in Vanuatu first and then I would go to</p>

	Noumea, and then I would fly back from Noumea. So go back to travel.com.au, go back to google, like I said I could possibly get my travel agent to do this but I may well do it myself as well. So I go back to travel.com.au
(0:10:10.0)	Clicks in URL Google, returns to Google Home page.
(0:10:20.9)	Subject Googles travel.com.au
(0:10:26.0)	Search product displays Travel.com.au along with several other cheap flights web site options.
(0:10:27.5)	Subject clicks on travel.com.au
(0:10:30.8)	Subject scrolls page to Search Flights option, types in From Sydney to Noumea and inserts dates using dropdown calendar, one way ticket
	and so its just a matter of booking the three sections separately, so I would go to, let's say I go to Noumea first, so from Sydney to Noumea which would be just one way, so I go on the 18th, so I go to July 18th, so what I would then do is just have a one way ticket and so I wouldn't have return ticket, so depart on 18th, I would go one way so the first part of my trip is I would go Sydney to Noumea and so let's have a look and search it.
(0:11:30.2)	Clicks search key
	I don't know I suppose no, is this anything that you need or to complete?
(0:11:34.1)	Blank screen. Box appears asking subject whether auto complete is required. Subject clicks No.
	So this actually isn't too difficult hopefully,
(0:11:53.4)	Travel.com.au searching flights, shows subjects request is being processed.
(0:12:01.4)	Screen returns to Select a Fare page showing four flight options, Air New Zealand, Air Vanuatu and Qantas. Subject using cursor to look at options on screen.
	so we will get the one way tick to Noumea on the 18th, actually I can go Air New Zealand straight to Noumea, that was interesting because that wasn't showing up last time, I had to go via on the return ticket, so that's interesting. Okay, so this is via Auckland, so this is a ticket on the 18th and the price is actually \$406 which is a very, very good price I would have to say, I was expecting it to be around about at least \$100 more, so you go via Auckland, so you go Sydney to Auckland and then you would arrive, actually its an overnight trip and so it would leave Auckland, so its actually not the greatest because I would then have to spend a night in Auckland and get to a hotel,
(0:13:08.9)	Subject returns to airline options, clicks on other Air New Zealand flight option.
(0:13:18.2)	Subject clicks on Air Vanuatu air fare
	so maybe that isn't really such a good deal. Let me try another one, this is via Christchurch, Air Vanuatu, let's see where this goes too. This is the one I had before which is \$650 so rather than a spend a night, see Air New Zealand is cheaper but then I then have to a spend a night in Auckland, probably I wouldn't do that, so what I save I probably lose by the time I got a taxi or whatever transport to the hotel and then back again in the morning, you know it would just be too much of a hassle and I don't think I want to at my age want to

	sleep at the airport, if I was a young backpacker I might but a bit too old for that sort of thing. So I would probably take the Air Vanuatu flight and I would spend the seven or eight hours at Port Vila airport, just in the airport, maybe I can go out and have a bit of a look or something for a couple of hours beforehand, it probably doesn't matter because I am going back there anyway. So then I would head off to Noumea, okay actually just looking at that, if I am going to both of those places, I think, I am probably going to do this another way. So rather than go to Noumea first, I just want to have a look and see what happens if I actually decide to go to Port Vila first,
	<b>Subject clicks on 'back' key in top left of screen.</b>
	so I will just go back, cause it might be cheaper that way, as long as I catch both places and spend a week at each, I am not really fussed which order that's in. So rather than go to one place, take off and come back to that place again, I am thinking maybe I might do it the other way round.
(0:14:52.4)	<b>Subject clicks on 'back' key in top left of screen.</b>
(0:15:19.4)	<b>Subject clicks in URL for navigation to Travel.com.au.</b>
	so I will just go back, cause it might be cheaper that way, as long as I catch both places and spend a week at each, I am not really fussed which order that's in. So rather than go to one place, take off and come back to that place again, I am thinking maybe I might do it the other way round.
(0:15:27.0)	<b>Screen returns to Travel.com.au home page Search Flights.</b>
(0:15:28.7)	<b>Subject clicks on Select a city option and types Sydney, destination Port Vila, inserts dates using dropdown calendar, number of passengers, one way, clicks Search.</b>
	So we go to travel.com, so how about we do it the other way around, we go from Sydney to Port Vila, this maybe cheaper, Port Vila and let's say we do it this way, we go here on the first one, say the 18th July and come back on the 25th July, one adult, one way, let's see what happens. It's always worthwhile trying to get as much information as possible before making your final decision.
(0:16:11.3)	<b>Screen shows request being processed, searching flights, screen shows advertising for travel.com.au.</b>
(0:16:39.5)	<b>Screen returns to Select a Fare page, showing 7 plus options for airlines/fares. Using cursor, subject highlights Qantas airfare.</b>
	Okay, this looks like a much better idea, much, much better idea because I can then go Qantas for \$323, so that's very cheap, that's one way but still pretty cheap, then I can arrive there at 3:10, so I think I will go that, I will have my first week over in Port Vila in Vanuatu and then do my second week of my holiday across over in Noumea. So I am there 15/10 and so what I then need to do is on the 25th, so that's fine, so continue I would book that fare and click and I would continue, so that fares booked and also it doesn't get there
(0:17:43.1)	on an ungodly hour either, so that helps, so that's good, so we are done. So let's go back, might have to,
(0:17:37.2)	<b>Subject clicks continue button. Screen shows request being processed.</b>

(0:17:43.8)	Subject clicks on back button at top left.
(0:17:59.5)	Subject clicks on URL to return to travel.com.au home page
(0:18:04.9)	Travel.com.au home page Search Flights. Page also contains advertising for various airfares for Europe, domestic, Phuket and Bangkok.
(0:18:13.7)	Subject selects "select a city", scrolls up and down select a city searching for Port Vila.
	travel.com here again and so the second leg of my trip is I have to get from Port Vila to Noumea, so I take off on the 25th, I might have to go to another site for this but I might actually have to go to travel.com.au,
(0:18:30.7)	Subject goes back to URL and deletes all URL address except travel.com.
	there is only Australian, travel.com, book international flights, okay so travel.com, flights,
(0:19:00.8)	TRAVEL.com home page. Page shows country options; airlines; fare options. Also shows advertising for AsiaTravel.com
(0:19:20.3)	Subject clicks on "Flights" tab at top of screen. TRAVEL.com page showing fields for destinations, dates, number of persons etc.
(0:19:34.5)	Subject inserts departing city, Port Vila and arrival destination, Noumea, dates using inbuilt calendar, one way, 1 adult, clicks search
	okay we have got departing city, got Port Vila, and we are arriving in Noumea and so I am departing on the 25th of July anytime and my return, so that's only a one way trip only, one adult, so flights departing 25th July, there is no 2011, so that's it, so we are okay, so let's book to Noumea at anytime and lets have a look.
(0:20:44.6)	Box on screen shows subject's request is being processed.
(0:21:05.1)	TRAVEL.com screen states "Please try again", no flights available at this time.
	There are no available flights match your search request. Okay let's try again.
(0:21:11.5)	Subject clicks 'back' to return to Destinations and date page.
(0:21:30.1)	In returning date box, subject clicks on different date, search.
	Depart 25th, maybe a return date, we are only going one way, let's try the 24th and see if that's of any help, there might not be a flight everyday.
(0:21:40.9)	Screen shows subject's request is being processed.
(0:22:01.5)	A request to please try again appears on screen, no flights available.
(0:22:27.2)	Subject enters Departure City box, enters Port vila and clicks Search.
	Start over, so that obviously didn't help much, Noumea, New Caledonia, depart city, I think that's what happened I got the wrong book. Port Vila, try again. No, let's try one more time, Port Vila in Vanuatu.
(0:22:47.4)	Screen shows subject's request is being processed.
(0:23:08.0)	Screen requests subject to try again, no flights available.
	No. No available flights match your search. I will give it one more go.
(0:23:10.7)	Subject returns to top left screen and hits 'back'.
(0:23:12.3)	Subject returns to Departure City on screen and enters Port Vila, Vanuatu. Clicks on search.
(0:23:28.1)	Screen shows subject's request is being processed.

(0:23:48.2)	Screen again shows Yellow alert signal with the request to "Please try again", no flights available.
(0:23:58.3)	Subject clicks on "Start again"
	So departing, travel.com, so we do flights, search flights, so arrival city, we are going one way, one adult and we are going to go, let's try the 26th of July, one way, okay let's give this one last go, one way preferred airline, connection, search only refundable fees, passengers one and search. Is it going to do it this time?
(0:24:03.7)	Screen returns to TRAVEL.com flights page. Using cursor, subject clicks on Flights at top left of page, clicks on one-way, 1 adult, subject clicks on date, using curser selects date from the drop down calendar, selects month using drop down calendar, clicks Search button at bottom left.
(0:25:17.0)	Screen shows an Alert symbol top left, requesting a departure city be selected.
(0:25:26.7)	Subject clicks on Departure city box, enters Port Vila Subject clicks Search option.
(0:25:43.8)	Screen states subject's request is being processed.
(0:26:02.8)	Alert symbol appears requesting user to try again, no flights available. Subject clicks on "Start again"
	So departing, travel.com, so we do flights, search flights, so arrival city, we are going one way, one adult and we are going to go, let's try the 26th of July, one way, okay let's give this one last go, one way preferred airline, connection, search only refundable fees, passengers one and search. Is it going to do it this time?
(0:24:03.7)	Screen returns to TRAVEL.com flights page. Using cursor, subject clicks on Flights at top left of page, (1.1.1.5), clicks on one-way, i adult, subject clicks on date, using curser selects date from the drop down calendar, selects month using drop down calendar, clicks Search button at bottom left.
(0:25:17.0)	Screen shows an Alert symbol top left, requesting a departure city be selected.
(0:25:26.7)	Subject clicks on Departure city box, enters Port Vila Subject clicks Search option.
(0:25:43.8)	Screen states subject's request is being processed.
(0:26:02.8)	Alert symbol appears requesting user to try again, no flights available.
	No. Okay it is not going to do it, obviously can't do it from travel.com, so that's not a very useful site.
(0:26:05.3)	Subject uses cursor and clicks Back. Screen returns to flight options page.
	So it didn't let me do it and so I would probably go at this point, having given it a go, what I would do is, for me if a booking is complex, having travelled from another country to another country, I would probably would do it, would book that through my travel agents. Having it a bit of a go and not succeeded, and I don't know maybe there is something, maybe their sites down as well, it has happened before. 90% of the things are generally a bit difficult to organise. So if its like one trip, if it was just to Vanuatu, straight return, I would probably do it myself which is one destination, come back, do it on travel.com but if you then have a change and book a different airline, from international destination to another



	international destination, I would probably, if I looked a bit further I could probably find another site that could do it. But I probably what I would do is I would probably personally couldn't be bothered, I would pay the \$50 cause I know they would look up the best deal and they are a very good travel agents and I have had long many years of experience with them. So I know that they would make the effort and find me the best deal and then charge me \$50. So I would be okay with that. So we have done that. So we are in Noumea and we need some accommodation in Noumea and so I would go back to google
(0:26:08.9)	Subject repeatedly clicks "Back" key
(0:26:19.4)	Screen returns to travel.com.au Search Flights page. Page contains a tab for home, flights, tours, cruises, hotel, car hire, travel insurance and hot specials. Page displays both static and moving advertisements for special deals to Europe and Asia.
(0:27:56.1)	Subject clicks "back" key
(0:28:05.4)	Subject clicks in URL for navigation to Google.
	and so I might try a couple my favourites before, seeing whether I like anything, I have tried, sometimes use a site called Asia rooms, which is in Singapore, I have found them to be sometimes useful. So let's have a look if they have got something in Noumea that might be useful. I particularly like this site because they have a telephone and you can actually ring them if there is any problem and I actually had to do that once and got onto somebody very quickly. So let's say Noumea
(0:28:09.5)	Google Home Page
(0:28:18.7)	Subject enters Asia rooms and requests search. Google Search results show Asia Rooms Official Site
(0:28:29.0)	Subject clicks on Asia Rooms.
(0:28:52.6)	Page displays Asia Rooms home page with various tab options for Home, Hotels, Community, Travel Guides, My Booking and Reviews. The page also displays advertisements for Top Reviewed Hotels and Top destinations with options to investigate further. Subject enters Noumea in Destination Search for Hotels, top left screen clearly visible in Pink.
	destination on the 18th of July and checking out on the 24th of July, gets my flight back so one adult and so let's see if they have anything there.
(0:29:17.6)	Subject enters check in and out day and month using drop down calendars. Number of Adults, Clicks search Hotels.
(0:29:33.7)	Screen shows AsiaRooms.com Hotels in Noumea. Screen shows 2 options for hotel rooms and their prices. Also displayed is a brief paragraph on Noumea Information. Screen clearly displays several possible filters in searching for a hotel, by price per stay, distance from city, number of stars.
	Okay they have got two hotels for six nights, the promenade for \$1,863, so that's about \$300 a night and I probably wouldn't pay \$300 a night to stay at a hotel, especially for a hotel if that was a special deal, but here looks a bit more promising, this is \$854 somewhere called the Surf Hotel and its 100 metres from Noumea and so this could be promising, let's have a look and I have heard on the grape vine of people who have been there that good accommodation at a cheap price is difficult to find, so this looks very promising, 100



	metres from the centre of town.
(0:30:35.4)	<b>Subject uses cursor to scroll through photo gallery.</b>
(0:30:46.6)	<b>Subject selects more photos from the Photo Gallery option. Screen displays 4 photos of Surf Hotel rooms.</b>
	I get a standard room, so let's have a look, so swimming pool, reception, so let's have a look, I might try some more photos, is there anymore photos? That looks like a quite comfortable room, the only problem is I am not sure whether that's, that's four photos, let's go back again.
(0:31:01.2)	I just want a little bit more information about this because it looks very promising, set in tropical garden, boarding the two most beautiful beaches, dah dah, it looks like quite a comfortable room,
(0:31:01.8)	<b>Subject returns to top left of screen and clicks "Back". Page returns to Surf Hotel, Noumea page.</b>
(0:31:28.3)	<b>Clicks on Further Information on Surf Hotel. Screen displays description of hotel, a map of its location and an option to Book.</b>
	there is no ratings on it. Le Surf has the most beautiful beach the Baie des citrons and Anse Vata surf complex, it looks spectacular, ever changing city, was largest build ??(31:44) typical atmosphere, Surf is everything you need and enjoyable and capital. Has 167 comfortable rooms, rar rar.
(0:31:59.6)	<b>Subject clicks Back to return to Surf Hotel information page.</b>
	So that looks like a fairly, I want to see if I can get a picture, that's probably their superior room I would think, so let's see what you get for a standard room. Standard room view, double twin bed, tea, coffee facilities, for each air conditioning for each, free wireless internet access. That's the standard room. What do you get for superior room? View, the twin double bed, tea, coffee facilities, wireless internet access. So that looks very good, I might just have a quick look at a few other sites before I decide but this is definitely you know for \$800, a nice comfortable place, 100 metres and location is important because you have to be able to get around, if you can go to the town, the beach and then book your tours and go where you want to go and that's 120/130 a night, I have heard its expensive there, this looks nice, so I probably might come back to that, I might just leave that there for the time being
(0:32:12.9)	<b>Subject positions cursor one Standard Room info, bubble appears with a brief description of a standard room.</b>
(0:32:25.5)	<b>Subject positions cursor over Superior Room info, bubble appears with a brief description of a Superior room.</b>
(0:33:09.8)	<b>Subject minimises screen using icon at top right.</b>
	and see if there is anything else available.
(0:34:09.2)	<b>Subject maximises screen earlier minimised.</b>
(0:34:11.6)	<b>Screen displays AsiaRooms.com Hotels Page</b>
	I might just copy that; I will get out of there and do something else. So Surf Hotel Noumea is definitely a possibility. I will go back into internet explorer to the Firefox. So I have just had another quick a look at this, if there is anything I can find that is a better deal and so I will have a quick look at another site which is Expedia which is

	another site that I use.
(0:34:15.8)	Subject returns to URL, right clicks, screen displays options in box to cut, copy, delete.
(0:34:19.1)	Subject selects Copy option
(0:34:30.8)	Selects Close button, top right of screen. Screen displays box asking user to close all tabs or cancel. Subject selects Close all Tabs.
(0:34:33.4)	Screen returns to Desktop
(0:34:47.7)	Subject clicks Search at bottom left of Desktop, pop up menu appears with all Microsoft options. Subject selects internet icon, top left in pop up box.
(0:34:55.6)	Screen returns to UOW Home Page.
(0:35:05.9)	Log in and password required and performed. Screen shows Proxy Authentication Required.
(0:35:20.3)	Subject clicks in URL for navigation to google.
	So we will do Expedia, I think its very unlikely that they are going to have
(0:35:25.8)	Login and password required and performed.
(0:35:36.0)	Screen returns to Google homepage.
(0:35:45.2)	Subject enters search term Expedia and request for search.
(0:35:50.4)	Screen shows numerous Expedia web sites, Subject clicks on second option, Travel, Cheap flights, Hotels, Holiday Packages and Car Hire.
	anything better than that deal, that looks like a very good deal actually.
(0:35:56.7)	Expedia.com.au home page. Home page shows travel booking options clearly displayed together with Top Hotel deals and Cheap flights clearly identified
(0:36:02.3)	Subject enters city, Noumea, clicks on drop down calendar and enters arrival and departure dates, 1 adult, clicks on Search.
	Hotels Noumea on those dates which is peak season as well, so let's say we are going in July 18th till 24th, so I will look to see what they might have. Okay, so that's four star hotel Noumea Harbour,
(0:36:41.1)	Screen displays subject's travel preferences at top of page, and several different hotel options.
(0:36:52.2)	Subject highlights top hotel option, screen shows costs and various room type options.
	total rates from \$976, let's have a look here, this is interesting because these other hotels are not going to give you their prices but this one is and so let's, so the other one was \$850 and so I could save myself about \$120/130, but I will just have a quick look at this and see what this is.
(0:37:07.6)	Subject scrolls down hotel options. Other hotels listed down page do not display prices.
(0:37:29.2)	Subject scrolls to top of page
(0:37:43.3)	clicks on Ramada Plaza Noumea
	This looks like a nice comfortable room with an ocean view, I am sure that's their, see the map, the location map.
(0:37:55.8)	Subject selects photo gallery for Ramada Plaza Noumea. Screen displays 9

	different images of hotel and rooms. Subject clicks on each photo, screen displays enlarged picture.
(0:38:16.7)	Subject moves cursor to far left of screen and clicks on third tab down for a further search for room availability and a map. Requests search.
	Noumea Harbour three kilometres, culture centre 6.3 kilometres, so I am thinking that this is actually a bit further out of town. Plaza, no actually
(0:39:02.4)	Screen shows Ramada Plaza Hotel positioning on a map and boxes containing room availability with an option to "Book".
(0:39:09.5)	Subject returns cursor to top left and clicks on "Back".
	I will give it one last, another just quick look, I think that's not a goer compared to the other hotel and so I am just going to have one more quick look to see if there might be anything else that is interesting.
(0:39:09.5)	Subject returns cursor to top left and clicks on "Back".
(0:39:25.4)	Clicks in URL for navigation to Google. Google home page
(0:39:37.1)	Subject requests a search for "Cheap Hotels in Noumea".
	So google, okay, let's see what they have, just current hotels in Noumea.
(0:39:44.5)	Google Search page shows many website options, subject clicks on "Discount Hotels in Noumea"
(0:39:52.1)	Screen shows BOOKING.COM home page. Screen lists several hotels in Noumea together with their star rating in descending order, together with Places Nearby which can be further investigated.
	They don't have any prices, eight plus hotels in Noumea, save up to 70%
(0:40:01.8)	Subject returns to top left and clicks back to return to Google search.
(0:40:03.5)	Subject selects top of page option, E Hotels in Noumea
(0:40:13.0)	Screen opens with Rates to Go.com home page. Screen displays filter choices down left hand side of screen and various hotels showing pictures and rates in descending order and star rating.
	Okay and I got this by just looking up in google cheap hotels in Noumea and so here is some more stuff, this is \$229 a night, \$199 a night, \$500 a night for a five star hotel, I am sure it is nice but I won't be staying there. \$130 a night, \$106 a night for a two star hotel, two star hotels are a little bit too downmarket for me. Surf hotel we have just looked at.
(0:40:35.1)	Subject scrolls down hotel options.
(0:40:58.5)	Subject clicks on one hotel option requesting further information. Screen shows Rates to Go, Le Nouvata Hotel Noumea. Screen shows detailed information about hotel, rates for different standard of rooms.
	This is Le Nouvata Hotel and so I might just have a look at this. \$118 a night, cosy atmosphere, comfortable Le Nouvata charm, first hotel we built, blah, blah, let's see if I can find some photos. Lots of photos, it looks quite nice. Looks reasonably comfortable, not too bad, a little bit small, on the small side, nice bathroom, nice bathtub, I like bathtubs. So that's not too bad actually, not too bad at all. This is actually.
(0:41:22.6)	Subject clicks on Picture Gallery, screen shows multiple views of the hotel and rooms with an option to click on and enlarge each one.

(0:41:34.4)	Subject clicks on picture of standard room. Subject clicks on several images, each one becomes enlarged.
(0:42:05.1)	Subject returns to top left and clicks "back". Screen returns to various hotel options in Noumea.
	The Le Nouvata hotel, so that could be a possibility actually, I will just see how much,
(0:42:18.5)	Subject clicks on "Forward at top left of screen, screen returns to Le Nouvata Hotel Noumea. On left of screen is option to review check in dates with drop down calendar.
(0:42:29.9)	Subject clicks on calendar, only goes to 2010.
	it is now off season, so checking dates, your travel dates, so it only goes up to November 2010. My suspicion is that as its now off season and this only goes up, this site only goes 25 Nov 2010,
(0:42:43.7)	Subject clicks on "Back" at top left of screen, screen returns to Rates to Go.com hotel listing.
(0:43:03.7)	Subject clicks back, returns to Google Home Page.
	so I am thinking at probably having looked at other sites, I probably will take this hotel, bookmarked it. So go back to Asia rooms,
(0:43:20.5)	Subject enters Asia Rooms in Google search.
	cause it looks reasonably comfortable and its close, very close to the centre of town,
(0:43:24.8)	Asia Rooms Official site returns at top of Google search. Rest of page lists sub-categories in Asia Rooms web site. Subject clicks on Asia Rooms official site
(0:43:42.5)	AsiaRooms.com home page on screen, Screen displays options for searching for hotels, map showing Noumea's location together with top reviewed hotels and destinations.
	I would probably take this and it's available on the dates that I want to go, May, June, July 18th to the 24th.
(0:43:48.5)	Subject enters Noumea in "Destinations" box and clicks on drop down calendar, enters desired dates, clicks request for Search Hotels.
(0:44:19.4)	Screen shows AsiaRooms.com Hotels in Noumea and displays two hotel options together with an information paragraph on Noumea. On the left of the screen is an option to further filter results by price per stay, distance from city and star rating.
(0:44:26.0)	Subject clicks on Second hotel Option, Surf Hotel, clicks on Surf Hotel and screen displays hotel picture caller and various room options.
	Surf Hotel, yes, so I would take the Surf Hotel at \$854 for six nights and I would then just go ahead and left the room and continue.
(0:44:48.5)	Subject clicks on Standard Room and then clicks on "Book Hotel" option. Screen shows subject's request is being processed.
	And I would just continue to book and after I booked, I would give my credit card details and I would then get a booking voucher, which would come through my

	<p>email and I would then transfer that immediately to the Hotmail account as well, so it had the airfare and especially with this because if you actually fronted that hotel, they would probably charge about 30/40% more if you didn't book it in this way. So I would then give my details and I have dealt with Asia rooms before, they are a very good company to deal with, they have a phone hotline, I had a bit of a problem once as I said, rang them in Singapore, somebody was there, sorted it very quickly and so I was quite impressed with them, so I would be happy to go with Asia rooms and so I would book that for \$854 and so that would, so I would just continue and as I said I would get my voucher which would come down the line and I would save to my account and print it out and take it with me to present when I arrived there. So that's done. So we have booked the airfare, we have now booked the accommodation, now the third thing we need to do is now have a look at what we are going to do in New Caledonia and I am just going to look on the internet and in planet guide as well.</p>
(0:45:25.7)	<p>Screen shows AsiaRooms.com Online reservation page. On the right of the screen is the subject's Booking Summary details and on the left the facility to enter subject's title, name, address, email contact, country of residence, Telephone, all the above are mandatory fields to be completed before booking can be finalised.</p>
(0:46:29.5)	<p>Subject clicks in URL for navigation to Google.</p>
	<p>So let's go back to google, so I am there for six days, so let's say sightseeing in New Caledonia. What I am generally looking for is I am a culture tourist,</p>
(0:46:32.7)	<p>Google Home Page</p>
(0:46:36.5)	<p>Enters search term "Sightseeing in New Caledonia" and clicks on prompt link "New Caledonia Activities and Sightseeing".</p>
(0:46:48.7)	<p>Search product displays options in About.Com New Caledonia Activities and Sightseeing</p>
	<p>I like to see the culture, I am interested in any, maybe visiting a village, looking at the museums, having a look at wildlife as well, maybe going for a trip to some neighbouring islands, so activities and sightseeing New Caledonia, let's have a look at what they have got and I will have a look at a few tours. I like to do one or two day tours as well. So New Caledonia tourism and then Lonely planets, so we will start with the tourism site then we will have a look at Lonely planet.</p>
(0:47:05.9)	<p>Subject selects first option. Activities in new Caledonia.</p>
(0:47:24.3)	<p>Screen displays map of New Caledonia, a pictorial representation together with sub-categories of What to do in New Caledonia.</p>
	<p>What to do in New Caledonia, spear fishing, New Caledonia's virtual treasure, so I am not really interested in that, provides a guide, so we have got tree walking, gambling, helicopter surfing, cultural centres, these are all very touristy things. Yachts, gambling, cricket hunting, glass bottom boats, gliding, sea excursions, trekking and guided visits. I might be interested in a bit of trekking, let's have a look. Paradise for hikers, no that doesn't look very interesting.</p>
(0:47:32.6)	<p>Subject scrolls down list of activities, selects a further search for Trekking and Guided visits.</p>

(0:48:11.6)	Search displays trekking and guided visits options.
(0:48:21.7)	Subject scrolls down page, returns cursor to top left and clicks "Back". Screen returns to activity options in About.com Activities in New Caledonia.
	Glass bottom boats, have a look at some of the fish marine life, that looks quite nice, so you can tour the lagoon and do a bit of snorkelling as well, that looks like good fun, so that could be a possibility, so let's have a look again. So I don't think that site was all that useful because it's very, very touristy things which people do generally everywhere they go. So I might try the Lonely Planet guide, it's not letting me go back and so I will go back to google.
(0:48:31.8)	Subject searches "Glass Bottom Boat" option. Screen displays pictorial image of glass bottom boat together with details of tours.
(0:48:52.5)	Subject returns cursor to top left and clicks "Back". Screen returns to activity options in About.com Activities in New Caledonia.
(0:49:04.5)	Subject exhausts "Back" key.
(0:49:15.5)	Clicks in URL for navigation to Google
	What I am looking for is more for cultural sort of activities, let's try Lonely Planet and see what they have to say.
(0:49:21.6)	Google Home Page
(0:49:32.2)	Enters search term "Sightseeing in New Caledonia" and clicks on prompt link to "About.com New Caledonia Activities and Sightseeing".
(0:49:44.2)	Search product displays options for New Caledonia.
(0:49:57.8)	Screen shows text and pictorial images Introducing New Caledonia, Tips and Articles.
	Interesting New Caledonia, Pacific with a taste of France, learn traditions, main island rugged mountains, waterfalls, world's largest coral lagoon, that might be nice to see. Leisurely pace and relaxed island sleeping in the cabin culture. New Caledonia is surrounded by the world's largest enclosed lagoon. So I would definitely would probably want to go for a trip on the lagoon and have a look at that. Articles and travel books before you go, literature, let's have a look. Some more tips and articles.
(0:51:02.8)	Subject clicks on "Tips and Articles", screen displays travel information.
(0:51:15.3)	Subject returns to top left and clicks "Back".
	Let me try another site. Back to google. See if this is a bit better, last updated, there is not a lot of information on here, some articles, so obviously they want you to go and have a look at the travel guide. Things to do, activities, some entertainment, let's have a look, this is useful. A land fort, near the peninsular area, is national to Pacific, language school, doesn't seem very interesting, scientific flights along the coast, over the lagoon ... that could be a possibility. Windsurfing doesn't interest me much, sealed road 130 kilometres, swimming pool, so probably not interesting in many of those things.
(0:51:23.9)	Clicks in URL for navigation to Google.
(0:51:29.2)	Google Home Page. Enters search term "Lonely Planet and New Caledonia" and clicks on prompt link to "Lonely Planet Travel Information and Travel Guide".

(0:51:47.6)	Search product displays Lonely Planet New Caledonia "Introducing New Caledonia"
(0:51:51.7)	Subject scrolls up and down page, clicks on further search "Things to do, Activities".
(0:52:18.5)	Screen displays tourist destinations together with a map of Noumea's location. Subject scrolls up and down page.
(0:53:11.8)	Subject returns to top left, clicks "Back". Screen displays Lonely Planet New Caledonia page, subject requests further search on "Things to Do, 101 Things to do in New Caledonia".
	Let's try things to do, 101 things to do in New Caledonia. Cafes, fortes, popular tourist beach, some cafes, some live music and so that would be something I would go to, casino, cathedrals, cultural centre wonderful cultural centre should be the top of your list of places to visit, built on a secluded peninsular and the 2000 festival organised by cultural festival for the first time brought together from New Caledonia, harmony between contemporary architects surrounding name. So definitely, I think this cultural centre at Tjibaou is definitely something that I would go to and so I would definitely write that down. I might make a note of that, cultural centre.
(0:53:21.9)	Search product displays options of things to do in New Caledonia. Subject scrolls down page.
(0:54:29.0)	Makes manual notes of interest in lagoon boat trip and cultural centre
	So there is the lagoon, boat trip, have a look at the world's biggest lagoon, I will go to the cultural centre at Tjibaou, I will definitely do that. This is useful because it's got 101 things to do in New Caledonia, gallery commercial, that's a shopping centre. Helicopter tours and Jet Ski, some beaches, okay let's have a look at one more page here, then I might have a look to see if there are some tours I can do as well. Salsa dance class, no I don't think so. Restaurants, the village, shopping complex, shops, bistros, fair, this is just restaurants. Okay this is a couple of things I will be doing, so I am going to see if there are some tours that I can go on.
(0:55:06.8)	Subject clicks "Next page". Further activity options are displayed vertically.
(0:55:48.7)	Subject scrolls down page, clicks "Next Page," further activity options are displayed.
(0:56:29.1)	Subject returns to top left of screen and clicks "Back".
(0:56:38.0)	Clicks in URL for navigation to Google.
(0:56:43.8)	Google home page.
	Google, type in tours of Noumea day tours in Noumea cause I always like to go on a couple of tours if I go somewhere, they take you further on places that you wouldn't normally see. One stop shop, its got all the colours of New Caledonia, national, so this a few different
(0:56:47.5)	Enters search term "Day Tours Noumea"
(0:57:01.9)	Clicks on second sponsored link
(0:57:07.1)	"Noumea sightseeing and Day Tours", vertical menu options for various tours in New Caledonia.
(0:57:21.4)	Subject clicks for further search of "Arc en Ciel Voyages"
	tour companies and so I will just try and have a bit of a look and see what they offer.



	They have phone numbers, so that doesn't look very promising.
(0:57:29.0)	"Jasons" Screen displays pictorial images of sites to be seen on tour.
(0:57:42.4)	Subject returns to "Back" to Google Sponsored links.
	Let's go back. So let's try again and see what else they have got, day tours New Caledonia, trips and excursions outside the city, let's have a look at this.
(0:58:02.9)	Subject selects "Noumea Day Trips and Excursions Outside the City"
(0:58:19.0)	City Discovery displays options for various tours. Subject scrolls down page looking at options.
	Noumea day trips and excursions outside the city four attractions found. Do the peninsular park tour. 4WD in the great south, might be interested in that, its \$257 which is a bit pricey for a day tour. Noumea light house day trip, Noumea ski jet safari, so let's have a look at some more.
(0:58:59.8)	Clicks "Back" and returns to Google sponsored links page.
(0:59:07.2)	Subject selects sponsored link P&O.com, "Find Noumea tours".
(0:59:07.5)	Screen shows options listed vertically for tours on left of page and on right screen displays options for refining search and calendar for booking cruises.
	<p>I will just look at two more sites, country side city aquarium, so definitely, I will just need approximately three hours, so this is definitely a tour that I would be interested in, country side and city aquarium, a three hour tour and so you visit the city, visit the aquarium, go to the fringes of the coral reef, that would definitely, most definitely I probably would do that tour for about \$90. So that would be a tour that I would probably do. Botanical gardens and bird sanctuary, probably wouldn't want to do a tour but I probably would go there and have a look at that myself. So there are some, city highlights and the beach, glass bottom boat, see what else they have got.</p> <p>It's always useful to get a guided city tour and learn a bit about the history of the place and a bit about what's currently happening there. Now here is a tree top walk, see what else, lagoon by night, this could be quite nice, the coral reef and its inhabitants, a totally natural environment exclusive night visit in the newly refurbished aquarium, so the night visit to the aquarium I think would be very interesting. I would definitely be interested in that. Culture, pacific region and the Tjibaou cultural centre which is where I am planning to go too, definitely planning to go too. Look at the rest of these sites, so there are some things to do and I have just had a look at the Lonely Planet. I will just have another look at one more, one last look at this. This looks like a very useful site actually. There is a night train through your favourite beachside locations. Mangrove discovery, I might be interested in that. Escapade Island half day trip, do you want to join our shuttle transfer to Port Nesa, through the lively market of Noumea where you can find exotic fruits and vegetables, you can take a 30 minute ferry ride to Escapade island, so I might be interested in doing that actually, that's another possibility. Evening island encounter, travel by air-conditioned motor coach with a guide through the beautiful bays in Noumea, so I might be interested in doing that as well. So I have found some day trips. So Lonely Planet guide is something that I will probably be looking for in the library and I would have a bit of a look at what they would recommend.</p>



(1:00:08.8)	Subject scrolls to bottom of page and clicks "Next Page". Screen displays further tour options. Subject scrolls up and down activity page. Screen displays further tour options
(1:02:47.8)	Subject moves to hardcopy of Lonely Planet book.
(1:03:10.2)	Identifies destination from index. Notes information on history and early colonisation, what happened in WWII, population composition, sights to see, city attractions, cathedral, market, maritime museum, gardens, aquarium, cultural centre, trip to an Island and city tour.
	New Caledonia page 174, some interesting information about the history and the colonisation, what happened in World War 11, about the population, 300,000, 5% indigenous, 35% Europeans. Noumea population 92,000, so it's a bit like, it's more than half the size of Wollongong. Sights and so here are some things, some sights to see, centre of the city which is a square, the cathedral, an interesting market, maritime museum which I would be interested in seeing. Wonder along paths through gardens and shrubs at the zoological botanical gardens, so I might go for a walk through there, there is an aquarium which is good. There is the cultural centre which I will definitely be visiting and probably will take a trip out to the islands and do the city tour.
(1:04:56.7)	So that would be a number of things that I probably will do and I would also, before I go to a third world country, I would always go to my GP and make sure that my vaccinations are 100% up to date and I would check on some health information as well because you have to be a bit careful and when I travel to third world countries, rule number is you never drink the water cause 90% of all the health problems you can contract is through the water supply. So make sure you drink bottle water, you have a 95% chance of getting back without having any problems.
(1:05:35.6)	So just to summarise I booked the trip by firstly getting the best deal on the flight and then finding some good accommodation, do a bit of research, so that I can get good value for money and its good accommodation, close to town, not to far away because public transport network is probably not very good there. Get something 3/4/5 kilometres out of town, you may have difficulties trying to get in and out of town. So something in the centre of town and you might have to pay a little bit more for your hotels, it's a better idea. Then finally looking at the things that interest you to do in that place and so you get a bit of an idea about how people live and what are the main sights and main attractions and that's how I book a holiday.

## Subject 1a

(0:00:07.5)	<b>Google home page.</b>
	Well I am planning a trip to New Caledonia and again I need to do three things, I need to find the best possible airfare, 2, I need to find accommodation, a pretty good place to stay and then 3, I need to research activities, what to do, what to see when I get there. So we are going to do those three things in order at the times that I am planning to go there which is towards the end of July. So we will kick off with airfares, so I will try,
(0:01:13.8)	<b>Subject enters search term travel.com.</b>
	I have a couple of sites, usually I will try travel.com first.
(0:01:22.8)	<b>Clicks on first sponsored link.</b>
	So get into that site.
(0:01:27.1)	<b>Screen shows travel.com.au home page displaying various tabs at top of page, screen defaults to Search Flights page.</b>
	So we will go from Sydney to the capital of New Caledonia, Noumea, so we are heading off towards the end or middle of July and so let's say we are going to take off around about, I haven't worked out the exact time, let's say the 14th of July and I will be there for five nights and let's say we will head off on the 19th, I am probably going on the 19th, well actually I am going from there to Vanuatu. So I will just do one way I think at this stage and then let's have a look, one way from the 21st, heading off on the 20th, one person, okay, let's have a look.
(0:01:30.9)	<b>Subject enters departure city and destination city. Enters dates on drop down calendar, no of adults, one way. Enters Search.</b>
(0:03:15.3)	<b>Screen shows subject's request is being processed</b>
	Its promising, its processing, processing, processing,
(0:03:30.3)	<b>Screen displays Select a Fare page, showing 7+ alternative fares, all Qantas. Subject scrolls to right of screen and back. Subject highlights first flight option with cursor. Subject scrolls right, screen shows more available flights including two Air Caledonia fares. Scrolls back to left of screen and highlights with cursor various flight options.</b>
	okay here we go. So we have Qantas, little bit hesitant about Qantas at the moment, but I will hope that they have sort out whatever problems they have got. So I can see I have a one way flight, which is \$389, that's actually not bad. That seems to be the only, any other planes going there, there is actually, something called Air kaolin and I have never heard of them, at all, they must have something to do with New Caledonia. So obviously, New Caledonia Qantas flight, 389, that sounds quite reasonable to me and so I would then take that flight
(0:04:38.2)	<b>Subject enters "Continue".</b>
	basically and then proceed to book that flight for myself to go there. Oops something happened, okay. So it departs 12:15 which is excellent and arrives in Noumea at 4pm in the afternoon, which is very good because that gives me plenty of time to get up to the airport and so that seems really excellent and so I then just proceed to then book that fare on that date. So I have got the fare, \$389 is good, it's

	a good fare and I will then because it's a one way trip I might actually just book that myself and so I will leave that for the time, I might actually get also, because I then have to fly from there to Vanuatu, maybe I might just check.
(0:05:53.4)	<b>Subject closes internet, screen shows Desktop</b>
	No that's okay; I can always find that again, it's very easy. It says enter in power save, okay, is this how the computer normally behaves, a flash saying power save. Here we go, we are back into here, so I will do Firefox I suppose, internet explorer I find about the worst of the browser, I actually use opera,
(0:06:34.7)	<b>Subject clicks Firefox icon, screen shows UOW home page.</b>
	I actually find that the best. I don't know what happened there
(0:06:41.1)	<b>Clicks in URL for navigation to Google</b>
	but anyway we will just go to google and start .I will just check.
(0:06:59.2)	<b>Login password required and performed.</b>
(0:07:07.8)	<b>Screen displays Google home page.</b>
(0:07:14.8)	<b>Subject enters search term "capital of Vanuatu", vertical listing of sponsored links on screen.</b>
	I think I might just do I and out of there flight as well to
(0:07:43.6)	<b>Subject returns to Google search and enters search term "Kayak" and clicks on first sponsored link "Kayak Official Site".</b>
	Port Vila, I actually found another site Kayak where you can two flights,
(0:07:49.6)	<b>Screen shows Kayak.com.au home page showing vertically listed options for looking at hotels, flights, cars, deals, vacations and More.</b>
	do an international flight, see if it whether it will find me a flight.
(0:07:52.4)	<b>Subject clicks on "Flights". Screen shows fields to be filled in by subject covering from and to destinations, dates, return/1 way.</b>
	So I am going Noumea, new Caledonia to Port Vila in Vanuatu and I am going on the,
(0:07:59.5)	<b>Subject enters from Noumea to Port Vila and uses drop down calendar to enter dates, one day and clicks on Search button.</b>
	so we are departing Sunday 20th July, so I will head off Monday the 20th and so I will see if there is a flight. So it's Wednesday 20th July, so I will see if there is a flight on the 20th July and it's a one way trip and I will see if there is actually a flight.
(0:09:29.9)	<b>Screen displays Noumea, New Caledonia to Port Vila, Vanuatu page with details of flights and cost displayed clearly on screen.</b>
	And there is, so I can actually book my own flight and its \$238, which isn't too bad, it's not a very long flight, 12:15 till 2pm, probably about 1.5 hours, hour and 45 minutes which means I can then, find out what you are after, use the filter on the left, I have done it wrong. So I found the flight so I probably proceed to book the flight. So I would be exiting there, going from Noumea to Port Vila and be taking that flight and then continuing my holiday there. So we have sorted the first thing out, got the airfare which will get me there at a very reasonable price under \$400 and then will take me then out of there to Port Vila after being there for five nights and on the sixth day I can move onto there. So that's the first thing that I have done for my holiday, I have actually then worked out the flights. Now we will go to the second

	thing,
(0:09:40.5)	Screen shows error in pop up box with the option to click OK. Subject clicks OK.
(0:10:50.5)	Subject moves cursor to top left of screen and clicks on Back function.
	second stage of booking holiday, which is to find myself a reasonable hotel. Now that's usually a little bit more difficult and I have been told, I have heard that New Caledonia is expensive and so I will see what might be available on some of the sites that I usually use. So I will go back to google.
(0:11:22.3)	Subject clicks in URL for navigation to Google.
	Actually I am quite happy with that fare because then I can probably get back to Australia and my three airfares will probably come in at around about \$1,000 which is probably what I am expecting to pay for a two week holiday. So that's pretty good.
(0:11:27.6)	Google home page.
(0:11:45.5)	Enters search term "Expedia" and clicks on first sponsored link Expedia.com.au.
	So I might try a site called Expedia, which I have been using, so I might try a couple of sites I know then I might just have a bit of a general search. So Expedia
(0:11:54.6)	Expedia home page; screen displays a Book your Travel option together with mandatory fields for subject to insert, together with pictorial advertising for other holidays, Top Hotel Deals and Cheap Flights.
	looking for hotel in Noumea
(0:12:01.7)	Subject enters Noumea in Destination city and uses drop down calendar to enter dates required, number of rooms/adults.
	so the date is from the 15th of July, so I am going from the 15th to the 20th of July, so just me, no children, one adult, one room,
(0:12:38.9)	Enters search.
	I will have a look at what they might have.
(0:12:45.1)	Screen displays a vertical listing of available hotels in Noumea and their room definitions, cost and star rating. Subject scrolls down page reviewing hotel options.
	Okay, Plaza Noumea, 4 star hotel \$790 a night, sorry this is not a night, mistake, that's in total, that's for five nights, 4 star hotel. The other hotels they have got, this is 5 star hotel for \$1,300, so that might be a little bit more than I would normally pay and I can see that they are a bit reasonably pricy. The hotel Le lagoon is 3.5 stars for \$834 and Le Surf is 3.5 stars for about \$110 a night. Here is a 2 star hotel which I wouldn't consider doing because a bit too down market. So let's have a bit of a look where these things might be, more reasonably price wise, which is, let's try Le Surf, that sounds promising because it sounds like it could be on the beach. But I don't want anything to far away from town
(0:14:05.1)	Subject clicks on Le Surf listing for further information.
	and too far away the attractions, so let's try this one.
(0:14:10.4)	Screen shows details on Le Surf hotels, price is clearly displayed, together with a photo gallery of the hotel and a map of its location. Screen also shows

	<b>"Guest Reviews"</b>
(0:14:13.0)	<b>Subject clicks on Photo Gallery and screen displays 7 photos of the hotel and its rooms. Subject clicks on each photo to enlarge.</b>
	Okay, it looks nice, nice reception area and rooms don't look to bad actually, it looks quite nice, it's a nice looking room, swimming pool, dining area, and sitting nicely on a point on the bay, so that looks very nice,
(0:14:40.6)	<b>Clicks on "Close" option. Screen returns to Le Surf Hotel page. Subject scrolls down page looking at further details.</b>
	if this is close to town, this could definitely be a goer and with a casino next door. So let's see what other information they have got about this, this looks very, very promising actually and 75% of guests have given it a good review. So for \$677 I can actually get the lagoon view room, amenities rooms, dining, recreation, so what I really need to do is I need to find out where this is actually located, it's located in Noumea, near Noumea harbour, its near Noumea cathedral so we will show.
(0:15:26.5)	<b>Subject clicks on option to Learn More. Screen shows further details about the hotel's location.</b>
	I guess I need to know, so this is located in Noumea, near Noumea harbour, near Noumea cathedral and that actually looks like some sort of town area, some built up area just on the side, it is a beautiful location, right on the edge, right on the water, I think this looks good, this looks very promising, I just need to know a bit more about this place. I think I would probably give them a ring; do you want me to do that? <i>I don't have a phone at the moment, sorry.</i> What I would probably do is I would probably give them a ring, I am just going to check a few more places first but at the moment this is probably, because its at the edge of the town which means I should be able to get to the town area fairly readily and its in a beautiful location and I get the lagoon room for an extra \$10 a night. Let's see what the reviews are.
(0:16:51.8)	<b>Subject clicks on "See all Reviews" option, screen displays Reviews for Le Surf Hotel showing an 'out of 5' score rating, and comments from reviewers. Scrolls up and down reviews.</b>
	<i>Can I just ask when you rang them, what sort of questions would be asking them?</i> Well the main thing that I would say to them is where are you located, how far out of town, how do you get into town from where you are, that would probably be my, I want something that is reasonably located. For example when I went to new Zealand I found a really great hotel, incredibly cheap, 4 star hotel for \$80 a night Australian, when I rang them and I said where are you located and they said we are a little bit out of town, a couple of kilometres, I said well how do you get into town, they couldn't tell me and it didn't seem that they were close to any public transport which is maybe why it was \$80. So I found another hotel which was only 3.5 star which was \$110 a night which Mecure which is smack bang in the middle of everything and when I rang them and they said we are on the edge of the shopping area, next to the harbour and I said that will do me, I will take that. So I don't necessarily go for the cheapest, I have a price and I am not going to go for the most expensive either but I had a reasonable price in mind and I can go to the higher end of the price if things are very suitable rather than the lower end of the price range.

	<p>So that's how I think.  <i>Great, thank you.</i></p> <p>So I will just check this, this looks extremely promising, very well priced, looks like a good location and so I would say excellent location, in between Lemon Bay and Vita Bay, don't know what that is, hotel staff were friendly and helpful, room was well maintained. The smell when you opened your room was musty and awful but once inside you are okay. Don't use the restaurant for meals, too expensive, only bought a bottle of water from the restaurant. Comfortable, friendly, 3 star hotels, greeted at reception, friendly staff, condition of the hotel somewhat tired and needs to be freshened up; there was odour from the carpets, now this is not sounding promising. The glass in the shower cubicle needed a good clean, blah, blah, not impressed, they keep on forgetting things such as to wake you up in the morning, well that's mostly, all countries do that. Le Surf is reasonable price and is centrally located. So I am now thinking that maybe</p>
(0:19:30.4)	<b>Subject returns to top left of screen and clicks Back option. Screen returns to Le Surf Hotel information page. Subject enters back option several times until screen returns to</b>
	I won't do that hotel because I don't think I would like to go in there and be greeted with a very smelly room. So it looked promising but I think I am going to dip out on that one. Let's try another one.
(0:19:45.2)	<b>Expedia.com.au Noumea Hotels page with a vertical listing of hotels in Noumea. Subject scrolls down page, returns to first hotel option at top of page, Ramada Plaza Noumea.</b>
	Noumea Harbour, let's try this, it's a bit more expensive, there was a cheaper one down here somewhere, that was the 2 star hotel lagoon near Noumea harbour, situated, this could be possible, \$834 for five nights. I say we will look at this other one first. So hotel Lagoon, no might try this one which is Ramada Plaza, this is a 4 star hotel
(0:20:49.6)	<b>Screen shows Hotel details, picture gallery, room types,</b>
	for \$792, that seems quite reasonable for five nights.
(0:20:55.6)	<b>subject clicks on photo gallery, 9 photos are displayed and subject clicks on each photo to enlarge. Closes picture gallery.</b>
	Let's look at the rooms. Quite nice, very nice, excellent, really nice rooms, nice dining area and so that's \$790, that 160 a night, so this again situated, this is a bit closer to the town.
(0:21:19.7)	<b>Screen returns to Ramada Plaza Noumea hotel home page displaying photos, map quest reviews horizontally on page with room rates below.</b>
(0:21:35.5)	<b>Subject clicks on "Show more" icon. Screen displays further information on Noumea. Screen displays photos; map and reviews for Ramada Plaza Noumea,</b>
	This is also close to the cathedral; let's see what the guest say.
(0:21:47.9)	<b>subject clicks on "See all Reviews". Screen shows ratings from prior guests.</b>
	Not impressed, English was a big barrier even though there was one person around, gave the impression that they didn't want to understand anyway, our room was overlooking the race track and a fairly busy road, we would have paid for an

	upgrade but thought it would be too much for ask. Service here in Australia and the difference in Noumea service is something. So that's not very impressive either. I would have to say that was a bad review.
(0:22:17.1)	<b>Subject clicks "Back". Screen returns to Ramada Plaza Noumea page.</b>
	But I must remember when I did go to France people like waiters were very arrogant and not very pleasant and so maybe that's the mentality of the people there. Let me try another one. Let's go back to,
(0:22:40.4)	<b>Subject returns to top left and clicks "Back" to Expedia.com.au home page, "Book your Travel". Screen still shows subject's request for hotels in Noumea.</b>
	I might just try one more, I think people who give
(0:22:50.8)	<b>Subject enters "Search".</b>
	bad reviews you should take notice of it because if they are likely to give somebody a bad service, they
(0:22:55.2)	<b>Screen shows subject's request is being processed.</b>
(0:22:56.8)	<b>Expedia.com.au hotels listings vertically down page.</b>
	might give you a bad service as well. Let's try the hotel lagoon.
(0:23:05.1)	<b>Subject clicks on "Hotel La Lagon" option. Screen displays information for Hotel La Lagon including rates clearly shown at top right of screen, photos, map and guest reviews shown in three horizontal boxes and room rates below.</b>
	Okay, studio room minimum stay room only, that certainly doesn't look promising at all. It might just be a bed with nothing in it and so I think I am going to give that a miss as well
(0:23:33.8)	<b>Subject clicks Back to return to hotel information page.</b>
	and I don't particularly want to pay \$200 a night. Let's try some other sites. Let me try one more site, we will try Asia rooms, it's a company in Singapore that I have used before,
(0:23:48.6)	<b>Subject clicks "Back" many times and screen returns to Google sponsored links for "Expedia".</b>
(0:23:53.5)	<b>Subject requests Google search for "Asia rooms" and</b>
	see if they have anything. Although they looked promising but when you looked into a bit more,
(0:24:02.5)	<b>clicks on first sponsored site, "AsiaRooms.com".</b>
	I have to say they didn't look very good.
(0:24:14.6)	<b>AsiaRooms.com home page displayed on screen showing options for "Search for Hotel, a map of the region, Top reviewed Hotels and Top Destinations.</b>
(0:24:18.4)	<b>Subject enters Destination Noumea in search field and uses drop down calendar to insert dates and number of adults.</b>
	15th to the 20th July,
(0:24:45.0)	<b>clicks "Search Hotels"</b>
	search hotels and let's see if they have anything.
(0:24:53.6)	<b>Screen displays "Hotels in Noumea" showing two hotels listed vertically followed by Noumea Information. On left of screen are filter options</b>



	including Total price per stay, change distance, star rating.
	Okay they also have the Le Surf hotel and the Promenade and so that's \$1200 so no I am not going to pay \$250 for a 4 star hotel and we did see Le Surf, I might just keep Le Surf in the back of the mind, it's interesting that in fact they have a higher price than Expedia.
(0:25:18.0)	Returns to top left of page and clicks "Back" to Google sponsored links for Expedia.
	Let's try some other sites, cheap hotels;
(0:25:25.6)	Subject requests Google search for Cheap Hotels in Noumea" and clicks on third sponsored link "Hotel Club"
	it's always good to do some research on these things because you can sometimes get a very good deal. Usually I do this search by typing cheap hotels in whatever city I go too and then you get about 20 or 30 websites offering some reasonable accommodation. Let's have a look at this site.
(0:26:04.1)	Screen shows "Problem accessing this Page".
	There is a problem accessing this page, try again.
(0:26:10.0)	Subject clicks "Back" to sponsored link page.
(0:26:17.0)	Clicks on sponsored link "Cheaperthanhotels.com.au"
(0:26:27.9)	"Cheaperthanhotels.com.au" home page displayed on screen. Subject clicks on "Search" button.
	Cheaper than hotels, so the Surf Hotel, the Ramada which we looked at before, \$170 a night,
(0:26:47.7)	Screen displays hotels listed vertically on right side of screen and filter fields on left of screen. subject scrolls down page.
	so that doesn't look very useful.
(0:27:04.8)	Clicks "Back". Screen returns to Google sponsored links page for "Cheap hotels in Noumea".
(0:27:15.7)	Clicks on 7th sponsored link "Hotel.com.au" home page.
	Try this site,
(0:27:18.8)	Page vertically displays hotel options in Noumea. Subject scrolls down page, returns to top left of screen and clicks
	Noumea hotels. \$254 to \$371, so again these are all fairly expensive hotels in Noumea. I thinking now that le Surf may not be such a bad idea, if I rang them up and spoke to them and negotiated a reasonable room. Let's have a look at another couple more. Asia rooms,
(0:27:32.6)	"Back" to Google sponsored links page.
(0:28:01.8)	Subject requests link to "AsiaRooms.com".
	just check again, maybe there is a recent update, no update.
(0:28:05.8)	AsiaRooms.com homepage on screen.
(0:28:08.0)	Subject returns to top left of screen and clicks "Back". Screen returns to Google sponsored links page.
	Le Surf hotel did look in a very nice location.
(0:28:12.8)	Scrolls to bottom of page and clicks Page 2 of Google sponsored links. Screen shows more web site options.



	OK, aaaah ....
(0:28:21.1)	Subject requests link to "Cheapest Hotels". Prolonged delay, subject returns to top left of screen and clicks on "Back" option.
	Kayak ..... Try another one.
(0:28:48.3)	Screen opens with "Kayak.com.au" home page. Subject clicks on drop down calendar and enters dates. Clicks "Search"
	Oh here we go, Kayak, wonder what they might have, July 15th to 20th July.
(0:29:14.4)	Pop up box requesting "Where" field to be completed, respondent clicks OK and enters Noumea in "Where" field. Clicks Search function.
(0:29:50.6)	Screen displays vertical listing of hotel options in middle of screen and filter options listed vertically on left of screen and advertising on right of screen. Subject scrolls down and up the page of hotel options, clicks on "Best Western Hotel le Paris".
	Okay Best Western Hotel Le Paris,
(0:30:32.4)	Pop up box appears requesting subject "Choose a site" from 5 listed sites showing varying prices per night.
	Ok, this is interesting, these people have put have hotels in five different sites, two of them at \$108, one is \$115, this is the same room, another is \$136 another is \$137. So we may as well get the cheapest one, so let's go to bookings.com,
(0:31:07.8)	Subject enters search request for "Bookings.com".
	let's see the difference. Always curious to see what these people do.
(0:31:13.8)	"Booking.com" home page on screen showing search options on left of screen and Best Western le Paris Hotel information on right.
	OK, OK, So this is a total of \$540 US which is pretty good because Australian dollar is almost the same and so it couldn't be more than \$600 for five nights and so that's a really good rate, lets have a look at the room,
(0:31:30.1)	Subject clicks on photo gallery showing rooms and hotel.
	that's the hotel, nice, nice room, very nice, nice bathroom, excellent, this looks good. Best Western La Premier, lets have a look at the map,
(0:31:43.5)	Subject clicks on "Show Map" option at top of screen. Pop up box showing hotel's location. Subject scrolls across map, pop up box appears with further details on hotel and its environs. Subject closes pop up box.
	this looks very promising and it's in a very good location, more or less in the centre of town, fairly close to landmarks. Located in the heart of Noumea, hotel offers tennis court, cause I like to play tennis, airport transfers, free Wi Fi, five minute drive from the harbour, shops and restaurants, the room is the best western la premier, so this looks very promising, very, very promising. Best Western. Let's have a look at a bit more information about this.
(0:32:29.2)	Screen returns to "Best Western le Paris Hotel page. Subject scrolls down page looking at information on Hotel facilities, Hotel Policies and Terms and Conditions.
	Good location, the room looks nice, looks excellent, restaurant bar, do they have any reviews from people who have been there. Internet, check in 14 to 11pm, that's fine, excellent, excellent. So I would say this is a very, very, guest reviews,

(0:32:56.8)	Subject clicks "Guest Reviews" tab. No reviews. Subject returns to top left of screen and clicks "Back" key.
	let's see what they said about this. Not enough guest reviews for this hotel. This hotel has been reviewed once to ensure the quality, guest reviews are only displayed with at least five reviews, that's fair enough.
(0:33:22.5)	Screen returns to Best Western Le Paris Hotel page. Subject scrolls across photo gallery pictures highlighting each one.
	So this looks very good, so I would, it looks like it is in a very good location, smack bang in the middle of everything. \$120 a night. So I would, I don't know what the reviews are but the place looks very comfortable, looks clean and comfortable, the bathroom is fine, so I would probably would be quite happy with this hotel and I would then, also probably give them a ring and have a bit of a chat to them about it. So I am probably going to say that I am going to stay in the Best Western. Le Paris, which is .....
(0:34:25.0)	Returns to top left, clicks "Back" key. Screen returns to pop up box of map showing hotel location. Subject closes pop up box.
(0:34:34.4)	Returns to top left screen and clicks "Back" key. Screen returns to "Booking.com" home page.
(0:34:48.1)	Subject clicks on minimised Expedia.com. down bottom of screen. "Expedia.com opens on left of page.
(0:34:55.1)	Subject clicks on minimised "Mozilla Firefox" at bottom of screen; clicks "Close" option.
(0:35:02.0)	Screen returns to "Camtasia Studio"
(0:35:04.7)	Subject clicks down bottom of screen to maximise "Booking.com". Screen shows "Booking.com" hotel listing for Best Western le Paris hotel. Clicks on photos in gallery.
	OK Umm. 2 stars the best western, Les Paris 2 stars, there was definitely a bathroom, I think that was a 3 star hotel, I am just going to check again, I don't know why it's saying 2 stars. All have air conditioning; satellite TV,
(0:35:49.0)	Subject returns to top left of screen and clicks "Forward" option.
	just going back to Kayak if I can.
(0:35:55.7)	Subject clicks "Restore" button at bottom of screen for "Expedia.com" web site. Subject clicks "Back" option and screen displays "Expedia.com hotels in Noumea listed vertically. Left half of screen shows Expedia.com overlaying "Booking.com" web page. Subject scrolls down "Expedia.com" page looking at vertical listing of hotels. Subject selects "Close" option for Expedia.com.
	Lagoon ..... Le Surf .....
(0:36:26.2)	Screen returns to full page "Booking.com Best Western le Paris" hotel page.
	Best Western, no I think that looks good, I think I would probably take that hotel. Unless there was some reason as to why like they were having some problem with it, \$110 a night, I think I would probably stay in the Best Western hotel
(0:36:49.5)	Subject clicks "Close option, top right of screen. Pop up box appears asking whether subject wishes to close all tabs or cancel, subject clicks on "Close" option at top of pop up box. Screen returns to Booking.com web page.

	and lets say I have done that and I have booked it, I have got my voucher and I have got my airline ticket and so I have a place to stay, I have a pretty good airfare and now, so that's book, so I have got four full days to have a very good look around. So the next thing I would be doing is having a look at things I want to do when I get there. So let's try Lonely Planet,
(0:37:28.7)	Subject goes to top left of screen and clicks on "File" option, drop down menu appears and subject clicks on "Exit" option. Pop up box appears asking subject if he wishes to 'close and quit', 'quit' or 'cancel'. Subject selects 'Quit'.
	I will just get out of here. Quit, start again.
(0:37:37.3)	Screen returns to Camtasia Studio page.
	Firefox, I am not sure what happened there.
(0:37:39.6)	Subject selects 'close' button at top right of screen, screen displays Desktop.
(0:37:43.6)	Subject double clicks on "Firefox" desktop icon. Screen shows three pop up boxes; 2 x requesting user name and password. Subject clicks on "close" option for all three.
	<i>I have to log you on again.</i> Sorry. So we will go to google
(0:37:49.0)	one pop up re-appears, log in and password required and performed. UOW home page on screen.
(0:38:33.7)	Subject clicks in URL for navigation to Google. Google home page
	sightseeing in Noumea, let's just have a general look first
(0:38:52.5)	Subject enters search term for "Sightseeing in Noumea" and
	before I get to the other sites like Lonely Planets. They have cheap tours, let's have a look at what sort of tours they have got.
(0:39:01.3)	clicks on first sponsored link "Cheaptours".
(0:39:07.2)	"My adventure Store.com" home page on screen, prominently displaying a competition to win trips at top of page and then options for Tours, Short Tracks and Urban Adventure options. Subject scrolls up and down page and returns to top left of screen and clicks "Back" option to Google sponsored links page.
(0:39:22.5)	Subject clicks on fourth sponsored link "Sightseeing in Noumea".
	Sightseeing in Noumea, that looks like a useful site.
(0:39:35.2)	Screen displays "TripAdvisor" home page. Page displays Noumea sightseeing options. Subject scrolls down page. Subject returns to top left of screen and clicks on "Back" option.
	Island, so there are trips out to the island, so you could do some boat trips, that's a possibility. Let's look at some other sites, attractions, things to see in Noumea.
(0:40:00.5)	Screen returns to Google sponsored links page.
(0:40:03.6)	Subject requests a link to "Noumea Things to do" web site. Screen displays "Virtual Tourist.com" home page. Pop up box appears, subject selects "Close" function. Subject scrolls down attractions vertically on left of screen; scrolls to bottom of page. Scrolls back to top of page, returns to top left of screen and selects "Back" option.

	Photo attractions, monuments of the city. Go to one of the beaches, they have a zoo in Noumea, a museum, the Churchill museum, you need a couple of hours to explore, so I would definitely go to the museum, I may go to the zoo. They have the botanic cultural centre, so that's definitely a yes. So I am on a site and I have found some really good things to do there, I am going to the Tjibaou Kanak cultural centre, they have a great museum which has a lot of displays for the historic culture also neighbouring countries and neighbouring islands. There is a trip out to some of the neighbouring islands which I probably would do; they have a zoo which could be interesting. You can for a walk around the main tourist area; there might be nice places to eat overlooking the harbour or the water. They have an aquarium, so I might be interested in the aquarium but I am not sure, I have been to a couple of aquariums. But definitely one thing I am very interested in is actually the culture, one of the reasons I am going to New Caledonia is to learn a little bit about Melanesian culture and so certainly the culture centre, the museum are definitely things that I will be going to.
(0:42:31.6)	<b>Screen returns to Google sponsored links page.</b>
	So let's have a look what else we have got. Noumea sightseeing and day tours,
(0:42:38.9)	<b>Subject clicks on sponsored link, "Jasons.com Noumea Sightseeing and Day tours" page on screen. Listed vertically down page.</b>
	I often like to do a tour when I am out, that allows you to see some parts away from the capital and so I would be looking for maybe a day tour. Let's have a look at this
(0:42:58.8)	<b>Subject clicks on "Sightseeing and day tours" option. Screen displays pictorial and text descriptions of various tours listed vertically down page.</b>
	sightseeing and day tour, as well as probably a boat trip down to some of the neighbouring islands. Noumea explorer, I will probably definitely do this, the best way to discover and enjoy Noumea, hop on and off at any stop throughout the day, Noumea explorer is cheap and fast,
(0:43:23.3)	<b>Subject clicks on "Noumea Explorer" option; page displays photo gallery together with contact details for "Noumea Explorer".</b>
	I find that's a great way to see a place. So the Noumea explorer bus most definitely, maybe spend a day on that going to see some of the main attractions around Noumea,
(0:43:46.5)	<b>Returns to top left of screen and clicks on "Back" option.</b>
	so that's definitely a goer.
(0:43:52.2)	<b>Screen returns to Google sponsored links page.</b>
	So they are definitely some things that I will be definitely be doing. So let's have a look Lonely planet which is usually a useful site.
(0:44:00.4)	<b>Subject enters Google search for "Lonely planet Noumea" and clicks on 5th sponsored link "New Caledonia Travel information and Travel Guide - Lonely Planet".</b>
	Lonely Planet Noumea. Here we go, Lonely Planet
(0:44:18.5)	<b>"Lonelyplanet.com" home page. Screen displays "Introducing New Caledonia" text and information. Subject selects "Place in New Caledonia" tab at top left of Lonely Planet.com page.</b>

	see what they recommend, introducing New Caledonia, so its pacific with a taste of France, Grande Terre is the main island, rugged mountains, waterfalls, large coral lagoon, there are some other neighbouring islands which I might see if I can visit. So let's have a look, that's the overview. So let's have a look at places in New Caledonia and Noumea,
(0:45:01.9)	<b>Screen shows New Caledonia A-Z.</b>
(0:45:10.8)	<b>Subject selects "Noumea" option. Screen displays "Introducing Noumea"</b>
(0:45:27.6)	<b>Clicks on "things to do" option. Screen shows vertical listing of activities, map on left. Subject scrolls down page. Clicks "Next Page" at bottom of screen.</b>
	so things to do, 98 of them. Shopping arts and crafts, exhibition, aquarium, artefacts, there a couple of beaches, beach areas, cafes etc, casino, cathedral, so we can do that when we look around the city, the cultural centre which is definitely on the agenda. There is a whole lot of different stuff here, some of its interesting some of isn't.
(0:46:33.6)	<b>Screen depicts further vertical listings for activities. Scrolls down screen.</b>
	Night clubs. This looks nice, live music in a relaxed bar with live music on the weekends, so I might check on that. The Noumea gallery centre, that's just a shopping centre. Windsurfing probably doesn't interest me much. You can do helicopter rides, heli-tours, a popular market, a night market, so I like markets, you can pick up some very interesting stuff there and so I would probably go to the night markets in Noumea, spend one night there. So this really useful, there are 98 things to do in Noumea
(0:47:38.2)	<b>Clicks on "Next page" at bottom of screen. Returns to top left of screen and clicks "Back" option. Screen returns to previous page. Subject clicks on "Next Page" option at bottom of page. Scrolls down 3rd page depicting things to do in Noumea together with their respective ratings.</b>
	which would certainly keep you amused for a while. Salsa dancing, no, that's not Noumea culture, you get that everywhere and I have done that. Restaurants. More entertainment and bars. There is quite a lot of things to do there which is to go some neighbouring island, to go the museum, to go to the cultural centre, to go to the night market and get on the explorer bus and go around and have a look at the main attractions for a day in the city, that would probably keep me amused especially the trip to the island will be a one day cruise and I think with the city attractions, the one day cruise, especially going to the cultural centre and museum which I would want to spend a fair bit of time at and if I have some other time, and the night market to see how that operates and if there is some interesting things there, maybe bring back some art works or something to Australia, if they look like they are okay and you can get them through customs.
(0:49:19.0)	<b>Waffling!</b>
	So that gives me a range of ideas about things to see to get a feel and an understanding of the place to see the sights, to understand the history, the culture and the environment. So I think that's probably basically it.
(0:49:34.4)	So just to recap, I have got the best possible fare ticket at a reasonable time of the day; I don't have to go at 2 in the morning to get to the airport. So I get there by the

	<p>middle of the day, leave around the middle of the day, I am there for four full days, I have got a reasonable hotel which is well located, close to the centre of the city, well actually in the city itself and so it should be fairly easy to get to various attractions and then to have a look at the things to do to understand of why I am going there to get an idea about Melanesian culture and the history of the place and the feel of the place. To go to the cultural centre and the museum, the main attractions in the city, the night market and go and do a boat tour to some neighbouring island and that leaves some time left over that I am sure when I get there you often find things that people tell are things that you want to see and so I probably will leave at least an afternoon to do some extra sightseeing when I get there.</p>
(0:50:48.7)	<p>So that's basically like a nice little package holiday, not too expensive, totally cost will be \$700 for airfare, \$700 for the hotel and about 5/600 I need for entertainment, so for about \$2,000 I could have a really nice holiday and broaden my horizons.</p>
(0:51:29.7)	<p>That's how I do it, although probably in real life I might take a bit more time, because it's only an hour, I may take four or five hours overall to, because I will do more complex research especially into activities there and read a bit about the history of the place before I get there, you know how to get around etc, etc. this is a cut down.</p>
(0:52:05.1) )	<p><i>What sort of sites would you go to get that sort of background information?</i> I will go to Lonely Planet. <i>Online, you wouldn't get yourself a book?</i> I would go to the library and I would have a look at, most definitely, I had a book out there about the south pacific but I have returned it, so I would look at that, I might get online and that gives you a lot of information about the history and some more information about what to do and what to see there. I would get online and I would look at the history of New Caledonia, learn a little bit about the history, the land, I might also try to refresh a little bit of French, I did learn it a very long time ago, a very long time ago, so when I go to a place, I always like to be able to at least count from 1 to 10 and learn the phrase where is and so I can ask for things like hotels and taxi etc, a few other phrases, a few greetings. So it wouldn't be very comprehensive but it would be enough to get me by and then I would probably go down to the Westpac bank in Wollongong, the travel centre and get a bit of New Caledonian money. If they didn't have any there I would go in the city, I always like to have about \$100 of their currency in case you suddenly get in a taxi or something and they say we don't take this.</p>

## Subject 2

(0:01:17.3)	Subject requests Google search for "Wales sightseeing", clicks on second sponsored link "See Wales.com"
(0:01:28.9)	Home page displays vertical options down left hand side of page and picture gallery on right.
(0:01:33.3)	Subject clicks on "Next Page", screen displays further photo gallery pictures. Subject scrolls to left hand side of page and clicks "Quick Guide" under "Welcome heading".
(0:01:56.8)	Screen shows table.
(0:02:02.6)	Subject returns to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links page. Subject clicks on 4th sponsored link, while waiting for link, subject scrolls to bottom left to search for Windows.
	<p>Is there a page I can get to where I can write notes if I want to and cut and paste and things like that? So if I find something I can drop it down.</p> <p><i>You like word?</i></p> <p>Yes, word.</p> <p><i>There should be a word icon down the bottom on the left. Not there, if you hit the start button, all programmes, Microsoft office. There you go.</i></p> <p>So across here word.</p> <p><i>There you go. Would you like a piece of paper to write on.</i></p> <p>Can I print this out when I finish or not?</p> <p><i>yeah I think it should work to that printer.</i></p>
(0:02:55.6)	<p>Subject clicks on "Start" key; "All programmes", Microsoft Office; Office Word 2007 opens up on screen.</p> <p>Subject moves Windows page to right of screen.</p>
	<p>So there it is. If I find something I can just drop it down or cut and paste the address at the top.</p> <p><i>When you click on that, that will disappear, you can always get it by just clicking on that to bring it back up.</i></p> <p>Thank you.</p> <p><i>If you just talk about what you are doing as well, what your expectations are.</i></p>
(0:03:52.9)	<p>Returns to Google, subject clicks on X button top left of screen as Google sponsored site taking too long.</p> <p>Subject clicks "Back" option, screen returns to Google sponsored links.</p>
	<p>This is taking too long, probably not what you want to hear.</p> <p><i>I want to hear exactly what you are thinking, if you can just talk out loud.</i></p> <p>I am thinking it needs to hurry up, it is probably not slow, it is just slower than what I am use to, I could press back, and that might work. There it is, that's better.</p> <p>I will go to this one Sightseeing in Wales.</p>
(0:04:34.1)	Subject selects "Sightseeing in Wales" sponsored link. Screen shows "World Travel Guide" home page. Screen shows various vertically listed options for sightseeing in Wales.
	<i>if you could talk about why you are selecting it for example?</i>



	I don't know, it's just one there for a minute, I am just looking to see if there is something that has information that might be useful to me, no particular reason. Okay destinations, flights, tours, sightseeing, so its just sightseeing I want because we will hire a car and I need to find places that I think might be a good place to base ourselves for a day or two. Beaches I will look at the beaches.
(0:05:18.0)	Subject clicks on "Beaches" option, screen displays information on Beaches in St David's. Subject scrolls down page. Returns to top left of World Travel Guide home page and clicks on "Getting there and around" option listed down left hand side.
(0:05:36.9)	Screen depicts travel options, car, train etc. Screen also displays generic advertising for visiting Britain.
	It's going to take me while to talk until I feel comfortable talking to myself in front of people. <i>I am part of this I guess.</i> yeah like I talk to myself non-stop but you kind of feel a little bit mmm. <i>Here you have a licence to do it, that's what we want you to do.</i> I know it will come.
(0:06:05.8)	Returns to top left of World Travel guide home page and clicks on "Travelling in Wales" option. Screen displays options for travelling by road and rail together with travel deals.
	Not that's not what I want. I will go to ..... Changing to Cornwall sights
(0:06:29.6)	Subject returns to Google sponsored links page and enters request for search on "Cornwall Sightseeing" and clicks on sponsored link "Cornwall Holiday".
	now to see places to visit, okay, the Eden project was something that was on my list, Cornwall.
(0:06:37.4)	Screen shows "Cornwall by Cornshlight" home page. Screen displays multiple sites of interest listed vertically.
	Cornwall accommodation
(0:06:50.6)	Clicks on "Cornwall Accommodation" option,
	okay, I will look at some B&B's.
(0:06:59.9)	"Bed and Breakfast". Multiple options displayed vertically on screen with small pictorial images for each. Scrolls down page.
	I don't want a B&B that's really high class, I want one a little bit off the beaten track because they are a little bit cheaper and it's not about the accommodation, it's about what we see and do while we are there. There is £65 a room, that's okay,
(0:07:35.3)	Clicks on one bed and breakfast option based on price, screen shows images and details of B&B. Scrolls down page.
	so let's go there. Luxury, I want accommodation with twin beds or double bed and our own bathroom, obviously brekkie included. So it's got restaurants and inns within easy reach, I have read about Padstow and it looks an interesting place. I would like a map.
(0:08:48.2)	Clicks on "Email" option and screen opens with fields to be filled in, including



	name, address and dates required. Subject returns to top left of screen and clicks "Back" option. Screen returns to Bed & Breakfast page. Scrolls to bottom of page, clicks to return to "Cornwall by Cornshlight" home page.
	No that's an e-mail, wrong one. Something with a home page, there it is.
(0:09:07.5)	Screen displays options down left-hand site of page for further searches, subject selects "Cornwall Coast" option.
(0:09:30.6)	Screen displays small and busy listings of places to see in two columns vertically down page. Returns to top left of screen and selects "Back" option. Screen returns to "Cornwall by Cornshlight" home page.
	I seem to be going around in circles at the moment.
(0:10:09.0)	Clicks "Places to See" option on left of page. Screen displays small and busy listings of places to see in Cornwall. Clicks on "Cornwall Towns and Villages" page. Screen displays multiple options. Subject scrolls down page.
(0:10:14.4)	Clicks on "Bed and Breakfast" option, screen displays multiple B & B options. Subject selects "Newquay Bed & Breakfast".
(0:10:37.9)	Screen displays pictures and information on the hotel and its surrounds. Subject scrolls page.
	This one has private parking; full English breakfast and only half an hour from the Eden project, parking. Location map is always good.
(0:11:17.5)	Clicks on "location map", screen shows "Bing Maps"; a large map of area which subject can zoom in and out of. Subject zooms in and out of map of UK.
	Now I am looking at the map, I forget what I was looking up. I can't get out of there, what do I do? <i>To open a new window just close it or go back to the.</i> I want to look at two windows at once, can I do that, on my one at home I can have that and the other one I can float them backwards and forwards, sorry.
(0:12:53.2)	Subject returns to top right of screen, clicks 'minimise' icon, screen now displays half Desktop and half Bing Map of GB. Researcher positions cursor at bottom of screen to minimise Bing maps further. Using cursor on edge of Bing maps, moves screen to right. Clicks on Internet icon on desktop and opens a second screen, UOW Home page. Subject shifts UOW window to right so that now two sites are displayed on screen, UOW and Bing Map of GB.
	<i>That's fine, you need to minimise that and then we get the other one which is, no that's not it, what we need to do is open another window, another one of those.</i> Now I can have two. Now I have to get back to what I was onto. <i>Which was?</i> I don't know I think it was Cornwall. Cornwall Sightseeing, that's it the Eden Project one.
(0:13:40.5)	Subject clicks in URL for navigation to "Cornwall Sightseeing", and clicks on first Google sponsored link "Cornwall by Cornshlight.com". Screen displays various further sites of interest listed vertically down page with small diagrams attached.

	Thank you.
(0:13:47.6)	Scrolls halfway down page and clicks on a link to "Eden Project Cornwall". Scrolls down page looking at text and images.
	So you can get tickets to the Eden Project, fast track, the same price as normal but it doesn't tell you what normal is, I haven't found that yet, here it is, opening times, okay, there is another page somewhere.
(0:14:48.5)	(0:14:48.5) Subject clicks at top of screen to recover Word page opened earlier. Screen now displays "Cornwall Cornshlight.com as left half the screen, Bing Maps bottom right quarter of screen and behind this, the Word document subject opened up at beginning of interview in order to take notes while researching trip to UK.
	So if I drop down the opening times, Wednesdays are busy, quieter, at this point I am not sure what day I will be there. End of the week quieter, I will say Sunday.
(0:14:48.6)	Subject clicks on word document which moves to front and send Bing Maps to back. Subject types info re Eden Project in word.
(0:16:02.2)	Subject returns to Cornwall site and scrolls back to top of page. Scrolls to bottom of page and clicks on "Places to Stay Nearby".
	I like to try and suss out the price of places and then work out which ones are going to fit best into the budget.
(0:16:42.5)	Screen displays various accommodation options listed vertically.
	Places to stay nearby.
(0:16:53.3)	Clicks on minimised Bing Maps which comes to front of screen and send word document to back. Using mouse, subject moves window containing Bing Maps to top front left and enlarges it so the Cornwall accommodations site is obscured behind Bing maps page. Moves Bing Map page back to right of screen. Cornwall Accommodation page and map of Cornwall now share the page.
(0:17:11.9)	Clicks "Back" in Cornwall Accommodation and screen returns to home page of "Eden Project".
	I can't work out exactly, I will go back here
(0:17:49.3)	Clicks in URL for navigation to Google. Google home page. Enters search term "The Eden Project" and clicks on first sponsored link requesting "Prices".
	to google and look up the Eden Project because I can find out exactly where Cornwall, when in Cornwall where it is. Prices, to get to the prices.
(0:18:29.8)	Screen displays "Eden project" Tickets and Prices.
	Okay.
(0:18:33.7)	(0:18:33.7) Subject clicks on bottom of screen to bring Word document to the fore. Subject types in Word document. Subject returns to "Eden Project" Tickets and prices page, clicks on "What's Here" tab located at top of page.
	£17.50 per person, what's here,
(0:18:57.8)	Screen displays graphic illustrations of various things to see together with photographs.

	four or five hours to stay there, I didn't realise you needed that long.
(0:19:11.9)	Subject returns to Word page and types in information.
(0:19:23.0)	Subject returns to "What's Here" web page and scrolls down page.
(0:19:28.6)	Clicks on bottom right of page to request further link to "The Core". Subject scrolls down page which shows photographs at top of page and text down the page on "The Core" at Eden Project. Scrolls back to top of page.
	..... gardens available.
(0:20:03.4)	Types information in Word document.
	Interesting architecture
(0:20:18.6)	Returns to web page, top left of screen and clicks "Back". Screen returns to "What's Here" page and back to Google sponsored links page.
(0:20:32.0)	Subject enters search term "Land's End England", search displays options for Land's End. Subject clicks on sponsored link "Land's End, England".
	Land's End in England, it's nearby. It's interesting that it shows Land's End to John O'Groats in Scotland cause last year I was in John O'Groats in Scotland and met people had ridden their bikes all that way. Wow, they really did, just amazing. Land's End is a clothing brand as well.
(0:21:26.6)	Screen displays "Britain Express" home page, text and photos depicting Land's End.
	Not interested in shopping when I go away, there is no point.
(0:21:38.4)	Subject returns to Word document and types information.
	One of my favourite things on holiday is just taking lots of photos, so I guess having my photo taken by the signpost at Land's End is up there. And I am sure there are photos of that on google earth too.
(0:22:30.7)	Subject returns to Land's End web page, scrolls to bottom of page and
(0:22:46.8)	Clicks on link on right hand side of screen to "Barbara Hepworth Museum and Gardens" web site. Selects "photos" tab and gets no result. Clicks other links for descriptive text on area.
	Sculpture garden, that's interesting. No photos, pity. That's at St Ives.
(0:23:15.0)	Subject returns to Word page and types further information on "Hepworth Museum".
	Museum sculpture garden, St Ives. .... Arts Sculptures.
(0:24:16.6)	Returns to "Britain Express Barbara Hepworth Museum and Gardens". Clicks on "Location/Map". Screen shows map. Subject enlarges screen and zooms in on area.
	Actually I might leave the maps till later.
(0:24:42.2)	Subject returns to top left of screen and clicks on "Back" and requests link to "Bedruthen Steps" web page.
	The Bedruthen Steps.
(0:24:55.1)	Subject returns to right of screen to Word document and types further information.
	I saw this the other day and it actually looked really nice,
(0:25:08.1)	Subject clicks on link for further information on Bedruthen Steps,
	a bit like our 12 Apostles. Bedruthen Steps.

(0:25:15.0)	then returns to Word document and types in further info.
	Coastal walk available.
(0:25:46.0)	Subject returns to "Britain Express" page and clicks on further link to "Cornwall Cam" .
(0:26:02.7)	Subject returns to top left of screen and clicks "Back". Screen returns to "Britain Express Bedruthen Steps".
	Not particularly interested in churches.
(0:26:29.5)	Subject clicks in URL for navigation to Google. Google home page, enters search term "St Michael's Mount" and clicks on prompt Google sponsored link "St Michael's Mount, Plan a Visit".
	I want to go to St Michaels Mountain, plan your visit; I guess you have to go at low tide.
(0:27:06.1)	Screen is still split into three open windows; left and front Google sponsored link to St Michael's Mount; "Bing Maps" behind and word document front and right. Left screen displays picture and text "Plan your visit" together with prominent advertising for Halloween Treats at St Michael's Mount. Top left displays further information options listed vertically.
	Oh you can go by foot or boat, okay.
(0:27:14.9)	Subject clicks on further link which provides information on tariff and opening times.
(0:27:17.9)	Subject returns to Word document at right of screen and enters further information.
	£7 admission..... Opening dates
(0:27:47.3)	Subject returns to St Michael's Mount Plan your Visit page to left of screen and clicks on "Opening Dates".
	March till October.
(0:27:54.8)	Subject returns to Word document and types further information.
	Should be okay, 10:30 till 5.
(0:28:19.3)	Subject returns to St Michael's Mount web page and clicks on "Island life today" link, screen shows photo of area together with text.
(0:28:48.4)	Subject returns to web page and clicks for further link, "A Unique Lifestyle" which again shows photo and text relating to St Michel's Mount. Clicks on left hand side of screen to enlarge schematic map of the Mount.
	So it would be good to go there in good weather. Transport links .....
(0:29:37.2)	Subject clicks on further link to "Transport Links". Subject returns to left of page at vertically listed options for further information and clicks on "Black Flag Days".
	A black flag day,
(0:29:49.8)	Subject returns to left of page at vertically listed options for further information and clicks on
	That's when the ocean is to rough you can't get there, maybe if you get there and you don't get back.
(0:30:10.8)	"Things to see and do".
	A platter of Cornish food would be good.

(0:30:28.9)	Subject returns to Word document and types further info.
(0:30:51.8)	Returns to top left of screen and clicks on "Back" Option several times until screen returns to Google sponsored links page for St Michael's Mount". Subject scrolls down page,
	Web cams often show interesting views of places
(0:31:22.0)	Clicks on sponsored link to webcam. Returns to top left of screen and clicks "Back" option, screen returns to Google sponsored links page, scrolls to bottom of page to further links and clicks on "St Michael's Mount Attractions".
	Probably night time, there are lights. St Michaels mount attractions .....
(0:31:42.8)	Screen displays sponsored links and subject clicks on further link to "Karen Brown's World of Travel" home page,
	Travellers' photos.
(0:31:52.2)	Screen displays text down left hand side of page and a location map on right. No travellers' photos.
(0:32:08.3)	Subject returns to top left of screen and clicks "Back" button, screen returns to Google sponsored links to "St Michael's Mount Attractions". Subject enters Google search "Photos of St Michael's Mount" and clicks on prompt link to "Web shots American Greetings Member Photos" home page.
(0:32:32.6)	Screen depicts photos of St Michael's Mount on left hand side and flashing advertising is displayed on top of screen and other advertising on right of screen.
	Sometimes it's nice to look at photos that people have taken, just to get an idea of .....
(0:33:07.3)	Subject clicks "Next Page" and more photos appear on screen together with different advertising top and right.
	what's available.
(0:33:19.0)	Repeats action, "Next Page" depicting more photos and more advertising.
(0:33:34.2)	Returns to top left of screen and clicks "Back" option several times until screen returns to Google sponsored links page. Subject clicks on first sponsored link photograph of St Michael's Mount, "Places of Peace and Power".
(0:33:46.9)	Screen depicts photo of sunset and text. Subject scrolls down page.
	That's a stunning sunset. I didn't realise there was a connection between St Michaels Mountain and St Michelle in France.
(0:34:45.9)	Returns to top left of screen and clicks "Back" option. Screen returns to Google sponsored links page. Subject clicks on fourth sponsored link "Britain Express St Michael's Mount Photo Gallery" page.
	More photos to look at, I love the sunset ones, the colours, and low tide.
(0:35:13.7)	Subject returns to top left, clicks "Back" Option, screen returns to Google sponsored links page. Subject clicks on link further down page "Bugbog St Michael's Mount Pictures".
(0:35:25.3)	Search product displays photos of St Michael's mount with black background. Subject scrolls down photos. Returns to top left and clicks

	""Back" option. Screen returns to Google sponsored links page.
	It's good they are a better size, easier to look at. It's much higher than it looks. Often get a feel for the place by looking through these photos.
(0:36:21.2)	Scrolls to bottom of page and clicks on sponsored link "TravelPod" home page, St Michael's Mount.
(0:36:29.4)	Pop up box appears in foreground inviting user to subscribe to free newsletter, page contains text and images/map St Michael's Mount. Scrolls down page. Photo gallery.
	The boat doesn't always run, so you have to be careful with the tide. I think I might try and time that for low tide, so I can walk across.
(0:37:26.4)	Subject clicks on "Places of Peace and Power" site, subject moves to right of screen. Enlarged photo on left of screen. Clicks on "forward" option on photo, next photo appears on screen. Clicks Forward and back through whole photo gallery. Clicks "Back" option.
	That's a better size. Most southerly café in England, cute. I take photos of flowers too.
(0:38:26.5)	Closes off pop up box inviting subscription to newsletter, clicks Back, clicks in URL for navigation to Google.
	No, I done that wrong, I need to go to google. <i>Top right.</i> Get me straight there, thank you. Google and what I want is I go travel forum
(0:39:09.7)	Enters search term "Travel forum Land's End". Screen returns to Google sponsored links and clicks on prompt link to "Tripadvisor.com" homepage, "Visiting Land's End".
	and put in Land's End it should take me to TripAdvisor, here it is TripAdvisor.
(0:39:31.5)	Screen displays photo of Land's End together with many further search options. Clicks on Main Photo, pop up box appears inviting user to provide email address. Closes pop up box. Subject scrolls to left of screen to vertically listed options and requests link to "Travel Forum".
	TripAdvisor always has interesting information, Travel forum .....
(0:39:44.5)	"Land's End Travel Forum" page on screen with options to Plan a trip. Subject returns to left of page and clicks on "Things to Do" option.
	nothing there, things to do. Maybe I should go to Cornwall; it might give me more information.
(0:39:52.9)	"Find the Best Things to Do" opens on screen. Page shows options for further links together with static advertising on left and right of screen.
(0:40:08.2)	Subject returns to top left of screen and clicks in URL for navigation to Google, Google sponsored links on screen, subject enters "Travel forum, Cornwall". Clicks on first sponsored link "Virtual tourist.com" home page.
	Whoops I spelt it wrong. Virtual Tourist is OK too
(0:40:21.4)	Search product displays comments from travellers, subject scrolls down page; clicks on link to "St Ansell to Penzance".
	OK
(0:40:37.7)	Scrolls down page.

	Time travelling from one place to another. Suggesting if you go to St Michaels Mount to take care with the tide and there is lots of traffic heading in that direction.
(0:41:05.6)	Returns to top left of page and clicks "Back" option. Screen returns to "Virtualtourist.com" home page. scrolls down page;
	Rick Stein has a fish and chip shop down in that direction.
(0:41:21.1)	clicks on "Rick Stein's Fish and Chip Restaurant" link, scrolls down page.
	Rick Stein has a take away café, that would be interesting.
(0:41:41.7)	Subject restores Windows document at back right of screen and types information.
	Pasties, cause you have to have pasties when you are in Cornwall.
(0:42:19.3)	Clicks on "Virtualtourist" site and sends windows document to back. Scrolls up and down page perusing various vertically listed places of interest together with a brief para of text assigned to each.
	Some suggestions for a B&B,
(0:43:01.9)	Clicks on "Suggestions for B&B" link, scrolls down page. Highlights url address in text, copies and pastes into Windows document.
	..... never heard of Smooth hound before. <i>Are you trying to cut and paste?</i> Yes <i>Control C to copy and control v to paste.</i> That's alright, don't mind me
(0:44:07.3)	Subject sends Word document to back, returns to "Suggestions for B&B" site, scrolls to top left of page and clicks on "Back" option to "Virtualtourist.com".
	OK
(0:44:19.3)	Returns to top left and clicks "Back" to Google sponsored links page.
	I'll look at that one later. That's back to 2007, too old.
(0:45:08.4)	Subject clicks on sponsored link "Cornwall Forum, Tripadvisor" home page. Screen displays "Tripadvisor Cornwall Travel Forum", subject clicks on "Where to stay" link. Scrolls down page,
	TripAdvisor, where to stay, Nope, we have family
(0:45:25.7)	Returns to top left and clicks on "Back" option. Screen returns to "Cornwall Travel Forum". Scrolls down page, clicks on link to "National Trust versus English Heritage".
	National trust verses English heritage, don't know whether to go with one of those passes or not.
(0:45:44.3)	Screen displays National Trust buildings listed vertically, scrolls down page;
(0:46:31.2)	Restores Windows document to the fore and enters information.
	It's important to look that up at a later date; it's been mentioned a few times.
(0:46:41.0)	Returns to Heritage listings web page. Three open pages tiled on screen; "Cornwall Travel Forum front; Windows document and "St Michael's Mount" link at the rear. Scrolls down Heritage listings and requests further link to "British Heritage Pass".
	The British heritage pass, let's see what's involved in that.



(0:47:31.8)	Subject clicks on option on left of screen "National Trust properties by region". Screen shows various Heritage properties in different regions of UK,
	By region, is what we are interested in?
(0:47:53.7)	subject clicks on "South West England" link; highlights and
	Southwest. I haven't seen the Harry Potter films, so that doesn't interest me, I have been to the Roman Baths, I have been to Stonehenge. Tintangel.
(0:48:58.1)	Clicks on further link to "Tintagel Castle". Screen shows photo of Tintagel Castle together with text information and options for further links.
	Free.
(0:49:19.3)	Subject returns to top left and clicks "Back" option, screen returns to "Exploring South West England",
(0:49:30.1)	Subject clicks on left hand link to "Exploring London and South East England".
	Southeast. I don't think so, that's all castle, I am not interested in that. I am going to look at books. <i>Would you like a guidebook?</i> I don't know, what have you got? <i>Guidebook?</i> Guide book. It's a very new one. <i>Bought it yesterday, I couldn't find the right one in the library.</i>
(0:50:45.2)	<b>Lonely planet Great Britain Guide book</b>
	Okay interesting to know, when we went to Dorset a couple of years ago, it was really frustrating just that you would be driving along, or one thing that's frustrating to see hedges on the side of the road and you couldn't see scenery and then you go through a little town and you would want to stop or wander but you couldn't because there were park and drives and if you didn't park outside of the town and take a bus in, you couldn't stop and you didn't know you needed to stop until you went through it to see. So it would be really nice if somewhere it told you where there were park and drives and so you could see. (0:52:04.7) Camel trail, camel ride, there is a cycle along the old disused railway track. (0:53:06.6) Via boat trips (0:53:55.8) Accommodation list, expensive compared to others that I have found. (0:55:15.7) You make sure you need a specific map. Cornwall to go and look at the information, so that you can see where something is in relation to something else and its not there. (0:56:37.1) In West Cornwall there is a place called Mousehole (0:56:48.4) There is a map. (0:57:20.5) Events (0:58:56.0) Lots of wild flowers in summer, pretty. (1:00:48.7) Stay in Penzance for £85 per night, no that's single, £95-125, I will find something cheaper than that. (1:01:29.0) diagram 5. (1:02:55.3) I guess that's right next door. (1:04:01.2) mid range accommodation.



	<p>(1:04:57.8) That would be interesting to look up the photos; the boats and it would show their houses.</p> <p>(1:07:20.3) 125.</p> <p>(1:07:38.8) I will have to go to Brighton I have heard so much about it but I would also like to go there because my, a couple of great grandfathers ago were sent out for being naughty. We have got some photos of some of the places where he lived and different things happened, it would be nice to catch up, just to see where I began.</p> <p>(1:08:15.9) <i>I think we might make an end at that point, like I said you are welcome back, cause where you were going at the end, it was great.</i></p>
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## Subject 2a

(0:01:09.8)	Google search for "Wales sightseeing" and clicks on sponsored link "World Travel Guide" home page.
	<p><i>Just talk about what you are doing and particularly what it is about the screen that you like, don't like, because ultimately that's what's under the test, not you.</i></p> <p>The screen?</p> <p><i>Well whatever it is you are looking at, whether you are looking at the screen or a brochure or a book or whatever.</i></p> <p>Okay, I will do my best. In two years I am going England and Wales for a holiday but I haven't really had much time to think about where I am going or what I am doing. I really feel more comfortable on a Mac computer just because it's what I am use too. I am not sure why that didn't come up when I pressed it, there it is.</p>
(0:02:45.5)	Screen depicts picture of rural Wales at top, text relating to Wales sightseeing below. Advertising left and right of screen.
	Okay I am in Wales trying to find something that appeals. I actually prefer countryside and scenery but my
(0:03:13.4)	Clicks on further link "Beaches St David's, scrolls down page, information fields at bottom of page for user to "find tours and transfers".
	husband prefers cities and so I will have a look and see what we can find. I might go back to
(0:04:10.1)	Subject clicks "Back option" and returns to Google search and enters "Travel forum Wales". Clicks on second sponsored link "Trip Adviser.com" home page.
	TripAdvisor, travel forum; Wales, so I can get other peoples' ideas,
(0:04:31.0)	Search product displays vertically listed options, subject clicks on "Wales Forum: Builth Wells Pows" forum page.
	if I can read the writing.
(0:04:41.5)	Screen displays comments by previous travellers. Clicks on "Back" option.
(0:04:56.4)	Screen returns to "Tripadvisor.com Wales Forum". Subject clicks link to "Southern Wales driving itinerary 2011".
	Southern Wales driving itinerary,
(0:05:07.2)	Page displays vertically listed options for sites to visit in Wales. Scrolls down page.
	<p>I am not sure how long I want, basically I want to fly into Manchester, spend a couple of days in Manchester and Liverpool, head out to Wales. Go south for a few days, maybe through the centre, maybe on the west coast, come back into England. Land's End across the bottom and up to Richmond.</p> <p>I still find it really hard to talk to myself. I do it all the time normally; it's just knowing you have too.</p> <p><i>Yeah it is one of the limitations of the sort of laboratory type research.</i></p> <p>I just can't, the whole time I am here, that's what I am aware of.</p>
(0:07:58.5)	Clicks "Next page". Continues to scroll down entries for suggested itineraries.

	<p><i>So you are looking at TripAdvisor for?</i></p> <p>I am looking at Wales at the moment because it's still part of the same holiday; I haven't done any research at home at all in between because I just haven't had a minute with work. the general plan of this part of the holiday is to fly into Manchester, my husband wants to drive England and we have done it on a bus tour and so we thought if we went, we could go in and out of Heathrow but we have kind of done up the middle, so if we fly into Manchester, do Manchester, Liverpool, go out through Wales come down, heads down to Land's End across the bottom and up to Heathrow, we don't have to go anywhere near London, London, you know we have been there twice, we don't have to go into the city as such. Spend the last couple of nights at Richmond because it's really pretty and I like that but I don't even, it's kind of hard because I haven't even sat down to work out how long it's going to go for. Probably two weeks, we have friends in Dorset that we will stay and see but how long we see them depends on what day of the week it is, I would like that to be weekend but that is going to depend because I want to do a tour, a proper tour of Croatia before we go and until I find that tour, I don't know starting and ending dates. So that's where that is going funny.</p> <p>So I am just looking for places that I would like to see, I prefer country side, beaches and scenery type stuff, landscape, my husband likes cities, between us we share it out and it's actually not too bad because often he drags me off to places that I would never go on my own and I am quite happy, I would never go on my own but I am glad I have been. So it works quite well.</p> <p>So I am just seeing what they are saying for Wales.</p> <p><i>So is that top attractions in Wales is it?</i></p> <p>No it's somebody planning a holiday, my family and I will be visiting south Wales at the beginning of April by car and came up with this itinerary and it's about a five day one. It's just got the places but everybody saying he has way too much in it but they are just ideas I think, seeing what people, sometimes you get some really good information on TripAdvisor.</p> <p><i>If you want to cut and paste URL's into a word document, I will email that document onto you at the end of the session.</i></p> <p>Thank you.</p>
(0:11:41.3)	<p><b>Clicks on "Back" option, screen returns to Wales Travel Forum page in "TripAdviser.com", clicks on "Next Page" option, clicks on further link</b></p>
	<p>As I said I am about to book a holiday this afternoon that I have never done like this before. I found one on the back of a shopper docket. I was at a shop that I never go to and I shoved the receipt in my bag and found it and thought that looks good.</p> <p><i>Where is that to?</i></p> <p>Catching the Indian Pacific to Adelaide, three days in Adelaide and then the Pacific Sun back to Sydney. Just for eight or nine days, I thought that looked good.</p> <p><i>Nice and relaxing.</i></p> <p>As I said it's not how I do holidays but Indian Pacific is something that I always wanted to do. Then I looked at and thought I missed it because it was the 29th of October and then I had another look and it was next year and so I rang up and made enquiries about it and it's still available and then I rang my trusted travel agent</p>

	<p>and said I found this holiday and what do you think and she has priced it out, she said we can price those sort of things out for you and she has come up with it a tiny bit cheaper but I would rather do it through her anyway. So I am going to book that this afternoon but I have never done it like that before.</p> <p><i>So the stimulus that got you there, it is not the type of thing that you find on a shopper docket.</i></p> <p>No there is sometimes holiday ones, they are usually short stays but this one because it was the Indian Pacific and that is on my bucket list kind of thing, my husband said why not.</p> <p><i>Good stuff.</i></p> <p>So that's really odd to do it that way I know and not at all the way I usually do them.</p>
(0:14:00.5)	<p><b>"Cardiff forum: Pendragon Tours". Clicks "Back" Option; clicks on "Southern Wales Forum: Beautiful villages of Southern Wales".</b></p>
	<p>Problem with Wales is I can't pronounce any of the words. It's really hard.</p>
(0:14:12.5)	<p><b>Screen shows forum members' comments vertically. Scrolls down page. Subject clicks on "Next Page" option. Clicks "Next Page" option. Continues browsing for activities. Clicks on further link</b></p>
	<p>I actually like staying in the little villages, they are kind of quaint and a fair bit cheaper and you are out of the rat race. .</p> <p>I seem to go round and round in circles when I am here, which is a shame for you.</p> <p><i>No it's not at all. Please what we want to get is just how you do and that's fine and if you could perhaps talk a little bit about what you are doing and why?</i></p> <p>I am just looking to see if I can find something that kind of jumps at me I suppose because I am not sure exactly what I am</p> <p><i>You're just browsing.</i></p> <p>Yeah I am just browsing but I don't know what, chocolate making in Cardiff, that could be interesting.</p>
(0:15:58.8)	<p><b>"Cardiff Forum: Chocolate Making in Cardiff". Screen shows comments by forum members.</b></p>
	<p>Because what I usually do is when I have decided where I am going I write a list of the things I would like to do when I get there. So I think we will go to Cardiff because my husband will want to see that big football stadium place there, so I write down Cardiff and then I put down all these bits that if I have got time I will do. So that when I get there I am not wasting time wondering what to do, I have a list already and even on bus tours we have done lots of bus tours, I do the same thing, I have a list and if you have half a day free, some people wonder around wondering what to do, well I have got my big long list and I can, we will do here, we are close to there and it saves an awful lot of time and I have got some idea what I am doing when I get there.</p> <p><i>So you are just browsing for activities?</i></p> <p>Yes for now.</p>
(0:17:08.3)	<p><b>Clicks on link to "Llandudno Forum" Cable Car". Screen displays Forum members' comments. Scrolls down page. Clicks "Back" option, subject clicks on link,</b></p>
	<p>Castle visits.</p>

(0:17:56.8)	"Wales Forum: A Castle Visit - How long to allow? Screen displays entries by former travellers. Subject scrolls down page. Subject clicks "Back" option, screen returns to "Wales Travel Forum", subject scrolls down page, clicks on "Next Page" option (go to page 5) for further entries by members, clicks on "Next Page" option, screen displays further entries. Clicks "Next Page" option (Page 7). Scrolls down entries, clicks "Next Page" option, screen displays further member entries.
	It's saying Conway castle is the biggest and the best, I have seen it from a distance, I am not sure I really need to go in.
(0:19:27.3)	Subject clicks on link to "Llandudno forum: Fish and Chips". Peruses entries down page. Scrolls to bottom of page, clicks "Next Page" option, further listings of "Llandudno Fish and Chips".
	There are some good fish and chip shops to try.
(0:20:24.6)	Subject returns to top left of screen and clicks green "Back" option several times, screen returns to Google sponsored links page.
	Okay virtual tourist.
(0:20:51.2)	Subject clicks on first sponsored link "Virtual Tourist.com - Wales Travel Forum". Scrolls down page.
(0:21:18.1)	Clicks on "Gwynedd Travel Forum", scrolls down page.
	Can I have another page open at the same time? <i>Yeah sure.</i> How do I do that please? <i>New tab.</i>
(0:21:53.9)	Subject clicks on "New tab" option in Internet Explorer, returns to URL for navigation to Google home page.
	So then I just go back to that one, thank you. Okay got it, okay.
(0:22:17.3)	Requests link to "Map of Wales" and clicks on "Map of Wales - Images".
(0:22:26.6)	Screen displays "The National Gazetteer of Wales" map of Wales broken down by counties.
(0:23:12.7)	Subject clicks on top left of screen and clicks on tab returning to previous search in "Wales Travel Forum".
(0:23:20.0)	Clicks on second tab again to return to Map of Wales site.
(0:23:22.2)	Subject clicks on top left of screen and clicks on tab returning to previous search in "Wales Travel Forum". Scrolls down Forum page.
(0:23:36.0)	Returns to top left of screen and clicks "Back" option. Google sponsored links page for "Travel Forum Wales".
(0:23:45.0)	Subject enters search term "Sightseeing in Wales" and clicks on first sponsored link (again) to
(0:24:12.7)	"Travel World Guide.com".
	I looked at that one before. I didn't like that one
(0:24:18.7)	Clicks on "Back" option, returns to Google sponsored links page. Clicks on second sponsored Google link to "UK Student Life.com" home page.
(0:24:24.1)	Options for various places to visit depicted on screen with photo images,

	<b>subject scrolls down page to "People and Places".</b>
	Smallest house in Britain, it looks no bigger than a toilet. <i>So this is now a particular place in Wales you are looking at?</i> No, it's just people and places. <i>Like I said if you want to open a word document and cut and paste the URL's into it for your later use, that's fine.</i>
<b>(0:25:33.5)</b>	<b>Subject seeks assistance from moderator in opening a Microsoft office word document to take notes. Task completed by moderator.</b>
	I would have to figure out how to do that on this computer, I am so not, I am really worried about pressing buttons on computers because the other night I put a thumb drive into my computer with a whole year six book on it that I have been making all year and a message came up and I didn't know which way to go and I left it for my husband.
<b>(0:25:58.2)</b>	<b>Screen shows blank word document, half page in front of "People and Places" web page.</b>
	<i>Okay, if you want that URL for example, just highlight it like that, Ctrl C, is your copy function</i>
<b>(0:26:06.0)</b>	<b>Moderator shows respondent how to copy url addresses into word document.</b>
	<i>and you go to the document and Ctrl V and there you have got it and I will forward this onto you after the session if you want to continue looking at that, you just</i>
<b>(0:26:25.9)</b>	<b>Screen displays photos of Places and Castles in Wales. Scrolls down page, screen displays images of Welsh food and drink and animals in Wales.</b>
	How do I get that one back again? <i>Word is down there.</i> Sorry, yeah my thumb drive died with this whole book on it that I have spent all year working, it's not good, it was supposed to be printed yesterday. I have got most of it but not quite all, so I am just wary of pressing buttons. In case I ..... Ah that's a sad story about a dog. That would be (inaudible), I like it when there are pictures of what I looking at. Swansea, that looks interesting
<b>(0:28:52.5)</b>	<b>Scrolls down to bottom pf page, back to top of "UKStudentLife.com" page and enters search request for "Links" option.</b>
<b>(0:28:54.5)</b>	<b>Clicks on sponsored link to "Travel/tours/Wales, Swansea" and requests further link to "Gower Coast" which</b>
<b>(0:29:01.4)</b>	<b>shows photographs of Museums, Covered Market, Swansea Castle, Dylan Thomas, Swansea Bay, Swansea University.</b>
	Rarely interested in shopping. I like statues. Is that what I press to open another one. The end one, the very end one. <i>Yes</i>
<b>(0:30:06.5)</b>	<b>Subject returns to top of screen and clicks on "New Tab" option. New page opens on screen.</b>
<b>(0:30:14.4)</b>	<b>Subject enters "Google", Google home page opens on screen and subject enters search term "Swansea Jack" and clicks on Google sponsored link "Swansea Jack Story". clicks on Google sponsored link "Swansea Jack -</b>

	This is Swansea" and
	The snap of the dog, hear the story of. Swansea Jacks story.
(0:30:38.6)	screen depicts "This is Swansea.com" home page which shows text down left side of page and photo images of Swansea Jack on right. Scrolls down page. Text displayed with yellow and black background. Subject clicks on photo of Swansea Jack.
	Wow. That's weird.
(0:33:00.3)	Subject returns to top left of screen and clicks on "Back" option, screen returns to Google sponsored link page. Subject clicks on first Google sponsored link,
(0:33:19.8)	"Swansea - Wikipedia.com". Scrolls to bottom of page.
	When I am looking for pages, when I am looking for information, I like pictures, I like tables and I like big print and easy to navigate. Is that asking too much, like that?
(0:34:23.3)	Clicks on "Back" option, screen returns to Google sponsored link page. Clicks "Back" option and returns to Google search and enters search term
(0:34:43.0)	"visit Britain.co.uk" home page which shows options for England, Scotland and Wales. Subject clicks on search for "Abergavenny and District tourist Association" home page.
	Do remember a song called Abergavenny? You are probably too young.
(0:35:14.7)	Screen shows photos and text describing "Abergavenny, the Gateway to Wales". Scrolls down page. Scrolls back to top of page and clicks on link to
	Because I know a song called that, then I will look up Abergavenny and see what's there, not how you normally do things is it. <i>Why not?</i> Why not, that's right, well that's kind of what I do. <i>That's the exactly the sort of cue that I am looking for, why are you doing something. You know different people have different cues that motivate them to do things. There is no right or wrong.</i> I know, like Wales is a little place and I am sure you can spend six months there and not see it all but if you only got a week or something, you need things to jump at you. Golf but he is not taking his golf clubs this time. We went to St Andrews last year and he played and so he was happy, very happy. It's a beautiful place too, it was interesting because it was somewhere that I would never have gone except my husband wanted to play golf there, but it was beautiful, I just walked and walked and walked and it was really little, I imagined that it was a whole lot bigger but it's a real little place, without golf and a uni there'd be nothing there and it rains every ten minutes. Beautiful.
(0:37:14.2)	"The Abergavenny & District Tourist Association" accommodation page. Clicks on further link to "Bed & Breakfast/Guest Houses Abergavenny".
(0:37:23.3)	Screen shows various accommodations together with star rating. Scrolls down page. Clicks on "Next Page" option. Screen displays further options for accommodation. Subject uses mouse to move front web page to the side, revealing web link at back,
(0:38:06.2)	Map of Wales which is now in the foreground of the screen.

	I can't remember where Abergavenny is. It's down here.....
(0:38:31.8)	Subject clicks on top left of screen to bring third web site to the fore, "Things to See and Do in Wales, Swansea Bay". Subject returns to "Map of Wales" page which now takes full screen.
(0:38:46.8)	Subject returns to "The Abergavenny & District Tourist Association" , sub-category
(0:38:49.4)	Accommodation link by clicking on tab at top left of screen. Subject now has 5 windows open, shown along bottom of screen.
(0:38:52.6)	Subject clicks for further link "Bed & Breakfast/Guest Houses Abergavenny". Scrolls down to bottom of screen showing various B&B options. Clicks on "Next page" option. Scrolls to bottom of page. Clicks on "Next Page" option. Screen displays further B&B options.
	I also like it when accommodation places have websites and you can go straight to them.
(0:40:07.9)	Clicks to request link to "Park Guest House" home page. Scrolls down page. Clicks at top of page on "Tariff" Page. Returns to "Park Guest House" home page.
(0:40:49.6)	Closes link. Screen returns to B&B options in Abergavenny.
(0:41:12.5)	Subject moves window to right of page and then clicks "Close" option.
(0:41:14.0)	Screen returns to "Things to do - England, Wales and Scotland". Subject clicks in Wales for a further link to
(0:41:35.0)	"Swansea Bay" home page. Scrolls down options listed vertically on left side of page and
	Christmas is coming. I would like to go to Europe for Christmas but the extreme winter bothers me.
(0:42:01.4)	clicks for link to "Where to Stay".
	Like the snow at the moment.
(0:42:14.7)	clicks on link down left hand side "Where to stay in Mumbles". Page lists two options,
(0:42:19.9)	subject clicks for further link to "Mumbles Hotels, B&B's and Guest Houses. Accommodation venues listed vertically down page with a photo and brief descriptive text.
(0:42:33.1)	Subject clicks on fourth option. "the Guest House". Scrolls down page.
(0:42:57.4)	Returns to top left of screen, and clicks "Back" option. Screen returns to Accommodation listings.
(0:43:02.4)	Subject clicks on link to "Langland Bay House" which displays photo and text describing the hotel and its tariff.
	£85 per night.
(0:43:13.5)	Returns to top left of screen and clicks "Back" option. B&B listings again on screen.
(0:43:22.5)	Subject clicks for link to "Patricks with Rooms", again shows photo of hotel together with descriptive text and tariff, ratings. Subject closes web page.
(0:43:41.7)	Screen returns to "Things to do - England, Scotland and Wales". Subject clicks on link to



(0:43:44.6)	"Visit Swansea, Mumbles and the Gower Peninsular" page. Scrolls down page. Further links are listed vertically on left of screen and subject
(0:44:04.1)	clicks on link to "What to see and Do".
(0:44:20.8)	Subject clicks on further link to "Browse Visitor Attractions". Scrolls down page perusing options of visitor attractions. Clicks on "The Chocolate Factory" link.
	There is that chocolate factory pulling me in, it must meant to be. Booking required, so it may not happen.
(0:44:52.6)	Subject returns to top left of page and clicks on "Back" option. Screen returns to "Browse Visitor Options".
(0:44:58.0)	Subject clicks on link to "Gower Coast Attractions".
(0:45:11.5)	Clicks on further link to "Gower Coast Adventures.com" home page.
(0:45:18.5)	Subject clicks "Enter Site" option.
(0:45:22.1)	Clicks on "Gower Gallery". Screen shows photo of Gower, subject clicks bottom right of picture "Next". Screen shows further photo. Clicks bottom right of picture "Next". Screen shows further photo. Clicks bottom right of picture "Next". Screen shows further photo. Repeats action, shows next photo. Repeats all way through photo gallery.
(0:46:02.2)	Scrolls to left hand side of page to vertically listed options for links within the "Gower Coast Adventures" site.
(0:46:20.7)	Returns to left of screen page to vertically listed options and clicks on first option, for link to "Gower Coast Adventures" home page.
(0:47:02.6)	Returns to top left of screen clicks "Back" option.
	<p>You know what page I am on, don't you?</p> <p><i>Yes that's all recorded.</i></p> <p>Cause I quite like that website because it was easy to find and it had photos and you could find the information.</p> <p><i>Do you want to put that on your list, you just click on the URL, which is the name of the window at the top, click on that, ctrl C open a word document, which is down the bottom, then Ctrl V.</i></p>
(0:47:39.0)	Subject clicks on URL, right clicks, Ctrl C. Scrolls to bottom of screen and restores "word document". Returns to URL and copies address, Ctrl C, restores Word document and clicks Ctrl B to paste URL address into Word page.
(0:48:50.5)	Subject scrolls to top right and clicks "Minimise" button. Screen returns to "Gower Coast Adventures" home page.
(0:48:55.7)	Returns to top left and clicks "Back" option, then top right of screen and clicks on "Close" option.
(0:48:59.0)	Screen returns to "Places to see and Do in England, Scotland and Wales" home page.
(0:49:03.6)	Subject clicks in "Wales" box for further link to
(0:49:15.0)	"Brecon Beacons National Park.com" homepage. Scrolls down page and clicks on photo link "Webcams around the park".
	I like webcams too.

(0:49:49.1)	Clicks on sub link "Watch days from the past week". No images are displayed as subject.
(0:51:03.6)	Clicks on tab at top of page, "Things to Do and See". Clicks on link to "Walks and Events".
(0:51:12.5)	Scrolls down page. Clicks to return to "Things to Do and See".
(0:52:00.9)	Scrolls page and requests further link to "Brecon Beacons National Park Join our mailing list".
(0:52:20.1)	Screen shows fields for user to enter on left and "Brecon Beacons Tourism Actively working Together" on right of page. Subject scrolls down page. Various photos and text listed vertically down screen. Scrolls back to top of web page and clicks on Locational map link.
(0:52:53.5)	Page shows map of area with tags showing all tourist destinations and things of interest and these are listed vertically down right hand side of page. Subject scrolls down list, clicks on icon at bottom of page
(0:53:41.8)	"Attractions". No result from inaccurate click
(0:53:47.0)	Subject highlights on various markers on map, and pop boxes appear.
(0:54:05.7)	Subject clicks on "Brecon Mountain Railway" link. Scrolls down page, photos of railway and descriptive text on screen.
(0:54:32.8)	Subject clicks on menu at right hand side of page "Dan-yr-Ogaf, The National Showcaves Centre for Wales". Screen depicts photos together with further links, contact details etc.
(0:55:19.2)	Clicks on tab on right hand side of page "A day out in Brecon". Scrolls down page.
(0:56:09.1)	Clicks on tab on right hand side of page "The Play Barn at Brynich".
(0:56:22.0)	Clicks on tab along top of web page, "Shops and Galleries". Scrolls down page with photos and descriptive text of venues. At bottom of page, subject clicks on
(0:56:51.0)	"Photography tuition - check availability" option. Scrolls to left of web page and clicks on link to
(0:57:21.0)	"Welcome to Photography Tuition" home page. Screen depicts photos and text with black background.
	It would be lovely to do a photography course in Wales.
(0:58:13.6)	Returns to top of web page and clicks on horizontal tab "Photography Tuition Charges".
(0:58:33.0)	Returns to top of web page and clicks on horizontal tab "Photo Gallery".
(0:59:43.3)	Subject returns to top of web page and clicks on horizontal tab "Will Lewis - Photography Tutor". Scrolls down photo gallery. Returns to top of page. Subject clicks on horizontal tab "Photography tuition".
(1:00:43.1)	Scrolls down page scanning photographs. Returns to top of web page and clicks on horizontal tab
(1:01:27.8)	"Photography Tuition - Suggested Itineraries". Scrolls down page scanning photos. Returns to top left hand side of screen clicks "Back" option to
	I like that website and it would be interesting to try and fit that into a holiday.
(1:02:11.4)	"Welcome to Photography tuition" web site. Scrolls down to bottom of screen

	and restores Word document. to front half of screen.
(1:02:17.6)	Subject clicks in URL, Ctrl C, pastes URL address in Microsoft Office document. Sends Word page to back.
	That looks lovely.
(1:02:42.5)	Returns to "Welcome to Photography tuition" page and clicks on horizontal tab
	To actually do a photography course while you are on holidays and seeing out of the way places would be fantastic, I would love that.
(1:02:54.1)	"Charges". Screen displays Photography tuition Charges.
	I don't know if you got anything out of this day but I am really happy now.
(1:03:14.5)	Subject scrolls to top right hand side of web page and clicks "Close" button. Screen returns to "Photography tuition".
	That appeals to me. Bring around the holiday so I can do it. Holiday has been put back a year this one, unfortunately, it's a shame. <i>More time for anticipation.</i> No I wanted to go, not next year, we have a holiday booked in March but I wanted to go the year after but the time of year I wanted to go is August/September, but the London Olympics are on and it's not a good time to be anywhere near that part of the world, so I have to put it off until the next year. But I just don't think, I mean not that I am going to London but I think its silly go anywhere near there. <i>It won't just be London.</i>
(1:04:04.1)	Subject scrolls to top of screen clicks on "Back" option.
	No that's right, so it's a bit silly, so I have had to put it off, never mind.
(1:04:19.7)	Clicks on link to "Paddles and Peddles" page within "Brecon Beacons tourism.co.uk" web site.
	That looks good too, my husband can paddle me down the river.
(1:05:14.7)	Clicks in URL and copies web address. Scrolls to bottom of screen and clicks to restore Microsoft Office document. Pastes URL address in word document. Minimises word document.
	I can even do this now, I am getting somewhere.
(1:05:34.9)	Returns to top left of screen and clicks "Back" option, returning to "Activities" page.
(1:06:11.1)	Clicks on "Back" option. Page returns to "Brecon Beacon tourism" page. Clicks back repeatedly, retracing her steps through the "Brecon Beacon tourism.co.uk" site.
	Maybe it's easier to start a new one.
(1:06:33.2)	clicks on "New Tab" option. Clicks for navigation to Google. Enters search term "visitwales.com" and clicks on first sponsored link to
(1:07:05.1)	"UK holiday and short break destinations in Wales". Scrolls down to bottom of page and clicks on link to "Search Attractions".
	It's slow sometimes isn't it? <i>Sometimes.</i> I am so happy with that photography site, that's good. It may never happen but I think I will try for it. I sat around while my husband played golf that's the least he

	could do. Well I spent a week in St Andrews while he played golf. He played at St Andrews and the first two holes were sunshine, the next two rain and then it cleared up. It's like that all the time. There is no point even looking up weather at the time of year you are going because weather these days changes dramatically.
(1:09:26.4)	Screen displays "Server Error in Application".
(1:09:36.5)	Returns to top left of screen and clicks "Back" option. Clicks for further link to "National Parks".
(1:10:11.0)	Areas of interest are listed vertically in red down left of page, subject clicks on "South Wales Valleys" option. Photos and descriptive text of areas of interest displayed, subject clicks on link to "Wales 1000 things - View Stuff".
(1:11:26.0)	Scrolls to top right hand of web page and clicks "Close" option. "South Wales Valleys" page is now displayed on screen.
(1:11:46.1)	Subject again clicks on "Wales 1000 things - view stuff" web link. Screen shows photograph of people and fungi!
(1:12:21.3)	Subject clicks "return to previous view". Returns to top left of screen and clicks "Back" option.
(1:12:27.4)	Scrolls to top right of web page and clicks "Close" option. Screen returns to "Brecon Beacon Tourism.com.uk" site.
	That's an odd one because I clicked on Wales 1,000 things thinking it was giving me things to do but it was photos, single photos.
(1:12:59.8)	Subject clicks on link "Wales Cymru Accommodation" Screen shows tabs along top of screen and vertically listed options for Regions of Wales; Things to do; Accommodation; About Wales and Brochures.
(1:14:00.2)	Subject scrolls to top right of web page and clicks "Close" Option. Screen returns to "Wales Cymru Where to now?" link. Scrolls down page to Vertical listings under "Areas" and clicks for link to "Wye Valley and Vale of Usk".
(1:14:24.1)	site displays photo and text descriptions of areas of interest, subject clicks for further link to
(1:14:40.6)	"Skirrid Mountain Inn.co.uk" home page. Left hand side of page displays vertically further links, subject clicks on
(1:15:03.2)	"Accommodation" button. Screen shows photos of rooms in hotel together with Tariff.
(1:15:17.8)	Subject returns to left of screen and clicks on "Ghosts" button. Scrolls down reading text on page
(1:16:17.5)	Returns to top right of screen and clicks on "Close" button. Screen returns to "Things to do in the Wye Valley".
(1:16:33.8)	Subject scrolls to bottom of page and clicks on link to "Coastline and Beaches".
(1:16:58.7)	Subject scrolls to bottom of page and clicks on "Useful Links" to search
(1:17:08.7)	"Flickr.com" clicks on photo image requesting link to Photo Gallery. Full screen page photo with gallery of other photos shows horizontally along bottom of page. Subject clicks on slideshow of images.
	I have got that at home not here.
(1:19:14.5)	Clicks in URL and copies web address; clicks at bottom of screen to restore

	Windows document, and pastes copied URL address into Word document. Minimises word document.
(1:19:24.1)	Screen returns to earlier photo gallery slideshow.
(1:19:27.6)	Subject returns to top right of screen and clicks "Close" button.
(1:19:28.7)	Screen returns to "Wales Cymru to do" page and subject clicks on further link to "Wales top Ten". Clicks on link on page
	Millennium stadium that's the place he wants to go.
(1:19:48.9)	Screen displays "Site Maintenance" message.
(1:19:51.7)	Returns to top right of screen and clicks "Close" option.
(1:19:57.6)	Clicks on link to "Hay Festival, Hay-on-Wye". Screen displays horizontal tabs at top of page, subject clicks on "Arts and Craft".
	<i>You can check out the Wallabies tour schedule for that year.</i> Thank you. <i>If you want to do your photography you have to give him something.</i> He had his week of golf. No I go to all these places, we have done Lords, we have done Wimbledon, just tours of them. They are actually, I mean I am not into sport but they are actually really interesting to go and look at behind the scenes of some of these places.
(1:20:46.7)	Scrolls to left hand side of web page and clicks on vertically listed option
(1:21:00.1)	"Getting to Hay-on-Wye" which depicts a road map together with options on getting there by car, rail or bus.
(1:21:28.2)	Subject returns to vertically listed options at left of page and clicks on link to "further Information".
	I like reading trivia stuff, this Haye-on-wye, however you say it is twinned with a place in Belgium and also Timbuktu in Africa, it's nice to know there really is a place called Timbuktu.
(1:22:01.9)	Subject returns to top left of screen and clicks on "Back" option. Screen returns to "Arts and Crafts".
(1:22:06.4)	Subject clicks "Back" option. Scrolls to top left of screen and clicks on "Close" option.
(1:22:12.1)	Screen displays Wales Cymru Wales top 10" web page.
	Bog Snorkelling, My God.
(1:22:17.2)	Subject clicks on link to "Green Events". Clicks on left hand vertically listed option "forum". "Green Events Forum" displayed on screen. Subject clicks for link to
	Bog Snorkelling, I don't plan on doing it but I will check it out. A whole photo covering the pictures. Who would come up with something like that.
(1:23:06.8)	"Photo gallery". Opens photo gallery. Page displays 40 small photos while the right hand side of page remains blank.
	Can you see, my goodness. All right, what I don't like about this one, the photos are too small, I can't get them big enough to see.
(1:23:40.0)	Subject returns to top left of screen and clicks "Back" option.
(1:23:49.0)	Screen displays small photos. Subject double clicks on one image to enlarge.
(1:23:54.8)	clicks "Back". Screen returns to 40 small photo images, subject double

	clicks on another to enlarge. However, screen displays same small image surrounded by blank space.
	(Inaudible) why would you do that?
(1:24:24.1)	Subject clicks "Back" option. Screen returns to 40 small images.
(1:24:26.9)	Subject double clicks on another image to enlarge, screen depicts small photo at top left of screen.
(1:24:37.2)	Subject clicks "Back" option. Clicks on "Close" option at top right.
(1:24:59.1)	Screen returns to "Wales top ten". Subject closes all earlier tabs.
	<i>Would you like to call it day there</i>

### Subject 3

(0:00:45.7)	<b>Task specification by subject</b>
	I want to know the flights from Sydney to Anchorage.
(0:00:51.3)	<b>Google search for "Flights Sydney to Anchorage" Subject scans Google sponsored links and clicks on sponsored link</b>
	I usually don't look at these ones on the right, I just look at these ones here. <i>Why is that Jeff?</i> They pay for these and I just out of habit I guess, go to these have a look if there is anything here that's more direct, then I might end up going over here to one of these. Personal, I guess, personal opinion. I am dropping down a couple, mainly because of what the first line says on them and this one says 25 airline deals which may give me a choice.
(0:01:44.4)	<b>"Travel.com - Cheap flights from Sydney to Anchorage".</b>
	And it is an Australian one. I don't like their choice of airline though, Delta, China Air, okay
(0:02:05.7)	<b>Subject clicks back to return to Google search and enters search term "Best flights" and clicks on sponsored link</b>
	once I see something like that I think that's not terribly user friendly, I have a look at some sites that I might know and I can't see them. So that was a dead end.
(0:02:36.3)	<b>"Bestflights.com.au".</b>
	I will go into bestflights.com.au, I am going from Sydney
(0:02:48.8)	<b>Subject enters fields covering to and from destinations, dates. Screen displays various flight options listed vertically with prices listed on right hand side. Subject scrolls down page looking for direct flight.</b>
	and I am going to depart, I will go for April but I will put 2011, its April 2012 we are interested in, to select country, United States. Actually I think I will probably have to go to Vancouver and so I would like to go Vancouver rather than the united states, so Canada, Vancouver which is on the west, returning I will just make it a month, economy, no preference and I usually just go one adult and so I can just compare the fares because I am not planning on booking and so I am not worried about space, I just want to know a price per person. So it's always the first part, Delta, I am sure Canada Airlines goes there. This goes via Los Angles, I don't want to do that, and I want a direct flight. Air NZ goes via LA, Air Canada, there is Air Canada, and I am looking for direct flight. They all so far seem to go via LA, I was quite sure that they go via, Vancouver direct; anyway I now know their price. They all seem to be about \$2,200 including the taxes; you have to be careful of the taxes.
(0:05:02.2)	<b>Clicks on "Back" option, returns to Google and enters search term "Air Canada.com" home page.</b>
	I am getting out of that site and I am going to Air Canada. Okay to their own website,
(0:05:19.4)	<b>Screen displays field for subject to complete on destination, dates etc. and</b>



	clicks to request flights.
(0:05:50.1)	Screen displays tabs for Flights, Hotels and Cars. Subject clicks on "Flights" option and enters requested fields for flights to Vancouver, dates, etc. Screen displays "processing", then page opens with
	They want my country; city I think is the easiest way, from Sydney going to Vancouver. One reason I want to go to Vancouver is that they have cruise ships or other ships that go up to the inside passage. Go April again and return date May, one adult, one country, I am flexible with my dates, lets search. So it's normally cheaper sort of air site place and I know roughly what the price is going to be but I will see if have got a direct flight with Air Canada,
(0:07:00.0)	flight options and travel dates for Air Canada flights and listed vertically down page. Subject scans flights. Clicks on dates he wishes to travel and then clicks at bottom right hand of page "Find flights".
	Okay depart Wednesday, so their prices are dearer, why? Sunday, that's a Monday, so would normally go for the cheaper days, its \$500 difference there and I am flexible with my dates, so depart 14th April return 13th May, that must be that one, oh that's the return at the top. Okay 15th of April, 12th of May, for the sake of the exercise. \$2235, that's really what I looked at looked before at the other site, what I am interested in is it a direct flight.
(0:08:40.2)	Screen displays best flight options for Air Canada giving details of times and costs listed vertically. Subject clicks on first flight option, scrolls to bottom right hand of page and clicks "Continue".
	Direct flights, this one is a direct flight, Sydney Kingsford to Vancouver flights and so there is one, AC034 and it's times, 10:24, so it's 24 hours, so 10:24 in the morning, 10:25 in the morning, that's good for getting to the airport from Wollongong, arrives at 7:30am, that's good because you can sleep over night. Some fares shown require a purchase of a return ticket. So this must be just a single I would say. Now they are operated by united and I don't want to fly united, that's the only direct one that one.
(0:09:47.4)	Page displays return flight options; subject selects option and clicks "Continue".
	Now I am looking to see that the return, so yep. There is a return AC033 2350, now it flies through the night, that is not bad either, and it gets back at 8:15am and I will go for the cheaper fares rather than executive first class, flexible at 8600.
(0:10:17.6)	Screen displays "Select travel options for your departing flight".
	I am happy to know that that's, I can get one there, I don't really want to go ahead any further.
(0:10:35.8)	Subject returns to top left of screen and clicks "Back" option.
	The only other one that I would look is Qantas;
(0:10:42.7)	Subject clicks on Google window at top right of screen and enters a request "Qantas" and clicks on sponsored link
	see if they have a direct flight.
(0:10:51.4)	"Qantas.com" home page. Page displays advertising and tab options for flights, hotels, cars, activities and packages listed vertically down left hand



	side. Subject highlights "Flights" and enters fields for destination Vancouver.
	And I don't know if they do but I am assuming they probably don't,
(0:11:16.0)	Screen opens with Qantas page, "Step 2 - Select your dates". Subject enters dates using drop down calendar. Screen displays flight options. Subject scrolls to bottom right hand of page and clicks "Select Flights" option. Screen displays "Step 3 - Select your Dates".
	Vancouver, April and May flexible with the dates. Go. Yeah as I suspected they are more expensive, however it does look like \$1381 each way, more expensive and may have direct flights. Let's have a quick look to see whether they are direct. No, Sydney to LA then Vancouver. Sydney to LA and okay so I am not interested. So we will go Air Canada to Vancouver, now I really need to get ferries,
(0:12:36.0)	Subject returns to Google window at top right and enters search request for "Alaska Ferries Inside Passage" and clicks on Google sponsored link "AlaskaFerry.com" Home page.
	ferries inside passage. Alaska ferries inside passage. There is an Alaska Ferry.com.
(0:12:58.7)	Subject scrolls down page and clicks on "Click here for a sample package prices" and screen displays
	Click here for a sample package prices for a quick estimate.
(0:13:08.3)	Sample Package Prices vertically listed down page.
	So if you go on the Alaska Ferries, the place near Vancouver is called Bellingham, Skagway is way up north and so I will take that one. So it's a ferry and you can get a cabin on it, there will be two of us, so I will need a two berth cabin and because of the beauty of the place, we will go for an outside cabin. Number of passengers, two, vehicles size, well I don't have a vehicle. So this is a little confusing but no, there it is. Two berth outside cabin, two adults, no vehicles, \$1542 each, that's only one way. So \$1542 each on the ferry. Say from Vancouver to Skagway and that's a two berth outside cabin, that's one way. The reason I am looking at something like this is we have relatives in Alaska and so to catch a normal cruise liner wouldn't work because they go up and back and we need to get off up there and do something. Okay so we know the price,
(0:15:13.0)	Subject returns to top left of screen and clicks "Back" option to return to Google sponsored links page. Enters Google search for "Alaska tours inside passage" and clicks on Google sponsored link to "APT",
	that is a reasonable price to start with and those three or four, I think it was four stops, I am not sure how long that takes but two or three days maybe. So the total cost there would be about \$3,000 return each. Let's have a look what else, Alaskan ferries, and they call it the Marine Highway, Alaskan Ferries. Alaska, I need something like Alaska tours inside passage to see if anyone does tours one way.
(0:16:39.4)	page displays Canada, Alaska and America "New for 2011 - APT's Gold Upgrade". Subject scrolls to top left of screen and clicks "Back" option;
	Let's try that, no APT is more like big touristy things.
(0:16:48.3)	Returns to Google sponsored links and clicks on search for "Holland America Line.com" home page.

	I am just going to have a look at each one of these
(0:16:52.3)	<b>Subject clicks on "Find Cruises" and page displays</b>
	to see if something pops that might be of interest. That boat looks like; it's a seven day inside passage, round trip. Now that's a round trip that might be interesting to compare the cost,
(0:17:07.8)	<b>photos, maps and descriptive text on various cruises listed vertically down page. Subject clicks on map and</b>
	but only just to compare the cost. Seven day liner, it goes from Vancouver to Skagway, exactly where the other went,
(0:17:25.5)	<b>pop up box appears with "dreams on sale" page. Subject returns to top left of screen and clicks "Back" option.</b>
	where does it come back to.
(0:17:29.4)	<b>Screen returns to previous page showing cruise options with price and cabin details.</b>
	That looked interesting because one of Janice's relatives is at Ketchikan. It goes up to Skagway and back only to Ketchikan, that mightn't be such a bad idea. Its departure dates are in May, why don't they go in April, it must be too cold. May 18th is the earliest, which could be a problem. Okay you would want a veranda rather than obstructive view and so you are looking at \$1800 each. Now that is quite considerably cheaper than the ferry with was \$3000 return each, unless I read that wrong, which I will have to check because that is a good price and that \$3000 did seem to expensive.
(0:18:40.9)	<b>Subject clicks "Cruise availability"; options of cabin types and prices are displayed on screen together with a map of cruise ship's route.</b>
	Cruise details I need to get to see where that ship goes, so it's Holland American line. Cause it may even pay to go on the cruise but get off at Ketchikan on the way back without going all the way back to Vancouver. So it goes Vancouver inside passage, Juneau, Skagway, Glacier Bay, Ketchikan, gets in at Ketchikan 10am, departs at 6 on the 19th, so really you do yourself two nights on the boat and so that might be worth it if the price was alright. I am not sure why the prices have all of a sudden gone up now I have gone to one more page; it might be Australian dollars probably.
(0:19:48.1)	<b>Subject clicks on photo of cabin and page displays enlarged picture of room together with schematic drawing of room.</b>
	\$2156, okay double bed, en-suite, nice looking place, it has a generous amount of personal space. It's not bad though, I think I would certainly look at that option,
(0:20:27.2)	<b>Returns to top left of screen and clicks "Back" option, screen returns to "Find cruises" web page. Scrolls up and down page looking at cruise options.</b>
	getting off the ship. It's interesting now that I have come back here because the price is \$1810 again; maybe I was looking at another one, yes. 7 day Glacier insider passage, rrr, September 18th, so that was a high season price. And that's again high season prices. One thing to note, the earliest is May 14th, the earliest is May 14th and it is \$1800 each. Okay. So getting a feel for the cost.
(0:21:24.0)	<b>Scrolls to top left of page and clicks on "Back" option. Returns to Google</b>

	sponsored links and clicks on link to "Alaska Inside Passage Tours" home page which
	Let's have a look what else we have got, inside passage tours,
(0:21:36.1)	depicts wildlife photos, subject clicks on "Articles and Information on wildlife" link and screen opens to
	Alaskan inside passage tours.
(0:21:46.6)	"Marine Wildlife Information for the Inside Passage" showing photos and descriptive text, subject scrolls down page to bottom left and clicks "for detailed information click here" option and screen opens to AlaskaCruiseFares.com" home page, showing "Top 5 reasons to book your Alaska cruise & land tour with us" together with departure cities listed horizontally across page. Scrolls to bottom left of page and clicks for link to "Rainbow Mountain Adventures" home page.
(0:21:57.1)	Page displays photos horizontally across page, subject clicks on photo, scrolls to top left of screen and clicks "Back" option. Page returns to Google sponsored links page and subject clicks on link to "Alaska - cruises Alaska Inside Passage"
	Not exactly sure this is what I want. No. That's Alaskan Ferries. This looks like another cruise liner one.
(0:22:25.7)	Alaska tour and travel packages home page, scrolls down page perusing cruise options. Subject clicks on for detailed information click here and screen opens to
	Alaskan inside passage from Anchorage, that's interesting because that may suit me better, I would like a map. Anchorage to Whittier, to Skagway to Juneau to Ketchikan to Vancouver, ohh, actually that might be okay, so it's one way. Anchorage and you go up to Skagway but where is a map; I would like a map of that. There is no real map. For detailed information click here.
(0:23:18.7)	"Alaska Cruise Fares" with top 5 reasons to book.
	It's a big ship. So Alaska cruise tours, departs from Vancouver, Skagway, Anchorage, let's go Anchorage. Inside passage cruise vacation to Anchorage Alaska. From Anchorage to Vancouver,
(0:23:43.7)	Clicks on "Anchorage" button for Alaska Cruise Adventure Cruise Navigator page
(0:24:05.2)	Clicks on first listed option for cruise from Anchorage to Vancouver, page depicts information regarding cruise and prices, subject scrolls up and down page.
	this may suit. Anchorage to Whittier, yep it goes up to Skagway, so that is probably quite an ideal cruise. Look at that departure dates May, again May is the earliest that they do it and it's an eight day cruise. Rates per person in US dollars. Okay. Ocean views state room, it's cheaper that time of the year because of the weather but still that's what we have to go at that time. Ocean view state room, is probably the one. Ocean view state room, this time the price is \$780, so even if we said that's \$850 less, that's good, the price is good and it goes to all those places that we want to go and it ends at Vancouver. So that is good. Better note that site, Alaska

	cruise.com, that's really good I think. That would probably suit very well
(0:25:56.0)	Returns to top left of screen and clicks "Back" option. Screen returns to "Alaskacruise fares.com top 5 reasons." Scrolls to top left of page and clicks "Back" option.
	and much cheaper and in a big boat but the only worry with all of these is
(0:26:04.1)	Returns to Google sponsored links page. Subject clicks on Google sponsored link on right hand side of page and clicks for link to "Small Ship Alaska Cruises", page opens to
	they seem to only be May. I will look down here, small ship Alaska cruises, how small?
(0:26:28.0)	"Cruise Away" home page. Returns to top left of screen and clicks "Back" option.
	Cruise away, don't like these sites that go all over the pacific and stuff. No.
(0:26:36.3)	Screen returns to Google sponsored links page, clicks "Next Page".
	Back to this one, one last look. Go to the page two only. Looking down here nothing really grabs me. Okay. The next thing I need to look at, so we have gone over, have an option to get from Anchorage back and need to see who fly's from Vancouver to anchorage, probably Air Canada, if I am flying Air Canada I will have a look at Air Canada again.
(0:27:48.6)	Subject returns to Google search and requests "Air Canada" and clicks on first sponsored link to
	This time,
(0:27:56.6)	"Air Canada Go Far" and enters fields for dates, destination etc. Clicks "Search flights".
	no single, this time one way from Vancouver anchorage. It doesn't matter, search I am sure they will have flights.
(0:28:24.4)	Page requests further information. Subject clicks on drop down calendar and enters date.
	Air Canada Vancouver to Anchorage, I can alter the travel date, I am flexible with my dates, where is that. Select times, flexible with my dates, there is a check box is available below, I wonder if they do fly. Air Canada, okay, I will try one more date, otherwise I will have to go back to the main parts if I can't get Air Canada in that. Tools, search, site map,
(0:29:52.4)	Subject scrolls to bottom of page and clicks for link to "Site Map". Page displays options.
	is that it, no. What am I doing wrong here, search,
(0:30:17.8)	Subject returns to top left of screen and clicks "Back" option. Page returns to "Air Canada Flight options". Along top of page are horizontal tab options, subject clicks on "Information and Services".
	information services,
(0:30:24.3)	Page displays options for Travel information, travel tools, book and enhance your travel and flying with Air Canada listed vertically down page, subject

	clicks on link for flying with Air Canada, using the "Where we fly" option.
	travel information, where we fly, that's hard to find.
(0:30:32.5)	Page displays "Find out where we fly around the world".
	Display interactive route map.
(0:30:41.8)	Clicks on "Route Map".
	Get a map.
(0:30:50.4)	Clicks on "Go to Map" option and screen displays world map showing Air Canada routes.
	Select a map, Canada,
(0:31:00.2)	Subject clicks on Canada on map which shows further breakdown of routes to Canadian cities.
	it looks like they fly somewhere up there. You can't see, I think it's got to be there. On to Vancouver, White Horse,
(0:31:32.4)	Subject clicks on top left of map, pop up box appears giving information on flights.
	maybe its White Horse, no I can't see it at all. I am not sure that Air Canada will do the trick. So I need to find
(0:32:08.3)	Subject returns to top right of screen and clicks in Google window for search "Anchorage to Vancouver flights". Screen displays Google sponsored links.
	who flies from Anchorages, I will do it the other way round. Anchorage to Vancouver flights
(0:32:38.9)	Subject returns to search window, enters search term "Vancouver to Anchorage Flights, clicks "Search". Clicks on Google sponsored link "FareCompare.com"
	Lets see who fly's. Alaska Airlines maybe that's the one.
(0:33:10.4)	Page displays "Cheap flights from Anchorage to Vancouver - ANC to YVR". Subject enters from and to options together with dates using drop down calendar in "Step 1, enter flight options".
	Vancouver to Anchorage departing, doesn't matter, same date, okay, so it Air Canada there, choice airline comparison. We flew over on Air Canada we want to go air Canada. Popular flight
(0:34:08.9)	Subject enters required options in "Step 2 - Choose airfare comparison partners".
	Anchorage to Vancouver. I have never been to this site before. Advanced purchase prices from Anchorage to Vancouver. I see Vancouver to Anchorage, let's go one way,
(0:34:10.9)	Scrolls down page showing flight options and prices.
(0:34:44.3)	Returns to top of screen and clicks on "one way" option, and then clicks on "Search".
	Search.
(0:34:52.9)	Screen displays search in progress.
(0:34:55.6)	Pop up box appears on screen "Watch this trip". Subject closes.

	American Airlines. So Vancouver to Anchorage,
(0:35:13.5)	<b>Page returns to flight options for Vancouver to Anchorage.</b>
	Certainly people fly it. United, Delta, I would rather try and go the same airline, there is Alaska Airlines, I have seen them before. Multiple carriers, I don't think so, where is Air Canada, and the prices 360, probably about \$370 each.
(0:35:44.7)	<b>Subject scrolls down to bottom of options and clicks "Next Page" Option. Page displays further options (Page 2). Subject scrolls down to bottom of options and clicks "Next Page" Option.</b>
	There is no sight of Air Canada.
(0:36:00.1)	<b>Page displays further options (Page 3). Subject peruses options up and down page. Subject scrolls down to bottom of options and clicks "Next Page" Option.</b>
	Only Alaska Airlines, Alaska United,
(0:36:20.6)	<b>Page displays further options (Page 4). Subject peruses options up and down page. Subject scrolls down to bottom of options and clicks "Next Page" Option.</b>
	no I don't think so, I don't think they fly that route, Continental does,
(0:36:30.3)	<b>Page displays further options (Page 5). Subject peruses options up and down page. Subject scrolls down to bottom of options and clicks "Next Page" Option.</b>
	they are starting to come in, Continental, I wouldn't fly continental, flown them once.
(0:36:40.6)	<b>Page displays further options (Page 6). Subject peruses options up and down page. Subject scrolls down to bottom of options and clicks "Next Page" Option.</b>
	No.
(0:36:42.9)	<b>Page displays further options (Page 7). Subject peruses options up and down page.</b>
	Okay over here, Airlines, Alaska, American, Continental, Delta, US, so there is no Canada but we know that we can get there, probably on one of those others, \$370 each. Next thing I need to look to fly to Vancouver, fly to Anchorage internal accommodation there, might be looked after, get the cruise back down to Ketchikan,
(0:37:21.3)	<b>Subject returns to Google window at top right of screen and enters search term "Ketchikan to Vancouver flights"; clicks on Google sponsored link</b>
	need to Ketchikan to Vancouver, flights.
(0:37:37.4)	<b>"FareCompare" web site. Subject enters from and to destinations using drop down menu and dates from the drop down calendar. Clicks on "Search" option.</b>
	Ketchikan to Vancouver prices, oh that's expensive, must be a small airline, oh don't like the look at those flights. So probably catch the ferry, they are too small those flights,
(0:38:26.2)	<b>Screen displays search is in process.</b>
	they look like little local commuter planes, in Alaska that may not be a crash hot

	idea.
(0:38:31.5)	Screen displays flight options for subject's request for flights from Ketchikan to Vancouver.
	Ferry from Ketchikan to Vancouver and they are expensive. I will look at those ferries again.
(0:38:51.9)	Subject scrolls to Google window at top right hand of screen and enters in URL search term "Alaskan Ferries" and clicks on Google sponsored link
(0:39:09.9)	"AlaskaFerry.com" home page. At top left hand of page, clicks on "Routes" option.
	Alaskan map with ferry routes,
(0:39:19.5)	Screen displays option and subject clicks on "Alaska Map with Ferry Routes".
(0:39:41.0)	Page displays full page map of Canada. Pop up box appears in centre screen, subject clicks OK. Subject scrolls to top of map page and clicks on one of several horizontal icons to reduce or enlarge map. Subject reduces then enlarges map. Subject scrolls around map scanning routes. Closes map page.
	it's not such a crash hot map, PDF file, Alaska okay here is the ferry Bellingham up here to Ketchikan, okay. Now that other ferry or that other cruise ship we were going to get went from here Juneau, Skagway, it started off at Anchorage, now there is White Horse that's where Air Canada flies too. So it's possible, another alternative is to fly Air Canada from Vancouver to White Horse, that sounds like a bit of a one hit town. Then the cruise ship from Skagway, have to get down to Skagway, Skagway to either Vancouver or Ketchikan to see relatives who live there and then catch the ferry. So we know the routes.
(0:42:19.8)	Returns to top of "AlaskaFerry.com" page and clicks on "Schedules" option.
	Now knowing the routes, there you go south east, okay it doesn't allow you to look there, schedules, departing from
(0:42:36.8)	Subject enters to and from destinations using drop down menu and dates using drop down menu, clicks "Search".
	Ketchikan to Bellingham in April, these ferries might the only thing we can catch in April, not the cruise ships. Don't tell me they don't operate in April either, try May, depart from Ketchikan destination Bellingham,
(0:43:41.9)	Screen displays vertically listed options for Cruise dates/destinations.
	that's strange looking at some of these, just trying to get the ferry, I am sure it would have to go from Ketchikan, go back to routes again.
(0:44:20.9)	Clicks on "Back" option, clicks on "Routes" option at top of page.
	Somehow I am getting the run around here, I do need schedules,
(0:44:40.0)	Returns to top and clicks on "Schedules" option. Subject uses drop down menu to enter from and to destinations, and clicks on "search" button.
	departing from Ketchikan, Bellingham, do they do it in November, it's operated in November, there is nothing in April
(0:45:05.0)	Subject enters date using drop down menu, clicks "Search" Option. No cruises at that time of year.
	or is it just that date. I will just do a few days around it



(0:45:16.1)	Subject clicks and enters another date using the drop down calendar, clicks "Search", repeats this action several times, without success.
	because you have to pick it up some time. It doesn't do it. So a couple of problems might with April dates for cruise, I still can't believe it and so let's go Anchorage to Bellingham
(0:46:03.1)	Subject clicks in Departure city and enters Anchorage, clicks "Search".
	in April, Anchorage to Ketchikan,
(0:46:11.7)	Subject clicks in Destination and enters Ketchikan, clicks "Search".
	what about June.
(0:46:17.3)	Subject clicks in Dates and clicks "Search". Subject clicks on "home" option at top left of page and returns to "AlaskaFerry.com" home page.
	Right there has to be somewhere else to look.
(0:46:30.1)	Clicks on "Schedules" option, page displays "Daily Schedules" page.
	Schedules, click here for schedule information. Okay southern route, September through to May, summer, fall and Spring schedule, departs Hollis to Ketchikan, where is Hollis.
(0:47:04.5)	Scrolls to top right of screen and enters in Google search window "Hollis Alaska" and clicks on sponsored link
(0:47:23.6)	"Wikipedia Hollis Alaska". Clicks "Back" option to return to Google sponsored page and clicks on first sponsored link, map of Alaska pinpointing Hollis' location.
	Oh Hollis is just in there, Hollis to Ketchikan,
(0:47:50.5)	Clicks "Back" option and returns to "AlaskaFerry.com" Daily schedules page.
(0:47:57.2)	Returns to Departure and destination options and enters required information.
	so let's try Vancouver again to and click for schedule information, no it's still not, that's a missing link to which I will come back to sometime.
(0:48:16.0)	Returns to top right of screen and enters in Google search term "Canada trains" and clicks on Google sponsored link
	There has to be a way of getting from Ketchikan to Vancouver, maybe I will look at the train. Canada Trains. Canada trains, that's one they all go on. Rocky Mountaineer, that's it.
(0:49:06.3)	"Rocky Mountaineer" Official site. Subject clicks in "Trip Search" and
	Official site. I want to really you know, prices,
(0:49:20.1)	enters to and from locations using drop down menu. Clicks on "Search now" option.
	so month, by this stage April, it's probably into May and I have been told it's best to go back the other way, starting at Jasper, Start Jasper and going, well how would I know, how long does it take, I don't know. This is a bit slow but that's the train.
(0:50:37.4)	Screen displays search results. Subject clicks on "Details" button pertaining to second train trip option –
	Classic journey through the clouds vacation, Vancouver to Jasper. Why is that one so expensive, why is that so expensive. Classic journey through the clouds



	vacation, Vancouver, Jasper, much more expensive. Details, Vancouver,
(0:51:22.3)	"Classic Journey through the Clouds Vacation 2011". Scrolls to options listed on right hand side of page and clicks "Goldleaf Service",
	okay so two days on board, three nights, look out, two breakfast, two lunch, so it's two days three nights. It doesn't quite look right to me. Gold leaf, is the way to go apparently.
(0:52:06.9)	Page displays results with text and images. Subject scrolls to left of screen and enters information in "Trip Search" for Vancouver.
	Let's start at Vancouver, three to seven days,
(0:52:43.4)	Screen displays "Rocky Mountains Canada Rail Routes & Packages" with text and map showing routes. Scrolls down page perusing trip options. Subject clicks on "Packages" option for First Passage to the West".
	okay. So there are a number of trips, Vancouver west line, Jasper, Vancouver, Kamloops, Jasper, and Banff and Calgary, so there is a bit of thought required there, I didn't realise that and so there are three routes. First passage to the west, that's the Calgary one, journey through the clouds, okay, past King Horse Pass and Banff National Park. This one ice fields, the highest peak in the Canadian Rockies', Jasper. This one go to rainforest canyon plateaus, mountains and just Whistler, I don't know that people rave about it; it's possibly the journey through the clouds. Let's have a look at the packages.
(0:54:21.6)	Screen shows photo of train along top of page and package options listed in four columns. Subject clicks on trip option in second column,
	This looks pretty good, looking to where it goes. Waterfalls, Canyons, Banff and Calgary; it would be good at that time of the year, there would be a lot of snow around, see glaciers as well, follows rivers, enjoy this route east bound, west bound. Two days, one night. So you can do it in two days and one night. There is a big difference between the gold leaf and the red leaf and that's because of the carriage gold leaf has, the roof, that's clear. So the red one is two days and one night, and the red leaf is 789 Canadian, I might have to look up that in a minute and see what that is in Australian dollars and the gold leaf \$1589 Canada. Now why have we got these ones here, Vancouver to Banff, Vancouver to Calgary, yeah I want to go to Calgary, got it, so that's 899 and this 1739. Okay. Very popular, why are they popular, golden leaf two days? Vacation passage featuring this route, classic first passage, so I wonder, I don't understand the pricing; it's more days, classic first, what is that.
(0:57:15.7)	page displays details for "Classic First Passage to the West Vacation, Vancouver - Calgary". Page displays "Service levels and Prices". Clicks on "Back" option,
	Gold leaf service, red leaf service with, with the Fairmont Hotel, so it's a hotel upgrade. Apart from the better train, the gold leaf you get better hotels. Classic first passage.
(0:58:05.0)	to page displaying various train options listed in four columns. Clicks on top right option, column four, for further link to
	I want to know why this one is so expensive.

(0:58:12.7)	"2 Day Gold leaf Service, Vancouver - Calgary 2011". Returns to top left of screen and clicks "Back" option.
	Two night, two day rocky mountaineer gold leaf service, two breakfasts, that's a gold leaf service.
(0:58:27.7)	Screen returns to trip options displayed in 4 columns. Clicks on first trip in third column requesting link to
	That's the red leaf service,
(0:58:37.0)	"2 Day Red leaf Service, Vancouver - Calgary 2011". Returns to top left of screen and clicks "Back" option.
	two days, one night, accommodation.
(0:58:47.9)	Screen returns to trip options displayed in 4 columns. Clicks on 2nd option, 1st column,
	This one ....
(0:58:53.1)	"Classic First Passage to the West Vacation, Vancouver - Banff 2011". Subject returns to top left of screen and clicks "Back" option, page returns to
	Two days on board, okay. So basically I think their ordinary train carriages, they are nothing, they are not the specials, they are probably these ones here looking out windows. That would have to be it. 999, yep. Okay I am starting to piece it together. So fly Sydney Vancouver, Air Canada, fly Vancouver to Anchorage and that's a number of airlines. Accommodation with family or others, I might have a quick look at families and then a cruise from Anchorage, if we see all the families in the big birthday party, we may not stop at Ketchikan, Anchorage, back to Vancouver is the cruise then Vancouver to Calgary on the train. I need to check that gold class what's generally recommended and that's one way. So I wonder if you could,
(1:00:56.6)	Train trip options listed vertically down page with schematic map showing route.
	Where is that map? This one, so catch the train from Vancouver up here, you could actually get a bus from, or maybe from Calgary to Jasper and then get the train, so the train from Jasper back to Vancouver. Calgary to Jasper.
(1:01:56.7)	Returns to top right of screen and enters in Google search term "Calgary to Jasper", page displays Google sponsored links.
	Calgary to Jasper.
(1:02:16.1)	Subject returns to top right and enters in google search term "Bus Calgary to Jasper" and clicks on first Google sponsored link
(1:02:29.0)	"Jasper Alberta Calgary Airport". Screen displays options for shuttle buses.
	They have a shuttle from the Calgary international airport to Jasper, that's an airport shuttle, an alternative seeing you caught the train up to Calgary is to fly back to Vancouver, not catch the bus and the train.
(1:03:42.7)	Subject returns to top right of screen to Google search term "Fly Calgary to Vancouver" and clicks on Google sponsored link
	Air Canada again of course.
(1:03:59.3)	"Vancouver-travel-tips.com" home page. Scrolls down page perusing information.

	Cheapest airlines from Calgary to Vancouver, it's usually prices around 100US, that's certainly a way to go so about 120.
(1:04:30.0)	Returns to top right of page and enters in Google search term "currency exchange" and clicks on first Google sponsored link
	I just want to check the currency exchange, yep that's the one I would use.
(1:04:46.5)	"XE the World's Favourite Currency Site". Screen displays "Universal Currency Converter" with flashing box at top of page informing user they are the 999,999th visitor to the site.
	Canada dollar to Australian dollar, yep roughly.
(1:05:01.1)	Subject clicks on "back" option and returns to Google sponsored links page. Subject clicks on "Back" option and page returns to
	So we can do it
(1:05:05.7)	"Vancouver-travel-tips.com" home page.
	Now I want to come back to those ferries.
(1:05:10.1)	Returns to top right of screen and enters in Google search term "Alaskan ferries" and clicks on Google sponsored link
	Alaskan ferries.
(1:05:31.8)	"Alaskaferry.com" home page. Returns to top left of screen and clicks "Back" option and clicks on Google sponsored link "Alaska Marine Highway System".
	I will find another site.
(1:05:40.5)	Page contains options down right hand side of page, subject clicks on "plan a Trip" option,
	Okay, plan your trip. Don't give me the same ones.
(1:05:54.8)	page displays three schedule button options, "Sailing Search"; "Sailing Calendar"; and "PDF Schedules". Subject clicks on "Sailing Search".
	I want to see something different to that other thing,
(1:06:05.4)	Screen displays Sailing search with options for entering Departure and Arrival Ports and dates. Subject enters information and clicks "Search".
	Right .... departure port, Ketchikan, arrival port Bellingham, month, right April, it has to be something,
(1:06:35.1)	Results of search are listed vertically down page. Subject returns to top right option and clicks on drop down calendar and enters new dates. Subject clicks "Search" option.
	so we do know they are available but that's only November. April. Yep okay, we do know you can do it on ferries. So they do go from Ketchikan to Bellingham and 8 o'clock in the morning, no 4 o'clock in the afternoon, 4pm overnight, 8 am,
(1:07:38.0)	Returns to top left of screen and clicks "Back" option and page displays "Alaska Marine Highway System; Plan a Trip", subject clicks on "Fare" option.
	let's just get a fare. South east passage.
(1:07:45.1)	Screen displays Fare page with options for trips listed vertically. Subject clicks on first option - "Southeast Alaska/Inside Passage Passenger and Vehicle Fares, page displays information in table format.

	Okay that's good, so Ketchikan to Bellingham, meal and berth not included, 239 each plus accommodation, we need a cabin overnight, bicycles, kayaks, vehicles, where is the cabin, passage and vehicle fares.
(1:08:40.2)	<b>Subject returns to "Alaska Marine Highway System ' Fares page. Scrolls down page and clicks on link to</b>
	Cabin fares are separate,
(1:08:55.0)	<b>"Southeast Alaska Cabin Rates" depicted in the same table format.</b>
	239 each and a four berth cabin, no I want a two berth cabin, two berth outside complete facilities, they see you coming I think, 257, it's expensive, that's \$500 each.
(1:09:23.7)	<b>Subject returns to "Alaska Marine Highway System ' Fares page.</b>
	Well I am probably complete now on that.

## Subject 3a

(0:00:48.5)	<b>Task specification by subject. Air Canada to Vancouver.</b>
	So we have got the trip Air Canada to Vancouver, we have looked at the train, which is the Rocky Mountaineer. I am still a little bit up in the air about the entire passage, what to do there but we have to go to Anchorage,
(0:00:59.0)	<b>Google search for "Anchorage Alaska accommodation", clicks on Google sponsored link</b>
	so we will look up accommodation in Anchorage. So let's have a look. Quite a few hotels. Let's just have a little bit of a look if anything looks familiar. When in doubt go to Expedia and have a look at Expedia hotels.
(0:01:54.5)	<b>"Expedia.com.au". Screen displays Anchorage hotels listed vertically with small photos and star ratings. Scrolls down page. Subject clicks on 3 star accommodation,</b>
	Accommodation seems reasonable actually looking at the star ratings, none are familiar to me but it looks like we are going to get a hotel/motel 2.5/2 stars, want something a bit more than that. Let's just have a look at this, its 3 star accommodation;
(0:02:49.2)	<b>"Inlet Tower Hotel and Suites". Clicks on map. Browses page for hotel facilities. Selects room and rates and uses drop down calendar and enters requires dates.</b>
	I do like to view the maps. Just having a general browse at this site, accommodation looks pretty good, I have family here, but probably can't stay with family and so we will have to look for accommodation. Let's just go for the month of April, it's about 21st, I am going to just check out of one night, so I can work it out that way, two adults, deluxe room with queen bed, show prices.
(0:03:44.1)	<b>Clicks "Show rates". Returns to top left of screen and clicks on "Back" option.</b>
	Okay it's \$100, that's reasonable, it's \$100 Australian dollars, it's deluxe, it's queen, en-suite and a free airport shuttle, that can save you a bit. It looks quite central, okay quite happy with that. So I can get accommodation there for about \$100.
(0:04:49.6)	<b>Clicks in Google window top right and enters search term "Inside Passage Cruises". Clicks on Google sponsored link, magnified pop up box appears for link to "Holland America Line". Subject clicks on link for brief view of website and then browses other SERP listings using pop-up boxes.</b>
	So accommodation is excellent, we never finished this inside passage cruise, I am trying to get one that is one way. I am looking for something that is not the big liners because they only do up and back, I want to see if there is a one way, apart from the local ferries. This is what google has got now, these magnifying glasses, so you can come in and have a look at their front page, so I can open the front page and that will just show me what I just saw. But I don't have to open the front like that, all I do is run the mouse over it, so that's cruising, cruising, that looks like a combination tour, yes APT. That's an inside passage cruise. A smaller ship may do it, the bigger ships won't, and they will just go up and back.

(0:06:28.8)	<b>Subject clicks on link to "Travellady Magazine". Scrolls down page.</b>
	I noticed on our last visit, one of these went broke I think, not enough patronage I think. This is a general article about them. Cruise west, that's who went broke. I wonder if they are the only ones that did it, there is no other small ships mentioned there.
(0:06:56.6)	<b>Subject returns to top left of screen and clicks on "Back" option. Returns to Google sponsored links page and continues to scroll down links perusing pop up magnifying boxes.</b>
	Inside passage cruises; here is another one on a small ship, that looks like a very small ship.
(0:07:15.6)	<b>Clicks for link to "Pacific Catalyst II". Page depicts photos of ship together with text.</b>
	That's not the one that went broke. That's only just a little bit about, expeditions to it. Southern Inside Passage,
(0:07:38.0)	<b>Subject clicks on link to "Southern Inside Passage" Page shows photos at top and down right with text on page. Scrolls down page.</b>
	let's have a quick look if they give a price, quite often smaller boats are much more expensive. North bound inside passage voyage of discovery, that's promising because it suggests it goes one way, yes south bound inside passage. Okay, I would normally want to bookmark this page, I can't bookmark it on your computer and so I will just write it down, Pacific Catalyst, so they go one way cruises. That's good. Prices. <i>if you would like get the URL and paste it into a word document and I will email the word document to you.</i> Okay.
(0:08:46.0)	<b>Subject returns to top of screen and copies URL address using right click and 'copy' option. Subject scrolls to bottom left to "Start" button and clicks on "programmes"; and then "Microsoft Office". Office document opens up using half the screen. Subject right clicks on mouse and clicks on "paste" option. Subject scrolls to top right of screen and clicks on "minimise" button.</b>
	Okay
(0:09:18.9)	<b>Screen returns to "Southern Inside Passage" web page. Scrolls down left side of page looking at further link options.</b>
	And they are only offering it in May and so April is a difficult time to get a cruise company, we may have to do it May, only showing May dates there but it's not bad, May 5th is probably alright. May 5th that would be good, it's 14 days, it's only price, where are we. Vessel, our trips, cruise, news, schedule, requests, contact, registration download, pre-book information. Okay that's an option,
(0:10:10.7)	<b>Subject returns to top left of screen and clicks on "Back" option.</b>
	That is definitely an option.
(0:10:12.7)	<b>Screen returns to Google sponsored links page. Subject scrolls down links looking at pop up magnifying boxes.</b>
	All these others are bigger ships, that's a big ship, and that's a small ship. I will just look at one more page

(0:10:29.7)	Subject scrolls to bottom of page and clicks on "next page" option. Second page of Google sponsored links on screen. Subject scrolls down links looking at pop up magnified boxes.
	Because sometimes I get to the second page and you may find something. I don't generally look more than about the first two pages, that's a big ship, that's I think
(0:10:48.8)	Clicks on "About.com Cruises" link. Screen depicts "Cruise West" link.
	This the mob that went broke, Cruise West,
(0:10:56.7)	Subject clicks on "Back" option.
	I don't know why they stay on the internet but I guess they are still on the internet. This looks like a smaller boat,
(0:11:11.0)	Clicks on link to "Lovetoknow - Alaska Inside Passage Cruises" web site. Screen depicts large photo on left and small amounts of text on right.
	and they have been going for 15 years. However it is not easy to spot this boat. I will save that to that word document again.
(0:11:42.3)	Subject returns to URL and right clicks to copy address, returns to bottom of screen and clicks on minimised Microsoft Office and right clicks to paste URL address into word doc. Minimises word doc.
	And I will have a more careful look at that.
(0:11:55.0)	Subject returns to top left of screen and clicks on "Back" option. Screen returns to 2nd page of Google sponsored links for "Inside Passage Cruises".
(0:12:08.7)	Subject scrolls down links and clicks on link to "InnerSea Discoveries". Screen displays 4 video links across top of page. Subject scrolls down page.
	That's another small ship, we have been on a small ship in Fiji and they had a much more interesting adventure. They start in May as well, not in April, so it does look as though May is the first month to get all of these. It looks like you order a brochure and a DVD;
(0:12:42.9)	Subject clicks on one of the four options for "Order Brochure and DVD". Screen displays image of bird across top of page and fields for subject to complete giving name, address, etc. to order brochure.
	I also expect that it might be expensive if that's what they can give you.
(0:12:59.5)	Returns to top left of screen and clicks on "Back" option.
	Well that's at least three options to get a small ship; I will have a closer look at those.
(0:13:05.0)	Subject returns to URL and right clicks to copy address; scrolls to bottom of screen and maximises word document and using right click, pastes URL address into Word Document. Subject minimises Word document and screen returns to web page.
	Before I leave I will look at one of the big lines and see when the earliest dates are.
(0:13:15.1)	Subject returns to top left of screen and clicks "Back" option twice to return to Page 1 of Google sponsored links.
	So these are the bigger ones,
(0:13:30.7)	Subject clicks on link to "Holland America Line" web page. Clicks on centre of page for link to "View Itineraries".
	let's see what month they start. Itineraries,



(0:13:39.0)	<b>Page shows routes, destinations, dates and costs for various cruises.</b>
	they start from Vancouver, is where I like to go, I go up the Skagway back to Ketchikan which is good and the departure dates, May 18th earliest, seven day cruise. Go back, okay.
(0:14:05.9)	<b>Subject returns to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links page.</b>
	Well I think I have seen enough on this particular holiday, I am going to look at another one, I want to compare two islands for a holiday. One is Hamilton Island and the other one is Herron Island and I want to compare them.
(0:14:29.2)	<b>New task identified by subject: holiday in Hamilton Island and Heron Island.</b>
	Hamilton Island and Herron Island, okay.
(0:14:39.4)	<b>Clicks in URL and enters search term "Hamilton Island Accommodation" and clicks on sponsored link to</b>
	I understand accommodation is reasonably limited on Hamilton Island. Holiday apartments Whitsunday's, latest deals and packages online, that's at the resort, so let's have a look at packages.
(0:15:17.3)	<b>"travelonline.com - Hamilton Island" web site. Page depicts images of Whitsunday's together with text and options for further links. Scrolls down page. Holiday packages listed vertically down right hand side of page; subject clicks on first option</b>
	I am pretty sure for that doesn't include airfare.
(0:15:27.6)	<b>pop up box appears with details of "Hamilton Island Palm Bungalows". Subject scrolls down pop-up box. Clicks on top right hand corner of pop up box to close.</b>
	So you get three nights, Palm Bungalow, including breakfast, plus golf, get 18 holes, I can play that, return airport transfers, so it doesn't include the flying. Resort shoal, dates. So it's \$614 per person. Hamilton Island bungalows. There are a couple more. They just go up from there. Mind you this place is expensive.
(0:16:43.0)	<b>Screen returns to Hamilton island web page.</b>
(0:16:50.6)	<b>Subject returns to top left of screen and clicks on "Back" option.</b>
(0:16:55.5)	<b>Clicks on Google sponsored link "Stayz.com" Scrolls down accommodation options. Scrolls to bottom of page and clicks on "next page" option.</b>
	These are all the holiday accommodation places, not just hotels. \$300 a night, all of these. Well that includes \$200 per person per night, that's \$400 a couple for three nights. Per couple per night, so we are looking at \$400. So all of these are cheaper, \$300 a night, \$300 a night, they are all apartments which is good too because you can do your own cooking. Yep alright, expensive. The cheapest is \$280 but I think you have to work on \$300 a night, \$265 that's a town house. Go to the second page.
(0:18:41.0)	<b>Screen displays further accommodation options listed vertically.</b>
	Okay, so probably the cheapest is going to be about \$300 a night per apartment. So what I will need to do now is
(0:19:11.6)	<b>Subject returns to top right of screen, clicks in Google to enter search term "fly to Hamilton Island".</b>



	see who flies to Hamilton Island and see if they have a package deal. Hamilton Island flights, so Virgin Blue, I like Virgin Blue,
(0:19:36.8)	Clicks on Google sponsored link "Virgin Blue.com"
(0:19:43.4)	Subject returns to top left of screen and clicks on "Back option."
	Should have gone back to specials and offers I think.
(0:19:45.9)	Screen returns to Google sponsored links, subject clicks on "Virgin specials". Screen displays flight options, subject clicks on "Search for Flights".
	Sydney to Hamilton Island, all travel dates,
(0:19:54.8)	Screen displays fields for subject to complete in "Search flights". Subject uses drop down menus to enter dates, clicks enter.
	One way fares, let's go April and return on the 14th, flexible travel dates, one adult return.
(0:20:22.7)	Screen displays various flight options and prices.
	So you can fly there, so the flights are \$340 return, oh you can get it cheaper, and you can get it like 29 flexible dates. Could be as low as \$260 return, that's cheap considering where you are flying. So we know that. Now do Virgin have any package deals?
(0:21:07.0)	Subject returns to top left and clicks on "back" option. Screen returns to Google sponsored links.
	Hamilton Island Airfares, cheap flights and return, yeah cheap flights.
(0:21:23.2)	Subject clicks on magnified box on Google sponsored link.
	That's comparing the flights, I had a quick look
(0:21:28.8)	Clicks on Google sponsored link "Airfaresflights.com.au" web page, page displays flights to Hamilton Island, Australia. Scrolls down page displaying various flight offerings and prices of various intermediaries listed vertically down page.
	and I think probably \$129 each way, that's reasonable. Jetstar also fly there.
(0:21:53.3)	Subject returns to top left and clicks on "Back" option. Screen returns to Google sponsored links page for "fly to Hamilton Island".
	So Jetstar in a minute.
(0:22:08.9)	Clicks on Google sponsored link to "VirginBlue.com". Subject clicks on left hand side of page on 'destination' drop down menu and clicks 'search flights'.
	Okay Virgin do a flight, Hamilton Island so guests can fly directly with the island alternatively guests can fly to Proserpine, why would you want to do that. It's a good idea. I will just double check whether they actually fly to Hamilton and not, so Sydney to Hamilton Island, just make sure it is Hamilton Island. It does.
(0:22:50.9)	Subject returns to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links.
	Virgin Blue, Jetstar, Rex and Qantas all fly in.
(0:23:07.3)	Clicks on "travel.com.au" link, screen displays flight and cost options.
	Virgin Blue Sydney, Brisbane, you could fly to Brisbane and out. So there is Jetstar they fly in as well, \$153, see if I fly with them. No problems with two airlines,
(0:23:36.7)	Subject returns to top left of screen and clicks on "Back" option. Screen

	returns to Google sponsored links page.
	the fares would be good. Does anyone have a package deal? Often Qantas do.
(0:23:51.4)	<b>Subject returns to top right and enters Google search term "package deals to Hamilton Island" and clicks on sponsored link "Virgin Blue holidays" web page.</b>
	So we will go package deals, see if that can save anything. Package deals. Packaged deals Hamilton Island.
(0:24:24.5)	<b>Page displays fields for subject to enter to and from destinations using drop down box.</b>
	Virgin Blue holidays, I prefer Virgin Blue if I can, choose a destination. Hamilton Island,
(0:24:45.4)	<b>Screen displays package options for Hamilton Island listed vertically down centre of page. Left hand side of page displays options for dates to be entered. Subject scrolls down page.</b>
	Okay here are some package deals, so let's see how they pan out, Virgin Blue. So that's per person, let's say - it's \$1139, that's with the palm bungalows that's what we had before, okay we can compare apples with apples. So \$1139 per person at palm bungalows, right we know what the palm bungalows cost before and we know what the airfare cost, so let's see if the package is worth it. So its airfare five nights, the airfare, \$340 return could be \$260 return, let's go to the \$260 return per person. Five nights, now it was \$400 per couple per night, so it's \$205 per person per night and so \$205 by five nights, \$1025 for five nights and what else do you get, full buffet breakfast, that's what we got before, free use of catamaran, paddle ski, kids stay for free, complimentary Hamilton island hotel transfers but the other one gave you golf, one game of golf. Now that totals \$1285 and they are giving it to you for \$1139, so you do save, it's not world beating though. It's \$150 maybe per person. Anyway the travel dates for that were December, it's January through to June that's okay. So that reasonably. I have a feeling now for that and there are a few options with the price.
(0:27:35.4)	<b>Returns to top right of screen to URL and enters search term "Heron Island accommodation" and clicks on magnified box in Google sponsored link. Clicks on Google sponsored link to "Heron island" web page.</b>
	Let's have a look at Herron Island, Herron Island accommodation. It looks pretty ritzy, let's have a look at a ritzy place on the way. Snorkelling is good on Herron Island.
(0:28:17.3)	<b>Screen displays photo images of hotel and text details together with option to enter dates. Subject uses drop down date menu and enters dates and clicks 'search'. Page displays request is being processed.</b>
	That looks very nice; I wonder what the price of this place is. April 2011, okay. We will go five nights, two adults.
(0:29:05.9)	<b>Page displays all details for hotel showing daily rates together with transfer information.</b>
	Five nights, two adults. Daily rate, so it's expensive \$400 average daily rate for two adults, \$400, about the same. What was this helicopter transfer or boat transfer? Meal package is good I think, \$69 a day is good. Driver package, so it looks like you

	have to have a boat transfer from Hamilton Island, so we will do the math.
(0:29:57.5)	Returns to top left of screen and clicks "Back" option. Screen returns to Google sponsored links. Clicks on Google sponsored link
	This is the Heron Island Resort Page. See what they say.
(0:30:12.4)	"Heron island web page - Immerse yourself in Reef Life". Subject clicks on image on right hand side of page, screen displays accommodation option for "Heron Island" clicked by subject.
(0:30:25.0)	Page displays details on hotel. Subject returns to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links for "Heron Island Accommodation". Subject clicks on Google sponsored link "Wotif.com".
	What is this, it keeps popping up and so I have to look at it. This can't be the only place on the island. Maybe it is. I will go to one of those Wotif places or whatever, Wotif, Herron island accommodation and see what is available there.
(0:30:55.3)	Enters destinations and dates using drop down menu and clicks on "Go" option. Page displays full page grid of options. Subject clicks towards top of page and uses drop down menu to enter "Heron Island" and clicks on "Go" option on right of page. Screen displays "Advanced Search Options". Subject clicks for link to accommodation options for Heron Island.
	It only goes up to, okay, it's just useful. Herron Island, it's slow. Herron island okay, so we have got (inaudible). Let's see what's on Herron Island. Okay, not much. Reef, turtle, this is that same place, must only be one place, there it is, there it is. And they say it's a hot deal,
(0:32:44.6)	Page displays pop up box showing inclusions in deal for "Turtle Lodge". Subject enters required dates using drop down menu. Options displayed in green grid across page. Subject scrolls across grid and pop up boxes appear giving details.
	hot deals are always pretty good. Four night stay includes free breakfast, lunch and dinner daily, so it's free breakfast, lunch and dinner and a complimentary upgrade. We offer reef and water views, through a canopy of beachside trees. All rooms provide an outdoor deck. I will just check with February. Okay now we are not getting hot deals because they don't know what people are going to do. Those hot deals are usually offered with a few weeks coming up to the dates. So Turtle room all meals, I can always try for an update. Turtle room all rooms \$400, right. Minimum four night stay, includes breakfast lunch and dinner. Includes buffet breakfast daily why would you pay that when you can pay \$1 more and get lunch and dinner and a complimentary upgrade, I don't understand that. So that's a garden setting. Its \$479 for filtered reef and water views and a complimentary upgrade, so having a complimentary upgrade you would go to one of these more expensive ones. One of these. Reef side, so it may be worthwhile go for a reef room cause the upgrade from that free is an ocean view, I will just check, ocean view? So \$479, I am pretty sure that's going to be per night, for whatever,
(0:36:01.1)	Double clicks on one hotel option, page displays "Wotif.com - Book and Pay Securely". Page displays options for entering number of adults and dates which are listed vertically across page. Subject clicks on dates.
	so what do you get. Two adults, let's just check to see what this is going to cost, two

	adults including one queen and one single. Let's just put in some dates. Friday, Saturday, Sunday and going Tuesday. So we know that is in fact price per night, free breakfast lunch and dinner, complimentary upgrade position closer to the beach. Reef suites offer filtered reef and water views and beach side trees. All rooms have either a balcony or outdoor deck. That's not too bad. So \$479 per room per night, if you are going to go for five nights, let's say it's \$480 by five, \$2400 for the accommodation. It looks like there is only one place on Herron Island. So let's see how you get to there.
(0:37:30.6)	That is really good to have all meals because that could be really costly. So it looks to me like flying to Herron Island, you don't fly direct, it's too small.
(0:37:51.9)	<b>Subject returns to top of screen to URL and enters search term "fly to Heron Island" and clicks on first Google sponsored link "Heron Island.com".</b>
	Fly to Herron Island, this will be interesting. Just while we are there, I will have a quick look at that first one, I am
(0:38:08.3)	<b>Resort home page served previously visited</b>
	sure it's the same place, been there done this.
(0:38:14.0)	<b>Subject returns to top left of screen and clicks on "back" option. Clicks on Google sponsored link to "TripAdvisor.com - Cheap airfare to Heron Island".</b>
	Looked at that. Gladstone airport, cheap flights to Herron Island, TripAdvisor.
(0:38:28.8)	<b>Page displays fields for subject to enter dates, to and from destinations" and clicks on "check best fares" button.</b>
	From Sydney to Rockhampton, what's that doing there? Let's have a little look,
(0:38:46.9)	<b>Small window opens "Expedia.com.au". Subject scrolls to top right of window and clicks to 'maximise" Page informs subject "Expedia.com.au" is searching for flights.</b>
	Because you are going to have pay extra to get out. So they have the flights,
(0:39:05.7)	<b>Page opens with "Expedia.com.au" flight options listing fares and airlines. Scrolls down options. Flight options listed on left third of page, right of page blank.</b>
	They got the transfers. Right. Qantas, Sydney to Rockhampton. Qantas, so Sydney to Rockhampton. Virgin Blue fly as well, I don't believe that they are dearer than Qantas, I just don't believe that. So it looks like you have to go Sydney to Rockhampton and then transfer. \$518 each way is \$1036 return. Virgin blue much cheaper to fly to Hamilton. Let's get rid of that,
(0:40:24.3)	<b>Subject returns to top right of screen and closes page. Clicks at top left of screen on "Back" option.</b>
	Let's get out of that site.
(0:40:27.2)	<b>Screen returns to Google sponsored links for "fly to Heron Island" and scrolls through options.</b>
	I have been there. I tend to try Virgin Blue for cheaper flights,
(0:40:38.4)	<b>Subject returns to top right and enters in Google search term "Virgin" and clicks on Google sponsored link to</b>
	Let's have a look.
(0:40:50.1)	<b>"VirginBlue.com.au". Enters to and from destination using drop down menu</b>

	<b>together with dates and clicks on "Find Flights" button.</b>
	Return Sydney, let's see their destinations. There is no Herron Island and so it must be Rockhampton. Flexible travel dates, one adult,
(0:41:28.1)	<b>Page displays flight options for Virgin Blue to Rockhampton and prices.</b>
	Here that's more like it. So you can go Sydney to Rockhampton, \$150, forget that \$1036 that just was never on. So its \$300 return which is roughly what it was to Hamilton Island, so that sounds good. How do you get from Rockhampton to Herron, transfer.
(0:41:59.0)	<b>Subject returns to top left of screen and clicks on "Back" option.</b>
	Let's go to
(0:42:05.9)	<b>Scrolls to top right of page and enters in Google search term "transfers to Heron Island" and clicks on Google sponsored link to "Queensland Heron Island - About getting there".</b>
	Transfer to Herron Island. It's just two hours by the boat, not sure Rockhampton is the place but let's have a look.
(0:42:36.1)	<b>Page displays photos and transfer information. Scrolls down page.</b>
	Herron islander, flight arrival at Gladstone, you have to go Gladstone, don't go to Rockhampton. North east of Gladstone, frequent flights to Gladstone available via Brisbane. Once at Gladstone you have a choice of transfer options to get to Herron Island itself. Herron Island operates eastern standard Queensland time, isn't that interesting. Two hour boat transfer, and they are talking about Qantas flights here into Gladstone and if you arrive on those flights, you get a transfer from the airport to the marina. So I will have to look up Qantas now and the transfers are by boat two hours and it's got to be on a QF2308 or 2332 going and coming back, if you make your own way to Gladstone marina. Transfer from the marina to the airport on arrival. Herron Island to Gladstone. Herron Island to Gladstone late departure. So Qantas flights on the way back QF2341 and QF2307, do you have to pay, transfer from the marina to the airport, oh helicopter, you can go by helicopter, I would imagine a cost. Let's have a look and book now, sometimes I do this,
(0:45:03.4)	<b>Clicks on "book now" option at bottom of page. Screen displays search in process. Page shows booking options. Subject uses drop down menu to enter dates for transfer to and from Heron Island. Clicks on "enhancements" which relate to transfers. After clicking on boat transfers, pop up box shows fields to be completed for number of adults, displays prices for transfer.</b>
	Go as if I am going to make a booking and see what the costs are, sometimes it's the easiest way. Return boat transfer add on. Let's go April 2011 and let's make it the 8th and departure, 13th, two adults and we are going to try for a reef room, they are not giving me the free bonus meals. Includes nightly accommodation breakfast, lunch and dinner daily, beverages not included. Why that, oh nightly rate including breakfast. I really don't understand that, daily rate, there it is, and daily rate includes breakfast okay, so that alright. Return boat transfer. Choose your room rate and enhancements. I have chosen that, chosen the reef room and I have the 8th there, one, two, three four five, that looks good, enhancements, here we go, we have got it working. Return boat transfer. Return boat transfer, no thank you. Have to have two adults, so return boat transfers are \$200 an adult, \$400 all up,

	\$400 for two, dive package, no. Step three continue. Maybe the university might be having five nights on Herron Island, \$2395, nothing tricky there, \$2395.
(0:48:27.7)	<b>Clicks OK. Screen displays costs for Heron Island.</b>
	That's alright, that's okay, I have the idea.
(0:48:43.9)	<b>Subject returns to top right of screen and enters Google search "Virgin Blue" and clicks on Google sponsored link</b>
	Let's have a look at Qantas flights. Before we do anything else I will just see if Virgin flies to Gladstone I bet they don't because they haven't mentioned it. Virgin Blue Home. Sydney destination Gladstone, no. So only Qantas fly there.
(0:49:03.7)	A bit of trouble with the airfares I think with Qantas. Okay return from Sydney to Gladstone, April 7th to 13th I think it was or roughly that, I will just go one adult so I have an idea of the price. Oh it's Jetstar I think, QF flights, Jetstar suggests it's Jetstar, the flights that connect and I think you have to book early to get these, QF2308, QF 2332, they are not too bad. \$228, Sydney to Brisbane, Brisbane to Gladstone and so you have to fly from Brisbane, that would be right. Fly Brisbane to Gladstone, \$228, on the way back 2341, 2307. So they are not bad, so \$460 return. So Hamilton Island holiday for five nights with only breakfast is around \$1300, five nights, airfare, per person is \$1300. The Herron island one, you have to do it as a bit of a package, the Reef room \$2400 so per person it's \$1200 for the hotel and it's \$460 for the airfare and it's \$200 for the transfer, \$1860 but that includes all meals and Hamilton Island one included breakfast and the difference between those is \$560 difference over five days per person which \$110 per day for meals per person. So on that Hamilton Island as you weren't paying more than \$200 a meal per day would be cheaper. Herron Island one is transfer and a dearer airfare because Qantas is flying you. I think that does me.

## Subject 4

(0:00:39.7)	Google search for "www.vacationclub.com.au. Clicks on sponsored link to "members Accor vacation club.com.au"
	<i>If you can just say what you are doing, what you are finding useful?</i> I am a member of a Vacation club.
(0:01:13.6)	Log in displayed at top right of page, subject logs and clicks enter. Member's page opens up.
	I am just logging in there to see if they have any tours to Cambodia, Vietnam.
(0:01:32.5)	Options listed horizontally across top of page, subject clicks on "holiday options"
	Now they are affiliated with Flight Centre, I will just see, there is nothing on there. Holiday options. Travel via flight centre, flight centre do work out our tours, they book flights as well as accommodation.
(0:02:18.6)	Clicks on video option in centre of page, pop up box appears in middle of screen, subject clicks "Open" option. Subject closes pop up box.
	That's no good.
(0:02:52.1)	Video box appears in top left of screen, screen remains black but audio heard. Rest of page displays "holiday options". Video box closes.
(0:04:05.9)	Grey boxes displaying options vertically, subject clicks on "make a reservation".
	No that's no good; I will get out of there.
(0:04:17.8)	Subject scrolls to top right of screen and clicks on "Close" option. Clicks down bottom of screen to open Google.
	Can't think of the website
(0:04:37.4)	Enters Google search for "Vietnam" and clicks on Google sponsored link "Wendy Wu tours".
	Wendy Wu tours I will try, they have been recommended to me.
(0:04:56.1)	Page displays photos and text related to the Far East. Scrolls down page and clicks on link for "Rajasthan Panorama 21 days" option.
	21 day.
(0:05:21.0)	Page displays various holiday package options. Scrolls down page. Subject returns to left of page options and clicks on link to "Yangtze River Luxury Cruising".
	No
(0:05:52.9)	Page displays text and images. Destination options listed down left side of page. Subject rolls mouse over destination options and pop up boxes appears displaying further information, subject clicks pop-up box option for "Treasures of Vietnam and China".
	There are tours that do a cruise and a bus tour, which isn't that one. Try Vietnam/China we will try.
(0:07:11.4)	Scrolls down page looking at day by day description of tour." Scrolls back to top of page, highlights box on left of screen and clicks on link to "Classical Vietnam - staying in 4-5 star hotels".



	righty-o, they have cruise, no. No cruise. Try this one.
(0:08:01.5)	<b>Itinerary text with options on left and images on right on screen.</b>
	Get out of there
(0:08:11.0)	<b>Subject returns to URL at top of screen then scrolls to top right and clicks on "Close" option.</b>
(0:08:32.9)	<b>Reopens explorer. University home page presented. Login performed for external access</b>
(0:08:37.1)	<b>Returns to Google home page and enters search terms "Vietnam and Cambodia tours" and clicks on Google sponsored link to "Bunnik tours Vietnam and Cambodia"</b>
	Wendy Wu fully escorted group tours of China and Vietnam. Vietnam and Cambodia with Bunnik Tours which is another one that's also been recommended to me.
(0:09:24.6)	<b>Page depicts photos and text with options to click or enter information on left . Selects link to touring regions.</b>
	Touring regions.
(0:09:34.0)	<b>Options presented as text with images for each region. Scrolls down page and returns to top left of screen and clicks "Back" option.</b>
(0:09:40.9)	<b>Screen returns to Bunnik tours Vietnam and Cambodia 18 day tour page. Clicks on right side of screen "see full itinerary".</b>
	Vietnam from 18 days from 4, 2, 3, 6, spend a night in a junk boat, floating market, receive a full itinerary.
(0:10:05.6)	<b>Page opens displaying day by day information together with map. Subject returns to top left of screen and clicks twice on "Back" option.</b>
	Right we will go back from Bunnik
(0:10:20.3)	<b>Screen returns to Google home page, scrolls down Google sponsored links to bottom of page and clicks on "Next". Page displays further Google sponsored links, subject clicks on "APT Vietnam Cambodia, Laos".</b>
	Go back to Wendy Wu. We will try APT,
(0:10:56.0)	<b>Information displayed as text vertically down page. Scrolls down page and clicks on fifth and final option at bottom of page</b>
	Vietnam, Cambodia and Laos, APT.
(0:11:07.3)	<b>Page opens with "Your Vietnam &amp; Cambodia experience" subject scrolls down page noting headings for "small group excursions" and "personalised service". Scrolls back up page and clicks on option displayed on left of page to return to previous page "Vietnam, Cambodia, Laos".</b>
	Small group excursions. What they include. Right, .....
(0:11:59.4)	<b>Clicks on option for "Travel documents".</b>
	travel documents, important information, passports, visas,
(0:12:06.5)	<b>Clicks for further link to "Discover the Forbidden city, Beijing - important information". Scrolls down page detailing passports, visas and permits, altitude sickness, vaccinations.</b>
	you require visas to go to China. Right we need a visa to go into China and we need vaccinations.



(0:12:52.7)	Subject scrolls to top right of page and clicks on "Close" option. Screen returns to Travel Documents page. Pop up box appears in middle of screen, subject clicks "OK".
(0:12:59.3)	Subject enters search term at top right of APT page and clicks to proceed.
(0:13:09.9)	Page displays "Search Results" Scrolls to bottom of page and clicks on link to "Asia - includes China, Vietnam, Cambodia, Laos"
	Vietnam, right includes China, Vietnam, Cambodia and Laos including a river cruise. Vietnam, Cambodia and Laos. Sightseeing. Where you'll go ..... sightseeing .....8 days on the boat, discover, freedom to choose at no extra cost, choice of two in dining experiences, Ho Chi Minh City welcome tour, right. Now where is the cost? Search and book. Where you'll go, what you'll do, that's no help.
(0:13:42.6)	Clicks on further link to Vietnam, Cambodia, Laos".
(0:13:47.5)	Screen displays images and options for further links.
(0:14:07.2)	Clicks on link to "Where you'll go - What you'll do". Text displayed on page. Subject scrolls down page Looking at headings "Freedom to choose - at no extra cost". Scrolls down to bottom of page. Returns to top right of page and clicks on "Search and look" option. Lack of success so clicks back button.
(0:15:20.0)	Page returns to "APT Vietnam, Cambodia, Laos". Scrolls down page and clicks on link to "Quick link buttons to APT tours and Cruises".
	There is no number of the cruise, there is no number of the tour, so how do you book? Travel agent. Trip search. Where you will go and what you will see. Obviously I'll have to get it through a travel agent.
(0:16:23.4)	Page displays destination options with button for each, subject clicks on "Asia" option.
	Asia,
(0:16:31.8)	Page opens to "Our most popular Asia Trips". Page displays two columns with text and images with options for further links for each.
	Right, trying to find China, Laos into China and then Mekong, discover 22 days on a cruise in the Mekong river.
(0:16:57.6)	Clicks on link to "Laos, Indochina and the Mekong".
	22 days \$8,495. No we don't want that one.
(0:17:20.3)	New window opens and subject peruses before scroll to top right of page and clicks on "Close" option.
	Mekong 12 day, Vietnam/Cambodia, we will try that one.
(0:17:20.5)	Page returns to "Our Most Popular Asia Trips". Clicks on link to "Ho Chi Minh city, Mekong".
(0:17:29.6)	Page displays tour details and price. Scrolls down page perusing day by day tour details.
	\$4195, 12 days, arrive, it does not say whether flights are included. \$4,195, 12 days, itinerary, right oh see what people have said about this tour.
(0:18:26.7)	Subject clicks on link to "See what people say about this trip" at bottom left of page. Page displays "Travellers' Testimonials"
	Travelling through Cambodia, Asian cruise, I am just reading a report on the tour.

(0:18:40.2)	Subject clicks on one testimonial, drop down box of text appears. Subject peruses then closes drop box.
	We intend to do it again in a year or two, so it sounds as if it's quite good. See if somebody else has got something. 13 days, how many days was that one,
(0:19:26.9)	Subject clicks on another testimonial and drop box appears.
	Vietnam and riches of the Mekong. Go back. Trip search,
(0:19:50.0)	Scrolls to left of page showing vertical options for further links and clicks on "trip Search".
	range of cruises.
(0:19:52.9)	Page opens to "APT Asia - includes China, Vietnam, Cambodia, Laos." Subject clicks on link to Map of Asia.
(0:20:12.0)	Subject clicks on area of map and box appears, subject clicks on Asia option in box and drop down options for different locations appears. Subject clicks on Vietnam. Drop down menu opens with city or place options. Subject clicks on Saigon. Subject clicks on "duration" option and clicks on 14 days in drop down box. Clicks on "Trip start" option and clicks on link to "rail tours". Subject enters start date in drop down box. Clicks on "Search" option.
	Okay we will go in Asia, Asia search the region, we will do Vietnam, select a city or place, we will go to Saigon, duration we will go 14 days, trip style, river cruising, rail I thought it was, we will do that one. Select start date, we will go in June 2011.
(0:21:05.8)	Screen displays search results for 5 trips meeting subject's criteria. Scrolls to right hand side of page, two boxes, blue and brown, for further links. Subject clicks on first cruise option;
	Five trips found. River cruises and rail tours, seven night cruise on the Mekong River. 12 day tour with a seven night cruise. Mekong in eight day cruise. View the itinerary. Oh don't want to go in the jungle, we will try this one,
(0:21:52.6)	page displays "Angkor, Mekong and Ho Chi Minh City cruise. Page displays text detailing cruise day by day and cost. Subject reviews page content.
	don't fancy that. Doesn't say whether your flights are included. Most meals are included, board a local boat, let's start at the beginning. You'll be met and transferred to hotel and so obviously flights aren't included. Two nights stay at, head the archaeological park, right. Visit a temple and then you start, short drive and then you start your cruise. That's cruising, morning tour capital, it doesn't say how you do that. I suppose it's still cruising, spending today cruising, take a shuttle boat into town. Tonight a farewell dinner. So that's your cruise finished. Travel Ho Chi Minh City, taking a walking tour of the city, dinner, visit the tunnels, Vietnam fighting's, Vietnam wall, return to the city for farewell dinner. After breakfast your tour concludes and you transfer to the airport. So no flights are included in that. Let's see what people have said about it?
(0:24:00.4)	Subject clicks on link at bottom of page for "what other people have said about this tour". Page displays "travellers Testimonials". Clicks on one testimonial and drop down box appears.
	13 day, is that the one? Same time of year, ancient history, thanks again for a memorable trip, Imperial China, So is that the one I was looking for?

(0:24:31.0)	Subject returns to top left of page and clicks on "Back" option. Page returns to "Angkor, Mekong and Ho Chi Minh City" page. Subject scrolls to bottom of page and clicks on "Travellers' Testimonials".
	No. So that's not much help. I will go back again and see what's on. What is it called, it's called Angkor, Mekong and Ho Chi Minh City.
(0:24:57.3)	Page once again displays testimonials listed vertically down page. Clicks on one testimonial, drop down box appears with text. Not relevant to tour sought, tries another with no result before giving up.
	That doesn't say anything about it. No. No help whatsoever. Go back to Asia again.
(0:25:32.7)	Subject clicks on "Asia" option and page returns to "Asia - includes China, Vietnam, Cambodia, Laos" web page. Clicks on further link to map of Asia. Map on screen and subject moves mouse over Vietnam and clicks. Pop up box appears, subject clicks on Asia, Vietnam, Mekong river. Enters duration and trip start in relevant boxes. Clicks to search.
	Asia again, Vietnam, city, we will try Mekong River. Duration 14 days, trips river cruises, rail tours, trip selection, let's start June next year.
(0:26:12.5)	Page displays 5 Search results. Subject clicks on bottom option for link to "Angkor, Mekong and Ho Chi Minh City". Page states not available online.
	Angkor, Mekong, Ho Chi Minh City that's the one I just did, eight days, 13 days, what about that one, contact us for pricing, well that's no help either. I will try that one, 7 night cruise on the River and it's a 14 day tour. For more information please contact, it's currently not able to be booked on line, well that's no help either. Fly London, good heavens. Why would I want to go to London if I'm going to Vietnam? Right oh we will forget APT.
(0:27:24.9)	Subject scrolls to top right of page and clicks on "Close" option. Page returns to "APT - Asia - includes China, Vietnam, Cambodia, Laos".
	Let's see if Scenic are doing it.
(0:27:27.9)	Subject returns to top right of page and clicks on "close" option. Screen displays link to "APT - Our Most Popular Asia Trips".
(0:27:33.7)	Subject clicks in URL and enters search term "www.scenic tours"
(0:28:05.0)	Google search product page served. Scrolls to bottom of Google sponsored links page and clicks on "Next page" option. Screen displays 2nd page of Google sponsored links.
	Scenic Tours, Europe, Europe. Scenic Tours Canada and Alaska. See if they will do anything. I am sure they do Asia. Scenic Tours.
(0:28:46.5)	Scrolls to URL and enters search term "Www. Scenictours Asia", 3 Google sponsored links appear on page. Subject clicks on link to "ScenicTours.com - Asia and India tours".
	Packages to Asia. Tourabout, that's not Scenic.
(0:28:57.4)	Screen displays text, images and map. Various tours are displays vertically down page, subject clicks on link to "25 day, Jewels of Vietnam and Cambodia".
	Right we don't want China, you don't want China cause you have to get a Visa. Vietnam and Cambodia, 25 days jewels of Vietnam with luxury Mekong cruise, 25

	days is a bit long. 28 days, 31 days. 15 days. Cambodia, Laos. No we will try the 25 day one.
(0:29:45.3)	<b>Page displays map and boxes to click to view further details. Scrolls down page perusing day to day itinerary.</b>
	Met at the airport, departures are available. It's all Vietnam, well we are met at the airport, and they don't say anything about your airfare anyway. Transfer to the airport, flight not included. Right. Let's go and check availability. See if they've got prices
(0:30:37.1)	<b>Scrolls back to top of page and clicks on box "View availability".</b>
	I quite like this one because there is only one place you are staying one night, these are all two nights, three nights and a seven night cruise which means you are not packing and unpacking. \$10,595. No too long. Shall I call the special section website from the office including early birds, well where is the traveller sites and specials, travellers specials.
(0:31:24.8)	<b>Scrolls to top of page and clicks on top tab "Travel Specials".</b>
	Here we are Early Bird, you can enjoy partner free airfare, just pay taxes, Scenic tours Vietnam and Cambodia, righty oh. Ooops what the heck was this?
(0:32:04.2)	<b>Subject clicks on option "Scenic Tours to Vietnam and Cambodia", pop up box appears. Subject clicks on pop up box, further pop up box appears requesting user name and password. Clicks on "Close" option.</b>
	Yes or no passport, no don't want to do that.
(0:32:16.6)	<b>Smaller page appears "Scenic Tours Vietnam and Cambodia 2011". Scrolls down page which displays different cruises of different duration.</b>
	5 day, first person \$7,095, partner free airfare, just pay taxes, cruise, no. 28 days, well Wendy Wu looks like the cheapest of the lot. No, I will get out of there.
(0:33:03.2)	<b>Scrolls to top right of box and clicks "Close" option. Page returns to "Scenic Tours Travel Specials" web page.</b>
	Early Birds see what they are.
(0:33:19.1)	<b>Subject clicks on tour and pop up box appears, subject clicks and new page opens "Scenic tours China India, Vietnam. Cambodia &amp; Laos" depicting various tours of different duration. Scrolls to top right of page and clicks on "Close" option.</b>
	15 days. No.
(0:33:49.4)	<b>Page returns to "Scenic tours Travel Specials". Subject scrolls to top left of page and clicks on "Back" option. Screen returns to Scenic tours Asia &amp; India Tours".</b>
	Okay go back,
(0:33:56.2)	<b>Box at bottom of page displays departure dates, subject clicks on first option. Pop up box appears, subject clicks "Close" option.</b>
	That one looks the best of the lot, \$10,000 it's available, goes in October, September, I might have a look at that one. I might go back.
(0:34:23.2)	<b>Page returns to "Scenic tours Asia &amp; India tours". clicks on top tab "travel Specials" again,</b>
	Travel Specials.

(0:34:27.3)	Scrolls down page of various tour options, clicks on link to "Scenic Tours Vietnam & Cambodia 2011", scrolls down tour options.
	\$13,000.
(0:35:22.2)	Returns to top right and clicks on "Close" option.
	No, I will get out of there
(0:35:22.3)	Scrolls to top left of page and clicks on "Back" option. Screen returns to "Scenic tours Asia & India tours".
(0:35:26.7)	Subject scrolls to top left of screen and clicks on "Back" option. Page returns to "Scenic Tours Asia & India Tours" home page.
	and go back to Wendy Wu.
(0:35:36.1)	Subject returns to URL at top of screen and enters search term "www.WendyWiu tours" Google search product served and clicks on Google sponsored link to "Wendy Wu tours" home page.
	Wendy Wu, Vietnam, try that.
(0:36:16.5)	Subject clicks on option on left hand side of page for Vietnam and further link to "Classical Vietnam - staying in 4-5 star hotels".
	Vietnam. 15 days, Classical Vietnam, 16 days let's see what that is.
(0:36:40.2)	Page depicts day by day itinerary together with images.
	Fly with Singapore Airlines to Saigon for a four night stay. Alright, today we cruise on the islands, drive south, drive, cruise, there is nothing, you don't have a river cruise. Vietnam?? Vietnam and Laos Discovery Cruise.
(0:37:25.3)	Returns to left of page and clicks on link to "New - Vietnam & Laos Discovery" which again shows Day by day itinerary.
	Fly with Thai Airways, I don't like Thai Airways. Vietnam Highlights.
(0:37:44.1)	Returns to left had side of page and clicks on link to "Vietnam Highlights" tour. Once again, page displays day by day itinerary.
	Fly with Vietnam, oh no.
(0:37:56.6)	Subject returns to left of page and clicks on link to "Yangtze River 5* Luxury Cruising" showing various cruises and details. Scrolls down page.
	(inaudible) five luxury cruising, Victoria Cruises. Right. That looks alright. Five days, ten days. That's only the river cruise, so you would have to book your flights, accommodation and only do the tour with her. No. Let's see if she has any specials.
(0:38:55.8)	clicks on link to current specials, nil result
	Oh, that's no good. What's the Vietnam Panorama 18 days?
(0:39:13.2)	Clicks on link to Vietnam Panorama. Page offers text itinerary in central vertical block and photos in right hand vertical block. Subject considers features of tour.
	18 days fully inclusive from selected Australian cities. Appreciate the scenery of Saigon. Relax as you cruise around the islands and soak up the history. History, fly to Hanoi. Fly with Singapore Airlines. Enjoy walking tour. That's a junk boat thing. Spend a night on board a junk boat. That looks alright but it doesn't have a cruise as such. I will try another one. 18 to 21 days, grand tour. I don't want China. Vietnam trails. See what that one is.
(0:41:02.4)	clicks on link to NEW Vietnam Trails. Same format as other tour pages.

	No. Mekong River Cruise eight days. I would like to do a cooking tour. Maybe if we did the Mekong River Cruise and then combined it with something else,
(0:41:48.4)	<b>Clicks on link to Mekong - Pandaw river cruise. Same format as other tour pages but no photos in RHS column.</b>
	That might be alright. Right, okay we might do the Mekong River cruise originating in (inaudible), close to China, transfer, so you fly into Saigon, I will have a look at it. Right oh, I need a pen. <i>If you would like to record web pages, if you just open a word document, you can cut and paste and I will email that document to you.</i> Right. <i>That way you have got the links to the pages.</i>
(0:43:34.9)	<b>Opens word document to record details of web pages of interest.</b>
	Assistance with word document for recording URL's Okay. So I will do this one, the River Cruises was 1860, I will see if I can combined that with a tour. So how long was that one, 8 days. Then if we can combine that with introduction to Vietnam, I will try that one.
(0:45:19.5)	<b>clicks on link to Introduction to Vietnam, page serves general information on centres visited with summary of tour offerings at bottom</b>
	Saigon, Hanoi, Halong Bay, overview of group tours. Number of days, I would love to do the cooking one but I don't think my husband would be in that, unfortunately. Where are we, short stays, if we are doing the cruise for eight days, if we do a heart of Vietnam, that looks alright, six days, historical heart of Vietnam. He would probably like that. Where are we, we end up, oh that's the other one. Right where does it start, it starts in Saigon, I can't remember where the cruise ends, cruise ends in Saigon. I want the cruise ends in Saigon, I will have to go and see where the cruise ends. Let's go back.
(0:47:20.0)	<b>Clicks on link on Left hand side of page to Mekong-Pandaw River cruise.</b>
	Cruise starts in Saigon, so I suppose it ends in Saigon, disembark your cruise this morning and transfer to allocated drop off point in Sien Reap, wherever that is. I will have to get from Sien Reap back to Saigon. Sien Reap, wherever that is, country information,
(0:48:13.6)	<b>Clicks on general information category link top right of page to country information. Drop down menu with links to countries</b>
	Travel information. We need a map. Cruise along the Mekong River, well I need to know, itinerary, Saigon, Mekong Delta, countryside of Cambodia as you cruise along the Mekong River. Let's go and do the short stays to Vietnam,
(0:48:17.6)	<b>Clicks alternate link for travel information. Returns to tour information</b>
(0:49:23.1)	<b>Clicks on link to short stays in Vietnam. Clicks on Country map which appears in pop-up box.</b>
	Country map, that's what I want.
(0:50:02.3)	<b>Closes map, returns to Introduction to Vietnam page.</b>
	No I don't think that is going to work.
(0:50:34.1)	<b>Clicks on link to Vietnam highlights tour at bottom of page.</b>

	I will try that one.
(0:50:56.4)	Clicks on left hand column link to NEW Vietnam Escape tour
	Nope
(0:51:09.8)	Clicks on link to Vietnam and Laos discovery tour
	I'll try that one.
(0:51:17.1)	Clicks on link to Vietnam Panorama tour
	That's an 18 day one. Boat trip, no. Returning to Saigon. Drive, it's all driving, driving, driving.
(0:52:19.4)	Clicks on link to Angkor to the bay tour. Scrolls to top of screen and clicks on "Back" option, back to "Vietnam Panorama".
	No, I will get out of there.
(0:52:34.6)	Scrolls to top of screen and clicks on Back" option, back to "NEW - Vietnam & Laos Discovery".
(0:52:36.1)	Clicks on "Back" option, back to "NEW - Vietnam Escape"
(0:52:36.5)	Clicks on "Back" option, back to "Vietnam Highlights".
(0:52:37.9)	Clicks on "Back" option, back to "Mekong - Pandaw River Cruise".
	No
(0:52:45.9)	Clicks on "Back" option, back "NEW - Vietnam Trails".
	That's the river one.
(0:53:00.1)	Clicks on "Back" option, back "Vietnam Panorama"
(0:53:08.9)	Subject clicks on URL and enters search term "Cruises Vietnam" for google search product and clicks on link to
	Oh NRMA, I will try NRMA.
(0:53:28.2)	"NRMA.com.au - Hot Travel Deals" web site. Subject returns to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links for "Cruises Vietnam".
	No I don't think so. Vietnam Cruises. Mekong Boat cruise, cruises from Saigon. Mekong River Cruises,
(0:54:02.8)	Subject clicks on Google sponsored link "Mekong River" web page.
	I will try that one. Order a brochure get a quote. That's not good. No
(0:54:21.5)	Subject returns to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links.
(0:55:02.7)	Subject clicks on second Google sponsored link to "Helen Wong's tours.com" home page. Page displays two columns of optional further links.
	My goodness. Vietnam Highlights for seniors. No I think I would rather go with a firm I know.
(0:55:25.4)	Subject returns to top left of screen and clicks "Back" option. Screen returns to Google sponsored links page.
	So we will go back to APT and see if we can find some prices.
(0:55:36.5)	Subject clicks on Google search and enters the search term "apt" and clicks on Google link "APT".
	APT,
(0:55:58.2)	Screen displays country options on left and subject clicks on link to "Asia".
	Asia,



(0:56:02.4)	Page displays "Our Most Popular Asia Trips" with various tours listed in two columns vertically with an image and text in each box.
	Adventure, including a seven night cruise, that's the one.
(0:56:14.1)	Subject clicks on link to "Ho Chi Minh City, Mekong & Angkor". Page displays in new window with cost and day by day itinerary of tour.
	Right view dates and prices.
(0:56:24.9)	Subject clicks on "View Dates & Prices" box located underneath the \$ cost of the tour.
(0:56:31.0)	Page opens with drop down calendar "Departure Dates & Prices". Subject clicks on month and dates. subject scrolls to right hand side of page and enters number of passengers.
	June, June, ..... I will try September, 5th September. No availability. Limited availability. Let's go June, 18th no availability, departure, oh that's a bit hard to follow, select departure date, what about we go next year. April right, red ones are not available but the blue ones says select departure date, okay go that one. Double, two adults \$4795. Saturday to Wednesday the 18th April. So that's APT and that's 12 days and that has a seven night cruise. And that's 7th April 12 to 18th April 12, the only thing I don't know about that is what the weather is is like at that time. So select your room type. Okay
(0:59:21.8)	Subject scrolls to top left of screen and clicks on "Back" option.
	So we will get out of that and see if I can get any information on weather.
(0:59:27.1)	Screen returns to "Ho Chi Minh City, Mekong & Angkor" page. Subject scrolls down page looking at options displayed down right hand side of page.
	Mekong Cruising information. Full charges and tipping are included, airport transfers included. If I want to save that one, I open my Microsoft document. <i>If you just highlight the address first and then ctrl C and you open the word document and ctrl V.</i>
(1:01:06.0)	Subject scrolls to URL and highlights web site and clicks Ctrl + C and copies address. Scrolls to bottom of screen and clicks on minimised Microsoft Word and word document appears on screen. Subject clicks in word document and Ctrl +V. Scrolls to top left of Word page and clicks on "minimise" button.
	Okay, now I have to go and find out what the weather is like in Vietnam.
(1:01:29.0)	Subject scrolls to top right of page and clicks on "Close" button. Screen returns to "APT Our Most Popular Asia Trips".
(1:01:32.1)	Scrolls to top left of page and clicks on "Back" option. Screen returns to Google Search product page. Subject scrolls to search term window and enters search term "Vietnam weather seasons" and clicks on Google sponsored link "GuideVietnam.com" home page.
	Weather seasons, weather climate.
(1:01:53.4)	Page displays written information, subject scrolls down page to link to "Weather by month" and clicks on link to "Vietnam weather in January".
	Two seasons, monsoon, we don't want to go then. Weather by months, January. January, now how do I get onto February. January is the coolest month in Vietnam. Generally around 27. It's quite cool and dry though the central region is still in late



	raining season in May, no. so we want to know what it's like, southern Vietnam has a distinct dry season, November to April, wet season May to October, righty oh. So I think we will be in the south I think. November to April, well I put in April didn't I. Wet season May to October. Rainy months are August, October, November. I reckon April or March might be better, anyway we can do that. Go March, okay,
(1:03:53.0)	Subject scrolls to top left of screen and clicks on "Back" option. Screen returns to "GuideVietnam.com - Vietnam weather in January".
	now I think the flights were included in that,
(1:04:03.2)	Subject clicks on "Back" option twice and screen returns to Google sponsored links page.
(1:04:11.5)	Subject clicks in search window and enters the search terms "apt Asia tours" and clicks on Google sponsored link "APT - Quick link buttons to APT tours & Cruises".
	so I will go back to APT.
(1:04:40.3)	Subject clicks on Asia button and page opens with "Our Most Popular Asia Trips" home page. Page displays various tours listed in two columns with a graphic and text in each box.
(1:04:47.9)	Subject clicks on top right for further link to "APT - Ho Chi Minh City, Mekong and Angkor". Clicks on button at right hand side of page underneath \$ cost of tour.
	View dates and prices.
(1:04:57.6)	Page shows "Departure Dates and Prices" with drop down boxes for month and date. Subject enters year, month and dates respectively. On right hand side are drop down boxes for number of passengers. Subject returns to departure date boxes and enters new date in drop down boxes, right hand side shows cost for required dates. Subject returns to departure date boxes and enters new date in drop down boxes, right hand side shows cost for required dates. Subject returns to departure date boxes and enters new date in drop down boxes, right hand side shows cost for required dates. Subject scrolls to right hand side of page and enters number of passengers.
	So we want 2012 and we want March. Pretty popular, limited availability, we will try this one. 17th March, oh that's dearer. Let's try February. 11th. Departure date, 2012 February, \$5245, available departure, that's the 4th. Right let's try, 7th April is what I had. March 24th, March 10th. 24th March, 21st March 23rd March. Let's go 1st March. Okay we will change it to the 31st March 12 to and that's \$4795. Change it to 31st March to the 11th April, total price is \$9,590, I think airfares are included. I think, I think, I think.
(1:08:29.1)	Scrolls to top left of page and clicks on "Back" option. Page returns to "APT - Ho Chi Minh City Mekong and Angkor" page. Scrolls down page. Scrolls back to top of page.
	No they are not. Righty oh, so then we want airfares. Meet at the airport, transfer to your hotels, so that is the 31st March and departing - transport to the airport, it's Sien Reap which is the same place that other cruise finished. Righty oh. I think I will have to consult a friendly girl at flight centre.
(1:10:12.5)	Subject scrolls to top right of screen and clicks on "Close" option. Screen

	returns to "APT Our Most Popular Asia Trips", subject scrolls to top left and clicks on "Back" option.
	That's called 12 day OG Mekong and it's got a seven night cruise.
(1:10:53.6)	Clicks on "Back" option twice, screen returns to Google sponsored links page. Subject clicks in search window and enters search term "www.Accor Vacation Club" and clicks on Google sponsored link "Accor Vacation Club".
	I need to go to Vacation Club login
(1:11:21.2)	Page opens to "elounge - coming events" and clicks on further link at bottom left of page, orange box, "Travel" and page opens with "Accor Vacation Club Travel Flight Centre" web site.
	Right now, Accor Vacation club Flight Centre, 1800 708 090 right, do I have to dial 0. <i>Just dial 0 for outside.</i>
(1:12:14.3)	<b>Subject makes telephone call</b>
	<p>Hello, Isaac, is Leah available.</p> <p>Hello Leah, I am trying to organise a tour to Vietnam and Cambodia, I have been looking up the net and there is one with APT which is a 12 day tour and it has a seven night cruise in it as well. Now that doesn't include any flights over.</p> <p>No. MMM</p> <p>That's right.</p> <p>Have you had any experience with the APT ones or anyone in particular?</p> <p>Mmm, have you done any, alright, alright?</p> <p>Go the other way. So where do you fly into, right.</p> <p>That seems better.</p> <p>Have you had any experience with Wendy Wu?</p> <p>Was good.</p> <p>They are a lot cheaper than APT and Scenic.</p> <p>And Wendy Wu doesn't. mmm</p> <p>I had a bit of a look of Wendy Wu but I haven't got much detail.</p> <p>I couldn't find a Wendy Wu that more or less did say a seven night cruise.</p> <p>Yeah I did look up; there is one that's just for cruise only.</p> <p>Now APT don't include the airfares?</p> <p>Do they have any early bird offers?</p> <p>I was going 2012</p> <p>What are the airfares now though?</p> <p>Okay now what's the time of the year, the best time of the year, I sort of looked up and I thought up till April, April on sort of goes into the wet season.</p> <p>End of June. So I was looking at one that goes I think 31st March till the 11th April, maybe better later in the year or earlier.</p> <p>Right so that's sort of the better time to go.</p> <p>That would be great if you can do that.</p> <p>Do you know anything about the Scenic ones?</p> <p>Oh right. Right, fair enough.</p> <p>Okay I will do that, thanks Leah, bye.</p> <p>Right well APT is as far as she is concerned; they book a lot more with APT than</p>

	with Scenic or Wendy Wu. Wendy Wu doesn't include as many meals, you have to get meals, whereas APT includes all the meals and she suggested that we do the 12 day one in reverse, start at that Sien Reap, have a couple of nights there and then do your seven night cruise and then have a couple of nights in Saigon at the end and that looks pretty good to me. And that works out at \$9
(1:22:30.8)	Scrolls to top right of page and clicks on "Close" option.
	close on \$10,000.
(1:22:36.0)	Scrolls to top left of screen and clicks on "Back" option. Screen returns to Google sponsored link page.
	Now the best time to go is February through to March, if not then later, August through to December. Flights are extra which is \$1500 to \$1600. So that looks good and she is sending me out a brochure, which is good.
(1:23:05.9)	Subject clicks on URL and enters search term "apt asia tours" and clicks on Google sponsored link
	We will just go back into APT Asian Tours,
(1:23:16.7)	"APT Our Most Popular Asia Trips" and clicks on top right hand option for link to "Ho Chi Minh, Mekong and Angkor".
	That's the one
(1:23:22.4)	Subject scrolls to top left of screen, highlights URL address and clicks Ctrl +C to copy URL. Subject scrolls to bottom of screen and clicks on minimised Word Document to maximise and Word document opens on screen. Subject clicks on document and clicks Ctrl +V and copies URL address into Word document. Subject scrolls to top right hand side of Word page and clicks on "Minimise" option.
	I can't remember if I saved that one or not. What is it highlight that and ctrl C and bring up our document and ctrl V. I have got it in there; we have it twice, no that looks good. <i>We might call it day then, thank you very much.</i>

## Subject 4a

(0:00:44.5)	Subject enters search term "Amsterdam to Paris" and clicks on Google sponsored link "Amsterdam-Paris by train" and page opens to
	I am trying to book a train from Amsterdam to Paris. Via train, rail Europe, I will try that one.
(0:01:10.8)	"RailEurope - Enjoy Europe Travel by Train". Page depicts boxes for entering travel information. Subject enters from and to information and uses drop down boxes to enter dates. Clicks on "Search tickets" button.
	<i>Any particular reason why you chose that one?</i> No it just says Rail Europe, first one on the list. I think there is another one that is, and it is an Australian site I think, which I will try later but I just wanted to compare prices. From Amsterdam, some of them you can only book a couple of months ahead and so I don't know whether I will have any luck or not, to Paris and it's June 28, it's single, where's single, there is only return. Four adults, no I don't want four adults, I will have four seniors. Search tickets, there is no opportunity there for me to say single.
(0:02:22.6)	Page displays that RailEurope is processing subject's request.
(0:02:36.7)	Page opens with Subject's search criteria, and notification cannot be processed.
	Right it's not eligible for reservation until a later date. Right I think this might happen with all of them.
(0:02:54.8)	Subject scrolls to top left of page and clicks on "Back" option twice and page returns to Google sponsored links. Subject clicks on link to "Euro Railways - European Train Tickets".
	There is another one Amsterdam to Paris. Amsterdam to Paris,
(0:03:20.6)	Page depicts different boxes and subject enters in to and from destination and clicks on "Search" option.
(0:03:38.2)	Screen displays search results. Subject clicks on button for further link for Amsterdam to Paris rail information,
(0:03:47.5)	page displays Schedules and Fares in table format. Scrolls down page.
	I am presuming these are in Australian dollars but I don't know. There is nowhere that it says, currency US dollars, how do I change it to Australian dollars, I probably don't. Senior fares. There is no where there to change to Australian dollars. That's not very helpful at the moment. I will try another one.
(0:04:48.9)	Scrolls to top left of screen and clicks on "Back" option twice and screen returns to Google sponsored links page.
	Right, how to book dream travel homes to go to Paris, we will try that.
(0:05:07.0)	Subject clicks on link to "eHow - How to Book Train Travel from Amsterdam to Paris".
(0:05:10.9)	Scrolls down page. Scrolls back to top of page. Clicks on link "How to book train travel from Amsterdam to Paris". Page remains the same.
	From Paris to Amsterdam, I want to go the other, Amsterdam to Paris. Day trips to

	Paris. How to book train travel from Amsterdam to Paris.
(0:06:04.1)	<b>Clicks on link in text for "eHow Travel" and page displays text.</b>
	Well that's no help. Look at the train schedule. We will need the train schedule, how do we get the train schedule? That's a lot of help that is. It's now easy to get from Amsterdam to Paris with the introduction of a high speed train travel between Amsterdam to Paris has increased. Let's try that.
(0:07:01.1)	<b>Subject scrolls to top left of screen and clicks on "Back" option and returns to Google home page.</b>
	That's no good ..... ah ... right
(0:07:21.0)	Enters in search term "Amsterdam to Paris by train" and clicks on Google sponsored link "Why Go Amsterdam - Getting from Amsterdam to Paris". Scrolls down page looking at flight, rail and coach options. Subject clicks on link to "check the Dutch railways trains international site", and page displays "Hispeed - search and book" options. Subject enters to and from information and dates using drop down boxes. Subject clicks on "Search" button. Screen displays further preferences for travel and subject enters data in required fields using drop down boxes and clicks "Search Train Tickets" button. Screen displays "Hispeed - Schedule & price". Page displays information in table format in boxes for dates, class of travel and fares. Subject returns to top left of screen and clicks on "Back" option several times and page returns to Google sponsored links page. Subject clicks on Google sponsored link
	Right we will try again. I tried that. I have to book Amsterdam Paris by train. Amsterdam to Paris, I will try that one.
(0:07:59.9)	<b>"Why go Amsterdam" getting from Amsterdam to Paris page; options for plane, train and bus travel. Clicks on link to Dutch National railways site. Nil result initially.</b>
	Going from Amsterdam to Paris, flying, I don't want to fly, I want to go by train. Check the Dutch railways international site. (inaudible) specials. Seems to have stopped.
(0:09:01.2)	<b>Hi-Speed page with options for Paris appears with search and book interface at top right. Subject enters origin and destination, selects dates and clicks search.</b>
	Search and book. Train from Amsterdam to Paris, 28th June, no return.
(0:09:56.8)	<b>Screen requesting preferences served. Subject re-enters trip details and clicks search.</b>
	Right one way, I will do it again. Amsterdam central I presume to Paris. 28th April, time for departure four adults, no kids, we will try first class.
(0:11:03.9)	<b>Schedules and prices page served with fare options</b>
	Right, well, that means hiflex, what's hiflex?? These are in Euros, low fixed, smooth comfort, that's interesting, mid flex comfort one, hiflex comfort one, what in the heck does that mean.
(0:11:59.3)	<b>Subject clicks on "lowflex" option for details, unsatisfactory response. Clicks back button multiple times to return to Google search results page. Clicks on</b>

	<b>alternative link</b>
	I will see what low flex, I have got no idea, I don't like that one. Train verses bus; let's see what that is about.
(0:12:32.6)	<b>"Travellers Point.com - Paris-Amsterdam - train vs bus" web page.</b>
	No, don't want that.
(0:12:44.5)	<b>Scrolls to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links page. Subject clicks on "next" page for Google sponsored links and Page 2 of links displayed on screen. Subject clicks on "next" page for Google sponsored links and Page 3 of links displayed on screen.</b>
	Amsterdam Paris by train, have a few questions, let's see if I can find the one that has the Australian travellers. No. I will try this, let's put in a different date and see what happens.
(0:13:50.9)	<b>Clicks on Google sponsored link to "Euro Railways". Page displays data fields for travel information. Scrolls down page.</b>
	Amsterdam to Paris, options and fares, first class, senior, promotional leisure fare is \$173 and a senior is \$220, senior fare, what's a leisure fare? Leisure 50% off online, three days before the departure, thereafter no refund, to exchange a new ticket must be issued, then why would you have a seniors at \$220 and the other one at \$173. They are in US dollars, other countries, there is no departures, it takes four hours,
(0:15:23.9)	<b>Returns to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links page. Scrolls to bottom of Google page and clicks on "Next" option, page 4 of links displayed.</b>
	I would say there is only two lots of rail travel. Amsterdam to Paris by train, we have tried. Let's try Amsterdam to Paris by train.
(0:15:45.7)	<b>Clicks in search window and enters search term "Amsterdam to Paris by train Australian dollars" and clicks on Google sponsored link to "Eurostar Rail Europe" home page.</b>
	Right Eurostar, no bank fees and after sales. Eurostar from \$79 by train. I will try this one again. This one you can pay in
(0:16:34.2)	<b>Subject scrolls to left of page and uses drop down menu to enter from and to destination.</b>
	Australian dollars, from, no that's no good it doesn't go from Amsterdam, Eurostar, that's Eurostar; Eurostar doesn't go to Amsterdam, our destinations,
(0:17:10.6)	<b>Clicks on top horizontal tab "Other Destinations". Scrolls to top of page and clicks on horizontal tab "Plan your Trip".</b>
	no. The Netherlands, that's no good. Plan your trip, click on country or city, well we click on the Netherlands. Information air trips in the Netherlands, okay
(0:17:45.0)	<b>Page displays map of Europe, subject clicks on Netherlands. Page displays map of Netherlands.</b>
(0:18:06.6)	<b>Subject clicks on Amsterdam and in pop up box enters to and from destinations.</b>

	Amsterdam, from Amsterdam to Paris. Okay that's only trips in the Netherlands; it's not trips to Paris, right we will get out of there. I am not having much luck.
(0:18:31.2)	<b>Subject scrolls to top left of page and clicks on "Back" option 4 times, page returns to Google sponsored links.</b>
	Getting from Amsterdam, that's no good. Amsterdam Paris by train, instant train tickets, lets try that one.
(0:18:51.9)	<b>Clicks for Google sponsored link on right hand side of page to "European Travel Shop.com"</b>
(0:19:06.9)	<b>Page displays fields to be entered for destinations, dates, subject uses drop down calendar and enters dates and clicks "search button.</b>
	Your location Australia, that's looking better, one way from Amsterdam to Paris, we will try for June but I don't know if we will get that far. Say June 28, no its way, I am wanting passengers, so one adult.
(0:19:49.2)	<b>nil result so subject returns to top left and clicks "Back" option.</b>
	Right that is too far ahead, so I have to put in a date, I will put in the,
(0:19:58.5)	<b>Subject enters new dates using drop down calendar and clicks "Search Tickets". Page displays subject's request is being processed. Page opens with results "no sales"</b>
	go back, go back. Put in the 26th April, it's a one way, returning, I don't want that because I am not returning, okay one adult, search tickets. No sales.
(0:20:54.8)	<b>Subject scrolls to top left of screen and clicks on "Back" option. Subject enters revised dates in drop down calendar and clicks "Search Tickets". Page displays subject's request is being processed.</b>
	That's April, I will try March. March 29th, search tickets, oh no that's no good.
(0:21:28.9)	<b>Scrolls to top left of page and clicks "Back" option. Subject enters revised dates in drop down calendar. Page displays subject's request is being processed.</b>
	That's no good because it said around trip and I don't want a round trip. I want a one way trip.
(0:21:47.4)	<b>Page displays information in tables together with prices. Subject clicks on right hand side for further train times. Page displays subject's request is being processed.</b>
	Departure, let's try a later train,
(0:22:03.2)	<b>Page displays information in tables together with prices. Scrolls down page. Subject scrolls to top of page and clicks in horizontal tab "top tips".</b>
	one adult, 9:16, and it takes 3 hrs and 19 mins and it is \$71, that's Australian dollars. That is a direct one, reservation needed, that's indirect, I wonder what indirect is. One second, book early, one early, \$71, flexible second, that's second class, first class is \$105 Australian dollars, no. That's indirect. All rail bookings are subject to delivery fee of \$6 or \$14 depending on delivery option. Handling fee of \$10 per pass, Europass no fee. \$4 per Eurostar ticket, reservation. All subject to delivery fee of \$6 or \$14, handling fee per pass, so that's \$14 plus another \$10 for a handling fee and \$6, I don't follow that. Let's go, it says top tips, let's see what top tips are.



(0:24:35.3)	Page displays two columns of text and images. Subject clicks in bottom right box and page displays extensive further text tips for travel. Scrolls down page.
	Eurorail, many different types of rail passes available. Eurostar carries more passengers, top 30 train trips, train booking. When booking a train trip in Europe there are a few easy, possibly fall into and costing you money. Let's see what they. Plan your trip, book as many trips as possible to save on booking and shipping fees. Book everyone in together at the one time. Can you choose your seat, no you can't choose your seat. Oh that's a start.
(0:26:12.0)	Scrolls to top left of screen and clicks on "Back" option 5 times and screen returns to Google search results page. Subject clicks on link to
	We will go now and see if I can find, best options from Amsterdam to Paris, I will see what that says.
(0:26:50.9)	"Best Options to get from Amsterdam to Paris". Scrolls down page of text with mixed opinions of other travellers and links to other websites.
	Amsterdam to Paris, what's the best option to get to Paris from Amsterdam, train or flight. Right the train takes four hours and it will take you from city centre to city centre. If you fly you need to get from the airports. Train less expensive than the flight, train fares are less expensive when bought in advance. Please do not look beyond THALYS .... is a perfect option. Trains have no boarding tax, right. I think I will have to do that later.
(0:27:55.4)	Subject scrolls to top left of page and clicks on "Back" option. Page returns to Google sponsored links page. Clicks on "Next" page of Google sponsored links. Subject clicks on "Next" page of Google sponsored links. Page 3 is displayed. Scrolls to top left of page and clicks on "Back" option.
	I will just try another one. Now I will try again from Paris
(0:28:28.9)	Subject enters Google search for link to "Paris to Noyers" and clicks on Google sponsored link
	to Netherlands and see what happens. Day trip to Noyes from Paris.
(0:28:44.7)	"Trip Advisor - Noyers-sur-Serein Forum - Day Trip to Noyers from Paris".
	Right travel forum day trips, travel guide, no, go back.
(0:29:15.7)	Subject scrolls to top left of page and clicks on "Back" option. Screen returns to Google sponsored links page. Enters in Google search "Paris to Noyers by train" and clicks on Google sponsored link "France by Train".
	France by train, try that one.
(0:29:33.9)	Screen displays "Rail Europe - Enjoy Europe, travel by train" web site. Page displays vertically listed options down left hand side of page and map of France on right.
	Rail tickets special offers.
(0:29:54.2)	Subject clicks on "City Finder" button and enters Noyers, France. And clicks on "Train Finder" button.
	Search for Noyes ..... other train ... Train finder. Well that's not going anywhere,
(0:30:27.2)	Subject scrolls to top left of page and clicks on "Back" button. Page returns to Google sponsored links page and subject clicks on link to "Visit France"



	web page.
	book passes and tickets. Let's try this one.
(0:31:01.7)	Page depicts large photos and text relating to Noyers. On right if top photograph are fields for entering dates etc.
	I don't want a hotel, I want to know how to get there. Book a visit, flights, trains, ferries.
(0:31:23.2)	Subject scrolls to top of page and clicks on horizontal tab fir "Flights, Trains, Ferries". Visit France page with transport options.
	Touring France, let's try that.
(0:31:36.0)	Subject clicks in right hand box for further link to "France by Train - Eurotunnel and Rail Europe". Subject enters travel information using drop down boxes in panel in middle of page but finds lack of suitable options.
	European French trains, one way ticket from Paris destination, we can't go there, we have to go somewhere else, I think, no that's no good. France map.
(0:32:50.0)	Scrolls to top of page to horizontal buttons and clicks on "France Map". Page displays map of France with "pins" depicting where train travel is an option.
	No that's no good, I will have to get a train
(0:33:04.7)	Subject scrolls to top left of screen and repeatedly clicks on "Back" option and page returns to Google search results page. Subject highlights in Google search URL and enters search term "train routes in France" and clicks on Google sponsored link to
	when it's in France. Train when it's in France, we will try this one.
(0:33:36.2)	"Rail Europe - France". Return to website previously visited
	No that's where I was.
(0:33:40.1)	Subject scrolls to top left of screen and clicks on "Back" option. Page returns to Google sponsored links page. Subject clicks on link to
	Train trip, timetables.
(0:33:51.1)	"Rail Plus - Eurail Passes" web page. Scrolls to right hand side of page and enters Country France using drop down box. Scrolls to box further down page and clicks on "Free Extras" button.
	Choose a country, France. No that's no good. (inaudible) eurailpass.
(0:34:36.7)	Scrolls to top left of screen and clicks on "Back" option. Page returns to Google sponsored links page.
	Map of train routes with distances.
(0:34:45.7)	Clicks on Google sponsored link "Bonjour la France" web page, page depicts text in boxes and schematic map of France showing rail routes.
	Right. We need to go TGV I think is the one that I want. No. Click your destination, Montbard,
(0:36:21.7)	Scrolls down page for destinations and clicks on "Montbard". Page displays train information for Paris to Montbard. Large map on bottom half of page.
	That's the one. Choose a train departure station, Paris,
(0:37:10.9)	Subject enters departure station using drop down menu. Subject enters train station using drop down menu. Clicks on "Search".
	Choose your train station, Montabard, show weekly schedule.

(0:37:50.1)	Page displays train details . Uses scroll bar to review time options.
	You have to change trains, no that one you have to. Well I might want a later one, say 1:20, that might alright, Paris, 13:20 and that gets to Montabard at 17:37, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, seven days. Click here for map with major stations.
(0:39:16.1)	Subject clicks on further link to maps showing train stations.
	Right, all TGV leaving from Central Paris, so now what we want to do is we want to get car hire.
(0:39:58.5)	Scrolls to top right of page and clicks on "Close" option.
(0:40:02.3)	Scrolls to top left of screen and clicks on "Back" option.
	I didn't find out how much that was. Do they have prices, oops, okay I will do it again.
(0:40:23.1)	Page returns to train timetables.
(0:40:23.6)	Subject scrolls to top left of screen and clicks on "Forward" option. Page returns to "Bonjour La France ' France Train Travel" depicting map of France.
(0:40:45.6)	Subject clicks in "From" field. Page returns to train timetables previously looked at.
(0:41:06.8)	Clicks on "Book" button. Nothing happens, subject again clicks on "Book" option. Scrolls down page and clicks for further link to
	Right now I will book that one and it might give me a price. Book. Click on country booking engine, link.
(0:42:17.2)	"Rail Europe - Enjoy Europe, travel by train".
	No that's no good, I am back where I was before. Let's get this one. Top point to point tickets.
(0:42:44.0)	Subject clicks on link to "Top Point to Point Tickets - Thalys".
(0:43:05.5)	Subject scrolls to top right of screen and clicks on "Close" option. Page returns to timetable options in grid.
	I can't unbook this, no. If the weekly schedule is not available, how do I find out a price, click on your country link, which is Australia
(0:43:44.5)	Scrolls down page and clicks on country Australia. Page opens "Rail Europe - enjoy Europe, travel by train" with boxes for entering travel information, to and from destinations and clicks "Search". Page shows subject's request is being processed.
	okay. Train tickets Paris. I am finding this very frustrating,
(0:44:32.3)	Page displays horizontal tabs detailing steps required to be taken to book travel, together with timetable and \$AUD information.
	Extremely frustrating. <i>it doesn't seem to do what you want.</i> It's not doing what I want at all, right this is Paris, direct \$29 Australian Dollars, that's from Paris, and that's \$52, \$77 first class, what's the difference. Full fare
(0:45:21.5)	Subject clicks for further details on one train option. Pop up box displays information. Subject clicks to close box. Page returns to timetables.
	Tickets with reservation 100% refundable. They are probably only refunding,
(0:45:43.3)	Subject clicks on another train option and pop up box displays text. Subject

	<b>closes pop up box.</b>
	oh that's alright. That's two hours 17, no one hour five minutes. We will forget that now, now we will try get a hire car.
(0:46:08.6)	<b>Scrolls to top right of page and clicks on "Close" option.</b>
(0:46:14.0)	<b>Scrolls to top left of screen and clicks "Back" option. Scrolls to top right of screen and clicks on "Close" option. Screen returns to Desktop.</b>
	Now where are we .....
(0:46:35.1)	<b>Scrolls to bottom left of screen and clicks on "explorer". UOW Home page. Login and password required and performed.</b>
	Now we want car hire
(0:47:05.6)	<b>Google home page.</b>
	Montbard France.
(0:47:10.8)	<b>Subject enters search term "car hire Montbard France" and clicks on 5th Google link</b>
	Low rates, first car. Car hire, large discount, cheap prices, try that one.
(0:47:44.2)	<b>"Car Hire Centre" web site. Subject enters information using drop down menu for locations/dates. Clicks "Search" button. Screen shows subject's search is being processed.</b>
	It's local. From June, select a later date, say 30th June, say 3 o'clock, 3:30 that will do until 7th July, we will put the driver who is 70. No cars available. That's handy.
(0:49:51.1)	<b>Scrolls to top left of page and clicks on "Back" option. Page returns to Google sponsored links page. Clicks on 4th Google link to "Sixt - Car Hire Montbard".</b>
	Try another one. Montbard, now ..... Montbard Car Hire, we will try that one. I wonder where that is, that looks like it might be the railway line, anyway search railway stations.
(0:51:02.4)	<b>Scrolls down page and clicks on "Search Railway Stations" button. Scrolls to top of page, uses drop down menu to enter data. Clicks on orange "Search" button.</b>
	No, okay we will pick up, Montbard, are you looking for a station, yes, return I will just do a week, I will do the 2nd to the 14th and see what happens. Sixt card holder, no.
(0:52:24.1)	<b>Page displays start and destination information together with car type options listed down page. Price also displayed.</b>
	Right that's about \$1,000 for a week, now seven days including 1750 km, 17 additional kilometre, third party insurance included, registration, road tax included, provision damage waiver, navigation system guaranteed, we don't want one of those we have one. BMW, do we have to have BMW, minimum age driving, minimum time driving, licence held. Five people four doors, manual. Let's go to something different. What's this one Renault, four people, three door, minimum age, third party, registration, that's \$390 Australian, that sounds better. Registration included, that's seven days. Let's try the Peugeot,
(0:53:28.6)	<b>Subject clicks on alternate vehicle. Page displays revised information and price.</b>

(0:54:09.4)	Returns to left hand side of page and clicks on alternate vehicle. Page displays revised information and price.
	five people, five doors, that might be better, that's \$445, seven days. We don't want winter tyres, I wonder why they are recommending the BMW.
(0:54:49.3)	Returns to left hand side of page and clicks on alternate vehicle. Page displays revised information and price (BMW).
	I'll just continue and see if they give any further information.
(0:54:53.4)	Subject clicks "Continue". Page proceeds to 2nd step, "Personal Data" with fields for subject to enter.
	1750 kilometres, well I don't think we would do more than that. They don't give you any more information on the car.
(0:55:30.4)	Scrolls to top left of screen and clicks on "Back" option. Page returns to car hire options.
	That says inclusive VAT insurance and regular information. Right we will try something else.
(0:55:45.5)	Subject scrolls to top left of screen and clicks on "Back" option until Google sponsored links page depicted on screen.
	Fully inclusive car hire rates
(0:56:00.2)	Subject clicks on Google sponsored link to "Car Hire Montbard - Argus Rentals.com" web site.
(0:56:16.4)	Screen shows text and photos of destination on left and fields for entering required data on right. Subject enters dates and destinations using drop down menus. Clicks orange "Search" button. Page advises subject's search is being conducted.
	right, pickup by location, Montbard, by date 28, drop off, I think it's the 5th. Drivers age 70. Aussie dollars, no, Aussie dollars, Australian dollars way down here, country residence, search the market. This is Argus rentals.
(0:58:01.3)	Page displays "Argusrentals.com" with different cars and prices available from cheapest to most expensive going down page.
	They can't tell me what's included. Five passengers, that doesn't matter, number of doors, air-conditioning, manual, how do we get an automatic, we have to go down here to get an automatic. \$1,000, what's included. How do I find out what's included. Comes back to this location. Vehicle details, what's included in the price. Rent details.
(1:00:05.6)	Subject clicks in Volkswagen Golf for further details of what price includes in pop up box. Subject scrolls down pop up box.
	collision damage, Third party, theft wavier, tax, unlimited mileage, miscellaneous free break down, drivers age 25-99, young drivers, we don't have any of them. Full licence and an international drivers licence is required if the regions national driver licence is not in Roman alphabet, an original domestic licence. Charge per additional driver. Damage excess, excess \$450 Euro, theft excess \$1,200 euro. Special equipment, we don't need a satellite, we don't need a ski. Pick up full, return full. Fuel charges payable, mileage, unlimited. Cross border, I don't think we are crossing any border. Pay by credit card. That's alright.

(1:01:45.2)	Scrolls to top of pop up box and clicks on "Close" option. Scrolls to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links page.
	Okay. Cheap car hire, including (inaudible).
(1:02:08.0)	Subject clicks on Google sponsored link "rhinocarhire.com" home page.
(1:02:24.3)	Subject clicks in drop down menu on right hand side of page and enters country of pick up and drop off. Uses drop down calendar menu to enter dates together with currency required and clicks "Search" option.
	Trying Rhino car hire, drivers age 70. I will try economy, currency Australian dollars, search,
(1:03:32.1)	Pop up box appears saying "Date incorrect" Subject clicks "OK" and box closes. Subject re-enters dates using drop down menu. Clicks "Search" button.
	Date incorrect. What's the matter with the date? Drop off, pick up, date, drop off, drop off on the 5th June.
(1:04:19.0)	Pop up box appears saying "Date incorrect" Subject clicks "OK" and box closes. Subject re-enters dates using drop down menu. Clicks "Search" button.
	Oh come on. 28th June pick up 28th June drop off 5th June, that's weird it changes the drop off date and pick up. Pick up 28th June, drop off 5th July, silly, stupid, okay.
(1:05:25.1)	Screen displays search results of various car options. Pictures of each car and prices are displayed in boxes.
	Right, they are all about the same price and so until we get down to an automatic which nearly doubles in price, which is a Ford Focus automatic. So they range from about 4 to through, automatic, okay. That's for the fellows to decide, I think I have had enough.
(1:06:27.5)	Subject scrolls to top left of screen and clicks "Back" option.
	It's so frustrating with those trains from Amsterdam to Paris. I got into a site before that was Australian, you can book in Australia trains from, in Australian dollars and pay in Australia from Amsterdam to Paris, but I just couldn't find that site.

## Subject 5

(0:01:36.2)	Right. I want to plan a train trip from Kiama to Cairns. I am not sure whether there would be sleepers or anything else and so Kiama to Sydney is no problem because I can get a timetable of that once I have locked into what time the trains leave Sydney.
(0:02:08.8)	Google search for Train Sydney to Brisbane" and clicks on Google sponsored link to "Countrylink Home" web site.
	Country Link,
(0:02:37.5)	Page opens to CountryLink, with options on right hand side of page to enter travel options. Subject enters from and to destinations using drop down box; and departure dates again using drop down boxes together with fare types. Subject clicks on "Search" button and pop-up box opens in top left of screen requesting further input. Screen displays 4 steps needed to be undertaken. Subject enters data in fields. Subject confused by "concession type" information required to proceed. Subject clicks on "Search" button". Search results inform subject that information has been incorrectly entered. Search requires concession card details, subject enters and clicks "Search" option.
	so its country link does Sydney to Brisbane. There is no Brisbane, it's only Brisbane Transit. I think I will pick a date say in May, 10th May. I think I will only do it one way at this stage because we don't know how it's going to go. Two concessions, that is better too for a couple of seniors. Where do I book concession type, senior card concession? Now that is a bit invasive because I am trying to do this for Gail and myself and they want my concession ID, I don't know what the concession ID is. Concession type, senior card I suppose. Not friendly. Senior Card, I don't like that. ID must contain alpha numeric characters. You want my number. That's ridiculous when you are trying to do, just do a general research that they want your card number and so we are going to have to change that number of passengers, second passenger will just have to be an adult. Its more timetables that I am interested in.
(0:07:22.3)	Screen opens to show subject has proceeded to step 2. Options now displayed showing "Select Service". Subject scrolls to top right of box and clicks on "Close" option. Screen returns to "CountryLink" home page.
	So it's Tuesday and it leaves at 16:10 and gets to Brisbane 06:30, 14 hrs in the train, there is another one at 7:15 in the morning. And there is another one at 15:19. There is no sleeper on the second one, certainly want a sleeper and so it's about \$400, that's including class seat, it's times that I am interested in more than anything else. So this is no sleeper, right.
(0:09:23.4)	Subject returns to top left of screen and clicks on "Back" option and screen returns to Google sponsored links page.
	Brisbane to Cairns, Brisbane to Bundaberg, I will just try to Cairns, Brisbane to Cairns and see what it comes up with.
(0:09:46.4)	Subject clicks in URL and enters search term "train Brisbane to Cairns" and clicks on Google sponsored link to

	There are two things there, there is the Sunlander. And there is the Tilt train. Brisbane to Cairns,
(0:10:33.4)	"travelonline.com - Australian trains", page displays details of the "Sunlander Train". Subject scrolls down page. Page displays various options with text and images.
	So the Sunlander and it's under Australian trains. Queenslander class, that's a sleeper and seats, we want a sleeper, Queenslander class includes all meals. Now that's what we want. You get a sleeper and you get all meals and you have a lounge, you can play monopoly or you can grab a drink at the bar, that's better still. 14 day,
(0:12:19.3)	Subject clicks on link to view floor plan of the train and a pop up box appears in top left of page showing a schematic of the train compartment. Subject closes pop up box. Page returns to "Travelonline - Australian Trains" home page. Subject scrolls to left of page where vertical options are displayed for further links and clicks on "Journey Planner"
	that's a bit bigger than the Southern Aurora, the old heritage one, that's a bit better. Up and lower bunk, fits all right, we have done it before, we will do it again. Right now, pre and post accommodation, journey planner, I suppose that's what it is, why don't they put timetables in there? That's the operative word, journey planner.
(0:13:04.7)	Page displays Journey Planner with a map of Australia showing train routes Australia wide and with options to click on the required location. Subject clicks on an area of Qld with no result.
	Click on a town, the colour purple. The cairns tilt train; I suppose you could go up one way and come back on the other couldn't you. What's the blue, that's the tilt train there, there are two tilt trains, there is the Cairns tilt and then there is the ordinary tilt train. That's helpful, nothing is happening. Click on towns on this map for travel online sites. Nothing happens.
(0:14:11.0)	Subject clicks again on Cairns and page opens to Cairns accommodation. Scrolls down page. Subject scrolls to top of page and clicks on tab at top "Map".
	Cairns comes up but that doesn't help me, I am not worried about accommodation up there, we worry about that ourselves. It doesn't tell what time they leave, it's ridiculous.
(0:14:50.7)	Page displays Google map of the Cairns area. Subject scrolls to top left of page and clicks on "Back" option. Screen returns to "Cairns Accommodation" page.
	Journey Planner.
(0:15:04.2)	Subject scrolls to top right of page and clicks on "Close" option. Page returns to Journey planner showing the map of Australia and train routes.
	See what I can find in the site map,
(0:15:40.8)	Scrolls to bottom left of page and clicks on link to "Site Map for the world of TravelOnline". Page displays destinations listed vertically in two columns, Australia on the left and International on the right.
	I like the timetables. I don't want accommodation.



(0:16:02.9)	Subject scrolls to top right of page and clicks on "Close" option. Exits Google and page returns to Desktop, however the pop up box with the schematic drawing of a train compartment remains at top left of screen. Subject scrolls to top right of pop up box and selects "Close" option. Screen returns to desktop.
	What have I done now? Now I have mucked something up. Go back there. Now Firefox is it updating your stuff, what do I need? <i>Would you like to use Firefox in preference to explorer?</i> It doesn't matter; I just automatically clicked on that because I use Firefox at home. <i>You are more than welcome to use it here if you preferred?</i> No, Firefox has got google straight into it as well.
(0:16:48.6)	Subject clicks at bottom left of screen which re-opens to UOW home page. Subject clicks in URL and enters "Google" search. Log in and password required and performed.
	I need to get back to google, what have I done wrong. <i>If you just go to google in the address bar.</i> Just type google in. <i>Just click okay, it gets you access to the web.</i>
(0:17:23.2)	Page returns to Google and subject enters search term "timetable the Sunlander" and clicks on Google sponsored link
	Well that doesn't help me does it? Timetable the Sunlander. Is that the same mob again, no it was Queenslander before. Sunlander season times, you have to book it through Queensland rail but at least it has timetable which is what I am after.
(0:18:08.4)	"Rail Australia - The Sunlander fares and timetables".
	Sunlander, fares,
(0:18:28.4)	Subject clicks on further link "View The Sunlander Timetable" and page opens to "QueenslandRail" web site. Page displays horizontal tabs across page and subject clicks on "Northbound timetable".
	I am not really worried about the fares at this stage. Northbound timetable.
(0:19:04.2)	Page displays timetable for "Brisbane to Cairns - Northbound timetable". Subject scrolls down page. Subject scrolls to top left hand side of page and clicks on "Back" option.
	So it goes on a Sunday and Tuesday and it goes on a Thursday. 8:55 and 1:25, I wonder what St Lawrence is? Gets you to Rockhampton. Why do some websites use 24 hr clocks and other ones only use PM and AM. There must be a train in between those. That gets you in at 3:55 and then you have to overnight somewhere or a three hour stop over, whatever way it is at St Lawrence, I don't know where St Lawrence is. Then it departs Sarina, coach connections. I can't quite work that out but that doesn't matter, but you get into Cairns at 4:15 Monday and Wednesday, I will see what this is, and get in at 7:15 on Friday. What is St Lawrence? Not going to tell me. Northbound train daily effective 1st April 2010, that's alright, I don't need to download it. The other one is tilt train.
(0:22:32.9)	Screen returns to "Queensland Rail - The Sunlander" page. Subject clicks on top left hand tab for "Home". Page opens with "Queensland Rail" with fields for data entry on left and disaster information on right.



	7:15 on the Tuesday, so that's no good, you would have to change going up on a Tuesday. No I don't want that.
(0:23:18.6)	Scrolls to top right hand side of page and clicks on "Close" option. Page returns to "Rail Australia - the Sunlander fares and timetables".
(0:23:26.4)	Subject clicks on top left hand side of page "Back" option. Page returns to Google sponsored links page.
(0:23:34.4)	Clicks on Google sponsored link to "Rail Australia". Scrolls to bottom of page. Subject scrolls to left hand side of page which displays options and clicks on link to "Tilt train".
	There is still the Sunday in this coming up, the tilt train, is it the same thing. 32 hrs on the train, if it's a tilt train I might, give me the tilt train.
(0:24:13.5)	Page depicts map of train route together with text about the Tilt Train. Subject clicks on link to "Tilt Train fares and timetables" and clicks on link "View the Tilt Train Timetable".
	There it is. Brisbane again and then you have got Brisbane to Rockhampton, you can do the same, I want Brisbane to Cairns. They have a timetable there too.
(0:24:50.1)	Subject clicks on horizontal tab "Timetable" and clicks on link "Cairns to Brisbane". Scrolls down page perusing times of trains and coach connections.
	Timetable. Cairns to Brisbane, that's what I need. Southbound, leaving 9:15. I see, St Lawrence is just a little town, doesn't matter. On the other one it looked like it was a complete break but of course you only get the next day, Brisbane, 9:10am. That's 24 hours on the train, that's not bad. 11 o'clock it gets into St Lawrence and then its 1:10 it departs the next morning, 1:20 and it gets in at 9:10, so we don't see much coming down that way, on that train, you would be asleep once you leave Serena. Now do they have sleepers?
(0:27:29.6)	Scrolls to top left of page and clicks on "Back" option. Page returns to "Queensland Rail - Tilt Train".
	You can get on and off it, that's good. Ideal for short day time trips. I don't think they will have another train in early 2011 going up to Cairns with all the floods.
(0:28:29.8)	Subject clicks on horizontal tab "Seats". Scrolls down page. Scrolls to top left of page and clicks on "Back" option,
	Seats, oh they only have seating on it. It looks like business class on an aircraft by the looks of it. There are no sleepers, it's just like being on an aircraft. That's Brisbane to Cairns but a different one for Brisbane and Rockhampton, that's the same thing. You don't want economy class seating. So we have to work out really where we want to get on and off. So the Sunlander leaves Brisbane Sunday and Tuesday 8:55am and gets to Cairns, oh that can't be right, 4:15, Monday and Wednesday. I can't see a train getting in at 4:15 in the morning, what have I done wrong.
(0:31:13.3)	screen returns to "QueenslandRail - Tilt Train".
(0:31:21.6)	Scrolls to left of page and clicks on link to "The Sunlander" and clicks on horizontal tab for "Northbound Timetable".
	Northbound timetable for the Sunday,

<a href="#">(0:31:29.2)</a>	<b>Scrolls down page perusing times of trains.</b>
	8:55am, 16:15 it gets in. That's alright, it goes straight the way up, have a few days in Cairns and then come down on the tilt. The tilt train leaves Cairns on Sunday and the Wednesday, what time does it leave? 9:15 and gets into Brisbane at 9:10, so if it goes out on the Wednesday, the train doesn't get in till the Wednesday, that's no good, so you are going to have to stay in Cairns if you are going to catch the train back, get in there on a Wednesday, no that's no good, cause the train doesn't get in till the Monday, that's short. Take that one that get in a Monday, you have a Monday night and Tuesday and then leave Wednesday to come back. But you must be able to break your journey somewhere. I think you just break it up yourself to work out. That would be alright, get off at Proserpine on a Monday, oh you wouldn't want to do that at 4:20 in the morning and get the train back, 7:35 would be the way to go on a Friday. Yeah so you could do that, Proserpine and get out to the reef, we have done that. Possibly Townsville, have a look at Townsville, haven't seen Townsville. I have to stop at Rockhampton because Kylie and the kids are up there. That's right, this is doable. Now what I need to do is work out, that was the Sunlander.
<a href="#">(0:34:53.9)</a>	<b>Scrolls to left side of screen and clicks on link to "QueenslandRail - the Sunlander". Clicks on horizontal tab for link to "Southbound Timetable".</b>
	No point going up and back on the same train. Sunlander going North but let's see what it comes back at. Tuesday, Thursday and Saturday, from Cairns at 9:15am, that's alright, so you have that one as well.
<a href="#">(0:35:44.6)</a>	<b>Scrolls to left of page and clicks on link to "Tilt Train". Clicks on horizontal tab for link to "Timetable". Clicks on further link to "Tilt Train - Cairns". Scrolls down page displaying timetable.</b>
	I will look at the Tilt train going up now. That's alright, goes out at night, we are not going to see much going up there, pick up the tilt train, you won't see anything going up there cause you leave at 6:30 at night. Daylight at Sarina 6 o'clock, you get into Cairns at 6:20pm. That's 24 hrs, you would want to break your trip up I think, oh no, I don't think so. We did that virtually on the other one. I will have to talk to Gail and work out whether she wants to break up at any of these points to do so.
<a href="#">(0:37:23.7)</a>	<b>Scrolls to top left of screen and clicks on "Back" option. Page returns to "QueenslandRail - Tilt Train".</b>
	Lets go back there, Rockhampton, Bundaberg, Brisbane, Southbound but they don't have it going north, oh Brisbane, Bundaberg, Rockhampton.
<a href="#">(0:37:47.9)</a>	<b>Clicks on link to "Tilt Train - Rockhampton Northbound Timetable". Scrolls down page perusing train timetable and coach connections. Scrolls back to top of page.</b>
	There are a lot of them, they must run more than one. That one only goes to Bundaberg. Now you can get a bus to Harvey Bay, you can go from Rockhampton to Yeppoon, bus interchange, then go to the boat harbour. So it's doable to break these trips up to different places. Yes.
<a href="#">(0:38:45.9)</a>	<b>Subject clicks on horizontal tab for link to "Facilities". Subject clicks on horizontal tab for link to "Fares".</b>
	What facilities they offer, Queensland needs to get up to date and start to use American Express Credit Card, they don't take it. Well that contradicts themselves

	<p>doesn't it, only cash, aussie dollars, travellers cheques, aussie dollars, credit cards, visa/MasterCard and debit cards are accepted on board for on-board services. Guests are advised to bring cash for the journey to purchase drinks and meals, well why are they accepting credit cards and they are telling you to bring cash. Give the Tilt train a miss because there is no private showers. So you would only do a short trip on the tilt train, so you don't need to, there are no private facilities at all. Toilets are shared as well. So the tilt is no sleepers, no showers, no private showers, no toilet or showers. You get spoilt when you get private facilities. It be a good train,</p>
(0:40:55.8)	<b>Page displays various class options and prices. Scrolls down page.</b>
	Brisbane to Rockhampton. Business class seat is \$320. I might ring the Queensland Railways and just see what they can tell me what to do.
(0:42:40.5)	<b>Subject makes phone call. Time to work through menu to speak to a person</b>
(0:44:51.4)	<b>Connection to customer service person</b>
	<p>Yes Good morning Brett, Terry is my name from Kiama in NSW. I am interested in the tilt train and the Sunlander. Now friends have been on the trains, I don't know which ones they have been on but they said you do holiday packages that they broke their journey going up to Cairns and they broke their journey coming back from Cairns. Do you have necessary brochures and stuff. If you could post it out to us that would be good, do they have the time tables and stuff as well. Alright that would be good then. Yes well when Bathurst use to be always on, you could rest assure the next week we would have no street sign, they would knock it off, so that now they have put double one and got really concreted in and for the last five years we haven't lost it touch wood. But up to then it was always disappeared and I would ring the council, don't tell me the sign has gone again. What's the normal procedure with these things about where you normally break with your trip. Yes. Great, that's about a 24 hour trip or something is it. When I say no stops, we don't get off, you do all your breaking of your trip on the way up. Yep, that sounds fabulous. Great. So that 14 day one is a return trip to Cairns and back to Brisbane, if not we obviously fly into Cairns and then pick up the train and come back down couldn't we. Yep, oh that's good then because we possibly come from, NSW Senior Card holders, they get a discount. That's great. That's right, they don't give a dam, bums on seats. We are an hour and a half from Sydney and so we will possibly get a train up to Sydney and then Sydney to Brisbane. Oh you can book the whole lot for us. That's good then. Alright, well that is very good, okay, thanks very much for your help.</p>
(0:50:21.9)	<b>End of phone call</b>
	<p>That was a very helpful fellow, 14 day tour, Brisbane to Brisbane, stops off at Proserpine and at Townsville, I think he said and you do three or four nights at the various places and then three nights in Cairns as well. So that is the way to go, I will wait until I get the brochures now and we can work out an actual date when we want to go. That will be super duper.</p> <p><i>Excellent.</i></p> <p>That fellow was very helpful on the phone some of these people are not but of course if you ask the right questions to them, what are the packages.</p> <p><i>They are obviously really personable guy as well, you know talking about your street name.</i></p>

(0:51:21.2)	Subject scrolls to top right of page and clicks on "Close" option. Page returns to "Rail Australia - tilt Train fares & timetables"
	That's right, obviously he is a car enthusiast. So I can close all that up now.
(0:51:27.4)	Scrolls to top right of page and clicks on "Close" option. Screen returns to "Queensland Rail - Tilt Train". Subject scrolls to top right and clicks "Close" option.
	<i>It's amazing how much more user friendly people can be than websites.</i> Yes, well you heard me say the timetable, on some of the sites I looked at in from Sydney to Brisbane one, 24 hrs, you got onto the Queensland site and they are working the old and that's why I wrote down a couple of dates, I thought at times, that can't be right getting in at 4:15 in the morning.

## Subject 6a

(0:00:43.6)	Okay at the last session we covered a great portion of the components of the trip that we have been trying to determine. The one that we haven't covered really I think is the cost of living and this is going to be a difficult path to trek. So we will see what it comes up with.
(0:00:52.1)	<b>Google search for "Cost of living Scandinavia" and clicks on Google sponsored link to "Moving to Scandinavia.com".</b>
	So looking at the cost of living in Scandinavia. Okay, one of the sites here tells you about what you want to expect when you actually move to Scandinavia which we don't want to but at least it will mostly address the cost of living. They do make the general statement in here that the cost of living within Scandinavia varies but in general it is high. Norway for instance was named the fifth most expensive country in the world. The problem we have on many of these sites when you go in is they don't give you dates, so how long ago that was written we don't know. We will have a look inside the side and see whether in fact it's current or how old it is.
(0:02:00.4)	<b>Page depicts information "about Scandinavia" with text down left hand side of page. Two thirds of page blank purple. Scrolls down page.</b>
	And usual quickly looking at it, it doesn't give you any idea the date that was written, it's making generalities about the costs. Okay this is a site generally for Scandinavia because it covers all facets of it. About Scandinavia, location, population, language, education, whether money and cost of living, which is summarised as very bleakly in one little paragraph, so we are not going to get much information. It does say that Nordic countries are repeatedly rated by the human development report published annually by United Nations as the best countries in the world to live. That's based on the levels of education; democracy in government, no it doesn't give us anything more on living. So again no real data on that and so we don't know when it was and this is something that I find that covers a lot of articles on the net. That you don't know really how current they are, they don't want to state any dates and that one is doing exactly the same.
(0:03:35.0)	<b>Subject scrolls to top left of page and clicks on "Back" option. Screen returns to Google sponsored links page. Subject clicks on Google sponsored link "TravelForum".</b>
	We will go back and see if we can give a little bit of thing on this. Here this does give a date, that last one didn't give a date but one here is Scandinavian eat cheap and now, that's the 11 May 2010, we will have a quick look in there
(0:03:53.9)	<b>Page depicts comments from previous travellers. Scrolls down page. Scrolls to top left of page and clicks on "Back" option. Page returns to Google sponsored links. Subject clicks on link to "Expatriate Interviews - Expats in Sweden!"</b>
	to see if we can get a quick grasp on this cost of living cause if we are going to plan our trip, we want allow so much per day, we have already done the hotels and so we know what that is. I think we did car hire the last session, we did travel insurance and we did rail and so we have a handle on those but the cost of living, we really

	haven't. This is a forum where individuals write and a scale there and one line statements about, so they don't really give too much clue. No specifics all generalised statements. Recommending some places to stay and some places to eat but not stating any costs at all. No. Again that fails miserably. January 2009, listing, that's already two years out of date. Might give us some idea, we will have a look.
(0:05:23.9)	<b>Interviews with People Living and Working in Sweden".</b>
	No again no cost data, only generalised statements.
(0:05:37.2)	<b>Subject scrolls to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links page. Subject scrolls to bottom of page and clicks on "page 2" for further Google sponsored links.</b>
	Cost of living in Denmark, again no date put on it. Well the data is pretty sparse, 2006, to far back to even consider. 2005, we are getting worse, 2009. Have a quick look there.
(0:06:36.7)	<b>Subject clicks on link to "Visit Sweden". Subject clicks at top right hand page on "Close" option. Screen returns to Google sponsored links page.</b>
	No nothing of any detail there at all. Again most of them are out of date, too old, 2010, one.
(0:07:09.9)	<b>Clicks on Google sponsored link to "A Swedish American in Swedish America". Scrolls down page.</b>
	Yeah it doesn't say anything about the cost of living in that one. it doesn't even talk about the cost of living, culture shock, finding a job, public holidays, making friends, they are giving some individual costs here, \$703 spent in bars and booze, what about food. Now for food, we got food, 75 SEK for a dagar lunch which I presume is a Swedish lunch, 75 SEK, 237 SEK for dinner out. so 75 to 237, close to 300SEK and SEK is I think the dollar, \$6.86, so that's only \$50 for lunch and dinner, that is not unreasonable \$50, we haven't thrown breakfast in there. My philosophy is when I travel usually good breakfast, quite a light lunch and then a good dinner but a good breakfast. We haven't got around for breakfast, unfortunately peoples habits and breakfast can vary quite extensively. So people survive on a piece of toast and a cup of coffee but me I have got to have a full breakfast of cereal, fruit and toast and tea. I think it's very important, it gets the biochemistry going; I think breakfast is one of the most essential meals of the day actually. So that's only \$50, I am just trying to think now; he doesn't make any statement as whether he is a student or what he is. So I am looking at \$50, I can't get breakfast, no it's miscellaneous, obviously doesn't have breakfast. But since he is living there, he is buying general groceries and so he does give a grocery bill which we won't be interested in. so I would be allowing another \$50, oh that's \$50 for lunch and dinner, so you are looking at another \$20, so you are looking at about \$75 a day and I was counting on if I went there was a \$100 a day. Its husband and wife of course you step up, I don't think it's directly apportioned so I wouldn't jump to \$200. So it would be something like \$150 in that range. I will have a quick look to see if I can find anything else but that the data is pretty sparse.
(0:10:59.5)	<b>Subject scrolls to top left of page and clicks on "Back" option and screen returns to Google sponsored links page. Scrolls down page and clicks on</b>

	<b>"Next Page" option. Page 3 of Google sponsored links are displayed.</b>
	So we have food, costs me \$150 a day for food and that's for a couple. We will look further and see what else is on there, but look most of it is out of date, extensively out of date. So that looks like it is going to be our only way in. Most of the data here seems to swing; there is not too much information being passed, cost of living in Denmark, okay.
(0:11:48.6)	<b>Subject clicks on Google sponsored link "Cost of Living Denmark". Page opens to "Expatfinder.com - cost of living Denmark".</b>
	Denmark being the smallest of the four countries we intend to visit, reminder of course that we said Scandinavia is about the size of NSW and has about the population of Australia. No, generalised articles, no specifics,
(0:12:24.4)	<b>Subject clicks on further link "Tasty Tuesday" depicting images of food.</b>
	we have got photographs of the food he ate that day with no prices on it. There are tamales and they only cost 1 USD which is approximately an Australian dollar. Now we are not getting anywhere there,
(0:12:50.7)	<b>Subject scrolls to top right of page and clicks on "Close" option. Page returns to "Cost of Living Denmark".</b>
	very difficult to get information off the net for the cost of living. I have found this with other countries, usually it's so over date, the only way you can get reasonable information is if you know somebody has travelled there and then it's, you can talk with them and get information. So it looks like food costs \$150 per day. I have been looking back at the data that I received last time and I still have a bit of a worry and that's the worry about the airfare, the reason why is that the \$1700/1800 when I examined it closely involved two stop over's, one which was greater than eight hours and the other one was over night and when we arrived at our destination it was dark and I certainly do not like stepping into a country I don't know at dark, of all the times I go to a country, always have to be in the morning. So looking back on the data on that and qualifying that data it was difficult to get information on airlines and their costs with a one stop over only, very limited but in fact there were several, the difficulty and I am finding on line is you have to be so careful how you gleam the information out, illustration we are going to Ireland and we thought that Singapore airlines could not get us directly to Ireland, if you look at their drop down menu, it listed all the towns they went, all the cities they went around the world and there was not a city in Ireland. We can't do a direct flight via Singapore airlines, but way down the bottom of their drop down menu was a little title that said other cities. And I spotted this after I went down, I went through alphabetically for Shannon and Dublin and Cork, but I didn't get right down the very bottom and when I click in their, wow we found our place. Again one of the dangers on the net is extracting the information, it can be very difficult. But if you go into British Airways which I did do so we will log up British Airways and see if we can get a flight to Copenhagen direct.
(0:15:34.8)	<b>Subject scrolls to top right of screen and enters the search term "British Airways" in Google search window and clicks on Google sponsored link "British Airways - Plan your Journey".</b>
	Now what I am thinking here is going via Heathrow, hate Heathrow but I think it might be the only way to go. British Airways. We are now logging onto British



	Airways if we can get it to come up.
(0:16:19.7)	Page depicts fields for subject to enter to and from information together with dates using drop down boxes, together with number of adults. Subject clicks on "Get flights" button.
	And we are finding the country you want to leave from which is Australia and we will leave from Sydney and so we will put Sydney, to where, so we are going to fly to Copenhagen. Its two adults and we will get flights.
(0:17:22.8)	Page displays "Error" requesting further information to be entered. Uses pop up calendar to enter dates. Clicks down bottom of page on "Get flights" button. Page displays subject's search is processing.
	Okay so we have decided that we are going to go in august and so the 2nd of august, no that's return but that will be the 17th, so will just check that one again, august, return date is the 17th but we are taking off on the 2nd of august, this was the time of the year we thought would be okay because the weather pattern was reasonably, it was not warm, it wasn't cold, not cold, cold. We will make it the 2nd; okay we will feed that data in and see what British airways come up with.
(0:18:39.4)	Pop up box opens advising "Important Currency information". Subject clicks at bottom right button of pop up box to close.
(0:18:51.0)	Screen displays "British Airways - Choose your travel dates" flight options.
	Okay it comes up with a listing and they certainly do have flights to there. Copenhagen, it looks like we can get a one stay, it's actually via Heathrow, now you notice the price is quite significantly different to what we were quoting before which \$1700 to \$1800 and in fact now when we look at it the price is now \$2,500 but looking at the flight plan here, we have only a two and a half hour stop over at Heathrow and we arrive at 7 o'clock in the morning which is a great time, daylight time in a new city and that's we like it. So it looks like airfares if we want this one stop over, so airfare, one stop over only, and less than three hours stop over time and arriving AM, now let's look at the return flight. Yes the return flight also arrives, it is a standard time into Sydney for most flights, it's 6:30, that's fine, so arrive AM, destination and the cost is \$2,500, remember our session last week we had our fares listed as low as \$1,700 to \$1,800 but on looking and examining that travel plan, it involved two stop over's, one greater than eight hours, which is intolerable and arriving late afternoon night which I do not like when I am arriving in a new location. So it looks like in fact the airfares are going to be quite different. So that is quite a significant change. That means for a couple that's \$5,000. So that has increased quite significantly. So now looking at what we have already gathered, we have got information on our flight, accommodation we have established last time was somewhere between \$70 to \$130 per night for a three star hotel. I said the food, we just did the food, a quick search and we said that perhaps \$150 for a couple. Car purchase we had already looked at at the last one. so now what we can do, we have now arrived at a time, we can start assembling our information, that is getting a cost for a self planned fully holiday and then what I want to do is compare it with the cost of going through a tour of Scandinavia advertised online and see if there are substantial saving or in fact should we go the tour, official tour group. So we will start with the flights, the flights we have now just establish that if we want to



	<p>go the way we want to go, not the cheapest way but the best from a travel plan, the price is \$5,000. Accommodation we had already settle was somewhere 70-130, well we will bump that up and make it safely \$150 per night. So we have 15 nights, that's a total of \$2,250 for accommodation. The food we had just established we think we can get away with \$150; again I will be conservative and another \$50, so we will make \$200 per day for a couple, 15 days \$3,000. The car hire, just let me reflect back on that from our first session and I think that we had for seven days \$500, these are all Australian dollars, we have done the conversions. Now the petrol costs we said before was something like \$8.50 to \$10.00 per gallon and we work in litres here which approximates to 2.2 dollars per litre. I looked at the destinations and two of the destinations are big ones that we might want to do, we can only do one of those particularly the one from Helsinki, up to the top, to the Arctic sea because that's about a 2000km return trip and that to me is a bit hefty. So the other location that we would like to go to is in Norway and that's about 400k's return and so we did an approximate of travelling, if we hire a car of about 2000km and we also made some allowances for car crossings and bridge tolls of which there are a number and put those figures together and we came up with about \$500 for the petrol cost. So the car hire was \$500 now we are thinking strongly of getting a rail pass and here we have a balance here, we are only talking about 15 days but we would like to have a rail pass and looking across the countries on average it looks like a rail pass, seven day rail pass is about \$800. I think in the last session we also looked at and assured that the travel insurance, incidentally for our age group, we are now talking about myself and my wife, I 76, she 73, it is not cheap and the travel insurance there is just for two weeks is \$500. With all these figures if you tally it up it comes to a cost of \$12,500. So that's a self planned trip for two to Scandinavia for 15 days and being little liberal on the cost, I think our costs could come down, I think that \$12,500 represents the absolutely maximum for a self planned trip. Now we will just go on the net and have a quick look at the tours and we will look for a 15 day tour.</p>
(0:27:17.7)	<p><b>Subject clicks at top right hand of page on "Close" option. Screen returns to Desktop. Subject double clicks on Internet Explorer. Page opens to UOW home page. Log in and password required and performed.</b></p>
(0:28:05.2)	<p><b>Google home page. Subject clicks in URL and enters search term "15 Day Tour or Scandinavia" and scans down Google search results.</b></p>
	<p>So we are looking at tours. Looking down closely at that there are a number of tours offered and the prices are looking around about, the price of a day tour through the various companies there is around about \$4,500 so for two people, \$9,000 and we have already established the flights costs up there, \$2,500 per person, there is \$5,000 and we have to include travel insurance and there is \$500 dollars and so adding that up now that's \$14,500. So there is a tour that we could go on, we can book our own flight; we can book a tour, a straight tour of Scandinavia and the costs there \$14,500. Comparing that with our self planned, fully self planned trip was \$12,500 so we have a saving there of \$2,000 and in fact I think the saving could be more than that, as I was saying I was being a little pessimistic on prices and we may be able to squeeze another \$500 back on that and so we could be somewhere</p>

	between \$2,000 to 2,500 that we save self planning takes time, takes a lot of time on that net and we have to be very, very careful of the accuracy of the data you can get off there.
(0:30:37.7)	So we now come down to the question is I threw this same problem to a travel agent and I threw that problem to them five days ago and I still have no reply, whether in fact they are very, very busy, I don't know but in fact they just haven't come back with the information. I did put a lot of restriction on them, the same restrictions I have placed on myself here about flights, when I want to go, maybe that is causing problems I don't know, but I have got no information.
(0:31:25.2)	The question we come to now is travel agent verses online booking, and having gone through it is certainly cheaper to do online book but it takes a lot of your time, if you don't have the time to spend on the net; I would say it would be best to go to the travel agent. You are paying for the fact that they have the information, they know where to go and they know what to do. But if in fact you want to economise and you want to cut down on your costs, then I online booking is feasible and can be done, just be aware that in fact of the accuracy of information you gleam from the data onsite, be careful of the age of the information that's on there and unless it's dated, treat it with suspicion.
(0:32:36.8)	I think also there maybe a question here on age, self planning a trip overseas to Europe, Scandinavia is an exciting thing for the young, I think as you age, there is less of a tendency to enjoy this thrill of planning your own trip and so I think there is a definite age factor here where people once they have retired will tend to go to the travel agent and the organised tours. The big problem you have of course is baggage transport and when you do a self plan trip, you have to carry those bags everywhere from location to location, the advantage that I find on organised tours that for most of the time they take care of your baggage. May not be a problem with the young but as you age and get older it certainly can become a problem.
(0:33:58.8)	The other thing this exercise has shown me is that there are a number of myths around and the first one is this early myth that book your seats as early as you can and save x number of dollars. Well we have just been through another exercise, we are going to Ireland, we are not going until March, late march, we booked our airfares to Ireland on an early bird special and thought in fact it was early bird we had to be done within seven days otherwise you did not get this cheap airfare. The airfare was with Singapore airlines, so we booked it. And the money was paid and so that in fact the airline having got our money for our early bird special, could then invest it and of course gain the interest from it very nicely. We went down the same path in February three months later on this supposed early bird special and found that we could now get the fare \$200 cheaper which is not much in 2200 price fare but nevertheless we could get it cheaper now three months later than the early bird special we got in November. So much for the early bird myth.
(0:35:46.3)	The other thing of course, why a lot of people, including me go the travel agents, is because we believe that they get the cheapest fare available but there is some sort of deal between hotel chains and car hire facilities and some of these travel agents. Well I had that one dispelled too very quickly, we were quoted a car hire price of \$1450 in November to travel Ireland, we didn't take it because we thought we had

	<p>an alternate source and we didn't and now I have been on line, it's now February and every company I looked at and I am talking about named companies now, I can get it for \$1,000. So I don't know where this fare of \$1450 for car hire came from, that's \$400 more than I can get it right now. So there is a question mark about travel agents and whether in fact they can get cheaper.</p>
(0:36:57.2)	<p>To reiterate, the convenience of travel agents is that they have to spend all the time planning your trip and as you are getting aged, this exercise of doing the job yourself is a lot more difficult, a lot more slow but that just about concludes then what I have to say having done the travel price cross on the trip, reminding you that the self planned trip that we total came to \$12,500 which we were being a little optimistic on many of prices we quoted, pessimistic, we quoted the high side. We can go online and get a tour for 15 days, travel insurance and flight for \$14,500 and so there is a saving of \$2,000 on that trip, self planned and I think in fact that could blow out to \$2,500 because I think the prices I have quoted on hotels and accommodation and food we were very pessimistic. So if you want to do it cheaply, do it online, self planned.</p>
(0:38:26.0)	<p>Otherwise go to your travel agents and a big help there of course is baggage, one thing about self planned holidays is that you have to cart your baggage everywhere and easy while you are young, difficult when you are retired and an elderly citizen and so that can be a blessing. So I think that just about concludes unless there are any other questions you may have on that.</p>

## Subject 8

(0:00:21.0)	My husband and I are going to the States in June, I am going for a college reunion, and after the reunion we are going to hire a car and we are going north, Oxford/New York to Niagara Falls and we are going to go through an area called the Adirondacks which I have never been to before and so that's what I want to research, where I should stay and so on.
(0:01:11.0)	<b>Google search for "Adirondacks New York" and clicks on Google sponsored link to "First time Visitors - Adirondacks" web site.</b>
	First time visitors, let's try that.
(0:01:49.3)	<b>Screen depicts video window with text below.</b>
	Is there any chance I could have a piece of paper and pen. <i>Sure.</i> Thank you. Now the fact that it keeps switching, the screen keeps going off like that. I don't know if it has to do with this particular website, yeah that's a bit better. <i>No it's not.</i> It's more the computer. <i>Yeah.</i> Normally I would go back. So that's what I would quite like to do at this stage, just to see.
(0:03:00.6)	<b>Scrolls to top left of screen and clicks on "Back" option, screen returns to Google sponsored links page. Subject clicks on Google sponsored link "Adirondacks - Lodging results".</b>
	I just wondered if maybe it stopped doing it on this. Let me just try this trip planner, that might be helpful. <i>If it is not performing to your satisfaction I can get some help in here to try and fix it.</i> Okay, it's fine there.
(0:03:21.0)	<b>Page displays accommodations listed vertically with text and image. Activity delayed as issues with screen are resolved. Scrolls down page. Clicks on horizontal tab at top of page "What to do".</b>
	<i>No it's not.</i> It's just a little bit blinky. <i>We need to get this fixed, so I will stop that recording.</i> Okay just go down, this probably is just places to stay. What to do, maybe I should do that first.
(0:05:10.4)	<b>Page displays search options. Clicks on further link to "Search Attractions".</b>
	Because before you know where to stay you really need to know where you want to go. <i>It did fix it.</i> It did, well done. Search attractions, let's have a look for that, then I also have to search for dining cause food is very important to me.
(0:05:39.4)	<b>Scrolls down page looking at attractions.</b>
	Okay, Museum, Adirondack museum, Ausable Chasm, okay. There is the museum and blue mountain lake, wherever that might be and then Ausable Chasm, I think I

	<p>am going to give this Enchanted Forest a miss. Okay there are falls, okay, Steamboat Company, Wild Centre. Am I allowed to ask you a question?</p> <p><i>Yes but I probably not going to respond in any helpful way because ultimately we want you to work it out for yourself.</i></p> <p>Okay that's fine, how about then if I can just see if I can work this out, it says add to your trip planner, so I guess I am trying to decide, okay that is fine.</p>
(0:08:03.1)	<p><b>Subject clicks "add to your planner" option in first listed attraction. Pop up box appears confirming request. Scrolls down page.</b></p>
	<p>Right good.</p> <p><i>I wouldn't know what you are looking at.</i></p> <p>That's fine I am just adding things, instead of writing them on here, so that's good.</p> <p><i>If you want to save links, open a word document, save it to a word document and I will email it to you.</i></p> <p>Okay thank you.</p>
(0:08:32.2)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
	<p>Let's have a look at this.</p>
(0:08:45.9)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request. Scrolls down page.</b></p>
(0:09:00.5)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
	<p>This might be interesting,</p>
(0:09:10.9)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
	<p>an Auto Drive-in Picture theatre,</p>
(0:09:25.2)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
	<p>how much fun would that be?</p>
(0:09:41.1)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
(0:09:49.6)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
(0:10:03.7)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
(0:10:16.6)	<p><b>Subject scrolls to bottom of page and clicks on "Next page" option. Page two of attractions opens.</b></p>
	<p>Okay let's just see what this second page brings.</p>
(0:10:34.2)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
(0:10:41.9)	<p><b>Subject clicks on another attraction, to add to planner. Pop up box confirms request.</b></p>
	<p>What I am finding quite helpful is that under each one of these tourist places in the Adirondacks' there is that box add to the trip planner, I am just not quite sure what is going to happen at the end, whether that will be something that I can print off.</p>

(0:11:18.9)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
(0:11:26.2)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
(0:11:43.2)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
	There is a scenic railway at Lake Placid and there is a theatre,
(0:11:57.6)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
	Glenn's Falls, so that's helpful, Glenn's Falls might be an area to go to. And there's actually a winery too.
(0:12:22.2)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
(0:12:32.5)	Subject scrolls to bottom of page and clicks on "Next page" option. Page 3 of attractions on screen.
	I think I will give the horse riding a miss.
(0:13:02.4)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
	Okay it looks like Glenn's Falls might be an interesting area to go too. One of the things about this site is that all these tourist destinations, they are in alphabetical order, just wondering if it would be more helpful if they were in groups such as all the museums together, all the wineries together. And maybe on a different site that might be the case. Okay it looks like Glenn's Falls might be a good destination.
(0:14:09.6)	Scrolls to bottom of page and clicks on "Next Page" option. Page 4 of attractions on screen.
	Now I am wondering too if I just put in here, Lake Placid region, okay. Let me just try that.
(0:14:35.1)	Scrolls to top right of page to "Your trip planner" and uses drop down box to enter further search for "Lake Placid Region". Clicks on green "Search" button.
	Okay cause I know that Lake Placid is an area that a friend told us is lovely to go too.
(0:15:05.0)	Page depicts further categorised attractions.
	So high falls gorge is around Lake Placid, that's good and Buffalo Company which I had highlighted. The interpretive centre. We quite like lighthouses,
(0:16:13.5)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
	there is one at Crown Point, wonder why there is a lighthouse in the middle of the state, interesting. Fort Ticonderoga.
(0:16:35.0)	Subject clicks on another attraction, to add to planner. Pop up box confirms request.
(0:16:42.4)	Scrolls to bottom of page and clicks on "Next Page" option. Page 2 on screen. Scrolls to top of page, clicks in 2nd row of horizontal tabs for link to "Trip Planner".

	<p><i>Has it been behaving for you?</i></p> <p>Yes and what I realised is that when I looked up the Adirondacks it was all in alphabetical order by the first word and so, Adirondacks is a big area, so I knew that one area I wanted to go to was Lake Placid and so I was able to put that in and so that narrowed it down considerably. So that was helpful. And the things that I actually highlighted earlier they are still part of my trip planner.</p> <p><i>Okay, that seems like a nice little application.</i></p> <p>Yeah, so that was quite useful. I am just not quite sure whether that's something that later you can print out.</p> <p><i>Okay, lets see when we get there, I mean if necessary we will copy and paste it onto a word document or something and I can email you that.</i></p> <p>Yes.</p> <p><i>I don't think that printer works unfortunately.</i></p> <p>Okay, so what I might do at this stage is just have a look at the trip planner and see what happens. So what that now has done,</p>
(0:18:22.2)	<b>Page depicts "Your Trip Planner Items" with all attractions subject had saved.</b>
	all the things that I have said that I am interested in has all listed here, but what I am concerned with is I don't know where they are, so somehow now I have to a map, view as a map. Okay let's have a look at that.
(0:18:43.8)	<b>Scrolls to same row of horizontal tabs and clicks "Map" button. Page depicts map with places subject added to her trip planner denoted on the map with pins.</b>
	<p>Ohhh, how good is that, look at this.</p> <p><i>Excellent.</i></p> <p>So it's just shown me that the things that I have highlighted are all around there and I think I am going to becoming up that way. Okay, and a lot of them are around Lake Placid. Okay. Now there is another thing I want to try is this, it's actually very, very useful.</p> <p>Glenn's Falls, except I don't know where Glenn's Falls is.</p>
(0:19:24.4)	<b>Subject clicks on right of page to use drop down menu of destinations for further search and clicks on "Search" button.</b>
	Let's have a look, Glenn's Falls is there. No that's not it. Right now how do I do this, from there I want Old Forge Region, somehow it should be able to take me, okay,
(0:20:30.9)	<b>Page displays Attractions results.</b>
	there we go, it just takes a little while. Let's have a map.
(0:20:39.1)	<b>Subject clicks on row of horizontal tabs for "Map". Page depicts map of attractions.</b>
	Okay there is Syracuse, there is Lake George, there is Albany. Right. I need to see a big map.
(0:21:14.3)	<b>Subject returns to right hand side of page and clicks on drop down menu for destinations and clicks on "Search" button.</b>
	It's just a little bit slow but that's alright.
(0:21:23.0)	<b>Page displays attraction results. Subject clicks on horizontal tab for "Map" and page shows map of attractions.</b>



	so it goes first to all these places and then you can have a look at the map. Okay there is Lake Placid, there's Glenn's Falls, okay. Now I am getting my perspective. So we will be coming north, route 87. I am just not quite sure what this region is called. So if I wanted to look up things in that region. So lets just have a look. Adirondacks Lake George, there is Placid, Lake George where are you?, I can't see it. What would be rather useful is if you somehow if you clicked on that, then it automatically went to what that region was. I don't think that would be the Lakes Region, maybe just see what this Lake George Region is.
(0:23:07.3)	<b>Subject returns to right hand side of page and clicks for link to different region. Clicks on "Search" button.</b>
(0:23:17.5)	<b>Screen depicts Attractions Results.</b>
	So it automatically takes you to the attractions,
(0:23:20.7)	<b>Subject scrolls to left of page and clicks on horizontal button "Map". Page depicts map of attractions.</b>
	okay so the Lake George Region is around Glenn's Falls, that's useful to know. So we would be coming up through there, okay. So I think we could spend a couple of nights in the Glenn's Falls area and then a couple of nights in the Lake Placid area. So we are now in Lake George area, let me have a look at how do I,
(0:24:05.5)	<b>Scrolls to right hand side of page and clicks in drop down menu for "lodgings". Clicks on "Search" button.</b>
	I want to do lodging, so I quite like a nice bed and breakfast to stay in.
(0:24:58.2)	<b>Page depicts "Lodging results".</b>
	Right so this is alphabetically, now one of the things here is how do you find out the price category? It doesn't take you to an arrow and so maybe, oh maybe this is how you do it. Let me just see, oh this one down here looks big and lovely. Okay I don't want a family facility, I don't want a motel. This one looks rather nice, let's see what happens. The Hampton Inn, let's give this one a go.
(0:25:48.4)	<b>Subject clicks on link to "Hampton Inn".</b>
	Sounds a bit ritzy though doesn't it. Okay historic Lake George, that hasn't given me very much information. You get a hot breakfast complimentary, so let's have a look at accommodation.
(0:26:32.3)	<b>Subject clicks in horizontal tab "Accommodation - Guest Rooms". Page displays photos and text.</b>
	The room looks quite nice, doesn't it? It's a leading chain, value priced hotels. Okay, does it tell you, I don't need two queen beds do I.
(0:27:05.0)	<b>Subject clicks at bottom of page to show different rooms.</b>
	Oh dear didn't want to do that, oh well. I don't think I need a suite. Let's try this one.
(0:27:21.8)	<b>Subject clicks on link to show further guest rooms.</b>
	Okay. Alright, now it doesn't tell you how much, you probably have to go to book room now, that always annoys me, I think.
(0:27:53.4)	<b>Subject clicks on "Book Room Now" option. Page displays room information. Scrolls down page and back to top. Subject scrolls to right hand side of page and uses drop down calendar to Check Availability.</b>
	100% non-smoking, that's very nice however, I am not even sure what day of the



	week this will be. Check availability,
(0:28:26.4)	<b>Pop up box appears with months, subject clicks in box to forward calendar. Clicks on "Go" button. Page shows further information regarding room but no cost.</b>
	So let's say it is the, let me think, you don't happen to have a calendar do you? <i>No I don't.</i> Okay it will be in June. <i>Click just to right of that you can get a calendar I think.</i> How good is that, clever. Except I want, okay. Now I am going to be, so it would be about the 20/22 June. See even so, even at this stage they don't tell you how much the room is, so that doesn't impress me. How can you make any kind of a real,
(0:29:47.3)	<b>Scrolls to top left of page and clicks on "Back" option. Page returns to Room details.</b>
	Oh, let's go back and see. Ah! Rooms and rates,
(0:29:53.6)	<b>Subject clicks on "Back" option, page returns to Calendar information. Subject clicks in horizontal tab at top of page "Rooms and Rates". Page requires fields to be entered.</b>
	I wonder how I get there. <i>Maybe you have to complete that page first.</i> Oh do I, see that's the problem, this is just too time consuming, I am wasting too much time doing this and I can't be bothered. So that gets the flick.
(0:30:24.7)	<b>Subject scrolls to top left of page and clicks on "Back" option.</b>
(0:30:32.4)	<b>Scrolls to top right of page and clicks on "Close" option. Page returns to hotel details together with pop up calendar box. Subject clicks on pop up box to Close.</b>
	I am always unsure when I am clicking these
(0:30:39.4)	<b>Scrolls to top right of page and clicks on "Close" option. Page returns to "Adirondacks Lodging Results" page. Subject scrolls down page and clicks on link to</b>
	if I am going to click off something that I don't want to click off. Right let's have a look at this, an 1836 Inn, that sounds rather nice, let's give that a try. Dillon Hill.
(0:31:05.2)	<b>"Dillon Hill Inn &amp; Cabin Rentals" web site. Scrolls to left side of page and clicks for link to "Rooms &amp; Rates".</b>
	See there are those Adirondack chairs, that's what I am heading for. Okay rooms and rates.
(0:31:19.8)	<b>Page depicts photos.</b>
	Now see that's, this works in better for me, just has pictures though, they don't like to tell you how much they cost do they? So maybe you have to choose a room that's what they are telling me. Alright I like the Artist wife,
(0:31:52.8)	<b>Subject scrolls to left of page and clicks for link to "Artist's Wife" room. Page depicts image and price. Scrolls down page.</b>
	Sounds good, \$115 a night, okay now we are cooking with gas. This is good. Affordable, alright so there's probably a way, Dillon Hill Inn, probably is a way that I can click on that.

(0:32:27.0)	Scrolls to top right of page and clicks on "Close" option.
	So add to your trip planner,
(0:32:30.2)	Subject clicks on accommodation to Add to Planner". Pop up box indicates link has been added.
	There add it. Ok. Elms Waterfront cottages, that sounds rather nice, let's give that a go.
(0:32:34.2)	Scrolls down page.
(0:32:45.5)	Clicks on link to "Elms Cottage". Scrolls to left of page and clicks on vertically listed option for "Lodging"
	Looks like you have to have three days. Oh I don't know it's a little bit too twee I think, I will give this one a miss.
(0:33:12.7)	Scrolls to top right of page and clicks on "Close" option. Page returns to listed accommodations.
	America's Best Inn. That sounds nice, a guest lodge,
(0:33:16.9)	Scrolls down page. Clicks on link to
(0:33:29.7)	"Fern Lodge". Clicks on left hand side of page for link to "Guest Rooms and Cabins",
	Quite a pretty background, all those Ferns in the background, that's nice. Golly very rustic,
(0:33:49.5)	page displays rooms and prices.
	Oh, maybe not \$350 to \$395 a night. No, no, no.
(0:34:07.2)	Scrolls to top right of page and clicks "Close" option. Page returns to accommodation listings. Scrolls down page.
	That doesn't get a click. Copperfield Inn, that's rather nice.
(0:34:20.5)	Clicks on link to "Copperfield Inn". Scrolls down page. Scrolls to top of page and clicks on horizontal tab for link to
	Lorenzo's restaurant, this is like we have in Wollongong except I can't quite,
(0:34:55.9)	"Lodging". Page displays photographic images of rooms. Availability displayed on right. Scrolls down page perusing room types.
	Oh there you go. That's interesting, they automatically put the availability up today's date in there. That's interesting. I don't need a suite. Check availability, I wonder if it then gives you a price.
(0:35:48.1)	Scrolls to top of page and clicks on link for Availability of Standard Queen Room. Page displays fields for Stay Information.
	No, I don't like these, I don't like it when they don't give you some
(0:36:15.6)	Subject scrolls to top right of page and clicks on "Close" option. Page returns to accommodation listings. Scrolls down page. Clicks on link to
	kind of an idea of what you are going to be paying before you get well and truly into it. I don't need a two to three bedroom, how about a bed and breakfast.
(0:36:31.4)	"Lake George Bed & Breakfast". Subject clicks on horizontal tab for link to "Rooms & Reservations".
	This is quite pretty. Rooms and reservations.
(0:36:43.8)	Subject clicks on link to show room types. Page displays photos and text. Subject scrolls to left of page and uses drop down calendar to enter dates.

	Even has a patchwork quilt, it's very nice, price includes breakfast. I guess one of the problems with the prices is you really have to put the dates in because the prices probably change from different times of the year. So maybe I have to be more diligent about this. Okay this is good the way this is set up. Sorry I will do it this way. Okay so all these rooms are available, here you go, \$139, okay, so this is the Lake George. It's a bit more than the other one but it's quite nice.
(0:38:21.9)	<b>Scrolls to top left of page and clicks on "Back" option. Scrolls to top right and clicks on "Close" option. Page returns to accommodation listings.</b>
	Maybe I should just close this. And that was this one,
(0:38:31.8)	<b>Clicks on Lake George Bed &amp; Breakfast to add to trip planner. Pop up box displays task has been done.</b>
	so add. Now I have a couple ideas so I think I now need to go and find places to eat.
(0:38:46.5)	<b>Scrolls to top of page to right hand side and clicks in "Show" option for links to "Dining" in "Lake George Region" and clicks on green "Update" button.</b>
	So Dining in the Lake George Region, update.
(0:39:05.4)	<b>Screen displays "Dining Results". Scrolls down page.</b>
	Mmmm, let's have a look at this, Pub and Brewery,
(0:39:43.0)	<b>Clicks on link to "Adirondack Pub &amp; Brewery". Scrolls to left of page and clicks on vertical listing "Menu". Page displays Lunch &amp; Dinner Menu.</b>
	Keep my husband happy. Menu don't forget the coupon, that's one thing about America, they have coupons for everything.
(0:40:10.5)	<b>Pop up box appears "Adobe Acrobat", subject clicks in "OK" option, box closes. Page displays "Appetizers" menu.</b>
	Kaye would love this one, famous beer battered fries, smothered with Chilli and mozzarella cheese, just right for the diet. Golly.
(0:40:45.6)	<b>Scrolls to top right of page and clicks on "Close" option. Clicks again on "Close" option, page returns to listed restaurants.</b>
	Ah they have steamers, yum! Okay let's get rid of that, we could do that one, add to your trip planner.
(0:41:18.2)	<b>Subject clicks to "Add" to trip planner. Pop up box displays task has been done. Scrolls down page. Clicks on link to</b>
	This place has a dinner and movie, Amy's dinner and movie, I don't know it doesn't appeal. Ali Baba. I might have a little look at this.
(0:41:53.3)	<b>"Innaterlowest.com". Flashing screen depicting user is a 'winner'.</b>
	How did I get that? Oh golly. Oh Microsoft internet explorer provided by faculty of commerce, my IP address has been selected in Wollongong as a winner, click here to see what your prize is, so I can just ignore that. <i>I would suggest that.</i>
(0:42:34.5)	<b>Scrolls to top right of page and clicks on "Close" option. Page returns to listed restaurants.</b>
	Okay.
(0:42:42.9)	<b>Subject clicks on link to "1000 Acres" web site. Scrolls down page.</b>
	I will have a look at this one instead. Now what a strange website that one is. Oh it's

	a ranch resort. I wonder if they have a rodeo, I quite like a rodeo. There is a whole lot of activities and attractions, I wanted to know something about food, that doesn't really help me at all.
(0:43:41.5)	<b>Returns to top right of page and clicks on "Close" option. Page returns to Dining Results".</b>
	House specials, okay, I am changing. I am now going to Lake Placid
(0:43:48.0)	<b>Subject clicks on right hand side of page in drop down menu of regions and clicks on link to Lake Placid accommodation. Clicks on "search" button.</b>
	and I might have a look at the lodge in there, update.
(0:44:05.0)	<b>Page depicts Lodging results. Scrolls down page. Clicks for link to</b>
	Oh dear this Crowne Plaza goes up to five \$ signs, that might be a little bit out of the price range. Trails End Inn, Bed and Breakfast, that looks rather nice. We will just have a look at that.
(0:44:51.1)	<b>"Trails End Inn". Scrolls to bottom of page and clicks on link to Guest Rooms and Rates. Page displays rooms and rates.</b>
	Okay, rooms, cottages, okay, now how good is this, they straight away tell you how much it's going to be. I don't think I want to share a whole bath, rooms and bath, okay, that's a possibility.
(0:45:37.7)	<b>Scrolls to top right of page and clicks on "Close" option. Page returns to accommodation.</b>
	Add to your trip planner.
(0:45:43.5)	<b>Subject clicks to add "Trails End Inn" to trip planner. Pop up box displays task has been done.</b>
(0:45:44.2)	<b>Subject clicks to Close pop up box. Scrolls down accommodation page. Subject clicks on link to</b>
	Okay Cupola, A sportsman's Inn. I am doing all of this on this very website. Oh Yogi Bears jelly stone, I haven't even looked at any other website, maybe I should be, it's just that there has been an awful lot on this one, it's quite helpful really. This one is quite good, all rooms here have a refrigerator and coffee, I might have a look at that
(0:46:42.0)	<b>"Town House Lodge by the Lake". Scrolls to top right of page and</b>
	Because that's quite unusual for the States, normally it's just a room. It looks too much like a motel, not really keen on motels,
(0:47:03.0)	<b>clicks on "Close" option. Scrolls to bottom of page and clicks on "Next Page" of accommodation listings. Page displays Lodging Results Page 2. clicks on link to</b>
	too bad. I wonder if there is anyway you can look up bed and breakfast, speak of the devil there it is.
(0:47:21.4)	<b>"Silver Spruce Inn B &amp; B". clicks on horizontal tab for "Rooms &amp; Rates". Scrolls down page.</b>
	Let's have a look at that. Schroon Lake, looks rather nice doesn't it, see there are those Adirondack Chairs, I think after I come home I am going to have to buy a couple. I am not real keen on brown walls. I guess they don't need to be painted. Funny isn't it when you see a spelling mistake, they are probably saying that's supposed to be a carriage house, they spelled it wrongly, puts you right off.

(0:48:15.3)	Scrolls to top right of page and clicks on "Close" option. Page returns to listed Lodging Results. Scrolls down page. Clicks on link to
	Snow Goose, that sounds nice.
(0:48:30.5)	"Snow Goose B & B". Scrolls down page, back to top left and clicks on "Contact Us" option.
	Mmm lovely, I can't believe they are even on Facebook. I like the look of this one, Snow Goose. This is nice, it's in the price range and so that's good,
(0:49:14.1)	Scrolls to top left of page and clicks on "Back" option. Scrolls to top right of page and clicks on "Close" option, page returns to accommodation listing.
	Snow Goose you get added.
(0:49:19.4)	Subject clicks to add "Snow Goose B & B" to trip planner and pop box denotes task has been done. Subject clicks to close pop up box.
	Okay I think I just have to go to dining in this area
(0:49:28.4)	Scrolls to top right of screen and enters in Your Trip planner a search for Dining and clicks on Green "Update" option. Screen displays "Dining Results".
	and that will do me I think. A & W Family Restaurant, where I can get my Rootbeer. I will just add that.
(0:50:09.0)	Subject clicks to add "Arturo's Ristorante" to Trip planner, pop up box denotes task has been done. Closes pop up box by clicking on "Close" button.
	Let's have a look at this one, Baxter Mountain Tavern.
(0:50:13.8)	Subject clicks for link to "Baxter Mountain Tavern". Scrolls to left hand side of page and clicks for link to "Dinner Menu". Scrolls down page.
	That's very artistic, dinner menu. Okay let's see, we don't have, red roast and beef available.
(0:50:52.1)	Scrolls to top left of page and clicks on "Back" option. Page returns to "Dining Results".
	Still might add that.
(0:50:56.0)	Subject clicks on "Baxter Mountain Tavern" to add to trip planner. Pop up box denotes task has been done. Subject closes pop up window by clicking on "Close" button. Page returns to Dining Results. Scrolls down page.
	Ben & Jerry's, great ice-cream. Let's have a look at this one.
(0:51:13.0)	clicks on link to "Burgoyne Grill At Best Western Ticonderoga Inn & Suites". Scrolls down page. Clicks on horizontally listed options at bottom of page for link to "The Burgoyne Grill".
	Mmm, must be in a motel. It's a bit strange, oh here. Burgoyne Group. Oh no I don't think so.
(0:51:57.2)	Scrolls to top right of page and clicks on "Close" option. Page returns to Dining Results. Scrolls down page.
	I will give that one a miss.
(0:52:23.5)	Clicks on link to "Cobble Hill Inn" Page remains blank. Scrolls to top right of page and
	It's a bit slow isn't it., come on, wakey wakey. No, no time.

(0:53:02.6)	clicks on "Close" option. Page returns to Dining Options.
	<p>Well I think I have quite a good idea of what I want.</p> <p><i>Thank you very much.</i></p> <p>Will I just close this down.</p> <p><i>Do you want to try and retrieve that trip planner?</i></p> <p>Yeah that would be great.</p>
(0:53:36.6)	Scrolls to top of page and clicks on horizontal tab "Trip Planner". Page displays attractions/hotels/restaurants that subject added.

## Subject 8a

(0:01:38.7)	Google search entry for "Falling water" selects drop down option for Falling water tours. Selects link to Fallingwater Tours and video from search product
	Well the two places that I have read about, one is called Fallingwater and the other one is called Kentuck Knob, so I am just going to Fallingwater, I think what I would like to find out first is about tours because there is no sense in going, I will look at the house first.
(0:02:04.3)	Youtube link opens for "eye on design: a tour of Fallingwater
	Okay I think I will just go back that's enough.
(0:02:51.2)	Clicks back button at top left to return to Google search product. Clicks on link to Fallingwater Tours and tickets.
	Quite an amazing place I think.
(0:03:01.5)	Fallingwater tours and ticket page with Photo at top and text sections for 2011 regular season and 2011 Winter season. Scrolls down page for panel featuring prices followed by text for regular and in-depth tour options each accompanied by a photo of the venue. Scrolls down to text detailing lecture series available and sunset, brunch, focus and self-guided tour options.
	Okay this is all about tours and you have to make advance tours. Okay so it looks like there are morning and afternoon in-depth tours, so I will just see certainly more expensive, \$65, rather than \$20. Okay the regular tour is and then what the in-depth one is. One hour no photography. Okay. So I guess the thing is to remember the in-depth, when I would be able to take in historical architectural and the relationship between the house and the landscape. So regular tours 1 hour, that's helpful, \$20. And not Wednesdays. It looks like it's 10 to 4. Okay in-depth two hours, to bad they don't just double their price, instead it's more than three times the price. It looks like it's 8:30, 8:45 and 4:30, I wonder why they do 4:30, probably get different light in the place at different times. Lectures on Thursdays, okay that's helpful. It says the lectures are not held in Fallingwater itself but in the barn. You allow three hours onsite. Okay. Sunset tour, \$110. That's only on a Saturday, that's not going to work. Brunch tour Saturday and Sunday. Focus tour for \$1,000, I might give that one a miss. Alright well that is quite helpful.
(0:07:42.8)	Clicks on back button and returns to Google search product. Enters search term Fallingwater accommodation. Selects link to Fallingwater lodging and food
	Now I just wonder if there is anywhere to stay around there. Okay now this one, it shows that the Historic Summit Inn has tours and they reckon Landmark package, lets have a look at that.
(0:08:23.0)	Fallingwater lodging and food page with photos of room and dining facilities and text describing lodgings. clicks on link to Historic Summit Inn.
(0:09:04.8)	Summit Inn Resort page served in new window with photos and text regarding American Landmark getaway Package. Scrolls down page and back up then clicks on link to "view now"

	Okay it's a 25 minute drive. Okay well let's just see.
(0:10:25.3)	Text for "wright overnight" served. scrolls down page and back up. Clicks on link to "Vacation packages"
	Let's have a look at this American Landmark Getaway Package. That's just Wright overnight I think, I want a little bit more than that. Now it's just a little bit confusing, I just want more information, maybe this is a vacation package.
(0:11:17.9)	Links to a variety of packages served. Subject clicks on link to "Frank Lloyd Wright Packages"
	This looks like it's more. Ah, here, American Landmark Getaway, let's have another look at that. Now I am not quite sure, they have the package price range as \$402 on a weekday but I really want to know more about the actual, what this consists of. Whether that \$402 is for two nights for two people or let's just see if this gives me anything else. I don't think it's done anything. Summit Inn Resort. Now I would like more information on this, price package range but it doesn't exactly say what is included in that. so I am just trying to work out the tour,
(0:11:28.9)	American Landmark Getaway Package served again. Clicks on photo at top of page, no result. Clicks on link to "Tour at bottom of page"
(0:13:17.5)	Summit Inn Resort Tour Page served. Featuring text of tour of summit Inn. Clicks back button
	maybe I will do that, let's see what that. Okay this is a tour of the Summit Inn. I want to know more about the... I might try this contact us. Okay I am just going to put some contact information in and then they can hopefully get back to me, email address. Okay, well what I have done is I have asked them for more information about the two night and whether it is a two night American Landmark Package, because I really felt they didn't give enough information about the particular package, or at least I couldn't find the access to it, so I am hoping that they will email me back, soon. Let's go back, maybe we just get rid of summit Inn.
(0:13:37.5)	American Landmark Getaway Package served again. Clicks on Contact us link at bottom of page.
(0:13:47.0)	Contact details served as text with fields for subject to enter personal details and interests. Subject puts information onto relevant fields. Scrolls down and clicks in text entry box to register query. Clicks on send request. Pop-up box affirms query lodged. Subject clicks on OK.
(0:16:44.2)	Returns to contact summit inn page. Clicks on close button, returns to Fallingwater Lodging and food page, clicks back button to return to Google search product page.
(0:16:59.8)	Clicks on link to "accommodation with 1 mile of Carnegie museum of Art
	Here is more, camp grounds in one ..., just wondering where there is, accommodation within 1 mile of Carnegie Museum of Art. Let's have a look at that.
(0:17:24.0)	PDF page served with accommodation relating to symposium in Pittsburgh.
(0:17:32.6)	Clicks back button and returns to Google search product page. Clicks on Google link to "Hartzell House Bed and Breakfast.



	Symposium in Pittsburgh, okay I am not quite up to that yet. Okay here is a luxury bed and breakfast accommodation. A very olive green screen,
(0:18:00.4)	<b>Hartzell House bed and breakfast home page served with pop up box appears requesting user name and password. Task performed.</b>
	does this have something to do with your system or does it have to do with theirs. <i>Probably our system.</i> That's it. That's it, thank you. We have got music with this one, very nice. Carpentry gothic Victorian architecture. Okay, just wondering how far it is from Fallingwater.
(0:19:18.9)	<b>Scrolls to bottom of page and clicks on "Specials and Packages" tab. Range of price options and discounts served</b>
	Midweek discount. Active military discount, I don't think I need that. Okay, not sure about that.
(0:19:34.5)	<b>Scrolls to bottom of page and clicks on "Back to Home Page" button. Screen returns to "Hartzell House" home page.</b>
	Very nice music though. Right let's try something else. Mmm, how interesting is this, Ballarat accommodation, on the same page with all of this, because they have a falling water restaurant club. Okay, Fallingwaters Michigan that's not it.
(0:19:41.3)	<b>Subject scrolls to top left of screen and clicks on "Back" option to return to Google sponsored links page.</b>
(0:20:34.8)	<b>Subject clicks on link to "Hotels near Fallingwater - map of Fallingwater area hotels" and page opens with</b>
	Just some hotels in the Fallingwater area. Maybe. Okay now see if I can interpret this, map of Mill Run B&Bs. Okay well what does this mean? Not even sure where Mill Run is. Does something change on here when I go to this? Well I have to tell you, I don't find this at all helpful, I might just, it is not making sense to me, which is a waste of time.
(0:20:41.9)	<b>"TripAdvisor.com" for Fallingwater. Subject clicks on Map of Mill Run B&amp;B's. Subject clicks on legend on right of page.</b>
(0:22:15.9)	<b>Scrolls to top left of page and clicks on "Back" option, screen returns to Google sponsored links page. Enters in Google search, search term "Kentuck Knob tours" and clicks on first link "Reservations",</b>
	So let's try Kentuck Knob let's ..... try those tours.
(0:22:48.7)	<b>Reservations page served with photo at top and text sections on "Planning your visit" and "tours and tickets" scrolls down page, lower page depicts various tour options. Scrolls back up page.</b>
	Let's try various tours, here is the website for it, so that should be helpful. Okay grounds close at 5, reservations are taken by Fallingwaters visitors centre. Closes. Okay now with this one, the house architecture and integration of the house, so they have regular tours, and then they have in-depth tours as well. 45 and 75. This one doesn't have any prices. Which is interesting. So regular tours are 45 minutes. Regular 10 through to 4.
(0:24:56.6)	<b>Subject clicks on "price details" for regular tours.</b>
	Okay I am just going to have a look at the price of just buy online and see how much it costs. Now okay, interesting they again they haven't given any cost, so it

	looks like you have to look for more information perhaps, there we go. \$65. Whereas for Fallingwater they actually had all that information on the first page, which I think is much easier.
(0:25:04.6)	<b>Fallingwater "Purchase your tickets" page served. Screen depicts text describing tour together with drop down calendar.</b>
(0:25:22.3)	<b>Clicks on "More information" button for In-depth Fallingwater. Text of tour details and pricing served.</b>
(0:26:06.2)	<b>Scrolls to top left of page and clicks on "Back" option, clicks button for further information on In-depth Kentuck Knob tour.</b>
	I have to go back, that was in-depth Fallingwater, that was a bit silly wasn't it. In-depth Kentuck Knob, \$55. I looked at the wrong one. 1.5 hrs. It doesn't say on this one that they are not open on a Wednesday. Okay they are not open on a Wednesday either, I guess that's why that is blank whereas these are umm enclosed. After hours at Kentuck Knob.
(0:26:17.5)	<b>Page displays details and cost of tour.</b>
(0:27:20.1)	<b>Subject clicks on link to "After Hours on Kentuck Knob". Subject scrolls to top left of page and clicks on "Back" option.</b>
	Okay so this is only on certain days they have that and I am not quite sure that we are going to be around on those days and so I think I will just forget about that. That's alright. I think I like this idea that with this summit Inn resort, it sounds like that they have a tour that goes from their Inn, goes to these two places as well as the accommodation which when you are coming from overseas and your time is limited, that seems like a really good idea to me. So I think I am going to wait until I hear back from them to see if that's a possibility.
(0:28:31.4)	<b>Scrolls to top right of page and clicks on "Close" option.</b>
	What I need to look at next is Pittsburgh. Okay, just going to find out about the Pittsburgh Stealers.
(0:28:35.5)	<b>Scrolls to top left of screen and clicks on "Back" option. Page returns to Google sponsored links page.</b>
(0:28:45.0)	<b>Subject enters in Google search "Pittsburgh" and clicks on Google sponsored link to "Wikipedia Pittsburgh Steelers".</b>
(0:29:14.6)	<b>Wikipedia page served. Subject clicks on "Back" option.</b>
	Professional football team, that's no good because they won't be playing in the summer. Pittsburgh Penguins,
(0:29:25.6)	<b>Page returns to Google sponsored links page. Subject clicks on Google link to "Wikipedia Pittsburgh Penguins".</b>
(0:29:30.7)	<b>Wikipedia page for Ice Hockey team served. Scrolls down page. Back to top.</b>
	That's a terrible name, oh ice hockey team. Oooh, not quite sure when they would play, I don't think they play in the summer, wouldn't think would you. Just trying to find when they play. Okay what I will do, let's just go back.
(0:30:39.9)	<b>Scrolls to top left of screen and clicks on "Back" option. Page returns to Google sponsored links page. Clicks on link to "Pittsburgh Penguins schedule".</b>
	Let's see, Pittsburgh Stealers schedule analysis. Okay schedule.

(0:31:13.4)	<b>Stanley Cup playoffs page served.</b>
	An ice hockey game would be pretty exciting. Okay it looks like playing in April. Okay I think we have to give that a miss.
(0:31:44.7)	<b>Scrolls to top left of page and clicks on "Back" option. Page returns to Google sponsored links page.</b>
	Let's have a look at Carnegie Museum of Art. Oakland section, okay see what exhibitions are on. Okay so there are a few that will still be on in June. So that will be Pittsburgh.
(0:31:56.4)	<b>Clicks on Google sponsored link for "Carnegie Museum of Art" and further Google link to "Current Exhibitions".</b>
(0:32:37.3)	<b>Current exhibitions served as photos with titles and dates.</b>
(0:33:16.1)	<b>Subject scrolls to top left of screen and clicks on "Back" option. Screen returns to Google sponsored links page.</b>
	That's one thing that is worth doing, I wondering what the Cathedral of learning is. Second tallest education built in the world 42 storeys and 535 feet tall. Part of the University of Pittsburgh.
(0:33:24.1)	<b>Clicks on link to "Cathedral of Learning". Google search product served. Subject clicks on link to The Nationality rooms</b>
(0:33:55.2)	<b>Page of text relating to the Nationality rooms in the Cathedral of learning served. Subject scrolls down page.</b>
	Just a bit of information about it, okay.
(0:34:24.8)	<b>Scrolls to top left of page and clicks on "Back" option. Screen returns to Google search product page.</b>
	I just like the name Cathedral of Learning, sounds quite impressive. Right lets go back again. Here we go. Alright. Just trying to think where a friend said would be good to stay in Pittsburgh,
(0:34:51.6)	<b>Scrolls to top left of screen and clicks on "Back" option, page returns to Google search product page. Subject clicks on Google sponsored link to "Visit Pittsburgh".</b>
(0:35:06.6)	<b>Visit Pittsburgh page with thumbnails and text served for different attractions and activities.</b>
	I will have a look at this and see what ... Pop City. Pop in, okay let's have a look, oh I do like festivals but my husband doesn't so maybe I will just, here it talks about architecture, Fallingwater.
(0:35:54.9)	<b>Subject clicks on link to "Spectator Sports". Photo at top below global navigation bar with text relating to various sports below.</b>
	Okay now we would really like to go to a baseball game when we are over there and it looks like Pittsburgh has the pirates, so let's have a look at that.
(0:36:19.8)	<b>Subject clicks on link to information for baseball games.</b>
	So if I want to find out, here is the Pirates website,
(0:36:46.8)	<b>Page displays information for "Pittsburgh Pirates" home page. Clicks on further link to "Pittsburgh Pirates Season Schedule". Clicks on Schedule by month option. Page displays schedule information for Pittsburgh Pirates. Calendar appears on screen. Subject clicks to forward calendar.</b>

	<p>Okay, now I am not quite sure if I want schedule or roster, season schedule that sounds pretty good to me. Schedule by month, that's even better, that is very efficient actually, I like that. Not as much messing around. Okay so now where is my information map. I always wondered why waiting for the computer to do something is so irritating.</p> <p><i>Expectations meet gratifications.</i></p> <p>That's right exactly. I thought I already tried this, maybe I have got to do this way. Season schedule, doesn't feel like it's doing anything. See maybe it was doing it and I just didn't realise it. All you can eat seats, oh that sounds so American, doesn't it, how disgusting. Okay. We want to go to June. Okay, alright now let me just think about when we might be there. This is the weekend, so we are going to be there sometime from the 20th to the 26th, so they are playing verses the Red Sox, now what I am trying to work out is where they are playing. Oh so it must tell you, the yellows are probably mean that it's at home and these must mean they are playing away. So it looks like we could see the Pittsburgh Pirates, I figure we have to do something's that my husband will enjoy and sport is the goer. So that can either be the 24th June at 7:05, 25th June at 7:05 or on a Sunday at 1:35, okay so they are playing at, I am trying to work out how this works, whether, it looks like they play the same team for three days in a row. I have forgotten a lot about all of this. But because I think what we will do is we will go to Fallingwater first and then we will go to Pittsburgh, I think that's the way to go. Okay. So that's a good possibility, thank you Pirates. I will finish you off.</p>
(0:42:03.0)	<p>Scrolls to top right of screen and clicks on "Close" option. Scrolls to top left of screen and clicks on "Back" option. Page returns to "Visit Pittsburgh - Sports and Recreation".</p>
	<p>Now let's see what we can, oh this is what I want. Come back that did that just too quickly for me. How did that happen? Okay gently, I still want to do things to do and then I need to gently come down and work my way over. This actually is quite good system they have here, because it has all those different categories and as long as you are slow in what you are doing it, it gives quite a good overview. I quite like that.</p>
(0:43:16.0)	<p>Subject clicks in centre on page for link to "Tastes of our Town". Page displays text. Subject clicks in text for link to Pittsburgh Food Festivals". Page shows calendar on right hand side of page, subject clicks on button "View Calendar". Calendar displays month with blank fields to be entered to seek further information. Subject uses pop up calendar to enter dates together with drop down menu to search for Festival events and clicks search. Page displays zero results. Subject clicks in tab along top of page for link to "Events".</p>
	<p>Okay now, taste by town. Pork Shank Bocco, sounds good, Pittsburgh food festival let's have a look at that. My grandsons would like this, superior donuts, yum. Alright is there any way that I can find out quickly if there are any on in June. That would be, okay maybe what I should do is view calendar, and maybe that's the way. Now that is a pretty good setup. May, June, let's go to, maybe I should do it like this, this is interesting they have got a calendar search here. So if I put from</p>

	20th, if I put from the 23rd to 26th, I just realised they do it the other way around. Food festivals how is that. Mmm, let's see what that comes up with, zero. Okay there are no festivals, there you go. I need to go back because that was a dead end.
(0:45:50.5)	<b>Scrolls to top left of screen and clicks on "Back" option. Page returns to "Visit Pittsburgh - Events".</b>
	Oh Superior Donuts is a play, ohhh, that's interesting. Okay. Whoops. See I don't think I am doing that very well. Let's go things to do, I can't .... I don't think I am supposed to be doing that. There.
(0:46:46.3)	<b>Subject clicks on one of several tabs displayed horizontally across top of page for link to "Things to Do in Pittsburgh". Page displays results in text and images. Subject clicks on "Taste of our Town" option. scrolls down page</b>
	Okay. It talks about what the favourite food is. Okay I wonder if I can find out, I am not going to view calendar.
(0:47:21.6)	<b>Subject clicks on "View Calendar" at right of page, monthly calendar is displayed, subject clicks on 'forward' arrow to select appropriate month. Subject enters date in blank field using drop down menu. Clicks in event box and using drop down menu clicks on link to "theatre".</b>
	If I go to June, maybe there is, excuse me June I want. Looks like it doesn't want to, now how do it, 06-23, oh. It doesn't like that. I am not sure if it's going to like this at all. So what I want to know is theatre. No I don't think it likes that, maybe I haven't done this yet.
(0:48:46.8)	<b>Subject clicks on field below calendar, pop up box appears on screen alerting user, subject clicks on "OK" button. Subject returns to pop up calendar and re-enters dates, clicks on "Search" button.</b>
	Okay, let's do this one, I will have to do this way because it doesn't really like my, oh there, now it likes me. That's the problem you have to do it using the characters that they are happy with, don't you. Now let's go,
(0:49:24.7)	<b>Page displays results for Theatrical Events. Subject clicks for further information for "God of Carnage" production, page displays further details.</b>
	and that's when you come from another country too, when they do things around the other way. I suppose that's what's good about that little calendar thing. Okay, this looks quite good there is a play on called God of Carnage, that looks like that would be interesting. So let's have some more information. That's the one good thing about staying you can do these other special things. Okay, Wednesday, Thursday, Friday, Saturday. Okay, Father's Day at the Zoo.
(0:50:36.3)	<b>Scrolls to top left of page and clicks on "Back" option. Page returns to Theatrical Events.</b>
	Alright let's see what else we can go to.
(0:50:46.0)	<b>Returns to tabs at top of page and highlights "things To Do" and clicks for further link to "Neighbourhoods".</b>
	Free things, festivals, performing arts, family fun, sport and rec, architecture, neighbourhoods, I love neighbourhoods. Shady Side,

(0:51:21.0)	Subject clicks in text for further link to "Shadyside".
	I wish they had photographs of it, I think that would be quite helpful.
(0:51:35.5)	Scrolls to top left of page and clicks on "Back" option. Page returns to "Pittsburgh Neighbourhoods".
	Squirrel Hill, I like the name of that.
(0:51:47.0)	Subject clicks in text for link to "Squirrel Hill".
	It sounds good Squirrel Hill and let's have a look at this, this is another way we can go down to that one here.
(0:52:13.5)	Scrolls to vertical tabs on left of page and clicks on link to "Strip District". Page displays text together with images.
	Oh this looks good, Westmoreland Museum of American Art.
(0:52:24.0)	Subject clicks on top image for link to "The Westmoreland Museum of Art". Scrolls down page.
	Upcoming events. Okay, I think I will just close that.
(0:53:11.3)	Scrolls to top right of page and clicks on "Close" button. Page returns to "Pittsburgh Strip District".
	The Strip District, gritty atmosphere, old factories, warehouses, restaurants, shops. Squirrel Hill Strip, that looks interesting and there was Shady Side I think was the other one.
(0:53:43.7)	Scrolls to top left of page and clicks on "Back" option. Screen returns to "Squirrel Hill".
(0:54:00.0)	Subject clicks on "Back" option, screen returns to "Pittsburgh Neighbourhoods".
	I should come back up here,
(0:54:11.9)	Scrolls to "search" field at top left of page and enters search term "Bed & breakfast".
	Okay, up here search for let me try Bed and Breakfast.
(0:54:28.8)	Page displays Search Results as links to properties with no further info. Scrolls down page. Back to top.
	Mmm the trouble is I am not quite sure where these are. I doubt there is anything here cause I am really not sure where to stay. Let's just go with the first one.
(0:55:10.4)	Subject clicks on first link to "Candleford Inn Bed & Breakfast". Page displays Candleford Inn home page with horizontal tabs along top of page, subject clicks on tab "Location". Pop up box appears, subject clicks "OK". Page displays "Directions" depicting text and a map.
	That's an Amish area, that's interesting, let's just have a look at that. Okay location, let's have a look at that. I don't know, I need a key, should I close it or should I okay it. What is that? It says this web site needs a different google map API key, a new key can be generated. <i>Just hit ok.</i> Okay, I don't want to mess up your computer. It doesn't really help me all that much I have to say, I still don't know Valmont is.
(0:56:43.2)	Scrolls to left of page for further link to "Directions from the North".
	Let's have a look at this from the north. No not interested, sorry you lost me.

(0:57:10.6)	Scrolls to top right of page and clicks on "Close" option. Page returns to "Visit Pittsburgh - Candleford Inn Bed & Breakfast".
	Now one of the other things that I want to do is work out how far it is from Pittsburgh to Niagara Falls.
(0:57:23.9)	Scrolls to top right of page and clicks on Close option. Page returns to "Visit Pittsburgh ' Taste of our Town.
	So I am wondering how I do that, I haven't done this before and so I am just, distance from Niagara.
(0:57:36.1)	Scrolls to top left of screen and clicks on "Back" option. Page returns to "Visit Pittsburgh - Welcome to Pittsburgh".
(0:58:02.5)	Clicks on "back option, screen returns to Google search product page. Subject enters search term "Distance from Niagara Falls to Pittsburgh" and clicks on Google sponsored link "Distance Calculator".
(0:58:46.9)	Page appears busy and complicated. Scrolls down page.
	Okay what does all this mean, distance, mileage, calculator, so are they saying that's over 600 miles, I can't quite work this one out. Oh here it is, golly, give me all this junk up here and here is my answer, 191 miles, okay. That's doable in one day, that was just one of the things that was worrying me is whether we can get, so it will take about three or four hours. Okay that fine thank you for that machine.
(1:00:38.5)	Scrolls to top right of page and clicks on "Close" option. Page returns to Desktop. Scrolls to bottom of screen and clicks to return to UOW home page. Subject scrolls to top of screen and clicks in URL and clicks Google. Pop up box appears requesting username and password, clicks on "OK" option and screen returns to Google Home Page.
(1:01:33.0)	Subject enters Google search for "Distance from Port Monmouth NJ to Fallingwater PA" and clicks on Google sponsored link
	Let me just think what else I should put in here. I might just do this distance thing again. Distance from can you put in, let me just see if I can do it, from, I don't know if this is going to work.
(1:02:42.2)	"Calculate the Distance between Two Places" and clicks on button "Calculate Distance Now";
(1:02:49.6)	Pop up box appears "Add download". Subject clicks on "OK". Screen displays pop up box requesting user to click the "Run" button. Subject clicks on "Run" option. Scrolls to top left of screen and clicks on "Back" option. Subject clicks on "Close" option of pop up box. Page returns to Google sponsored links page.
	Do I just okay this. <i>What is it.</i> It's calculate the distance between two places, it's just asking to add a download. <i>Yep hit ok.</i> I might go back. That's a little bit annoying, cancel. Let me just try something else here. See I have put in some unusual addresses whereas if I put Philadelphia to Fallingwater,
(1:03:59.9)	Subject returns to Google URL and enters search term "Distance from



	Philadelphia to Fallingwater" and clicks on Google link to
	Let's see if that is easier.
(1:04:16.4)	"Trip Advisor.com - Philadelphia Forum: Road trip to Fallingwater". Scrolls down page. Scrolls to top left of page and clicks on "Back" option.
	Okay here, okay, okay this is good, it's four to five hours from Philadelphia. Right that's good.
(1:05:07.2)	Page returns to Google sponsored links page. Clicks on Google sponsored link to
	I will just have one last look at this.
(1:05:18.3)	"Pennsylvania Mountains of Attractions". Scrolls down page, page displays mostly text and some images.
	I have read a few books about Frank Lloyd Wright and he is quite a unique character, okay well I began with Fallingwater and I will end with Fallingwater. It looks like just a beautiful, beautiful building.
(1:06:28.9)	Scrolls to top right of page and clicks on "Close" option. Desktop on screen.
	Alright, there you go. <i>Thank you very much indeed.</i>