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The evolving interactivity of online news: an exploratory study using content analysis, Q-methodology and activity theory

Nor Hazlina Hashim
University of Wollongong

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THE EVOLVING INTERACTIVITY OF ONLINE NEWS: AN EXPLORATORY STUDY USING CONTENT ANALYSIS, Q-METHODOLOGY AND ACTIVITY THEORY

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

DOCTOR OF PHILOSOPHY

from

THE UNIVERSITY OF WOLLONGONG

by

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INFORMATION SYSTEMS
FACULTY OF COMMERCE

2010
CERTIFICATION

I, Nor Hazlina Hashim, declare that this thesis submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Information Systems, School of Economics, Faculty of Commerce, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Nor Hazlina Hashim

31st March 2010
ABSTRACT

The findings of the research described in this thesis add to our understanding of the dynamic of change in the contemporary phenomenon of online news. The research adopts an interpretivist perspective, which brings together a suitable mix of methodologies and theoretical concepts. The study focuses on the adoption of interactive features by Australian newspapers websites as well as in the identification of different user profiles through their perception and opinions on the constant changes in online news. Thus, the research has significant contributions to theory and also has lessons for practice.

The research undertook four sets of data collections as follows: Phase 1 – a web-based content analysis of twelve Australian online newspapers (2006-2007); Phase 2 – an initial Q-study of Australian online news consumers (2007); Phase 3 – a second Q-study of Australian and Malaysian online news consumers (2008); and Phase 4 – the revisiting of the newspaper websites of Phase 1 of the web-based content analysis (2009). The news websites study employed a longitudinal approach, which enabled the researcher to understand the shift of focus on interaction between readers and the news as well as the changes over time of the general online news environment. An additional Phase was then added to the research after the main data collection was completed. This took a critical look at current innovations in online news to suggest its possible future as the distinction between producers and consumers of news are becoming blurred through the use of social media on the Internet. The research demonstrated the revolution and evolution of online news, which impacted not only the business model of news industries, but also the working environment of the journalist’s professions, and the involvement of the public news consumers in general.

This research is of significance to both, academics and the practitioners. In terms of scholarly significance, the study is important theoretically and methodologically. The dimensions of the concept of Interactivity underpin the study of the dynamic aspects of content and layout of online news. Activity Theory was found to be useful for analysing in a more general and holistic way, people’s views and motives when engaged in activities of accessing online news. By using a mixed-method approach to data analysis involving both the content analysis of websites and the Q-Methodology technique, the
research covered both, the objective and subjective aspects of the online news. Although Q-Methodology is relatively new to the online news literature, it was found to be a valuable method for indentifying categories of people’s views on the constant changes in online news. The Interactivity concept and Activity Theory are two strong theoretical pillars that complement each other in creating a descriptive picture of the content, nature and use of the news websites. Together, they provide a useful mechanism to aid the research in understanding the link between the web elements and the web users’ needs and activities in the news industry.

The main contribution of the thesis is that it provides evidence that demonstrates the changing nature of online news content layout and features with greatly increased interaction and participation by consumers while also showing how different groups of people perceive and act with the constant changes in online news. The different activities of these groups are identified in terms of how they engage with the Interactivity dimensions of the websites and how different features of the websites should be designed to mediate the different activities of users. This thesis presents a rich picture of the recent substantiation growth of the interactive nature of online news with the variety of patterns of exchanges and the ways it now meets current informational and social needs and desires. As such, the Internet will continue to be engaged as a potentially powerful and persuasive tool in the future of the online news industry in ways that we cannot now anticipate.
PAPERS

The following papers and publications have been produced from the research reported in this thesis:


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A very special thank you goes to my husband, Mr. Ngah Fuji, who has been living in Malaysia since our marriage in 2006. I thank you for your unconditional love, great understanding, encouragement and support. My greatest appreciation also goes to my mother, Mrs. Zaharah for her patience, for staying and baby-sitting Farah during my final year. I would also like to thank my brothers and sisters-in-law, and family-in-law, who have had faith in my abilities and patiently supported me through these years. Finally, I would like to dedicate this dissertation to my beloved (deceased) father, Mr. Hashim Ja’afar who had always inspired me to further my education to the highest level and to constantly challenge myself.

Thank you all!
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<tr>
<td>ABC</td>
<td>Australian Broadcasting Corporation</td>
</tr>
<tr>
<td>ACT</td>
<td>Australian Capital Territory</td>
</tr>
<tr>
<td>AFR</td>
<td>Australian Financial Review</td>
</tr>
<tr>
<td>Ad</td>
<td>The Advertiser/Adelaide Now</td>
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<tr>
<td>Age</td>
<td>The Age</td>
</tr>
<tr>
<td>AUS</td>
<td>Australian</td>
</tr>
<tr>
<td>BBC</td>
<td>British Broadcast Corporation</td>
</tr>
<tr>
<td>CMC</td>
<td>Computer-Mediated Communication</td>
</tr>
<tr>
<td>CM</td>
<td>The Courier Mail</td>
</tr>
<tr>
<td>CNN</td>
<td>Cable News Network</td>
</tr>
<tr>
<td>CSCW</td>
<td>Computer-Supported Cooperative Work</td>
</tr>
<tr>
<td>CT</td>
<td>The Canberra Times</td>
</tr>
<tr>
<td>DT</td>
<td>The Daily Telegraph</td>
</tr>
<tr>
<td>HS</td>
<td>Herald Sun</td>
</tr>
<tr>
<td>HCI</td>
<td>Human-Computer Interaction</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<td>IS</td>
<td>Information Systems</td>
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<tr>
<td>URL</td>
<td>Uniform Resources Locator</td>
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<tr>
<td>US</td>
<td>United States</td>
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<tr>
<td>M</td>
<td>The Mercury</td>
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<tr>
<td>MMS</td>
<td>Multimedia Message Service</td>
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<tr>
<td>NAA</td>
<td>Newspaper Association of America</td>
</tr>
<tr>
<td>NT</td>
<td>The Northern Territory</td>
</tr>
<tr>
<td>RSS</td>
<td>Really Simple Syndication</td>
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<tr>
<td>SMH</td>
<td>Sydney Morning Herald</td>
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<tr>
<td>SMS</td>
<td>Short Message Service</td>
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<tr>
<td>WA</td>
<td>Western Australian</td>
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<td>WAN</td>
<td>World Association of Newspapers</td>
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<td>WWW</td>
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CHAPTER ONE

INTRODUCTION

The computer is a perfect complement to the newspaper. . . . [It] enables the existing news industry to deliver its product in real time. It hugely increases the quantity of information that can be made available, including archives, maps, charts and other supporting material. It opens the way to upgrading the news with full screen photography and videos, while hugely enhancing the richness and timeliness of the news. The computer empowers readers to use the "paper" in the same way they do today -- to browse and select stories and advertisements at their own time and place. – G. F. Gilder, 1994 (cited in Lapham 1995, p.4).

1.1 Introduction

The study presented in this thesis seeks to explore and examine the constant changes in online news beginning with newspaper websites, but extending into online news emanating from many news media companies. This chapter provides the main research question and discusses the potential research contribution to understanding and improving online newspaper websites, as sources of news-related information and other non-news features.

Just as digital technology has rapidly revolutionised and transformed many information-based industries; it has done so and continues to do so in the world of news delivery. The robust Internet technology, with interesting website designs and interactive applications is capable of attracting local and global readers to news online, so that accessing this type of news has become a trend and a habit for many people. Hence, this research study will explore the transformation of the online news from newspaper websites to more recent phenomena such as citizen journalism. In the following sections of this Chapter, the background of the study and its significance are explored and some limitations are discussed.

1.2 Background to the research

The topic of online news is one of many current issues regarding the usage of Internet that is given prominence in the media as well as in academic disciplines of Computer-Mediated Communication (CMC), Information Communication Technologies (ICT),
Human-Computer Interaction (HCI), and Information Systems (IS). It is widely believed that the new communication technologies of the Internet have the potential of changing the way of life (of a vast number of people) and (increasing) economic growth.

The Internet ability to support information dissemination, communication and public participation continues to penetrate the worldwide global population, with Internet usage statistics as of 2010 represented in Table 1.1. These statistics report a big increase of 380.3 percent in total world growth usage from 2000 to 2009, which represents an estimated 1.7 billion users. The statistics indicate that Asia, Europe, and North America are among the top three world regions having the most Internet users, with 738 million, 418 million, and 252 million, respectively.

In Oceania and Australia, the growth was up by 175.20 percent compared to the year 2000, which represents 60.4 percent of the population in the region and 1.2 percent of the total online population. Meanwhile, Nielsen Online (2010) reported that Australia had an increase of 2.47 percent of active Internet home users from May to June 2009. According to Forrester Research (2010), the number of online users worldwide is projected to reach to 2.2 billion by 2013.

Table 1.1: World Internet Usage and Population Statistics

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Africa</td>
<td>991,002,342</td>
<td>4,514,400</td>
<td>67,371,700</td>
<td>6.80%</td>
<td>1392.40%</td>
</tr>
<tr>
<td>Asia</td>
<td>3,808,070,503</td>
<td>114,304,000</td>
<td>738,257,230</td>
<td>19.40%</td>
<td>545.90%</td>
</tr>
<tr>
<td>Europe</td>
<td>803,850,858</td>
<td>105,096,093</td>
<td>418,029,796</td>
<td>52.00%</td>
<td>297.80%</td>
</tr>
<tr>
<td>Middle East</td>
<td>202,687,005</td>
<td>3,284,800</td>
<td>57,425,046</td>
<td>28.30%</td>
<td>1648.20%</td>
</tr>
<tr>
<td>North America</td>
<td>340,831,831</td>
<td>108,096,800</td>
<td>252,908,000</td>
<td>74.20%</td>
<td>134.00%</td>
</tr>
<tr>
<td>Latin America/Caribbean</td>
<td>586,662,468</td>
<td>18,068,919</td>
<td>179,031,479</td>
<td>30.50%</td>
<td>890.80%</td>
</tr>
<tr>
<td>Oceania / Australia</td>
<td>34,700,021</td>
<td>7,620,480</td>
<td>20,970,490</td>
<td>60.40%</td>
<td>175.20%</td>
</tr>
<tr>
<td><strong>WORLD TOTAL</strong></td>
<td><strong>6,767,805,208</strong></td>
<td><strong>360,985,492</strong></td>
<td><strong>1,733,993,741</strong></td>
<td><strong>25.60%</strong></td>
<td><strong>380.30%</strong></td>
</tr>
</tbody>
</table>


The Harris Interactive (2009) survey shows that the number of adult Internet users in the United States also continues to increase as statistics show that 80 percent of adults were online in 2009, while there were 81 percent and 79 percent in 2008 and 2007,
respectively. The survey indicates that in 2009, U.S. adults spent an average of 13 hours a week online, compared to 14 hours in 2008, 11 hours in 2007, and between 8 and 9 hours a week in from the year 2003 to 2006.

The survey also indicates that the highest age group that spent the most time online are those aged 30-39 years old, at 18 hours a week. Adults in their 20s and 40s fall into the second highest bracket with an average of 17 hours a week. The lowest age group is followed by the age bracket of 65 and above, who spent an average time of 8 hours a week online. It is certain that the number of people, who use the Internet, and the time they spend online, will continue to climb. This is due to many factors such as the growing capability of the technology, website performance, and the applications available on the Internet, the increased time watching television online, doing online purchases more often. Also, because of the global recession, more users tend to stay, and surf the Internet as most online content and activities are free.

In the context of this research, the take up of the World Wide Web (WWW) in the 1990s, signalled a new phenomenon in the history of news and journalism as it enabled the dissemination of news online and widespread access to easy and user-friendly Internet applications for end-users. The WWW acted as a catalyst to the free diffusion and exchange of information on the Internet. The WWW also enabled many organisations, including newspaper and magazine publishers and other broadcast news providers, like television and radio stations to conduct their business online and explore a range of different possibilities to delivering news content to readers.

A recent survey by the Pew Research Centre (2010) produced the following findings on the multi-platform media choices of news readers in U.S.: 78 percent were from local television stations, 73 percent from national television network, 61 percent from online news, 54 percent from radio program, 50 percent from the print-based local newspaper, and 17 percent from the print-based national newspapers. Fairfax Digital, a prominent media company in Australia stated that over 14.3 million unique browsers had visited their website each month, with a growth rate that was over than 33 percent (2007). The Newspaper Association of America, NAA (2009a) reported that newspaper websites had generated more than 3.5 billion page views in the first quarter of 2009, and the
unique users spent 2.7 billion minutes browsing the sites in more than 596 million total sessions. These figures continue to increase at a rapid rate, as in the third quarter of 2009, the newspaper websites experienced more than 74 million unique visitors per month.

The current situation demonstrates how rapid the revolution of web-based functionality and technologies has been, leading to the evolution of online news as a source of information. According to the Pew Research Centre (2010), people’s relationship with the online news is becoming portable, personalised and participatory as they are able to access news via cellular phones, obtain customised news from many sources and topics of interest, and contribute, comment and at the same time disseminate news to others using the social media network. Furthermore, the report stated that 57 percent of respondents routinely consumed online news by regularly visiting two to five news websites; 21 percent accessed only one news website, and 11 percent got news from more than five news websites.

In terms of online news reading patterns and interest, based on poll results from the Malaysian print-based newspaper website, Utusan Online, as of 10th July 2009, reported that 36.7 percent of 21,270 voters chose to read only the titles of online news. Meanwhile, 17.8 percent read one to five articles, 13.6 percent read six to ten articles, and 12.3 percent read eleven to twenty articles in a day (2009). In the U.S., the most viewed online news topics are the weather with 81 percent, followed by news on national events, health and medicine, business and economics, international events, and science and technology with 73 percent, 66 percent, 64 percent, 62 percent, and 60 percent, respectively (Pew Research Centre 2010).

There are opportunities and challenges for the news media organisation that come from the convergence of news with web-based technology. In disseminating their news online, there are opportunities to meet new users’ needs, and at the same time, there are challenges to allay users’ concerns on issues such as privacy and news bias. Looking at the advantages and the rapid growth of users of online news, it is therefore appropriate to do an in-depth research into the phenomena associated with online news. Hence, the main general research question posed for this study is:
What is happening and changing with online news?

A more focused version of the research question will be revealed in Chapter 2 after the presentation of the literature review.

1.3 Significance of the research

The research study is significant for the theories as it brings together the methodologies used and, suggests lessons in its practice. The practical implementations for online news organisations provide ways to guide improvements in their online news content, website design and performance. The research adds to the understanding of the dynamics of change of online newspaper websites by underlining the adoption of interactivity features of online newspapers as well as the users’ perception of the constant changes in online news. News industries may no longer be able to predict the diffusion of new technologies and social requirements, but this study indicates some relevant aspects of this.

It is a great challenge for media organisations to constantly update their resources and remain equipped with suitably skilled journalists and editors in providing quality news content as well as meeting needs of users who are no longer passive readers, but rather actively involved in information seeking and also contributing ideas. Current online news not only caters to readers locally, but also globally. Thus, media organisation should benefit from the results of this research, which significantly helps them appreciate their online presence as part of their marketing and promotion of their brand worldwide.

A further reason why this research is of significance relates to the methodological aspect with the use of content analysis of the websites and of Q-Methodology. Analysing website content is an effective and fast method for discerning patterns and themes in textual and graphics data within a specific period of time. This method is considered as a critically rigorous method for scholars and yet a flexible tool for analysing web-based interactivity (McMillan 2000, McMillan 2009, McMillan et al. 2008).
With regards to the Q-Methodology research technique, to date, only one other study has ever used Q-Methodology in relation to online news (refer to Singer 1997). It differs from the study presented here, as it is focused on online journalists and not on users’ views and opinions. Thus, adopting Q-methodological approach in this research is a suitable and novel method for capturing users’ perceptions on the constant changes in online news, as it collects subjective views of participants in a rigorous manner. This research is significant as it demonstrates the different views held by participants and does not expect just only one average outcome. Furthermore, Q-Methodology has a long history of underpinning successful publications since its development in 1935 (Brown 1985). The Q-Methodology can also be effectively engaged in social studies (of Internet users) to provide understanding in terms of quite a small numbers of participants (Brown 1993, Brown et al. 2007). This is substantially different from normal social studies researches, which have relied upon the application of surveys and questionnaires to large populations in order to obtain consensus knowledge on users’ perceptions.

In terms of theoretical significance, the concept of Interactivity and Activity Theory are the two complementary theoretical pillars, which provide a descriptive interpretation of the complex link between the website content and users’ activities. The development of online newspaper changes at all levels: interactivity elements, the subjects, objects, and mediated tools (artefacts). Furthermore, theoretical mapping of these results is a useful mechanism to give meaning to the research findings.

1.4 Objectives of the research

The main objective of this study is to gather information and understanding on the growth and changes of online newspapers websites as well as to evaluate user perspectives towards the evolving and continuous changes that occurred in the online news environment during the period of the study (2005-2009).

The specific objectives of this study are:

- To explore the content and features of online newspaper websites (specifically those emanating from Australian print-based newspapers);
- To identify and analyse the interactivity dimensions that influence the growth of Australian online newspapers websites;
• To evaluate and analyse users’ perceptions of the evolution of, and changes in, online news;
• To gauge and interpret the evolving patterns of people’s perceptions and activities as online news constantly changes.

1.5 Scope of the research

This study initially focused on analysing Australian mainstream news websites that were originated from the print-based version. This choice was based on suitability and convenience in accessing news online without needing a subscription. Besides that, Australia is a developed, democratic country where there is a tradition of freedom of speech and rapid adoption of new technologies. The content analysis of the websites study was conducted in three phases to capture the growth and changes of online newspapers. The concept of Interactivity provided the theoretical framework for the content analysis. The researcher then became aware of the convergence of media and took into account recent development of other news channels that also have online presence, for example, television cable news like Cable News Network (CNN), Australian Broadcasting Corporation (ABC), radio station websites like British Broadcast Corporation (BBC), or online portal sites, such as Yahoo and Google News, which were also disseminating news online.

In addition, this study uses the Q-Methodology to gauge subjectively, people’s views and patterns of activities with the transformation over time of online news. This aspect of the study was conducted on university students and staff in Australia and Malaysia, in order to collect views of online users towards the constant changes in online news. It was assumed that participants from universities are the most convenient data source and would be relatively representative of Internet users worldwide, as this is a global phenomenon. Activity Theory was used to interpret the results of the Q-study.
1.6 Structure of the thesis

This thesis comprises eight chapters and is structured as follows:

Chapter 1 introduces the study and discusses the importance of the study’s focus. The first chapter also initiates the main research question that was addressed and provides an overview of the academic and media organisation contributions made by the study.

Chapter 2 provides a review of the literature surrounding online news as an overview and how online news has evolved with in-depth reviews on online news characteristics. On the basis of this review, a theoretical framework was introduced to orientate the research and reviews on other relevant literature to the study of the online news. Subsequently, two specific research questions were developed in this research study.

Chapter 3 identifies and describes the research design and the methodology used to explore and answer the research questions. A rationale for the choice of data collection methods is provided in conjunction with the methodological selection of the techniques and, is combined with the outlines of strategies – operationalisation, Q-study and the phases involved. This chapter also describes the application of the theoretical analysis to the research study.

Chapter 4 presents the Initial Stage results of Phases 1 and 2, which were conducted in 2006 and 2007, as a preliminary study of the research.
Chapter 5 reports the Second Stage results of Phases 3 and 4, which involved another Q-study in a different time frame, the year 2008, and also revisited of the websites with a content analysis in 2009.

Chapter 6 represents the data interpretation of both stages – the Initial and Second Stage results. It demonstrates the uniqueness of the Internet: the interactivity features, and the combination of responses by online news users throughout the stages and phases of the study. Data from both the online content features and views from users revealed sets of activities, which are interpreted using Activity Theory.
Chapter 7 draws these preceding chapters together in a critical analysis of current innovations in online news. The chapter discusses the current state of affairs and also the possible future of the online news. It reflects upon the lessons learnt from current changes, and builds on these lessons to speculate on the future in online news. This chapter also signifies the relevance of Activity Theory for the future study of online news phenomena.

Chapter 8 summarises the key findings of the research study and draws out the significance for both theory and practice in the online news arena. Finally, the limitations of the research and opportunities for future research are documented.

1.7 Chapter Summary

This chapter has presented a background of the online news and an overview of the research study. In particular, it has identified the main research questions based on the background discussion. In addition to that, it has outlined the significance of this study as well as the research aims in exploring the topic of online news. The final section of this chapter has also presented an overview of the rest of the chapters in this thesis.

The next chapter reviews the relevant literature on online news, the theoretical framework and, raises suggested research questions that are used in the study.
CHAPTER TWO
LITERATURE REVIEW

To speak of a science without concepts suggests all sorts of analogies – a carver without tools, a railroad without tracks, a mammal without bones, and a love story without love. – H. Blumer, 1969 (cited in Blaikie 2000, p.128).

Research without theory is blind, and theory without research is empty. – P. Bourdieu and L. J. D. Wacquant, 1992 (cited in Blaikie 2000, p.128).

2.1 Introduction

This chapter provides an overview of the published literature relevant to the study of online newspapers leading to the increased attention to online news in general. The research study began in 2005 just as online newspapers became the emerging form of news medium. This review begins with a description of the literature of this era, which underpins the research using website content analysis and a Q-Methodology study of reader activities as is presented in Chapter 3. It is then followed by some discussion on the characteristics of online news, and, in particular, the concept of Interactivity and how it can be adopted into the research.

The subsequent four years of the research saw an ever-increasing importance of information technology in providing strategies and competitive advantage to newspaper companies, especially with the rise of Internet usage. Online news has become an ever-changing, pervasive phenomenon in the new millennium, which has made it exigent that the factors affecting its adoption and success be identified. Recent literature in this area is scarce and is dealt with in the discussion in Chapter 7.

The research uses the Activity Theory framework as an appropriate lens through, which to view the social interaction, individual differences, and web communication tools mediating the changes to the online news. The relevant literature on Activity Theory is reviewed here to show how it provides invaluable insights into the factors, of user activities that are believed to determine the success of online news innovations and applications. Lastly, potential research questions are listed, to lead through to the next chapter.
2. 2 The Era of Online Newspapers

2.2.1 Overview

Online news is a relatively new phenomenon in the history of news and journalism. Starting in the early 1990s, newspapers and other broadcast news providers were beginning to explore the possibilities of delivering news content to readers via the World Wide Web, WWW (Deuze 2003). According to Encyclopedia.com (Ince 2001), an online newspaper is ‘the electronic version of a newspaper stored at a website. Usually the newspaper consists of content found in a conventional newspaper supplemented by devices such as mailing lists, email, dynamic content, interactive competitions, and banner adverts’.

Statistics from the Newspaper Association of America, NAA (2009b) report shows that the average monthly audience figures for newspaper websites grew from approximately 7.3 million to 67.3 million visitors in the year 2008, an increase of 12.1 percent over year 2007. Nielsen Online for the NAA also reported that in the fourth quarter of 2008, there was an average of 68.2 million visitors, an 8.6 percent increase over the same period of 2007, when there were only 62.8 million visitors. In the third quarter of 2009, the newspaper websites had reached 74 million monthly unique visitors on average, which reflected 38 percent of all Internet users (NAA 2009a).

The Internet continues to penetrate the global population as the Computer Industry Almanac (2009) report indicates that Internet population by 2010 is at 1.83 billion, and 2.10 billion as the projection for 2012. By the end of the 21st century, reading news online will become a popular and regular habit for many people. World Association of Newspapers (WAN) report showed that during that time, the global readership for online newspapers rose by more than 200 percent between 2001 and 2005 (Asia Media, 2006). Since then, not only newspaper publishers, but also television and radio stations, magazines, and other publications have joined the band wagon and constantly improved their online presence.

According to a survey by Harris Interactive (2007) in five European countries, Australia, and the United States, readership of major daily newspapers today ranges
from 6 percent to 13 percent and television network news, online news and information sites, radio and cable network news are the top source for news and information. Furthermore, the latest survey (2009) found that 80 percent of United States adults were online with the time spent at an average of 13 hours a week, compared to 81 percent and 79 percent in 2008 and 2007, respectively.

Distributing the news online has a significant impact on the traditional news cycle (Hall 2001). For both traditionally-printed and broadcast news services, there is no longer a need to meet production deadlines and, stories are not set in type until the next edition or programme. In the online environment, journalists can put up one version of the story as soon as it breaks and then continue to revise and update the content as more is known (Flavián and Gurrea 2008). This means that readers are now able to read immediate and more updated news and are no longer reading yesterday’s news.

In the same way that digital technology has revolutionised many industries, the change in the world of news delivery has been rapid and transformational. Many online news sites are now discovering that more and more users want to become part of the media conversation (user-centric) – the user-generated content or citizen journalists (Hermida and Thurman 2008, Lee-Wright 2008, Littau 2007, Paulussen et al. 2007, Thurman 2008). The once static sites of newspaper, radio and television corporations have become increasingly interactive, adding advanced features and devices such as news chats and weblogs; accepting pictures, video and audio, which allows readers to contribute, becoming writers and reporters. Now, there is a growing number of public-contributed media rich reports and opinions to news sites, thereby creating a participatory flavour of news that is different from the traditional, one-way broadcast news.

The current scenario demonstrates how rapid the revolution is in the functionality and use of relevant web-based technologies that introduces and invites a radically different operation and business in the news industry. In the next section, the research study will reveal in-depth review on online news and why people prefer online rather than the printed news.
2.2.2 The Rise of Online Newspapers

As cultures evolve, it is reasonable to expect the form of news in print and broadcast to evolve. Thus, the signs of change are obvious and persistent. Online news are carving a niche, especially among the news hounds, the computer savvy and the youth, who sight the Internet as a viable medium for information and news (Theil 1998). The current drift is that people are intense and rushing to go online, to avoid being ‘left behind’ in the information revolution (cited in Allan 2006). Therefore, this section looks at the phenomena that initiated this research study.

According to Martin and Copeland (2003), if a society recognises its need and desire for news and retains the concept of a newspaper, it will surely have to accept the fact of an evolving format for this durable news conduit. The same is true for all forms of news media, principally radio and television, which have traditionally operated in broadcast modes where there was a clear distinction between the news provider and the news consumer. Rapid recent changes to the Internet presence of the news industry as a whole has driven this research into a broader focus on changes to the whole industry brought about by developments of information and communications technologies.

In general, two dimensions of online newspapers layout (web design of online news) distinguish them from print; presentation and navigation (Li 2002, 2006). The basic presentation approach consists of graphics and textual news. Navigation requires a smooth news flow and a good balance between navigation, graphics, and information display; these are essential elements in online news.

Traditional print newspapers place the most important story at the top of the front page. The allocation of space to an item of news, the size of the headlines, the photos used, the placement on the page, and the page on which the story appears varies with the editor’s preference. Unlike the online newspaper, where the first few sentences (with hypertext links) of only a few top stories are placed on the home page at any one time, but represented with variation and colourful graphics containing pictures, videos, and audios that are change frequently as new stories break (Li 1998, Li 2002, Lowrey 1999).
For all these reasons, reading online news has become increasingly popular and newspaper organisations are providing an increasing range of online services. Indeed, the Nielsol Online report shows that more and more people are visiting the web to read newspapers. For example, the top 10 United States (US) online newspapers have increased readership by 27 percent from 199.6 million in December 2007 to 252.7 million in December 2008 (2008). The NAA report (2009b) states that users now visit online newspapers for an average of 45 minutes a month.

In Australia\(^1\), Fairfax Digital (from Fairfax Media Limited Annual Report 2007) claimed to be the ‘No.1 online news site’ and reported that over 14.3 million unique browsers per month have visited their online news site, which has a growth rate of over 33 percent. Now, Fairfax Media is Australia’s most diversified media company with 434 publications, 284 websites, 15 radio licences, and 24 printing centres in Australia, New Zealand, and the United States (2009). This is an obvious convergence trend of Internet with the merging of information and communications technologies, plus additional forms of entertainment and the news media. In addition, entirely new online news websites are emerging outside the mainstream traditional news media ownership, inviting and allowing both professional and amateur journalists to a global forum for individual reports and opinions (see Connery and Hasan 2005).

Content plays an extremely important role in online newspapers. ‘Content is king’ is a well-known slogan quoted from Huizingh (2000, p.124). Pavlik (1997) described the evolution of online content in three stages; repurposing print content for the online edition, interactive features such as hyperlinks and search engine, and the creation of original news content designed specifically for the new medium, which involved both new forms of storytelling and increased levels of interactivity.

According to Bucy (2004), there were three generations of online news transformation stages. The first generation that was in the early to mid 1990s was uninspired, producing simple hypertext pages. The second generation, from the mid 1990s to the decade’s end,

was the independent online journalism of news gathering and production with continuous updates. Online news became more visual and in-depth with more interactive features through chats and discussion boards. In 2000, the third generation of online news appeared, characterised by enhanced features that used technology to bring people closer to news. Newspaper sites have evolved from a non-interactive, passive mode of information delivery into an environment of increased immediacy, content richness, and user control.

In addition, Bucy (2004) commented on content and structural features of messages, which may compel audience attention, increase viewer arousal, enhance memory, and impact subjective evaluation. In the research Bucy (2004, p106) listed and elaborated on the home page content categories, which included content elements, and interactive features of commercial transactions, interpersonal communication, content interactivity or multimedia, and information accessibility that are best described in Table 2.1.

<table>
<thead>
<tr>
<th>Content elements</th>
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<tbody>
<tr>
<td>Network presence items</td>
<td>Network or corporate parent logo; station call letters; community served; network or organization name in the Web address</td>
</tr>
<tr>
<td>Textual content</td>
<td>E-mail links to and full news stories, press releases, newsperson biographies, and campaign issue positions</td>
</tr>
<tr>
<td>Photographs</td>
<td>Photos of news reporters, anchors, and personalities; news sources; news events; political candidates; and other people and events</td>
</tr>
<tr>
<td>Immediacy items</td>
<td>Date or time-stamped news stories; news ticker with current headlines; indication of new content; date or time of last update</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interactive features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional items</td>
<td>Forms to buy memorabilia, make a donation, or register to vote online; mechanisms for volunteering, community activism</td>
</tr>
<tr>
<td>Interpersonal communication</td>
<td>Feedback forms; e-mail links to reporters and staff; presence of chat rooms, forums, bulletin boards, and other online discussions</td>
</tr>
<tr>
<td>Multimedia items</td>
<td>Instant polls or surveys; games, puzzles, and contest; photos or graphics used as links; links to audio and video (archived or live), related sites, newsletters, news digests, and listservs; links in news stories; e-mail postcards and stories; searchable database; downloadable graphics, and wallpapers; other forms and links</td>
</tr>
<tr>
<td>Information accessibility items</td>
<td>Search engine; index or list of helpful links; help page or forum; FAQ list; site map; content in different languages; schedule or programming information; condensed information or story summaries; ability to customize information display and delivery</td>
</tr>
</tbody>
</table>

Note: All features were coded as being either present or absent (not for the total number of times they appeared on the home page). FAQ = frequently asked questions.
According to Bucy (2004), media organisations may stand to benefit by recognising the non-monetary contributions of online news to the broader news mission, of which there are at least three major types – enhanced coverage (‘hyperlocal’ coverage and updates throughout the day, offers more consumers control over the news, customised information delivery and other features that engage users on an individual level); brand loyalty (the primary purpose of an online news site is to increase viewer loyalty to a station and its services – cultivated by adding more interactive features to invite more involvement and dialogue); and media credibility (as audiences tend to pay more attention to and become more reliant on media they consider credible and reliable).

Ever since 2004, during the time of Bucy reporting on content elements of online newspapers, the online news contents were becoming more dynamic, especially with the extraordinary contributions made by ordinary citizens (citizen journalists), offering immediate and first-hand reports of news (in the form of digital photos, videos, mobile and audio clips). As Allan (2006) interprets the citizen journalists as ‘a tipping point’ and the redefinition of news and journalist for online news, as it provides ‘raw, unedited, but still journalism’ kind of news. Online news came to fore when the web was in its infancy, in particular: the coverage of the September 11th bombing, later, the Tsunami’s destruction of Aceh, Sumatra, which also swept across the Indian Ocean impacting Bangladesh, India, Phuket Island and Malaysia; and, more recent news, the death of ‘King of Pop’ Michael Jackson, and the bushfire in Victoria and the Southern part of New South Wales, Australia.

The rise of the Internet challenges journalists to reconsider their roles and responsibilities as providers of information to the public. In fact, journalism consists of more than news providers delivering information to news readers. The news is not just a simple and tangible product. Solid journalism must be complemented with good writing, pictures and sound, for quality, constant, credible, and flexible news, which is a totally different process than traditional media (through gatekeepers and editorial boards) (Seib 2002) that engage with readers. More is likely to come in the great challenge against the ‘citizen journalists’. Thus, the online news business has created a new occupational genre that involves both professional journalists and citizen
journalists. The new egalitarian medium of this new media and ‘going live’ era requires professional journalists to react to this new challenge.

People are turning to the web for news that is rich and instantaneous. Immediacy as defined by Massey and Levy (1999), is when web news sites provide the most immediate information. Similarly, Eriksen and Ihlström (2000) described immediacy as ‘live’ reporting that the web affords in provision of news in a continuous pattern. For Bucy (2004), immediacy is a set of features that leads to ‘nowness’ and real-time urgency. According to Karlsson (2007, p.2) immediacy means ‘virtually no lag between when information is received or created at a news producer and when the information is passed on to the news consumer’.

The key benefit of the Internet is it acts as the news-delivery mechanism. What we are seeing now is the evolution of news mechanisms, which has grown and expanded from radio, broadcast television, cable network (for example: Cable News Network: CNN, Consumer News and Business Channel: CNBC, and Microsoft and National Broadcasting Company: MSNBC); and now the Internet. Real-time news coverage has moved from being exceptional, to being standard in the online news environment. ‘A continuum exists, linking these media that, although are different in many ways, share the ability to deliver real-time news’ (Seib 2002, p.2). Besides immediacy, online news has the capacity for greater depth in online reporting as there is no limit to putting the news online and also for interactivity (between the readers) (Allan 2006).

At present, readers demand global and local news, as well as fast-breaking events, updated constantly throughout the day. Global demand by readers can be news that has broad geographic appeal, or reaches out to the human interest; such as specific news websites or fans of meticulous football/soccer, or Formula One team, e.g.: Manchester United and Ferrari Formula One team. Not only that, online news is also for readers who are unable to gain access to the news in print; those who are away on out-of-town trips, or are temporarily staying overseas, international students and expatriates. Readers can access online news at any time of day or night.
The next section reveals the online news characteristics as the basis of comparison with the changes from traditional news to user-generated content, with high levels of interaction between news providers and consumers emerging, since this research study was started. It reviews those characteristic that led to the first expansion of newspapers into the online era and draws a comparison between the new and old forms of news.

2.3 Online Newspaper Characteristics

In the 1990s, online newspapers were considered a revolution in mass media; a cultural shift from traditional print-based news to the new media of online news. According to Thiel (1998), the online newspaper is a postmodern medium where news hounds, the computer-savvy, and the young, see the Internet as a viable medium to seek information and news.

Online newspapers offer the full story on separate pages through hyperlinks (either within the story text or as a sidebar). Sub-lists organised at the top or side of the front page are used to link to items under headings such as, politics, entertainment, international news, sports and weather. The links may also lead readers to related stories on the current topic that would enlighten readers, revealing the interconnected nature of many events at the local, national, or international level (Eveland et al. 2004).

According to Flavián and Gurrea (2008), the use of online news is characterised by an increased speed to reach the reader, a much lower cost of distributing information, as well as the environmentally friendly benefit, the ability to update news constantly, and the ability to establish more direct contact and interaction with users. As Wilkinson et al. (2009, p.148) argues:

‘The biggest difference between news over the Internet and news through traditional media is the amount of information that may be conveyed. The manner in, which web pages are created, stored, and transmitted, allows an almost unlimited amount of information to be relayed for any story’.

As was described in the earlier section (Section 2.2.2), the two fundamental features that websites should have are content and design websites (Huizingh 2000). Content refers to information, features, and services offered, while design is the way content is made available to readers, which includes both interface and multimedia design. Similarly,
these two dimensions also apply to online newspapers layout. Li (2002, 2006) comments that the online news layout, which distinguishes it from print are presentation (graphics and textual news) and navigation (smooth news flow and balance navigation between graphics and information display).

While Nielsen (2005) listed the ten general principles of user interface design, called ‘heuristics’ usability guidelines, Tarañdar and Zhang (2005) also suggest that a successful website requires appropriate design characteristics to make the websites effective. The five crucial characteristics of successful websites identified by Tarañdar and Zhang (2005, pp. 14-15) are:

- **Content of information** – should be relevant to the purpose of the website; easy to read and comprehend; be useful; have adequate scope and depth, and be current;

- **Navigation** – the effectiveness of hyperlinks;

- **Easy to use** – designed to facilitate effective completion of the task; usability; visually appealing; the use of graphics, multimedia and other interactive elements that makes the website interesting and easy to use; search engines and shopping carts are easy to use;

- **Personalization** – capability to customise information for specific groups of customers;

- **Technical properties** – equip with security features for user authentication and secure transactions; access speed in downloading and displaying; accessibility or availability of the website, which determines the reliability of the website.

The emergence of online news enables news to be delivered and transmitted digitally in real time, i.e., breaking news, as claimed by Massey and Levy (1999), Eriksen and Ihlström (2000), Seib (2002), Bucy (2004), and Karlsson (2007) in the earlier section. In addition to that, real time and timeliness also increases the quantity and richness of news information by enhancing news using audio, videos and lots of pictures (Gilder 1994, Massey and Levy 1999, Palmer and Eriksen 1999, Palmer and Eriksen 2000).
Online newspapers are also capable of providing users with access to archived news (Ihlström and Lundberg 2003). This flexibility of online features empowers readers to browse and choose stories on their own time and at their own setting. On top of that, ‘multimediality’ is the most pervasive form of new content distributed on news websites. This word comes from ‘multiple media’ (Wilkinson et al. 2009, p.165), which describes the use of various forms and combinations of media, which contain sound, text, video and animations.

Deuze (2003) and Boczkowski (2004b) urge that online newspapers need to expand their ‘multimediality’ by using weblogs, podcasts and streaming video/audio, which offer the user more interaction. This multimedia function allows readers to ask questions to reporters, editors, and friends about the choices they made while researching and writing a story. Moreover, readers can readily provide feedback or input. This two-way interactive capacity represents a significant departure from the traditional one-way flow of information from paper to users, and greatly improves the channels of feedback between source and receiver (Li 1998, Li 2002).

While Bucy (2004) illustrates in earlier section (see Section 2.2.2) the two major characteristics of online news home page, content elements and interactive features, Wilkinson, August and Douglas (2009, p.145) also exemplify four key aspects of new types of online news content that consist of:

- **Interactive content**, where users can choose, which elements of a story to see or read and in what order to read them;

- **Hyperlinks**, allowing a user to immediately get more information on any component of the story;

- **True multimedia**, combining video, audio, text, graphics, photos, and other content;

- **Archives** of previously published content, including news, photos, features, and editorials.
The bottom line is that the Internet gives the capability of delivering and presenting material for online news with high ‘searchability’ – to be easily found by people once it is in the search engine’s database); ‘scannability’ – specific information, in small and digestible chunks, so that information can be found immediately; ‘linkability’ – the words used in the link is clear and is directly linked to the relevant information, and ‘sociability’ – the era of social networking where people send and receive links from friends and family allowing readers to comment at the bottom of a story (Wilkinson et al. 2009, pp.37-42). Besides speed and frequent updates, these elements take best advantage of the Internet as an interactive medium.

Most online newspapers affix an element of ‘playfulness’ with online games, polls, quizzes, contests, software downloads, and questions and answers exercises. As William Stephenson (1967) suggested in his book, *The Play Theory of Mass Communication*, mass media content such as newspapers, are not just for information, but is a game for the reader. In fact, ‘reading the newspaper is play’ (cited in Avery 1990, p.306). Play is a conversation within oneself that offers pleasure, enjoyment and is associated with relaxation and leisure. Thus, the online news offers similar functions of playfulness and entertainment but with much more advanced features and technology.

In Micro-computer playfulness, ‘playfulness represents the degree of cognitive spontaneity in micro-computer interactions’ (Webster and Martocchio 1992, p.1), where ‘an individual’s tendency to interact spontaneously, inventively, and imaginatively with computers’ (Ahn et al. 2007, p.265) is allowed. While Ha and James (1998) relates ‘playfulness’ to entertainment values, which arouses the reader’s curiosity and keeps them highly involved, stay on, and also revisit the website, (Dholakia et al. 2000) refers to ‘playfulness’ as the entertainment value of a site containing ‘entertainment and information that features humorous animations or interactive games where the intent is to provoke an emotional or behavioural response from the reader’.

Therefore, ‘playfulness’ is considered as one of the business success factors (Chen and Yen 2004) not only for online news websites, but also for other business-oriented websites, for example, corporate websites (Gustavsen and Tilley 2003). Clearly, the online newspaper offers certain advantages over the print newspaper. Consequently, the
use of technology brings users closer to the news not only to educate and inform, but also to entertain them (Brown 2000).

Finally, the Net enables news configurations of news production, distribution, and reception where new modes of authorship, ‘audiencehood’ and new kinds of producer and consumer media divergence what is characterised as ‘many-to-many’, decentralised communication, as well as media convergence (of content, computing and communications technology) (Meikle 2009). Meikle also stressed three central characteristics of online news, which often overlap and reinforce each other in practice. They are (Meikle 2009, p.175):

- **Automation**, email digest and headlines; news feeds to mobile phone; news alerts sent straight to the desktop; RSS feeds; and audio and video podcasts;

- **Personalisation**, to choose between international and other versions, more or fewer graphics, and from text offered in a range of other languages;

- **Participation**, ‘Have Your Say’ section; readers are invited to submit story ideas, pictures or video.

The following section will review relevant literature pertaining to online newspapers. The growing literature mostly comes from Journalism and Computer-mediated communication (CMC) perspectives. But lately, the ever-increasing importance of information technology in providing strategies and competitive advantage to online newspaper in the new millennium has prompted recent literature from Information Systems and technology perspectives of online news. Therefore, this section also covers the scope and areas of recent literature of online newspapers.

2.4 **Reviews on Online Newspaper**

Most early studies of online newspaper were undertaken from journalism perspective. For example, studies by Peng (1999) and Massey and Levy (1999) indicated that reporters and/or editors place a high value on timeliness, updating their web edition more than once a day. Deuze (2003), on the other hand, discussed the impact of online journalism though the key characteristics of online publishing: hypertextuality, interactivity, and multimediaility. Paulussu (2004) agrees that most online journalists
believe that the future of online journalism lies in these key characteristics and that they should take the advantage of this ‘added values’ of the Internet. As mentioned by Seib (2002), the use of hypertextuality or links provides access to the ‘supplemental information’, which makes Internet news dissemination essential.

These characteristics of online journalism would definitely connect to a broader audience in promoting more profound changes and challenges, expectations, and redefinitions of professional journalism and news culture as a whole. Boczkowski (2004b) espoused that technological developments generate editorial and journalism effects. Essentially, the newsroom practices and the representation of users as producers or consumers were the two sides of the interactivity coin, one focusing on the work routines and the other on the beneficiaries of its products. Meanwhile, Cassidy (2007) focuses on the changing role of journalists in the online environment, especially on gatekeepers and the acceptance of the Internet as the source of information for news still significantly perceived as moderately credible amongst the journalists.

Singer (2008), addresses some of the significant issues facing corporate and newsroom managers as well as the journalists. In the digital environment of fluidity and flux, a journalism that successfully embraces and engages this ecology will have to become fluid itself as what Deuze (2008) called it – ‘a liquid journalism’.

The emergence of ‘convergent journalism’ not only has to focus on the capability of reporters giving story, photographs, and videos. But now, the new role is more on ‘story editor’ that focuses on individual stories, making sure the journalistic team gathers relevant interviews, pictures, background information, rather than just contributing to each story, communicating with the editors and ‘multi-skilled journalist’ (Wilkinson et al. 2009). What is more crucial now is meeting the commercial expectation and innovation of the online newsroom where greatest competition is in the form of ‘citizen journalism’ (Domingo et al. 2008, Littau 2007, Paulussen et al. 2007, Thurman 2008) that is taking place in the journalism arena.

At the beginning of the era of online newspapers, most website design of online news mimicked the print-based newspaper (Boczkowski 2004b, Krumsvik 2006, Lowrey
1999). As technology, time, and demand evolved, now there is a growing body of literature analysing the improvement of online newspaper features and websites design. For example, Ihlström, Åkesson, and Nordqvist (2004) commented on the future scenarios of the use and design of the online newspaper. Their study advocates that the design and functionality of the online newspaper incorporates important elements of mobility, interactivity, adjustment for special target groups and personalization.

Oostendorp and Nimwegen (1998) examined the usability of an online newspaper focusing on the effect of reading manipulation techniques of scrolling and hyperlinks. Results indicated that online readers favoured more text content than graphics with scrollable pages to hypertext links for locating information.

Sparks, Young, and Darnell (2006) analysed the format, layout, and types of content displayed on the site homepages of online newspaper. They discovered that the majority of daily newspapers were still using traditional newspaper formats; 36 percent used a left-sidebar layout and 24.8 percent used a left-right page design. In terms of website design perspective, only 1.8 percent of the sites were using the innovative layout, which is called the ‘multi-frame’ format.

Li (1998, 2002, 2006) studied online text and graphical information on the home page of selected online newspaper editions. Most importantly, he noted that although some online news websites may look more visually appealing than others, they may not be more efficient for readers to retrieve news information.

‘A balanced site between graphic and textual is more likely to achieve high retrieval efficiency…The restriction in using more graphics is likely to reduce the time to download the page and fewer scrolling screens will also speed up the process to locate and access the news items’ (Li 2006, p.93).

Hope and Li’s (2004) research found that timeliness, content attractiveness, content coverage, writing style, layout, archives, usefulness, navigation, services, interactivity, and multimedia presentation were the main contributors of quality online newspaper. However, these classifications vary across demographical factors such as culture, gender and age.
Interestingly, Bucy’s research study (2004) revealed that online newspapers’ features were more on interpersonal communication features, information accessibility items, and immediacy elements, which promoted more social interaction, personal control, and temporal proximity to events rather than other home page sites (such as from broadcast stations).

Many scholars have also attempted to study the interactivity concept in online newspapers (Boczkowski 2004b, Bucy 2004, Chung 2008, Greer and Mensing 2006, Kenny et al. 2000). Emanating from the field of computer-mediated communication, Heeter (1989) proposed that interactivity related to communication technologies was a ‘multidimensional concept’. Heeter defined six dimensions of interactivity, which were commonly used by other researchers in their studies (Dholakia et al. 2000, Ha and James 1998, Kenny et al. 2000, Massey and Levy 1999, McMillan 1998, Rahman 2008, Şanlier and Tağ 2005).

These six dimensions, which will be elaborated on in the next section, are: complexity of choice, effort of users, responsiveness, monitoring of information, facilitation of interpersonal communication, and ease of adding information. Generally, researchers categorized interactivity into two dimensions: content that links users to the system, and the interpersonal, which involves communication among users. This means that interactivity empowers the user and that empowerment is what makes online newspapers so different from the traditional news.

According to Lowrey (2003), the strongest high-level predictor of site interactivity was to empower the user to community pluralism, which meant the more pluralistic the community, the more likely it is to desire media interaction, and presumably managers at the news room level were able to alter site content and structure in response to community needs; this means resources and expertise have strong relation towards interactivity.


While Quandt (2008) analysed 10 online news sites in five countries – U.S., France,
United Kingdom, Germany, and Russia, Seelig (2007) examined the contents and
designs of 282 U.S.-based online newspapers, 112 radio station websites, and 128
television station websites. Other than most of the Internet’s English-speaking medium,
the U.S. became the main target due to it being the leading player in web publishing, in
the newspaper industry, communication technologies, and also Internet accessibility
(Cao and Li 2006).

Other online newspapers were also studied, for example, Gerpott and Wanke (2004) and
Neuberger et al. (1998) studied the German press, Spyridou and Veglis (2008), Avraam
et al. (2008) examined the Greek online newspapers, and Paulussen (2004), researched
on Flemish online news (Flanders or Dutch newspaper). Online newspaper studies, like
the one in the Netherlands (d'Haenens et al. 2004, de Waal et al. 2005, Deuze and
Dimoudi 2002, Schoenbach et al. 2005, van der Wurff 2005a), Turkey (Şanlier and Tağ
2005), Slovenia (Oblak 2005), Spanish (Dans 2000, Flavián and Gurrea 2008), Sweden
(Ilhström and Åkesson 2004), Scandinavia (Ilhström and Henfridsson 2005), Europe
(van der Wurff 2005b), Western European (Bleyen and Hove 2007), Italy (Povoledo
2004), United Kingdom (McCarthy 2003), Canada (O'Neill 2006, Sparks et al. 2006),
Bangladesh (Rahman 2008), and lastly, Asian countries (Massey 2000, Massey and
Chang 2002, Massey and Levy 1999) had also been undertaken.

There are limited studies for Malaysian online newspapers. An exception is the work of
Massey, whose research studies involved Asian and Southeast Asia countries (Massey
2000, Massey and Chang 2002, Massey and Levy 1999). Most of his studies were on
online journalism and the interactivity of Asian online newspapers, which included
Malaysian online news websites. As there are also only a few studies involving
Australian online newspapers, this research study on user’s perceptions of Malaysian
online newspapers is filling a significant void.
There are few studies for Australian online newspapers. For instance, Lewis (2004) conducted and discussed a study on Australian online newspapers, but used a business model segment. Keshvani and Tickle (2001) emphasised the convergence of emerging technologies with other digital media for online news. Kenyon and Marjoribanks (2008) studied news production, online journalism, and defamation law across three countries: U.S., United Kingdom, and Australia. Meanwhile, Gatby (2008) discussed the challenges of preserving physical and digital newspapers in Southeast Asia, including Australia, and the dynamism of online newspapers in the context of newspaper libraries.

Morison (2007) examined the pedigree of online newspapers in Australia, focusing especially on News Limited (NEWS.com.au), The Age and Sydney Morning Herald online newspapers, which are owned by Fairfax Digital. However, the study was only descriptive and logged the initial process of building up the foundation and understanding of the development of online newspapers in Australia.

Nguyen et al. (2005) conducted a national survey to explore online news consumption and satisfaction in Australia. It covered newspapers, magazines, broadcasts, news agencies, non-mainstream websites and others, as sources of news online. Results showed the Internet as the most excellent news medium. 66 percent considered themselves as news fans, and 89 percent believed that the Internet will become the most important news medium of the future. Conversely, results showed some biases in terms of age and gender, as younger participants were ‘under-represented’, and male participants were ‘over-represented’ (2005, p.7).

As a result, this research study underpins the nature of content and layout of Australian online newspapers and how people in general (Australian and Malaysian), perceive the constant changes in online news. It thus fills a significant void. The research study will adopt the Interactivity concept and Activity Theory as the most significant framework and therefore is applicable for use in this study. The adoptions of these two elements will be explained in the next section.

2.5 Interactivity Concept

There are numerous studies linking the Internet to with the concept of Interactivity in attempts to identify the dimensions, benefits, and implications from various perspectives
and disciplines; communication, computer-mediated communication (CMC), marketing, and information systems. As mentioned in an earlier section (Section 2.4), interactivity is a ‘multi-dimensional’ construct. However, as the functionality and availability of the Internet is evolving at a great rate, the understanding of this important aspect of interactivity remains vulnerable and deficient.

Referring to the definition in Webster’s New Millennium Dictionary of English (2005), the verb ‘interact’ means ‘to act on each other’, and, is particularly related to activities which that involve a social context such as a conversation, playing games, acting or even dancing. This interaction involves negotiation, cooperation, coordination or influence. In the meantime, the term ‘interactivity’ – a noun that means ‘the extent to, which something is interactive’, and more specifically ‘the extent to which a computer program and human being may have a dialog’.

In other words, ‘interactivity’ means an activity involves interaction. In the realms of the Internet these relate to communication activities; human-to-human (user-to-user) and also that of human-to-computer (user-to-system) interaction involving receiving and disseminating inputs, messages, data or commands.

Early research came from the communication literature noted that communication is mostly about, and for the purpose of, interaction. The best known and earliest definition of interactivity was from Rafaeli (1988, p.111), ‘An expression of the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions’. Subsequently, Rafaeli and Newhagen (1996, p.1) proposed five defining qualities of communication on the Net, which are: ‘multimedia, hypertext, packet switching, synchronicity, and interactivity. These qualities capture what is, or can be, different about Net-based communication’.

‘Interactivity is a process-related, variable characteristic of communication settings...It is the extent to which messages in a sequence relate to each other, and especially the extent to which later messages recount the relatedness of earlier messages...interactivity is indicated as a useful concept for mapping group Computer-mediated communication because it is a hybrid construct...At one end is declarative (one-way) communication (e.g. most radio and television). Reactive (two-way) communication is further down the road. In reactive communication,
one side responds to the other side. Fully interactive communication requires that later messages in any sequence take into account not just messages that preceded them, but also the manner in which previous messages were reactive. In this manner interactivity forms a social reality (Rafaeli and Sudweeks 1997, p.3).

Steuer (1992, p.84) on the other hand, viewed interactivity as ‘the extent to which users can participate in modifying the form and content of a mediated environment in real-time.’ Meanwhile, Rogers (1995, p.314) argued that interactivity is ‘the degree to which participants in a communication process can exchange roles and have control over their mutual discourse’.

Hoffman and Novak’s (1996) view of interactivity can be defined as both, ‘with’ the medium or access information (machine interactivity) in addition to ‘through’ the medium that is the ability to communicate with people (person interactivity). However, Jensen (1998, p.201) defined interactivity as ‘a measure of a medium’s potential ability to let the user exert an amount of influence on the content and/or form of the mediated communication’. Basically, three general means that took place in Jensen’s definition of interactivity; exchange, interplay, and mutual influence.

Significantly, many believe that interactivity is a ‘multi-dimensional’ construct and is used as the primary characteristic of new technologies (Ha and James 1998, Heeter 1989, McMillan 2002, Morris and Ogan 1996, Rafaeli and Newhagen 1996, Rafaeli and Sudweeks 1997). The interactivity concept has been used for studies in journalism, computer-mediated communication, media studies, and information systems.

Because of this, various researchers have attempted to settle upon a single definition with multiple concepts of interactivity. In advertising, from the work of Pavlou and Stewart (2000), they defined interactivity as an attribute or characteristic of the consumer, not a characteristic of the medium; as consumers can choose to respond or not. Interactivity is not really new, but what is new comes from the speed, scope, and scale of interactivity. These are provided by new information and communication technologies, which make online activities simpler, cheaper and easier.

On the other hand, Downes and McMillan (2000) defined the actual concept of interactivity as message-based dimensions (direction, time, and place), and participant-
based dimensions (control, responsiveness, and perceived goals). While Katz (2000), recommended four main technologies to encourage consumers towards interactivity; digital set-top boxes, the internet, cable modems, and digital subscriber lines, Kiousis (2002) stressed that interactivity should be more about users as participants who are able to communicate both synchronously and asynchronously, and engage in reciprocal message exchanges.

Still, Heeter (2000) qualifies interactivity as ‘overused’ and ‘under-defined’ with a necessity to start with a clear definition of it. Hence, Heeter defined interactivity as actions and reactions of a user with the environment (2000, p.9):

‘An interaction is an episode or series of episodes of physical actions and reactions of an embodied human with the world, including the environment and objects and beings in the world. These actions and reactions are actual interactions, a subset of the range of potential interactions of the human and the world at that time and place’.

Kawamoto (2003, p.4), however, claimed that interactivity is ‘a process of engaging active human or machine participation in the process of information seeking and information sharing’. Meanwhile, Sundar (2004) theorized interactivity’s effects to web-based mass communication, which emphasised the attributes of the technology that would have effects on behaviour, attitudes, and cognition.

Significantly, most definitions of interactivity, and the associated body of literature, were developed from computer-mediated communication (CMC), mass communication and journalism perspectives. Slowly, other disciplines started to adopt the interactivity concept into their field of studies. For example, Wehn (2003) used interactivity content for the web animation study, Chou (2003) used the Interactivity concept for distance education, computer-assisted instruction, communication and interactive dimension and functions for web systems, and Teo et al.(2003) used interactivity as an independent variable for the web usability study. Other web usability studies are Huizingh (2000), Wu (2005), Flavián and Gurrea (2008), Lowry et al.(2006), and Pang et al.(2009).

There are also few studies relating to management and organisational behaviour that uses the Interactivity concept. For instance, Lawson-Body and Limayem (2004)
explained the impact of website characteristics on the relation between customer relationship management, and, Jensen (2005) studied degrees of interactivity between colleagues and departments within an organization.


Among the literature reviews and the work of knowledge towards interactivity, this research study uses the categorisation of elements of the Interactivity concept introduced by Heeter (1989). This study adopted Heeter’s basic six interactivity dimensions, namely (1989, pp.221-225):

- **the complexity of choice available**: users are provided with a choice of available information or selectivity;
- **the effort users must exert**: the amount of effort to access information;
- **the responsiveness to the user**: the degree to which medium can react responsively to a user;
- **the monitoring of information use**: potential tools to monitor system use;
- **the ease of adding information**: the degree to which user can add information to the system that the mass can access, and;
- **facilitation of interpersonal communication**: the degree to which media system facilitates interpersonal communication between specific users.
<table>
<thead>
<tr>
<th>Contributors</th>
<th>Discipline</th>
<th>Interactivity Framework Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jensen (1998)</td>
<td>CMC</td>
<td>Transmissional, Consultational, Conversational, Registrational Interactivity</td>
</tr>
<tr>
<td>Wu (1999)</td>
<td>Advertising</td>
<td>Navigability, Responsiveness</td>
</tr>
<tr>
<td>Dholakia et. al (2000)</td>
<td>Communicatio n Studies</td>
<td>User Control, Responsiveness, Connectedness, Real Time Interaction, Personalization, Playfulness</td>
</tr>
<tr>
<td>Downes &amp; McMillan (2000)</td>
<td>CMC</td>
<td>Direction of Communication, Time Flexibility, Sense of Place, Level of Control, Responsiveness, Perceived Purpose of Communication</td>
</tr>
<tr>
<td>Leung, Chan &amp; Wu (2002)</td>
<td>Education</td>
<td>Control (Instructor and Learner), Message (form and content oriented)</td>
</tr>
<tr>
<td>McMillan (2002)</td>
<td>CMC</td>
<td>Direction of Communication (One-way and Two-way) and Level of Receiver Control (High and Low): Monologue, Feedback, Responsive Dialogue, and Mutual Discourse</td>
</tr>
<tr>
<td>Kiousis (2002)</td>
<td>CMC</td>
<td>Technological Structure of the Media Used, Characteristics of Communication Settings, Users Perceptions</td>
</tr>
<tr>
<td>Gustavsen &amp; Tilley (2003)</td>
<td>Public Relations</td>
<td>User Control, Personalization, Responsiveness, Connectedness, Real Time Interactions, Playfulness</td>
</tr>
<tr>
<td>Contributors</td>
<td>Discipline</td>
<td>Interactivity Framework Used</td>
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<tr>
<td>Gerpott and Wanke (2004)</td>
<td>Journalism</td>
<td>Complexity of choice, Feedback to &amp; from Editors, Publication of user contributions, User interactivity, Monitoring of usage pattern, Individual user profile</td>
</tr>
<tr>
<td>Fortuni et. al. (2005)</td>
<td>Journalism</td>
<td>Interactivity confined to users, between users and editorial staff, and between users and specific journalists or moderators.</td>
</tr>
<tr>
<td>Oblak (2005)</td>
<td>Journalism</td>
<td>Hypertextuality, Interactivity</td>
</tr>
<tr>
<td>Şanlier &amp; Tağ (2005)</td>
<td>Journalism</td>
<td>User Control, Exchange, Information Collection, Personalization</td>
</tr>
<tr>
<td>Sohn and Lee (2005)</td>
<td>Communicatio n Studies</td>
<td>Control, Interaction Efficacy, Responsiveness</td>
</tr>
<tr>
<td>Walther et al. (2005)</td>
<td>Communicatio n Studies</td>
<td>Multimedia, Hypertextuality, Packet switching, Synchronicity, Interactivity</td>
</tr>
<tr>
<td>Yadav &amp; Varadarajan (2005)</td>
<td>CMC</td>
<td>Bidirectional, Timely, Mutually Controllable, Responsive</td>
</tr>
<tr>
<td>Greer and Mensing (2006)</td>
<td>Journalism</td>
<td>Interactivity, News content &amp; presentation, Multimedia, Revenue Sources and Circulation Size</td>
</tr>
<tr>
<td>Lowry et al. (2006)</td>
<td>Information System</td>
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<td>Zeng and Li (2006)</td>
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<td>Interpersonal Interactivity, Content Interactivity</td>
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<td>Yun (2007)</td>
<td>CMC</td>
<td>Response time, Hypertextuality, Role Taking, Multimodality</td>
</tr>
<tr>
<td>Chung (2008)</td>
<td>Journalism</td>
<td>Human and Medium Interactivity</td>
</tr>
</tbody>
</table>

Note*: CMC means Computer-Mediated Communication

These researchers have enriched the concept of interactivity by conducting studies involving the Internet, graphics audio and video technologies from various disciplines such as marketing, journalism, and information systems. Table 2.2 demonstrates and summarises the diversification of Heeter’s interactivity dimensions to various fields and disciplines.

Previous research by Schiff (2003) showed that online traffic depended not only on unique content, but also on repeated visits, on sites which were more convenient, were more user-friendly, were better organised, and had more visual appeal. Other researchers also confirmed that the increased interactivity is associated with the increased satisfaction and greater sense of self-efficacy (Sundar et al. 2003), satisfaction that would provoke revisits to the site and purchasing from the site (Ha and James 1998, Hwang and McMillan 2002), and, significantly related to frequency and intensity metrics of usage (Gerpott and Wanke 2004).

The second reason for which interactivity is of great significance is its contribution to competitiveness and its ability in generating revenue (Ha and James 1998) as media organizations may stand to benefit by recognizing the non-monetary contributions of online news to the broader news mission, aiming at enhanced coverage, brand loyalty and media credibility (Bucy 2004). The increase in coverage and media credibility would seemingly bring limitless news with hyperlinks to relevant sources, creation of integrated news packages with audios and videos material, constant updates, expert’s commentary, weblogs, forums and discussions plus people’s opinions. Particularly, local content are able to expand and reach bigger audiences. This is one of the advantages of online newspapers.
Beyond stimulating interest in news and keeping users captivated, interactivity could cultivate a more credible and pluralistic manner of news presentation. In the context of online journalism, the real challenge would be extensively on news publishing via interactive and multimedia features available on the Internet. Since September 11, many media organizations have published, or linked to, user-generated content produced by a growing number of ‘witnesses to news’ containing stories, photos, and video publishing. Such stories illustrate how news sources nowadays do not need to be restricted to traditional sources, with a wide range and form of material posted on popular newspaper sites. Reader’s has access to diverse information in a variety of formats, which would otherwise be difficult to locate quickly.

The third and last reason is the mission of serving the public interest and provoking increased interest in news as well as enhancing civic engagement and knowledge. Through interactive networking, more potential is available for consolidating and mobilizing audiences (Schiff 2003). The Internet has been hailed as the saviour of alternative or radical media in terms of promoting civic journalism and bringing about new modes of producing and consuming news content. Interactivity above all, connotes that the ‘mouse clicker’ is in control. At the same time, increasing interactivity forges some traditional journalistic control and gives citizens some space to have a voice (Spyridou and Veglis 2008).

From all these reasons (including readings from Table 2.2), the Interactivity concept offers the most promising, comprehensive framework for commercial and management, which is also beneficial for consumers. Therefore, this Interactivity concept would be the best and suitable to use for this study.
2.6 Activity Theory

2.6.1 Introduction to Activity Theory

Activity Theory places the focus of analysis on human activities. This involves the way people work in terms of their roles, opportunities, available resources, and the purpose for, which the activity exists. Activity Theory is suitable for research that emphasises on subjectivity, where an individual’s interpretation of an activity in, which they are engaged comes through their perspective of this object, motives and purpose, and the context are the important part of the reality of human work.

Activity Theory originated from the work of Vygotsky and his student Leont’ev from their studies of cultural-historical psychology in the 1920s and was introduced to the West in the 1980s. ‘Activity theory is a conceptual framework based on the idea that activity is primary, that doing precedes thinking, that goals, images, cognitive models, intentions, and abstract notions like ‘definition’ and ‘determinant’ grow out of people doing things’ (Morf and Weber 2000, p.81).

Activity Theory investigates human interaction with others through an ‘activity’, which is the basic unit of analysis for understanding human behaviour. Based on Bannon (1997), human activity is not an isolated entity. Rather, it is a structure composed of three basic elements: a subject, an object, and a tool. An agent who engages in an activity is called a ‘subject’. A subject can be an individual or a group of people. All human activities are driven by a certain purpose or motive, which is called an ‘object’. Activity Theory uses the whole work activity as the unit of analysis, where the activity is composed of the analytical components of subject, tool and object, where the subject is the person being studied, the object encapsulates the purpose of intended activity, and the tool is the mediating device by, which the action is executed (Hasan 1998).

Leont’ev sees activities in a hierarchical system where activities comprise of actions or chains of actions, where these actions contain operations. Leont’ev’s three-level model of activity; activity, action, and operation has become distinctive and, the basis of this hierarchy is illustrated in Figure 2.1.
An activity is the basic unit of analysis, which is used to understand individual actions. Leont'ev provides a good example of this paradox (Kuutti 1996): primitive hunters embarking on a collective hunt would comprise two groups, one group would beat the bushes and scare the prey, and the other group would stand waiting to trap the scared animal. If taken out of the context of the larger activity of the hunt, it would be difficult for an anthropologist to understand why individuals were ‘beating the bushes’. In fact, individual members of the hunting party may not understand the subtleties of their role in the overall activity. It is only when viewing the larger activity that individual actions are comprehensible.

Therefore, in the case of the example given above, the activity is the exercise of hunting prey, one of the actions is to scare the animals, and shaking the branch of a tree is the operation. The activity has a motive; in this case the team is motivated through the need to catch food. The action has a goal; in this case, to make as much noise and disruption as possible. Finally, the operation has conditions. for instance, altering the pressure on the branch according to its flimsiness, and variances in noise in accordance with the proximity of the animal. In Figure 2.2 (below), Kuutti (1996, p.28) provides some examples of the varying structures of activity, which were described by Leont'ev.
<table>
<thead>
<tr>
<th>Activity level</th>
<th>- Building a house</th>
<th>- Completing a software project</th>
<th>- Carrying out research into a topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action level</td>
<td>- Fixing the roofing</td>
<td>- Programming a module</td>
<td>- Searching for references</td>
</tr>
<tr>
<td></td>
<td>- Transporting bricks by truck</td>
<td>- Arranging a meeting</td>
<td>- Participating in a conference</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Writing a report</td>
</tr>
<tr>
<td>Operation level</td>
<td>- Hammering</td>
<td>- Using operating system commands</td>
<td>- Using logical syllogisms</td>
</tr>
<tr>
<td></td>
<td>- Changing gears when driving</td>
<td>- Selecting appropriate programming language constructs</td>
<td>- Selecting appropriate wording</td>
</tr>
</tbody>
</table>

Figure 2.2: Examples of activities, actions and operations (Kuutti 1996)

While the Leont’ev model was not illustrative of Vygotsky’s original triangular structure, Engeström (1987) has modified Vygotsky’s original model (refer to Figure 2.4) with two additional elements, which have an implicit effect on work activities. The first is *rules*, which are sets of conditions that help to determine how and why individuals may act, and, are a result of social conditioning. The second is *division of labour*, which provides for the distribution of actions and operations among a community of workers. These two elements affect a new plane of reality known as *community*, and through this, groups of activities and teams of workers are anchored, and, can be analysed (Hyland 1998, Verenikina 2001). These concepts are illustrated in Figure 2.3.

![Expended Activity Theory Model by Engeström (1987)](image)

Figure 2.3: Expended Activity Theory Model by Engeström (1987)
Engeström proposes this new depiction of the unit of analysis as a human activity system that the system is object-oriented, tool, and culturally-mediated. In addition, Engeström (1996) states that the work activity system is comprised of the following components:

- individual workers, their colleagues and co-workers;
- the conceptual models, tools and equipment they use in their work;
- the rules that govern how they work, and;
- the purpose to which members of the workplace community direct their activity.

Activity Theory sees the integration into the activity system of technology tools, which mediate social action. According to Nardi (1996a), these tools or artefacts include instruments, signs, language, machines and computers. The relationship between the individual and their environment is considered through the component of *community*. The relationship between subject and community is mediated by *rules* and the relationship between object and community is mediated by the *division of labour*. The tools, which have been incorporated into the social system of an activity are created and transformed by humans during the development of the activity itself. They carry with them remnants of the cultural and historical evolution of the activity and community. Mediation through tools and technology is therefore not a neutral process and the tools always have an influence over the interaction between the subject and the object.

Leont’ev refers to this phenomenon as *Ringstruktur*, or ‘ring structure’, a combination of three code elements – subject, activity, and object – where the subject is not separate from the object in an activity and where the object completes the circle by influencing the subject. ‘For example, the object which the paleolithic tool-maker holds in her hand affects her mental representations (her plan, her goal) as much as those representations affect the changing object. Reciprocal relationships prevail’ (Morf and Weber 2000, p.84).

Activity Theory brings a natural way to build up a theory of culture and norms from the individual’s mediated actions in everyday practice. It is:
‘a very general framework for conceptualizing human activities that provides an alternative formulation to that of human information-processing as to how people learn and society evolves, from a materialist perspective, based on the concept of human activity as the fundamental unit of analysis’ (Bannon 1997, p.1).

Thus, Activity Theory:

‘is a general, cross-disciplinary approach, offering conceptual tools and methodological principles, which have to be concretized according to the specific nature of the object under scrutiny’ (Engeström 1996, p.97).

The basic core of Activity Theory is that an activity is derived by the tool-mediated affiliation between the subject and object (the doer and their purpose). The mediation is a mutual development of both; the activity and the tools. The capability and availability of tools will be discussed further in the next section on practical values of Activity Theory.

In the next section, the researcher will discuss the basis and fundamental of Activity Theory that was formally introduced by Vygotsky in 1978, mostly recognised as the first generation of Activity Theory. However, the researcher acknowledged and is aware of the existence of the second generation theory from Leont’ev (1981) and Engeström (1987), and also the third generation of Activity Theory from Engeström in 2001. The basic model of Vygotsky’s, which includes object-orientedness, mediation, and social interaction, is the simplest of Activity Theory and uses a tripartite structure as portrayed in Figure 2.4. This is necessary and sufficient to apply to this research study.

2.6.2 Practical Values of Activity Theory

Activity Theory is a valuable tool for researchers to incorporate into their repertoire. It provides a means of discovering human activity without the express explication of tasks by participants. Instead, through the mediated study of the participant’s tools, it enables the revelation of an understanding of activity, which includes tacit and explicit actions. Activity Theory is a practical framework, which provides a rich holistic understanding of the way people work and can be used to underpin the complex and dynamic problems of human research and practice (Crawford and Hasan 2006, Hasan 1998).

The original work of Vygotsky (1978) suggests an ‘instrumented’ structure of activity within a ‘system of interrelationships’ between people (Verenikina and Gould 1998).
This is important, as all human activity is purposeful as it is carried out through the use of ‘tools’ and, is essentially social (Crawford and Hasan 2006). The value of Activity Theory stems from the analysis of the individual (a human), in pursuance of their activity and objective through mediation of tools. This mediated interaction provides a holistic and dynamic basis for investigating human activity.

Formulated as the first of three generations of Activity Theory by Vygotsky in 1978, human activity is viewed as a tripartite structure that contained these three interrelated elements; *subject, object* and *mediating artefact*. Here, the concept is of object-oriented and artefact-mediated activity, whereby a human individual never reacts directly (or merely with inborn reflexes) to the environment. Furthermore, the mediating artefact can be presented as cultural means, tools and signs (Vygotsky 1978, p.40). The capability and availability of tools and signs is central to the concept of mediation, which determines how the activity is to be done. These tools, in turn, evolve to improve the way the activity is performed. This is the powerful concept applied in the field of Human-Computer Interaction (HCI), where the tools are computer-based (Kaptelinin 1996, Nardi 1996b). Figure 2.4 is Vygotsky’s model of mediated artefacts, representing the concept of mediation that is unique in the way that it applies in Activity Theory.

![Diagram of Mediating Artefacts](image)

**Figure 2.4:** Vygotsky’s original model of a mediated artefact

While observation and interviewing may reveal the explicit aspects of people’s actions, they will not assist in the understanding of the implicit motivation of activities or the conditions of operations. While it is not always possible for people to articulate what they do; (it is certainly very difficult to say how you type, or how you see the winning
pattern on the chessboard, or how you know when you have written a sentence that communicates well); it is possible to gain some understanding of actions and objectives when they are executed at a higher level. For example, ‘Ask a secretary what the current problems are with the boss, or an effective executive what his goals are for the next quarter, and you will get an earful!’ Nardi (1996a, p.41).

Activity Theory, through the examination of artefacts can render explicit the more tacit elements of what people are doing. ‘Dancers, for example, use imagery and other verbal techniques to teach dance skills that are extremely difficult to verbalize. The ability to bring operations to a conscious level, even if only partially, is an aspect of the dynamism of the levels of activity as posited by activity theory’ Nardi (1996a, p.41).

The assumption is that the artefact ‘attains its qualities of function, aesthetics, and ethics as it is integrated into the actual activity; only in practice does it become a tool. In other words, to become a tool is to become part of someone's activity’ (Christiansen 1996, p.177). For Cole, artefacts are simultaneously ideal (conceptual) and material (1996, p.117), which they are ideal as the material form has been shaped by the participation during the interactions that was done previously and mediate in the present. Therefore, Cole (1996, p.121) suggested that:

‘The minimal meditational structure given Figure 2.4 cannot stand alone as a representation of mediated action in its social context. In order to elaborate a cultural-historical psychology to guide our research in complex, everyday settings, we need to be able to talk about aggregations of artefacts appropriate to the events they mediate and to include the mediation of interpersonal relationships along with mediation of action on the nonhuman world’.

Wartofsky (1973, 1979) proposes a three-level interpretation of artefact and offers a rich conceptualisation of Vygotsky’s notion of mediation. Here, the tools that mediate human activities consist of:

- Primary artefact – tangible, external or physical;
- Secondary artefact – internal, semiotic or mental, and;
- Tertiary artefact – environments or ecosystems.
Bannon (1997) added that tool mediation plays a central role between social factors, interactions and environments. Bannon further explains why the principle of tool mediation plays a central role within the approach:

‘Firstly, tools shape the way human beings interact with reality. Second, tools usually reflect the experiences of other people who have tried to solve similar problems at an earlier time and invented/modified the tools to make it more efficient. So, the use of tools is a means for the accumulation and transmission of social knowledge. It influences the nature, not only of external behaviour, but also of the mental functioning of individuals’ (Bannon 1997, p.3).

Hasan (1998) confirms the fact that the artefact is the central concept of Activity Theory, where mediated human activity involved the use of three levels of tools; the ‘Primary’ tools – physical and material, and ‘Secondary’ and ‘Tertiary’ tools – psychological and social. According to Verenikina and Gould (1998), the primary tools produce changes in the material object, while, psychological tools influence the psyche and behaviour of subjects. Following the work of Wartofsky, the three classes of tools that mediate human activities as identified by Hasan (1998, p.27) are:

- Primary tools – artefacts, instruments, machines, computers;
- Secondary tools – language, signs, ideas, models;
- Tertiary tools – cultural systems, environments, contexts, communities, scientific, virtual realities or spaces.

This covers the whole range of tools that can mediate human activity and is not a restrictive classification. For example, an information system can be viewed as an embodiment of all three categories of tools and thus may be seen as a complex tool (Ditsa and Davis 2000). The Activity Theory framework is an ideal fit for activities using computer-based technologies (Crawford and Hasan 2006) and the World Wide Web (WWW), which is the largest human artefact (Ryder 1999). According to Ryder, a web page is an electronic artefact and each page has some measurable value and objective to someone at that point of time:

‘The pragmatic, utilitarian value of an online artefact is revealed with each use. That value depends upon the intention of the user and the resulting outcome. In other words, the value of an online artefact is determined within the context of the activity in which it is used’ (1999, p.3).
This confirms that even though Activity Theory was proposed before the occurrence and beginning of the computer age, its comprehensive, holistic and insightful nature has given it such value in understanding how people do things with the assistance of sophisticated digital tools in complex and dynamic environments (Crawford and Hasan 2006, Mursu et al. 2007).

2.6.3 Activity Theory Applications in Human-Computer Interaction, Information Systems and Technologies


Activity Theory is useful because it describes activities as hierarchical in nature and provides a model for decomposing activities into actions and operations. It insists that the activity is mediated by tools, which helps to explain relationships between the user and the tool. Activity Theory views activity not as a simple set of individual actions, but as being culturally and historically located. In other words, Activity Theory stems from
Vygotsky’s fundamental view of purposeful activity in a cultural historical context as the fundamental unit for the study of human behaviour.

Indeed, Activity Theory is geared towards a practice, which neatly focuses on human activities in areas such as education and technologies that offers a different lens for analysing learning processes and their outcomes. From the work of Scanlon and Issroff (2005) there is copious evidence that Activity Theory is appropriate for education research, and technology and learning-based (computer) study. Their research examines the current use of learning technologies in the United Kingdom’s Higher Education, based on the experiences of students’ and lecturers’ in their use of technology-based teaching tools.

On the another hand, Lim and Hang (2003) have used Activity Theory as a framework to study Information and Communication Technologies (ICT) integration processes in Singapore schools. In the ICT environment, it is essential to use a kind of Activity Theory on activities processes, both, at individual and social level, including the meditational tolls and artefacts in, which the link processes, are inter-twined. Meanwhile, Romeo and Walker (2002) uses Activity Theory approach as an analytical tool for their research study in ICT Education in Australian primary schools.

According to Gifford and Enyedy (1999), Activity Theory is a suitable framework that involves models of knowledge-building, perspectives and artefacts to guide the design of computer-supported collaborative learning activities. Activity Theory is able to clarify the nature of the collaborative activities, and indicates how people can socially participate while interacting with the technology. This enables a more optimum design of tools to support computer-supported collaborative learning activities effectively in various contexts, and develop methods to put them into practice.

Another research project based on Activity Theory is from Liaw et al. (2007). These researchers used an Activity Theory approach to investigate learners’ attitude factors towards e-learning systems. The research demonstrates that Activity Theory is an appropriate theory to use in understanding and solving problems involving e-learning systems and the associated environment. Another recent study from Stevenson (2008),
examines the metaphorical nature and pedagogical characteristics of digital technologies as tool, tutor, environment or resource for digital-based teaching and learning practices in England, which was developed from the Activity Theory.

Meanwhile, research by Zurita and Nussbaum (2007) presented a conceptual framework and design method for the analysis of a Mobile Computer-Supported Collaborative Learning system using Activity Theory. The activity framework was designed for teaching basic mathematics skills for children aged 6 to 7 years old and, incorporated human practices using artefacts (such as software design and the characteristics of handhelds) and how they interact with technological artefacts (structure, components, and interrelationships of collaborative activities using wireless interconnection handhelds).

Activity Theory is an approach that underpins the complex and dynamic human problems of research and practice especially in Information Systems (IS) and Information Communication Technology (ICT), Human-Computer Interaction (HCI), and Computer-Supported Cooperative Work (CSCW). The human side of Information systems is commonly referred to as HCI. This interaction involves the juxtaposition of the computer and its suite of supporting tools, such as software applications and communications tools such as the Internet to ease and improve human working activities and communication processes.

In the 1990s, researchers began to recognise the importance and relevance of Activity Theory to the study in IS and HCI and, many studies had followed (Bødker 1991, Grifford and Enyedy 1999, Hasan 1998, Kuutti 1996, Meloche et al. 2009). In addition, Kaptelinin (1996) urged that the basic principles of Activity Theory in the context of the HCI are: the unity of consciousness and activity, object-orientedness, the hierarchical structure of activity, internalisation/externalisation, mediation, and lastly, development.

A key attribute of Activity Theory is its focus on argumentative (dialectic) analysis on the interaction between people (human) and their mediated tools or artefacts (purpose), which have been shaped by human activity (technical elements). With the advancement of the Internet, information systems and computer-based technologies Wartofsky (1973,
1979) proposes these information systems as tools of mediated human activities, which have several characteristics: They can be primary – tangible, external or physical; secondary – internal, semiotic or mental; or tertiary – schematics where mind and culture act together such as environments or ecosystems (as mentioned in the earlier section). An activity comprises a set of actions that aim for specific goals and operations; these actions are indicated clearly in the information systems domain and can be found in the routines and cognitive or behavioural processes, which are a common element of activities involving information systems.

An earlier study on HCI was carried out by Bødker (1991). In her study, Activity Theory was used to analyse levels of interaction using a tertiary tool in the knowledge-creation processes. The research focused on interaction between activities of information technology developers and the activities of users of their products. According to Bødker, computer applications consist of a system, a tool or a medium. A system is not transparent to the user because the purpose of the system is placed outside the use context. Meanwhile, a tool is transparent in mediating the users’ shaping of some material. At the same time, a medium is transparent in mediating the communicative relation between human beings.

In another study, Korpela et al. (2002) analysed the Activity Theory framework in Information Systems Development as a work activity in context. They found the framework added value to their analysis through the enhancement and natural evolution of real-life data, which can be applied instantly and is more easily grasped by people. Korpela et al., in their other research (2004), also emphasised the work-oriented and the participatory nature of information systems development. According to them, activity is a collective phenomenon involving a set of actions by an individual from several actors; for example, the doctor’s activity, the patient’s activity and the nurse’s activity.

In later research by Hakkinen and Korpela (2006), Activity Theory was used to understand the practices of information management within a maternity care activity network (in health care application and software design). They found that the use of Activity Theory proved useful not only in understanding user group activities in their
development of information systems; it also allowed a multi-faceted analysis of the information and its users and the dynamics between them.

Extending the research of Korpela et al., Karlsson and Wistrand (2006) studied the coupling of Activity Theory with method engineering (software engineering systems) as a theoretical framework for the analysis of systems development. In this context, method engineering from an activity theory perspective can be distinguished through the collection of actors following different rules and activities in the form of methods in order to guide and further improve work processes to gain better outcomes or results. As systems development is a socially collaborative activity, activity theory works well with method engineering, which has benefits as a theoretical exercise and a practical tool. A recent study on web engineering software systems, which uses Activity Theory as a model to provide web application development and requirement is from Uden et al. (2008). Their web engineering requirement analysis was for an e-commerce application.

In a study by Crawford and Hasan (2006), the researchers used various techniques of communication and collaboration to illustrate the value of Activity Theory in an Information Systems (IS) environment. They studied the elements of activities (how people do things) and the relationships between them (togetherness) with the assistance of sophisticated tools in a complex environment. In the study, they developed a seven point Activity Theory framework and used it to present and analyse five research activities exemplified as vignettes, which leveraged the technical environment using Information and Communications Technology system tools and softwares such as Q-Method, Leximancer, Stella, E-Viva and Go*Team as a way of shaping activities in different ways. Results demonstrated the advantages of applying Activity Theory to the study of socio-technical systems to reconcile the complexity of collective activities in the Information Systems environment. The study proved that the Activity Theory framework was an appropriate approach within the research, where it was able to add to the richness and insight of the environment studied.

Web artefacts are becoming a part of many human activities. For example, they exist in information-seeking through search engines, online purchasing, downloading documents, certification or softwares, online education or even ready news online.
According to Meloche and Cheng (2005), Activity Theory and information-seeking are considered as ‘keystone’ activities. In the information-seeking activity, information technology is viewed as the ‘tool’, while the information is considered the ‘goal’ or object’ of the search process. Another study by Meloche et al. (2009) used Activity Theory to describe a Wiki as a tool for successful tacit and explicit knowledge management through participation in a process of co-creating the store of corporate knowledge.

Bertelsen and Godsk (2004) presented Activity Theory as a tool for their website usability assessment tool, named ‘Website Activity Walkthrough’, a cheap and effective tool for early and formative usability inspection. The work is primarily focused on how to understand computer applications in current work practices and how to improve existing computer applications. A study by Mazzoni (2006) focused on the Google website, which is one of the most famous and most-used search engine in the world. The study stresses on three important facets analysed by using Activity Theory approach; functional organs, action-operation processes and focused attention on the object.

As these research studies and projects have shown, Activity Theory is not merely a methodology; it is a theoretical framework, valuable in the analysis of human practices on the multiple dimensions of individual activities and social interactions (Kuutti 1996). Crawford and Hasan (2006) add to this with their claims that Activity Theory provides a rich holistic understanding of how people do things together with the assistance of sophisticated tools in complex dynamic environments where socially-constructed, collective knowledge is the predominant source of learning, creativity and innovation. It also provides a useful paradigm for understanding the ways in, which human experience, needs and creativity shape the design and effectiveness of emerging technologies.

The Activity Theory framework has proved to be useful in describing the multi-faceted system of information and its users, regardless of its contextual environment. This framework also distinguishes the unique and all-encompassing nature of the computer as a primary, secondary and tertiary tool supporting an enormous variety of HCI and IS
activities. Activity Theory views the core within a dialectic process between subjectivity and objectivity, learning and doing, individual and collective, technical and social, and also tacit and explicit knowledge (Crawford and Hasan 2006, Meloche et al. 2009).

This also confirms that computer artefacts and websites, like all other artefacts, mediate human activity within a practice. ‘In activity theory it is the doing of the activity in a rich social matrix of people and artifacts that grounds analysis’ (Kaptelinin and Nardi 2006, p.9). It supports a holistic perspective such as the online news arena. Given the complexity of human activity, this research study would expect a rise in the performance of activity as well as the diversity of actors and their expectation. Thus, this research study will apply the first generation Activity Theory as one of the theoretical framework to gain knowledge on what people’s perceptions towards the online newspapers are.

Consequently, it is been decided that Activity Theory, introduced by Vygotsky using the tripartite structure as illustrated in Figure 2.4 (above), will be used in this research study. However, the researcher acknowledges, and is aware of, the existence of other theories that could also have adopted; for instance, General Systems Theory, Structuration Theory, Situated Cognitive Artefact etc. In comparisons among these theories have been presented by others (see Hasan 2000) in favour of Activity Theory, and so, will not be repeated here. As mentioned by Nardi (1996b), there are solid reasons for choosing Activity Theory, as it is a powerful and clarifying descriptive tool, which posits and interweaves with personal experiences, subjective perceptions of the object of an activity mediated tools. Rather than focusing on separate facets of peoples’ views and mediated tools context, Activity Theory implies a commitment to investigating the holistic ‘dynamic system of meaning’ (Vygotsky 1962, p.8) in which individual and society interact within the evolving activity systems such as that of the online news.

2.7 Research Questions

Chapter 1 has posed the main research question for this study as, ‘What is happening and changing with online newspapers?’ Based on the review of the literature and results of previous studies on the rise of online newspapers and more recently online news in general, their characteristics, the Interactivity concept and Activity Theory, the research
question stated above translates to the research questions that will be examined in this study. The specific research questions are as follows:

1. **What is the nature of the content and layout of Australian online newspapers?**

As mentioned in Section 2.4, most studies in this area have focused on U.S. and other developed countries such as those in Europe. Only a few studies covered the Australian online news perspective, namely: Nguyen et al. (2005), Morieson (2007), Kenyon and Marjoribanks (2008) and Gatenby (2008), but with limited scope and approach. Thus, a broader study of the Australian situation is warranted and this research question reflects this need to study the content and layout of the Australian online newspapers by adopting the Interactivity concept used by Heeter (1989). This approach has been redefined and reconstructed to cater for the most significant aspect of the current focus of newspaper websites. In this study, Interactivity is defined as a multi-dimensional construct that is demonstrates a continuum of human-to-human and human-to-medium types of communication. The Interactivity dimensions are manifested through various items and features that fall on this continuum (refer to Section 2.5). The nature of content and layout of Australian online newspapers will be revealed through a content analysis of the dimensions of interactivity of the websites, as will be explained in detail in Chapter 3.

2. **How do people perceive the constant changes in online news?**

Chapter 1 introduced the opportunities and challenges for all news media organisations in disseminating their news online and meeting a variety of related users’ needs. Looking at the advantages of the Internet and the rapid growth of users of online news, it is therefore appropriate to do an in-depth study on this phenomenon as an extension of Question 1 above. Activity Theory, as presented in Section 2.6, is used as the theoretical basis for this research, which provides the insight of relationships within and between activity systems involving the production and the use of online news. Here, typical activities directed towards the news object can be identified in conjunction with people’s subjective perceptions in a variety of contexts when supported by socio-technical systems.
As will be confirmed in this study the Q-Methodology research technique offers great value in determining these subjective perceptions and, this combination of approaches will be used to revealing the main issues on how people perceive the constant changes in online news. The Activity Theory analysis provides via a mapping of the results of the Q-Methodology onto activities, and, establishes strong and comprehensive relations between the Activity Theory elements of subject, object, and mediated tools within each factor. Details of the Q-Methodology approach will be described in Chapter 3.

2.8 Chapter Summary

This chapter has reviewed in-depth and relevant studies of online newspapers and the growth of studies from different perspectives and disciplines of online newspapers. The scope not only covers journalism but also computer-mediated communications, mass communication, website design and usability, and information systems and technology. This chapter also opens up the gaps in the literature, which indicates opportunities for research, resulting in an initial research study on the nature of Australian online news websites and how people (generally) perceive the changes in online news. The research study proposed the Interactivity concept and Activity Theory as the most significant and applicable frameworks to use in this study. Thus, this section also covers and explains the Interactivity concept and Activity Theory. Lastly, the research study has listed research questions, which leads further into the research study. This review of literature underpins the research using website content analysis and a Q-Methodology study of reader activities that will be presented in the next chapter, Chapter 3. The next chapter will also elucidate on the research design, process and procedures.
CHAPTER THREE
METHODOLOGY

Methods are the procedures used by men [sic] trying to understand or explain something. Methodology is a study of methods; it offers theories about what men are doing when they are at work at their studies. Since there are many methods, methodology tends necessarily to be rather general in character and, accordingly, does not usually – although of course it may – provide specific procedures for man at study. – C. W. Mills, 1959 (cited in Blaikie 2000, pp.8-9).

Research design addresses the planning of scientific inquiry – designing a strategy details for finding out something... Before you can observe and analyse, however, you need a plan. You need to determine what you're going to observe and analysed: why and how. – E. R. Babbie, 1998 (p.89).

3.1 Introduction

As explained in the Introduction Chapter, this chapter justifies, identifies, and describes the methodology used to solve the research problem and to answer the research questions that had been presented in Chapter 2, namely:

- What is the nature of the content and layout of Australian online newspapers?
- How do people perceive the constant changes in online news?

In line with the methodology, this chapter presents the research design, the methods and techniques used to collect and to analyse the data. Also presented is the theoretical framework used to interpret the findings.

At the start of the research study in 2005, the researcher chose to investigate the emerging presence of online news. Devised as a longitudinal study, the data collection process and procedures were based on a series of objective content analyses of the newspaper websites’ conceptualisation and operationalisation. In order to increase the depth of understanding of the problem, the researcher added subjectivity through the use of the Q-method, involving concourses to collect subjective views, conducting a statistical analysis from the sorts, and interpreting the Q factors that emerge from the analysis. Activity Theory was then used to interpret the findings as its core unit of
analysis, activity. This represents the dynamic interplay between what people do and the tools they use.

Due to the increasing complexity and dynamic growth of the Internet and online news over the four years of this study, the research methodology, research design and theoretical framework were chosen to reveal a growing understanding of the evolving technical and social factors influencing the changing nature of online newspapers, as well as the perceptions of users on the constant changes in online news.

Details of, and reasons for, the chosen methodology, methods and design for the research are presented in the following section.

3. 2  The Methodology and Research Design

3.2.1 Methodology

In Media Communication and Information Systems research studies, most researchers particularly pertaining to online news and/or online newspapers, focuses on quantitative approach, especially in measuring experience, attitude, and user’s behaviour. For example, Hansen et al.(2003), Lewis (2004), and Krumsvik (2006) had applied surveys; Hargrove and Stempel (2002), Chyi (2004), Bressers (2006), and Thorson et al.(2008) did telephone survey regarding online newspapers. Meanwhile, Cassidy (2007), Wood Adams (2007), Chung (2008), and Flavián and Gurrea (2008) had done web survey as their research methodology.

However, a good qualitative research is also capable of capturing the subjective side or human behaviour aspects of usage to gain insight. Various qualitative studies on online news research, for example, Boczkowski (2004b) used an ethnographic method to examine the adoption of multimedia and interactive technologies in online news amongst online newsroom workers. Meanwhile, as for Mackay and Lowrey (2007), an experimental study was done to evaluate the credibility of the weblogs as the news source from online newspapers, journalists and non-journalists.
Other researchers such as Neuberger et al. (1998) and Ihlström and Lundberg (2003) did semi-structured interviews with online readers. Besides that, Downes and McMillan (2000) held structured interviews among ten experts in the interactive communication field. Similarly, Ireland (2005) conducted interviews with the online news managers, as well as Jensen (2005), who had interviewed web developers and end users. As for Calder and Malthouse (2004), they used personal interviews within seven different newspapers to obtain some patterns across individuals. Then, they formulated a survey and mailed it to consumers in 101 newspaper markets to follow up as a second stage to those who responded earlier. Basically, the survey contained items, which were generated from the qualitative interviews. This method was similarly applied by Flavián and Gurrea (2006), as they had done a focus group and in-depth interviews before a survey was done.

On the other hand, the mixed-mode approach has also been a popular research field. For instance, Neuberger (1998) had sent out questionnaires to online news producers and users in German, and conducted interviews and did content analysis of five newspapers websites in Germany. Likewise, Peng et al. (1999) used a binary method for content analysis as well as sent e-mail surveys (quantitative method) to publishers or online editors. As for Bressers and Bergen (2002), they did telephone surveys and followed through with interviews. Meanwhile, Beyers (2004) had done web tracking as well as web surveys among the users, followed by another researcher such as Ihlström and friends (2004), who used e-newspaper prototype design together with questionnaires sent to the managers and designers of online news editions in Sweden. As for Flavián and Gurrea (2006), they used focus groups and in-depth interviews as the preliminary study (in Spain) before a survey was done.

Due to the rapid change and tremendous growth of online news on the Internet, a mixed-method approach guided the commencement of this research study and presented the best choice of methods: website content analysis of the online newspapers and Q-Methodology. The content analysis of website study was used because it is an effective and fast method for discerning patterns and themes in textual and graphic data. The main objective of the website content analysis for this research study is to explore and understand the existing features and the interactivity offered by the online news
websites, especially on the front page. Meanwhile, Q-Methodology is a suitable method for looking at users’ perceptions on the constant changes in online news, as it collects subjectivity of participants’ judgements in a rigorous manner. As has been explained by Brown (2007, p.722), ‘Q-Methodology is best understood as a type of research that identifies the operant subjectivity of individuals in regard to a particular subject. The methodology encompasses a broader philosophy of how subjectivity can best be studied, an inherent epistemology, and a method that includes a series of well-defined steps or phases’.

Therefore, this research interprets objectivity and subjectivity perspectives by using this mixed-method approach to unveil the research study aim and objective mentioned above.

3.2.2 Research Design

Research design mainly refers to the structure of an enquiry of a logical matter, and it refers also to the means by, which data is collected. Based on Babbie (1998, p.89), research design ‘addresses the planning of scientific inquiry – designing a strategy details for finding out something. The researcher needs a plan to determine what to be observed and analysed: why and how’.

Having taken into account the nature and the time for this study, this research was also devised as a longitudinal study as it involved repeated exploratory and observational research design in determining the overall nature of the content and layout of online newspapers and how people’s perceptions are altered based on the constant changes of the online news. Overall, four sets of data collections are engaged in this study:-

- Phase 1 – Preliminary study of Australian newspapers websites;
- Phase 2 – The Initial Stage of Q-study;
- Phase 3 – The Second Stage of Q-study;
- Phase 4 – Revisiting the websites.

Both Phase 1 and Phase 4 were completed using the web-based content analysis approach, which took place in two different time frames; Phase 1 – Preliminary study of
the twelve Australian newspapers websites in Autumn 2006 and 2007, and Phase 4 – Revisiting the websites in Autumn 2009. Meanwhile, Phase 2 and Phase 3 used the Q-Methodology research technique, where in Phase 2 – the Initial stage of Q sorts test was done in Spring 2007 with the involvement of Australian participants. Phase 3 was the analysing of results from Australian and Malaysian participants, done sometime in Winter 2008. Table 3.1 below, summarizes the entire research plan for this study.

<table>
<thead>
<tr>
<th>Phases</th>
<th>Research Plan</th>
<th>Method Used</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Preliminary study of Australian online newspapers</td>
<td>Web-based content analysis</td>
<td>Autumn 2006 and 2007</td>
</tr>
<tr>
<td>Phase 2</td>
<td>The Initial Stage of Q-study</td>
<td>Q-Methodology</td>
<td>Spring 2007</td>
</tr>
<tr>
<td>Phase 3</td>
<td>The Second Stage of Q-study</td>
<td>Q-Methodology</td>
<td>Winter 2008</td>
</tr>
<tr>
<td>Phase 4</td>
<td>Revisiting the websites</td>
<td>Web-based content analysis</td>
<td>Autumn 2009</td>
</tr>
</tbody>
</table>

In the beginning of this research study, the first attempt on Phase 1 was actually an exploratory study of the content and layout of Australian newspapers websites. The rationale of having Phase 1 was to have an understanding of the nature of the twelve Australian newspapers websites. These selected newspaper websites were originally from print-based newspapers, which were during the time of the study, made available in both media channels; printed version (hard copy of newspaper) and the web. Two snapshots were captured in the Phase 1; Autumn 2006 and 2007 to get an in-depth look on the nature of the content and layout, and the changes of the online newspapers.

The rationale of choosing Australian newspaper websites as the sample for this research study besides proximity and practicality is, that Australia has been known as a developed and democratic country that practices ‘free speech’. Furthermore, Australia is a country with rapid adoption of new technologies so that the Internet is high likely to be used by their newspaper industry.

In Phase 2, the Q-Methodology approach was used to view the subjectivity and the insights into people’s views of the online news. Phase 2 was undertaken to gather local data on how people (the Australians) perceived the constant changes in the online news.
At that point, Phase 1 and Phase 2 data were collected in the same year, as it helped to gain further information on both, people’s perception of the constant changes in online news as a whole, as well as the newspapers websites that were made available at that particular point in time.

In the later stages of the research, the repetitive method was used in Phase 3 by using the Q-Methodology, but at a different set of time, and with a more extensive and larger population sample. In Phase 3, the researcher decided to collect Australian and Malaysian participants among the graduates students and academic staff in the university. These two data sets represented overall views on how people perceived the constant changes in online news. It was assumed, however that these groups are relatively representative of the Internet users worldwide, as this is a global phenomenon.

The researcher had also revisited the twelve websites in 2009 – Phase 4, to view the ‘new look’, changes and transitions (newness) made during that time frame. Moving forward, in the later section (in Chapter 7), the researcher then looked at the emergent phenomena (or media convergent) of trends forecasting the future of online newspapers, which were anticipated from all the results gathered from Phase 1 up to Phase 4 (the analysis and data interpretation in Chapter 6).

The following sections outline the details on the selection of the mixed-methods approach and explanation on the steps taken in developing the research design. The discussion also highlights the approaches in terms of the constructs, credibility and consistency of the research methods and designs. Hence, the selected methods provided contextual information as well as richness of insight (in terms of the objectivity and subjectivity perspectives) of the online news content and presentation, and also the readers’ perceptions towards online news as the source of information.

3.3 Content Analysis of the Websites

Content analysis has existed for centuries and has been used for decades. Since the 1930s, it has been used by a wide range of researchers in many areas and disciplines (Krippendorff 2004, Weare and Lin 2000). Examples of the disciplines will be described later in this section, and had been mentioned earlier in Chapter 2, Section 2.4.
Content analysis, as defined by Berelson (1952, p.18) is ‘a research method for the objective, systematic, and quantitative description of the manifest content communication’. Building on Berelson’s definition, Budd, Thorp, and Donohew (1967, p.2) classified content analysis as ‘a systematic technique for analysing and quantifying message content and message handling. It is a tool for observing and analysing the overt communication behaviour of selected communicators.’ Meanwhile, Holsti (1969, p.14) specified content analysis as ‘any technique for making inferences by objectively and systematically identifying specified characteristics of messages’.

Additionally, Krippendorff (2004, p.18) described content analysis as ‘a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use.’ With these definitions, content analysis can be concluded as a research tool, which focuses on the actual content and also internal features that are made available by the media. It is used to substantiate and establish the presence of certain words, concepts, themes, phrases, characters, or sentences within texts and to quantify this presence in an objective mode. And these texts can be generally referred to as documents, books or essays, interviews, newspaper headlines and articles. While content analysis has been considered an ‘old’ method, Krippendorff (2004, p.17) stressed that content analysis has evolved into ‘a repertoire of methods of research that promise to yield inferences from all kinds of verbal, pictorial, symbolic, and communication data’.

In the earlier researches (since the 20th century), ‘traditional’ content analyses were applied to print newspapers studies. According to Krippendorff (2004), the first newspaper analysis was published by Gilmer J. Speed in 1893 on the New York newspaper coverage on religious, scientific, and literature in gossip, sports, and scandals sections between 1881 and 1893. From rhetorical to profit, and journalism perspective, this method has became prominent. In current research studies (today’s scenario), content analyses are still popular and are being used extensively. Researchers like Keung & Pine (2000) and Nuessel & Van Stewart (2000), Chaudhary (2001), Scharrer (2002), Zhang & Fleming (2005), Askelson et al. (2009), and Horner & Aoyama (2009) applied the content analysis to their studies.

Apart from that, other online studies have also used web content analyses. For instance, in health websites, related to health issues like in the researchers by McMillan (1998), Foster et al. (2008), Ostry et al. (2008), and Jung et al. (2009); sociology such as by Hayes-Smith and Hayes-Smith (2009); online advertisements by Thompson et al. (2001), and Kennan et al. (2008); in politics such as Lee and Choi (2004), and online media websites from Newhagen et al. (1995), and Trappel (2008). Most of the research applied Interactivity concept or dimensions to measure the quality and effectiveness of the website (refer to Chapter 2, Section 2.5).

As mentioned above, content analysis is one of the common research approaches used, normally used to cover the subject materials within news (print and/or online), and is intertwined with communication and social studies. This approach definitely has some advantages. This is well explained by Krippendorff (2004) who has identified primary advantages of content analysis: it is powerful and unobtrusive, it accepts unstructured material, it is context sensitive and thereby able to process symbolic forms, and it enables the analysis of large volumes of data with relative ease in a systematic way.

Furthermore, content analysis gives rise to some possibilities in analysing trends for a longer time frame and is able to cover a bigger geographical scale. With content analysis, the researcher is able to identify some trends that may not be expected or articulated well in the literature (Kaitzandonakes and Marks 1999). All of these advantages seem to apply equally well to the web as it does to other media such as the
print newspapers – news headlines and articles, television programs, conversations from interviews, and images – pictures, logos, and advertisements.

Arguably, the growth and changes on the WWW and its content, makes it ‘a moving target’ for communication research studies. Due to the web’s reinvigorating field of intriguing challenges and questions posed to the researchers, McMillan had posed a query on whether the microscope of the content analysis would be able to be applied to this moving target (2000, p.80). While the web is prominent and more capable than other ‘traditional’ media as mentioned by Rafaeli and Newhagen (1996), due to its mixture of multiple media, hypermedia links, which travel multiple routes with unlimited access and control from users, ‘synchronicity continuum’ over time and space, and interactivity role. Still, this online content offers some unique and consequential challenges to the researchers in terms of authenticity of content, verification of the source, and accuracy of the news reporting, and journalistic values and ethics.

Nevertheless, the challenge of doing website content analysis is significant. Bates and Lu (1997, p.332) believe that, ‘with the number of available websites growing explosively, and available directories always incomplete and overlapping, selecting a true random sample may be next to impossible’. Ha and James (1998) and Kaitzandonakes and Marks (1999) also claimed that coding a website can be extremely time-consuming and may introduced biases based on website size.

Due to this reason, consequently, McMillan (2000) recommended five primary steps that should be involved in the process of conducting analysis of research for the web-based application. The first step in content analysis is to formulate research questions and/or hypotheses. The other steps are selecting a sample, defining categories, coding process and reliability, and finally, analysing and interpreting the data. However, Krippendorff (2004) had added another step after defining the population and selecting appropriate sample (sampling population), which was identifying the unit of analysis, which represented the information for analysis. Similarly, Weare and Lin (2000) urged for an awareness of new features of the website, which entailed greater care on
sampling, unitization – unit of analysis, categorization, and coding in improving the quality and validity of that particular content analysis.

Hence, this research study took these concerns into account and followed the primary steps mentioned to ensure a smooth process of conducting content analysis research of the websites. With all these steps taken into consideration; the formulating of research questions or hypotheses, the sampling, unit of analysis, developing the categories, and the coding procedures, the later step then was to analyse the collected data and to draw conclusions flawlessly.

3.3.1 Step 1: Objective of this Web Content Analysis

This research study was conducted using a mixed-method approach and the web-based content analysis of online newspapers was one of the methods that had been applied in this study. The first part of the main research question was; ‘What is the nature of the content and layout of Australian online newspapers?’ was answered through this web-based content analysis. The rationale in selecting web-based content analysis and print-screen snapshots were due to the reason that it is an effective and prompt method in exploring and capturing patterns, textual, and graphical data within a specific time frame. This approach fit well for this study as the main objective of the research was to explore and understand the interactivity and news features offered in the online news.

Two phases were involved; in Phase 1 – an exploratory study to develop some basic understanding of the characteristics of selected newspapers websites, and Phase 4 – the revisiting of the websites, which looked at the changes and transition of the similar newspapers websites. Both phases took place in two different years and time frames (refer to Table 3.1). Hence, by using the web-based content analysis approach hopefully, this research study was able to better interpret the objectivity perspectives of the online news characteristics, mainly on interactivity, news features and presentation, and also the online news trends.

3.3.2 Step 2: Sampling Population

The phenomenon of online news is one of the significance benefits received from the fast growth of the WWW in mass media. Today, accessing online news is part of the
norm and daily life routine for individuals to keep them updated on news and events. The World Association of Newspapers (WAN), as quoted in the Asia Media (2006), indicated a 9% increase in global readership for online newspapers in 2005 and this was a significant increase of more than 200% since 2001.

The Global Online Populations published by Computer Industry Almanac (2009), reported 11.24 million Internet users amongst 21.26 million of the total population in Australia. This growing popularity invites new avenues for the newspaper industry. Furthermore, the researcher had chosen Australian newspaper websites as part of the sample due to the proximity and practicality for the research study. According to Krippendorff (2004: p.84), sampling permits the researcher ‘to economize on research efforts by limiting observations to a manageable subset of units that is statistically or conceptually representative of the set of all possible units.’ At the same time, according to Barbie (1999), sampling is the ‘process of selecting observation’ (p.192) whereas population is the ‘theoretically specified aggregation of study elements’ (p.201).

In Australia, a report from Hitwise revealed that the Sydney Morning Herald was the site most bookmarked by users, with 4.36% in year 2003 (Greenspan 2003). Significantly, the newspapers readership survey released by Roy Morgan Research (2005) found that the Herald Sun, Daily Telegraph and Sydney Morning Herald were the top three, with readership of 1.5 million, 1.2 million and 0.9 million, respectively. Therefore, there was a need to study and look into Australian online newspapers.

This research study used stratified sampling, which can be defined as ‘distinct subpopulations within a population’ by Krippendorff (2004, p.115). In this study, the researcher employed the stratification method by geographic area of distribution, by using a sample population from news readership survey that was run by Roy Morgan Research on 18 August 2005, where a list of top Australian newspapers were published in www.publicitas.com (2005), (however, the related news article may no longer be available for current view or access). Information on top newspapers, regions, and readership as of June 2005 were used except for the Northern Territory News, where the readership information was taken from News Media Net, which is now called, ‘News Space’ (owned by News Limited Corp.).
Table 3.2 (below) summarizes the list of selected newspapers.

<table>
<thead>
<tr>
<th>Newspapers</th>
<th>Regional Coverage</th>
<th>Owner</th>
<th>Readership (000)</th>
<th>Readership/Population* (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herald Sun</td>
<td>Victoria</td>
<td>News Corporation</td>
<td>1,523</td>
<td>7.4</td>
</tr>
<tr>
<td>The Daily Telegraph</td>
<td>New South Wales</td>
<td>News Corporation</td>
<td>1,194</td>
<td>5.8</td>
</tr>
<tr>
<td>Sydney Morning Herald</td>
<td>New South Wales</td>
<td>Fairfax Holdings</td>
<td>883</td>
<td>4.3</td>
</tr>
<tr>
<td>The Age</td>
<td>Victoria</td>
<td>Fairfax Holdings</td>
<td>721</td>
<td>3.5</td>
</tr>
<tr>
<td>The Courier Mail</td>
<td>Queensland</td>
<td>News Corporation</td>
<td>616</td>
<td>3.0</td>
</tr>
<tr>
<td>The Western Australian</td>
<td>Western Australian</td>
<td>Western Australian Newspapers Holdings Limited</td>
<td>606</td>
<td>3.0</td>
</tr>
<tr>
<td>The Adviser/Adelaide Now</td>
<td>South Australia</td>
<td>News Corporation</td>
<td>573</td>
<td>2.8</td>
</tr>
<tr>
<td>The Australian</td>
<td>National (based in Sydney)</td>
<td>News Corporation</td>
<td>416</td>
<td>2.0</td>
</tr>
<tr>
<td>The Australian Financial Review</td>
<td>National (based in Sydney)</td>
<td>Fairfax Holdings</td>
<td>270</td>
<td>1.3</td>
</tr>
<tr>
<td>The Mercury</td>
<td>Tasmania</td>
<td>News Corporation</td>
<td>124</td>
<td>0.6</td>
</tr>
<tr>
<td>The Canberra Times</td>
<td>Australian Capital Territory</td>
<td>Rural Press Limited</td>
<td>112</td>
<td>0.5</td>
</tr>
<tr>
<td>Northern Territory News</td>
<td>Northern Territory</td>
<td>News Corporation</td>
<td>52*</td>
<td>0.3</td>
</tr>
</tbody>
</table>


Overall, the selection criterion was based on the top twelve news readership from two main sources, mentioned above. The list basically represented the top national newspaper, and one of the national newspaper was in the Business and Financial field (Australian Financial Review). This stratification by geographical area covered areas within the six states of Australia; New South Wales, Queensland, South Australia, Tasmania, Victoria, and Western Australian, plus other two major territories – the Northern Territory and the Australian Capital Territory (ACT). Apart from that, the
researcher also noted two different newspapers’ ownerships, which were selected from the same region; New South Wales and Victoria. Even though they came from the same regional areas, the differences of ownership of the online news may have contributed to different sets of data collection.

In summary, by evaluating the readership of the overall Australian population, based on July 2006 estimation number in Wikipedia, Table 3.2 indicated that the Herald Sun was the highest ranking (7.4%), while the Courier Mail and Western Australian were in the middle rank (3%), and the Northern Territory newspaper was ranked at the bottom with 0.3% of the total of population. Based on the results presented in this table, the total of twelve Australian newspapers was selected as the sampling units for the web content analysis, where the Uniform Resource Locator (URL) from the twelve online newspapers’ websites were observed and examined. This is further explained in the unit analysis section, presented later in this thesis.

3.3.3 Step 3: Developing Categories: Conceptualisation and Operationalisation

To develop categories for this study, the conceptualisation and operationalisation of the study needed to be defined. Conceptualisation is the process where the study is evidently and clearly specified to eliminate any vagueness and misconceptions that may be present (Babbie 1998). Operationalisation is the step after conceptualisation with the primary aim to develop operational definitions able to measure the concepts used and identified earlier, in the conceptualisation process section, into measureable constructs elements and items that are listed later in the section.

This research study was structured by an adaptation of Heeter’s six dimensions of interactivity, namely (1989, pp.221-225):

- **the complexity of choice available**: users are provided with a choice of available information or selectivity;
- **the effort users must exert**: the amount of effort users must take to access information;
- **the responsiveness to the user**: the degree to which medium can react responsively to a user;
- *the monitoring of information use*: potential tools to monitor system use;
- *the ease of adding information*: the degree to which user can add information to the system that the mass can access, and;
- *facilitation of interpersonal communication*: the degree to which media system facilitates interpersonal communication between specific users.

The Interactivity concept is eminently adopted by many researcher in various fields such as in Communication studies (Ferber et al. 2005, Walther et al. 2005), Information Systems (Chen and Yen 2004, Lowry et al. 2006), Education (Chou 2003, Leung et al. 2002), and Journalism (Chung 2007, Chung 2008, Greer and Mensing 2006). Detailed discussion on relevant literature had been covered in the earlier chapter (refer to Chapter 2, Section 2.5).

Based on the reviews of various interactivity definitions and frameworks, this study has proposed and reconstructed Heeter’s Interactivity concept into the following five interactivity dimensions to cater to the most significant aspects of this newspapers websites study. This is due to the fact that interactivity is a continuum especially in the online news environment, which represents a high level of interactivity in human-to-human and also human-to-machine type of communication. This is supported by Stromer-Galley (2004), who emphasised these two phenomenon; interactivity between people and interactivity between people and computers.

To suit the research study, Heeter’s Interactivity concept of ‘the ease of adding information’ and ‘facilitation of interpersonal communication’ has been reconstructed as ‘communication opportunity’. The ‘complexity of choice available’ was reworded to ‘content availability and choice’ and ‘monitoring of information use’ to ‘customization and information management’. Both elements have also been redefined. Similarly this applies to ‘effort of users’ and ‘responsiveness’.

Therefore, this explicates the five major interactivity features together with the new operationalisation, which was used in this research study. The measurable dimension and elements involved were:
3.3.3.1 Content Availability and Choice

Two new elements contained in this category were; Value Proposition (VP) and Peripheral Value Proposition (PVP). For the purposes of this study, VP represented news information content, while PVP referred to non-news information content. The word ‘value proposition’ is prominently used in the business and marketing fields. Chaffey et al. (2000, p.145) put forth that:

‘An Internet website should have an additional value proposition to further differentiate a company’s products and services. A clear Internet value proposition has several benefits: distinguish the site from its competitors, provide a focus to marketing efforts, and company staff are clear about the purpose of the site, and can be linked to the normal product propositions of a company or its product’.

In the online newspaper environment, the proposition offered in the website should be clear content, providing news and related news information to readers, which should synchronise with the news company's objectives, products and services. The VP for an online newspaper is mainly concerned with news-related items, for example, news articles placed on the front page provide links to articles on the same issue, latest news update, news in the form of audio, video, and pictures, archives, and news alerts. The PVP in this context means non-news related items, for instance offering the company’s business information, a site map, a search engine, choice of languages, advertisements, graphs/charts, job opportunity, and weather updates. Meanwhile, the PVP can also include infotainment such as games, polls, contests, cartoons and entertainment guides.

3.3.3.2 Effort of Users

There are two main elements involved; Navigation and Connectedness. Effort of users as an overall aspect can be classified as the amount of user activity that is required in completing the specific task. In the online milieu, clicking more than once and too often in retrieving news or information can be exhausting, confusing and discouraging (Sandvig and Bajwa 2004). Hence, the user wants simple, but fast navigation to minimize their effort in retrieving the news. Based on Loiacono et al. (2002) the ‘intuitiveness’ of the each website page is important to the user to read, understand and also navigate easily between pages. This also means that the connectedness or ‘the flow’ using hyperlinks provides a range of ‘easy and fast’ links without having any broken links. This will impact the effort of users in accessing news or information. In the
context of hyperlinks, it refers to links to the subdirectories site of a home page, for example;


Another less important type of hyperlink refers to another site, such as <http://www.smh.com.au/> to http://moneymanager.com.au/, which redirects from the main website to a totally new web address. Advertisements are the best examples to suit this sample.

3.3.3.3 Communication Opportunity

This dimension contains three main elements: Sessional, Semi-permanent, and Permanent communication opportunities. This dimension also refers to dissemination of information; asynchronous (one-to-one and one-to-many interactions) and synchronous communication (many-to-many interactions) (Kiousis 2002, Rafaeli and Newhagen 1996). These online interactions also allow users to communicate, express opinions, ideas, and pose questions and answers.

Sessional communication is the type of communication, which has a ‘cut-off’ time once the user logs off or ends the connection. Examples of these are Chat rooms, video conferences, games and multiplayer games (e.g. video games in which multiple people are able to play within the same time). Semi-permanent communication refers to communication that has time limits or displays in a certain time frame. E-mails, forums, opinion letters, and bulletin boards are examples of semi-permanent communication. Finally, permanent or archived communication refers to communication, which is ‘put on view’ on the website for a longer period of time. A weblog (web-based publication diary consisting of periodic articles with text, images and related media/web links) is in this category.
3.3.3.4 Responsiveness

This dimension is about the User Response Time and the System Response Time which may depend on Internet speed. According to Alba et al. (1997), response time concerns the speed of response via computerised interface. This could be captured by the time gauged between a stimulus and the response to it. First level of responsiveness, namely, User Response Time is the level between the reader and webmaster, editors and/or reporters (two-way communication). Secondly, the System Response Time is pertaining to the computer response time, which refers to the time taken by the system in reacting or retrieving the online news article. Ideally, the response time should be minimal and fast. Most of the time, the result of a request is reflected immediately to the reader. This research study uses Bouch et al.’s (2000) model, who assigned the range of latency/response time into three stages: high (0-5 seconds), average (6-10 seconds) and low, which is more than 11 seconds. These responsiveness factors would be the key to productivity in interactive applications and quality, especially in a web application.

3.3.3.5 Customization and Information Management

The last category or dimension of interactivity for the newspapers website is Customization and Information Management. There are a few new items in this category, which leads to a highly interactive experience and applies to the current needs of the online environment; Personalization – a user is able to ‘custom-make’ any news he/she requires. The personalization may be done by the user through a registration process. According to Şanlier and Tağ (2005), personalization options of online newspaper ranges from choosing topics and news headlines, to getting newsletters and alerts/updates via emails, community information and/or an events calendar. From these activities, customer profiling (Wiedmann et al. 2002) can be developed and it is a key to identify customers’ demographic and behavioural analysis.

On top of that, this study also includes privacy as part of the element in this dimension of customization and information management. Privacy refers to the degree to which an individual can determine, which personal information is to be shared. In terms of the Internet, privacy means the quality of being secluded from the presence or view of others (disclosure) and the condition, which can be concealed or exposed. Once the user feels secure in using the website, the level of trust and loyalty will soon be developed.
This feeling of security is one of the ways to sustain user loyalty in continuing to use and read the online newspaper website. Therefore, this two items; personalization and privacy are included in this research study. Apart from that, this research study will also consider hit counters (which are currently run by a web agent), as one of the ways to capture user interest on relevant information.

3.3.4 Step 4: Coding Units and Unit of Analysis

As mentioned earlier, most of the scales and items used for this study had been adapted from Heeter’s Interactivity concept and refined from relevant research identified in the literature (refer Chapter 2). The researcher had conceptualized (refer Section 3.3.3 and onwards) and operationalized those dimensions for the Australian newspapers websites. These contents and features therefore were made to match with an appropriate item and element to suit the web content analysis approach.

In regard to the operationalization, below are the details of the coding units and the units of analysis that were used for this study. As McMillan (2000, p.82) signified, the unit of analysis or context unit is ‘the body of material surrounding the coding units.’ At the same time, the coding units mean ‘the smallest segment of content counted and scored in the content analysis.’

3.3.4.1 Content Availability and Choice

i) Value Proposition (VP) – the content which are only on news-related items:
   a) Number of news articles placed on the front page;
   b) News article that provides relevant links within the same issue with either a 1) yes or a 2) no answer;
   c) Number of news articles with picture/s available on the front page;
   d) Number of news in audio and/or video placed on the front page;
   e) Provides latest News updates (news break) on the front page with either a 1) yes or a 2) no answer;
   f) Provides news alerts on the front page with either a 1) yes or, a 2) no answer;
   g) Provides archive news either with a 1) yes or, a 2) no answer, and, state specific time range if archived news is available;
   h) Provide digital news (e-paper) with either a 1) yes or, a 2) no answer.
ii) Peripheral Value Proposition (PVP) – pertaining to Non-News Information:
   a) Offers a site map [Yes or No answer];
   b) Offers search engines [Yes or No answer], and specifies the type of search
      engine; either in-house or, from Google or Yahoo;
   c) Offers a choice of language [Yes or No answer];
   d) Offers a dictionary and/or thesaurus [Yes or No answer];
   e) Number of advertisements placed on the front page;
   f) Provides company’s background information [Yes or No answer];
   g) Provides opportunities in the company – Job offers [Yes or No answer];
   h) Provides graphs and/or charts on the front page [Yes or No answer];
   i) Provides weather updates and/or information on the front page [Yes or No
      answer];
   j) Provides events calendar on the front page [Yes or No answer];
   k) Provide games features either on the front page or with a specific link (for
      example: poker, snakes, battle game) [Yes or No answer];
   l) Provides contests (for example: words puzzles) [Yes or No answer];
   m) Provides entertainment guide (such as television guide and cinema schedule)
      [Yes or No answer];
   n) Provides audio files on the front page [Yes or No answer];
   o) Provides photo galleries on the front page [Yes or No answer];
   p) Provides cartoon columns on the front page [Yes or No answer].

3.3.4.2 Communication Opportunity

i) Sessional Communication:
   a) Provides chat room [Yes or No answer];
   b) Provides video clips [Yes or No answer];
   c) Provides audio files [Yes or No answer];
   d) Provides games [Yes or No answer].

ii) Semi-Permanent Communication:
   a) Provides discussion and/or bulletin boards [Yes or No answer].

iii) Permanent Communication:
   a) Provides a weblog or blog [Yes or No answer].

iv) Other Communication Opportunity:
a) Reporter provides email address in the news article [Yes or No answer];
b) Reader able to forward article through email [Yes or No answer];
c) Reader able to rank the news article [Yes or No answer].

3.3.4.3 Effort of Users

i) Easy to navigate:
   a) Which requires registration?
   b) Number of news link which has a single click to retrieve a news article
      (normally, the news is located at the centre of the front page);
   c) Number of news link, which require two clicks to retrieve a news article
      (most of the news links from sub-section are placed at the top or bottom of
      the front page);
   d) Number of news link which have three or more clicks to retrieve a news article
      (normally, refers to other website links which mostly appear at the top
      of the front page).

ii) Connectedness:
   a) Number of links within the same site (in-house or sub-directories’ links);
   b) Number of links to other sites (links that brings to other new website
      address or URL);
   c) Any broken links occurred during the observation [Yes and No answer].

3.3.4.4 Responsiveness

i) User Response Time (communication between user and reporter/editor):
   a) Do reporters and/or editors respond to the email sent? How long it takes
      (within hours or days)?

ii) System Response Time (time taken in retrieving news):
   a) How long does it take to retrieve the news article? [High: 0 to 5 seconds;
      Average: 6 to 10 seconds; Low: more than 10 seconds]

3.3.4.5 Customization and Management of Information

i) Personalization (requires registration from the user);

ii) Hits counter (normally, appears at the left or right side of the front page, which
    informs the number of visitors accessing the website at that particular time);
iii) Privacy:
   a) The location of placing the privacy link (usually at the bottom of the front page).
   b) Provides clear information on the practises of Privacy Policy to the reader (normally, clear statements of the Privacy Policy Act, user’s security and access to the collected information, information shared with third parties or partners, and contact details of the respective online newspaper).

3.3.5 Step 5: Coding Procedures

Below is the list of steps the coder took note of before commencing the web observation. Although only one coder was in-charge of this observation, the coding procedures were still needed to ease the coding process. The intention of having only one coder (the researcher herself) involved was to ease the reliability measurement. As warned by many web researchers before this, examining the web can be exhaustive, time consuming, and create confusion (Ha and James 1998, Massey and Levy 1999, McMillan 2000).

3.3.5.1 Research Instrument

In most of the coding categories mentioned earlier in the Coding Unit and Unit of Analysis section, the coder just had to acknowledge the presence or the absence of the news’ features listed based on the five interactivity dimensions. The majority of the answers were either in the form of a ‘yes’ or a ‘no’ answer. The few things that the coder needed to take note of were on certain items. For example, advertisements placed on the front page, which required some calculation, though required minimal effort. The item of user response time also needed some communication via email between the coder and the reporter or editor. The results had required some time to lapse. All these results were captured in an Excel spreadsheet.

The study uses Li’s (1998), Massey and Levy’s (1999), and Massey’s (2000) methods, which analyses the key parts of the online newspaper’s front page (or home page). This front page serves as the ‘front door’ for Internet users. If the users have to search through several steps to find the website, they are likely to experience frustration and leave. To begin with, the coder set and saved the front page of twelve web addresses
(for example, http://www.smh.com.au/) in the ‘Added to Favourite’ function in the
desktop area on the computer, as the default page domain in order to standardize and
ease the coding process. Then, three sets of data were collected in different time frames:
the 2006, 2007, and 2009. The coder also captured all these twelve addresses into the
Excel spreadsheet. The coder specifically chose the originally print-based newspapers in
Australia, which of late offers news on the web.

Online news’ front pages are very important for getting an overview, since browsing the
front page can be compared to flipping through the printed newspaper and many users
return to the front page to ‘start over’ instead of navigating. Therefore, an online
newspaper is to be recognizable, with an attractive design and layout on the front page.
To be able to get a snapshot within a specific time range, all front pages of twelve
online newspapers snapshots were taken using print-screen method. This key function is
available at the right hand top corner on most of the computer keyboards. This print
screen shot of the front pages of the online newspaper is the considered to be an
effective method as it is fast, flexible, and influential enough to distinguish among
multiple types of interactivity. The researcher also made a few print screen snap shots of
specific items, which obviously reflected interacting features (either displays on the
front page itself or, offered another link from the front page).

The study also looked into interactivity elements provided by the online news, for
example, ‘Communication opportunity’, which may not be appear on the front page.
The researcher is also aware that the unit of analysis may trigger some confusion during
the coding period. For example, in Section 3.3.4.1 ii) n) audio was on the front page,
whereas 3.3.4.2 i) c) audio availability did not be appear in the front page. Therefore,
before Phase 1 and Phase 4 took place, a pre-test of the web-based content was made
prior to the commencement date to check these and introduce a level of consistency.
This was done to eliminate the possibility of error and confusion during the
observations. The different time frames also required this pre-testing because some
important links or features may have become obsolete.
3.3.5.2 Content Analyses: Time frames

3.3.5.2.1 Phase 1: Preliminary Study

Two different observations and web examinations were undertaken in this Preliminary Study. The first, in Autumn 2006 and another a year later in Autumn 2007. Whilst this was the first phase, one set of observation in a year did not make a good summary on the overall nature of the content and layout of the newspapers websites. Therefore, two samples of data collection had been used to gain better understanding of the twelve Australian online newspapers.

3.3.5.2.2 Phase 4: Revisiting the Websites

In Autumn 2009, the coder revisited the twelve Australian newspapers websites. The revisiting of the websites was important to this research study as it captured a better view on the news changes, advanced features, and the challenges, which are present in the current scenario. The up-to-date results also helped the researcher not only in interpreting and making conclusion based on the two comparative sets of data collected between Phase 1 and Phase 4, but also to look at the emergent phenomena of the media convergent towards the future of the online news. It should be noted that these observations provided valuable results and information, which lead to better conclusion and discussion within this research study.

3.3.6 Step 6: Analysis and Interpretation of the Data Collected

The data obtained from these observations were first converted into numeric codes and the ‘yes’ or ‘no’ answer. The main reason for the coding was to facilitate further understand the changes to the website features by using interactivity dimensions. The coding analysis and data interpretation was performed by using simple statistical analyses (frequency, mean, and average) from Microsoft Excel spreadsheets. Some of these data were converted and represented into, and represented in tables and graphs.
3.4 Using the Q-Methodology to Measure User’s Subjectivity

The Q-Methodology was first introduced by William Stephenson in the 1930s and it was at about the same time as the introduction of the content analysis. Since Stephenson specialised in cross-disciplinary studies, mainly in physical science, psychology, psychoanalysis and communication studies, including journalism and advertising, the initial use of the Q-Methodology was only within the area of Political sciences, Psychology, and Communication studies.


William Stephenson’s Q-Methodology can be defined as an approach to inquiry for the scientific study of subjectivity. Q-Methodology is a research that integrates qualitative and quantitative techniques to divulge social perspectives. The quantitative analysis in Q-Methodology is associated with the factor analysis (Brown 1996). The quantitative method is used to examine subjectivity with an emphasis on the individual’s perspective (McKeown and Thomas 1988, Thomas and Watson 2002). According to McKeown (1990), the Q-Methodology is a technique, which ‘presents operations that permit empirical examination of the meanings and significance of self-referent communications. The findings from Q-Methodology are not methodological artefacts but reveal the patterns and meanings of natural expressions of self-reference’ (p.1).

In Q-Methodology, the variables are the people performing the Q sorts (McKeown and Thomas 1988: p.17) done by the participants. This is in contrast to the survey approach, where variables come from the survey questionnaires (Webler et al. 2009, p.6). The Q-sorting relies on the participant’s innate response to Q-statements and the placement of the statements depends upon the participant’s view or opinion of those statements.
Truly, no sort is right or wrong. According to Brown (1986), Q-Methodology presents the basis of subjectivity, which differs from R-Methodology that provides the basis of objectivity.

‘R methodology is a generalization of Pearson’s product moment r, which has most often been used in the study of relationships among objective characteristics such as traits, attributes, abilities, and so forth...what is essential to R methodology generalizes to any situation in which measurement in independent of the individual’s self-reference. Q methodology, by way of contrast, operates within the “internal” frame of reference, not in the sense of a metaphysical subjectivism accessible only to introspection, but in the thoroughly empirical sense of subjective communicability...’ (Brown 1986, p.57).

A pertinent feature of the Q-sort technique is the forced distribution that requires arranging pieces of information (Q-statements) along a predetermined continuum (Q-grid sheet), which as a result, substantially contributes to fewer errors and biases (Brown 1993). When the participant begins to sort the required statements and put it into a Q-grid sheet, ‘a holistic picture’ of the participant’s subjectivity would be displayed and the results may be the same, quite similar or even totally different from other participants’ set of subjectivity.

Furthermore, Q-Methodology is one method for studying issues and their essential distinctions. The factor analysis in Q-method is purely based on the statements of participants, and takes the subjectivity of the individuals into consideration. Unlike other methods, the Q-method does not have individuals that represent the population to rank pre-existing statements, which is provided by the researcher. The factors and focal point, generated from the Q-Methodology reflect the issue of population in the domain of the researchers’ interests, and therefore, the research and analysis can assist to solve these issues and have some practical significance (Sell and Brown 1984).

One of the prominent ways in which the Q-method can be used in website and online news studies is to reveal different social perspectives that exist on an issue or subject matter. Whilst, Q-Methodology is a research technique, Q-study is able to reveal how the individuals, and who ever did the Q-sorting, agree or disagree with the perspectives mentioned. Therefore, the purpose of using Q-method in this study is to elicit and
capture the subjectivity of people’s perceptions of the constant changes in online news websites.

A few research studies on Information Systems (IS), Information Technology (IT), and management have used the Q-Methodology approach. For example, Hazari and Johnson (2007) exercised the Q-sort analysis to explore perceptions of business students’ feature requirements in educational websites, which would provide a theoretical foundation for educational website design and web-based instruction. Prior to that, Hazari (2005) in a previous study, had also applied the Q-study to investigate issues affecting a selection of personal firewall software in organizations.

Meanwhile, Meloche and Cheng (2005) used the Q-Methodology to support the future design of search engines in the context of E-commerce. Gottschalk (2002) instead, adopted the Q-sort study in IS management for managers to rank the key issues in terms of information systems strategy and business strategy in Norway. Another study by Meloche et al. (2006) used Q-Methodology to extract, share, and create knowledge management amongst Intensive Care Unit (ICU) professionals to capture and distil their views towards developing a Web-based Information Service.

Similarly, Wingreen et al. (2005) also applied the Q-Methodology to their research study of IT professionals on IT management, analytical, development and programming, and operations functions. On the other hand, Lee (2000) employed the Q-Methodology to examine the public privacy needed and required within regulations imposed upon online companies. But, not many researchers have used the Q-Methodology for online news studies except for Kenneth Starch and Yu Xu (1990) and Jane Singer (1997), who explored attitudes and opinions of reporters’ and editors’ (the journalists). Starch and Xu (1990) had interviewed 38 newspapers and broadcast journalists in Beijing, China on the perceptions of Chinese journalists toward major issues on international communication with viewpoints from the Chinese government.

Meanwhile, Singer (1997) had interviewed 27 metro reporters and editors from United States’ news company on the changes in the medium (e.g. online news). The Q-results reflected three major groups: Benevolent Revolutionary, who supported on the new
media, the Nervous Traditionalist, who disagreed with the proposition that a story is a story, regardless of how it is delivered, and finally, the Rational Realist group, who were more willing than the Revolutionary group to recognise that online media may pose problems that journalist have learned how to overcome in print. But, neither Starch and Xu nor Singer studied people’s perceptions towards the online newspapers. Therefore, this research study seeks to reveal the information on this issue.

Therefore, by using the Q-Methodology, this study provided a contribution to the existing literature. The Q-Methodology is a suitable method to explore users’ perceptions of online news (provide useful insights), as it collects the subjective judgements from participants with various opinions and experiences, in a rigorous manner. Q-Methodology does not require many people or a large population to be effectively applied. The key factor in Q is to examine the number of different points of view (through Q factors). As a rule, a Q-sample within the range of 30 to 50 individuals would be sufficient to produce meaningful results (McKeown and Thomas 1988). Furthermore, Q studies can easily be conducted by anyone as it only requires ‘a basic knowledge of research statistics’ (McKeown and Thomas 1988, p.12).

3.4.1 Step 1: Determining the Objective

Due to the fact that the web-based content analysis is a descriptive methodological technique intended to make this research study interpretations go beyond the descriptive findings, the Q-Methodology was introduced as the second method to be applied into this research study. Content analysis methodology was no doubt necessary for the calculation of certain characteristics and features across a set of subjects. For example, frequencies, patterns and types of characters appearing or categories, which were later partly useful for making some conclusions that reflected the descriptive content. As argued by Carlson (2008), content analysis results and findings alone would not reflect how the subject may be affected or will be affected. Therefore, this research study applied Q-Methodology to look into people’s perceptions towards the constant changes in online news.

The advantage of the Q-Methodology is that it allows flexibility and opens up possibilities among the most plausible options. Q-study is said to be ‘operant’, as it is
not dependent upon scales or experiments, which have contrived effects (Brown 1993). However, Q-study is a ‘reconstructive’ technique as it countenances subjects to ‘speak for themselves’, and comprehends their subjectivity into the analysis. In other words, it does not totally depart from the quantitative tradition, which provides a different outlook on things and events, but it is more humanistic and person-centred point of view. Furthermore, Q-studies do not require an advanced knowledge of research statistics. Predominantly, anyone with a basic knowledge of research statistic is able to manage the Q-Methodology.

Since this research study focuses on people’s perceptions on the constant changes in online news, Q-Methodology is the appropriate means to examine these scenarios. This research study had the following research question: ‘What is the nature of the content and layout of Australian online newspaper and how do people perceive the constant changes in online news?’ This study used the Q-Methodology approach to answer the second part of the research question. Most importantly, the Q-methodological approach permits the researcher to explore possibilities, which may or may not be discovered by other research approaches. Due to these advantages, this research was much inclined to apply the Q-Methodology into the study.

Influenced by Brown et al.’s (2007) Q-steps, the following section uses major steps in making a successful Q-method research by classifying and then sampling the concourse, Q-sorting, selecting P-samples, and lastly, analysing the Q-sorts and interpreting the factors.

### 3.4.2 Step 2: The Concourse and sampling the Concourse

The word ‘concourse’ comes from the Latin ‘concursus’ that means ‘to assemble’ and also from the Old French word of ‘concours’, meaning ‘to run together.’ In the English terminology, the word ‘concourse’ means confluence, a coming together, gathering or convergence (http://www.thefreedictionary.com). Meanwhile, in Q-Methodology, the ‘concourse’ represents ‘a technical concept for the collection of all the possible statements’(van Exel and de Graaf 2005, p.4) and expressions that the participants can make on a specific issue or subject. It can be in a form of text from print media; for
example, newspapers, websites, media reports, magazines, advertisements, and novels (Brown 1993).

The concourse also can be from scientific literature such as journal articles, essays, and books. In addition, the concourse may consist of self-referent statements like opinions (from daily conversation or discussion, interviews, commentary, arguments, and discourse of everyday life), objects, musical selections, and pictures like paintings, arts, and photographs. Albeit, it may be possibly used from any source, Brown (1993, p.3) stresses that ‘the level of discourse dictates the sophistication of the concourse’.

In an effort to answer the second part of the research question of this study; ‘How do people perceive the constant changes in online news?’, in the first Q-method phase, the Q-population of statements were produced from an extensive pool of reviews and literature (from year 1997 until 2005), collected from various articles (also online articles), journals, and books (available in the library and databases), pertaining to people’s perceptions, and also the significance of the online news as the source of information and news. As mentioned by Brown, ‘the construction of a concourse is not constrained to words or resources’ (1996, p.3) and ‘the researcher may collect statement from written sources’ (2007, p.723).

Most importantly, the main purpose of building-up or developing the concourse is to generate as many statements as possible on the subject matters or issue. In sampling the concourse, the researcher extracted the representative sample from literature reviews. A vigilant course of identifying, selecting and editing Q-statements from the pool of reading selection process guided by the interactivity framework that had been developed in the web-based content analysis section. A total of 50 Q-statements (refer Appendix 1) had been selected, which represented the diversity of the concourse. This number of statements were considered to be adequate due to the common Q-samples, which usually uses between 30 and 60 statements on a scale of from -4 to +4, or -5 up to +5 (Brown 1993). In fact, too many statements may render an ineffective administration of the Q-sorting process.
These statements were further divided into five major categories (similar to the content analysis approach on five dimensions of interactivity) of Content Availability and Choice, Communication Opportunity, Responsiveness, Effort and Knowledge of Users, and finally, Customization and Management of Information. From these five categories, specific elements have also been identified as per the list below (also refer to Appendix 1):

- Content Availability and Choice – News Related; Non-News Related;
- Communication Opportunity – Accessibility; Connectedness;
- Responsiveness – Navigation; System Response Time and User Response Time;
- Effort and Knowledge of Users – General; Control; Lifestyle, and finally;
- Customization and Management of Information – Personalization; Trust/Loyalty.

Besides having a surrogate as a classification for the larger set of statements, this development of the categories and specification helped to provide an interpretation of the statements for each factor once the factor analysis was completed.

### 3.4.3 Step 3: The Q-sorting and Q Grid

Next, after building-up the concourse on people’s perceptions of the constant changes in online news, the second phase of the Q-Methodology is to develop the Q-sorting process. The main purpose of the Q-sort is that it represents the individual participant’s view. For example, in this research study, the individual’s view on the constant changes in online news websites. The participants are asked to make choices amongst the statements by the sorting process. This process is similar to the general type of doing the survey methodology. Conversely, in the survey, the researcher found patterns in how respondents answered the survey questionnaires. But in the Q-method, the researcher would ‘find patterns in where Q-statements appear in different Q sorts’ (Webler et al. 2009, p.6).

Based on Brown et al (2007, p.723) in Q-sorting process, the researcher included:

1) a Q-sort deck, which consists of all Q-sample statements written on separate cards that have been randomly numbered;
2) instructions on how the cards should be ranked, for example: placing the cards along a nine-point continuum by following a quasi-normal distribution (ranging from the ‘most disagree’ to the other end of ‘most agree’), and;

3) instructions on the conditions governing the sort, for example: placing two statements with which the participant agrees or disagrees the most, and the remaining statements in other piles until all the statements were filled-up in the Q-grid answer sheet.

In this research study, all the Q-samples (50 statements) were printed on a small business card to ease the Q-sort process. Usually, after the concourse, the Q-sorting must be properly administered and well constructed. Therefore, before the Q-sorting started, the Q-sorting instructions were distributed to the selected participants to avoid any confusion, difficulties, and errors during the sorting process. Besides printing the Q-statements as an A4 business card size, this contained all the statements that had been prepared. This was to encourage participants to have an overview on the whole range of the statements and to adhere to the distribution process before they started to articulate and do the sorting based on their opinions on the issue.

In the common rules of the Q-sort, the Q-samples, which contain 50 statements; these are divided into three main groups; ‘disagree’, ‘neutral’, and ‘agree’ (Thomas and Watson 2002). The next step in the sorting was to have the participants select from these three groups of final statements and order them into each pile: from a scale between +1 and +5, 0 downwards, and from a pile of -1 to pile -5. The Q-sorting process flow and distribution can be best described in Figure 3.1.

![Figure 3.1: Q-sort Process Flow and Distribution of Q-sort Grid (N=50)](image-url)
As a result of this Q-sort process, the participants vigilantly sorted the statements on a Q-sort scale ranging from most disagree (-5) to most agree (+5), as above. As mentioned by Thomas and Watson (2002, p.142), ‘In the following interactive process, each pile would be examined carefully and distinctions made within the pile, eventually leading to each space in the distribution being filled.’ ‘A forced’ distribution required participant to make the best decision for ‘most agree’ and ‘most disagree’. Meanwhile, as for the statements at the neutral level (0), pile -1, and +1, may contain either a neutral decision, no information or leftovers with little value that were made from the individual participant (Stephenson 1974).

Likewise, in the survey methodology, there is no forced distribution in answering ‘most agreed’ or ‘most disagree’ (especially in answering the survey using a Likert scale). ‘It is impossible to state that the difference between strongly agree and agree is the same as the difference between agree and undecided’ (Edmondson 2005, p.129). The respondent may just simply pick the most neutral or average answer (without using any judgement) to avoid certain bias or disagreement. In terms of the results, most sensitive, private and controversial questionnaires could not be fairly being answered using the survey approach.

Hence, for Q-Methodology, ‘the best choices’ from ‘a true comparative judgement’ based on self-reference was made from self-participant’s perspective (Thomas and Watson 2002) towards online news, which was represented in the Q-samples. From another perspective, the Q-sort process consequently is ‘a forced’ decision making process made by the participants involved, who have to decide amongst the statement listed (50 statements) to produce a result and this reflects their final decisions (on online news).

Figure 3.1 (above) also provides an overview of the distribution pattern on the Q-sort. This sample of the Q-sort grid is created to correspond with the set of statements, and the statements’ numbers (number displayed at top left corner in each Q-sort) would be recorded within the grid. Therefore, the Q-sort grid is generated to accommodate all the Q-statements (50 statements). In addition, the numbers that appeared at the bottom of the Q-sort grid; (2), (3), (4), (6), (8), (6), (6), (4), (3), and (2), represented the total
number of Q-statements in each pile ($N=50$ statements). Whilst, the method of Q-sort grid acted as ‘a forced’ sort to be filled in each pile (from -5 to +5), this also avoided any redundancy of the same sort number data entry being made by the participant.

### 3.4.4 Step 4: Selecting P samples (the sorters)

Due to the nature and the duration taken, this research study is also considered as a longitudinal study as it involves repeated exploration and observations. Overall, the research study involved four sets of data collection; Phase 1 and Phase 4 were related to content analysis of the websites studies. Both were undertaken in different time frames; Phase 1 in Autumn 2006 and 2007, and Phase 4 in Autumn 2009. Results from these two phases were more focused on websites’ contents and features.

Meanwhile, Phase 2 and Phase 3 were formulated using the Q-Methodology approach. ‘Because Q-Methodology is an intensive methodology, the selection of the people to complete a sort (the P sample) is an important element of the method’ (Brown et al. 2007, p.723). Furthermore, Q-methodology requires no set number of Q sorts (P sample) for any particular study, but most importantly, Q examined the number of different points of view (through Q factors). As a rule, the selection depends highly on the topic that is being studied and 30 to 50 Q sorters would be sufficient in producing significant results (Brown et al. 2007, McKeown and Thomas 1988).

Therefore, this research study had selected two sites: Australia and Malaysia. It was assumed that participants from universities are the most convenient data source and would be relatively representative of Internet users worldwide, as this is a global phenomenon. In Phase 2, work was undertaken to gather local views among Australian graduates and academic staff in the university regarding their perceptions towards the constant changes in online news. Phase 2 took place during Spring 2007. Meanwhile, Phase 3 involved a more extensive and larger population sample from Australian and Malaysian university students and staff, which took place in Winter 2008. The Australian data set in Phase 3 were mostly the same P sample taken in Phase 2.

Since this research study involved obtaining people’s viewpoints, Ethics approval had been sought and was approved in accordance with the National Statement on Ethical
Conduct in Research Involving Humans from the Human Research Ethics Committee, University of Wollongong.

The next section reveals detailed information on how each phase has been undertaken.

3.4.4.1 Phase 2: The Initial Stage of Q-study

In this research study, the first stage of the Q-sort was undertaken in Spring 2007. As this was the first stage (Initial test) of Q-Methodology measuring users’ subjectivity of the online news content and as the source of information, the Q-sort for this research study collected Australian University participants, involved graduates students, post graduates students including international students, and staff as representatives of Australian Internet-literate consumers of news.

The main objective of this research study was to grasp a basic understanding on how people perceived online news, especially the ‘local’ people (Australian) plus international students and staff. Eventually, the Q-Methodology of this Initial test was done to support the Phase 1: Preliminary study of the twelve Australian online news websites, which was done in Autumn 2006 and 2007. Both the Phase 1 and Phase 2 data, which were collected in the same year, helped to gain further information on both; people’s perception on the constant changes in online news, as well as on the online news websites that were made available at that particular point of time.

The Q-sort was done individually by the participants. Briefly, step-by-step instruction was given and the participants were advised to sort the Q-cards/statements according to their best perception of the online news (refer to Appendix 2 on Q sorting instructions). Once the participant completed (approximately forty minutes) the Q-sort process, the Q-sort numbers (at top left of each Q-sort cards) were placed in Q-grid answer sheet (refer Appendix 3). Participants were also required to update their profile information (refer Appendix 4).
3.4.4.2 Phase 3: The Second Stage of Q-study

The Second Stage of Q-study was more extensive than the Initial Stage with a larger pool of participants – Australian and Malaysian University students and staff. Most of the Australian data set was similar participants from those taken in Phase 2. This second stage forms Phase 3 of the research and was undertaken in Autumn 2008. The analysis was done by merging the sorts from both, Australian and Malaysian participants as it represented an overall view of people’s perceptions of online news. Furthermore, this group is relatively representative of Internet users worldwide, as this is a global phenomenon.

Participants successfully sorted 50 statements that were collected to reflect the range of views on their perceptions towards the constant changes in online news. Apart from doing the Q-sorting and being placed in Q-grid answer sheet (as in Appendix 2 and 3), all the participants were requested to fill in the profile information sheet (refer Appendix 4), which consists of their Internet literacy, online newspaper experiences, and personal information, especially demographic information. It was hoped that from the second stage results, a dynamic pattern of online newspaper’s perceptions would be revealed.

3.4.5 Step 5: Analyses and Data Interpretation

PCQ for Windows Academic Edition software that is available on the website, http://www.pcqsoft.com/, was used to run the factor analysis. Once the sorting was completed, the data entry of all the Q-grid answer sheets were added into the system. Principal components of factor analysis, correlation matrix, and varimax factor rotation were performed on the data. The analysis reviewed options from a two-factor, three-factor, and four-factor up to a seven-factor solution. From the factor analysis results, information was obtained on the similarities and differences in viewpoints on a particular subject. In this research study, the viewpoints are the users’ perceptions towards the online news. Brown et al. (2007, p.723-724) argues that:

“They statements comprising the Q-sample are the observations of the study and the individuals completing the Q-sorts are the variables. In other words, in a statistical analysis, the statements are the dependent variables and the sorters are
the independent variables. Thus, when factor analysis and factor rotation are completed, the Q factors are made up of groups of sorters who have similar views on the topic of interest’.

Furthermore, the results from the factor analysis represent operant clusters of subjectivity. According to (Smith 2001), Q results establish categories that are operant like survey and questionnaires, which employ categories where the researcher analyses the responses. Essentially for Q, the subjectivity is communicable whenever it is expressed operantly; this can be systematically analysed later (Stephenson 1968). Each of Q sort

The results were used to further elucidate how people perceive the constant changes in online news. This was the final step; all the identified factors had to undergo data interpretation. Based on Brown et al. (2007, p.724), ‘this type of analysis uses adductive logic, which involves reasoning from observed effects to plausible causes.’ Hence, the results of how the factors resemble each other and how they differ to each factor would be substantial and will be described further in this study. The Phase 2 of Q-results is presented in Chapter 4 and a Phase 3 result of the Q-study is in Chapter 5. In addition, the data interpretation is discussed in Chapter 6.

3.5 Theoretical Analysis: Applying Activity Theory into this study

In Chapter 2, Activity Theory was introduced and presented as the theoretical basis for this research. In terms of this description, activity is considered as the ‘holistic unit of analysis’ for analysing and explaining what people do as a dialectic relationship between subject and object, including an understanding of how people collaborated with the assistance of tools in complex and dynamic environments.

In this research, the Activity Theory framework provided a deeper insight into the relationships within and between activity systems involving the production and use of the online news. Here, the activity is directed towards the news object in conjunction with the individual’s or people subjective perceptions in a variety of contexts when supported by socio-technical systems. This follows on well from the Q-study, which places great value on subjectivity; a ‘user-centred’ strategy has the capability to draw out the main issues in current affairs regarding how people perceive the constant changes in online news websites.
This research further elicited the relationships between the component elements of people, tools, object (purpose and motives) and outcome by applying the Activity Theory framework, based on Vygotsky’s original model. In several phases of the research, the relevant activities and their elements were identified, displayed and described based on the findings of that Phase, using this model. The main tools mediating these activities were the news websites, which have been shown to have primary, secondary and tertiary components. Moreover, relationships between connected activities were depicted and displayed.

For example, Figure 3.2 elaborates the basic and fundamental activity involved in the online news production, as newspaper websites are seen as the tool of news producers, the subject to delivery their news online for the object that is the news. Therefore, the main outcome for readers is to get informational news through the online news websites. There is likewise, the activity of the news reader and this will be presented within the full Activity Theory analysis in Chapter 6 and the summary in Chapter 8.

![Diagram](image)

**Figure 3.2: Basic Activity of the Online News Production**

At each Phase of the methodology and research design for this study, this theoretical approach revealed patterns of activities involved in the online news scenario. Activity Theory was thus seen as being a useful aid to designing user interfaces that take into account the context of use and thus can play an important role in getting to know users’ perceptions and requirements when engaged in online news activities.
3.6 Chapter Summary

This chapter has provided an overview of the methodology and research design used in this research study. It has demonstrated that in seeking an understanding of online news and how people perceive towards the online news changes, which is based on a mixed-method approach and on an ethos of an interpretive theoretical perspective. The process of data analysis, involving both the web-based content analysis and the Q-Methodology findings that have been outlined, engaged the objectivity and as well as the subjectivity perspectives on online news. This section has provided the rationales and objectives in preparing of the forthcoming chapters, which reports on the data findings. Therefore, the chapter has been concluded by highlighting on the application of Activity Theory into the research study.
CHAPTER FOUR
INITIAL STAGE YEAR 2006-2007 RESULTS AND ANALYSIS

4.1 Introduction

This chapter presents the results and findings of the study conducted using the methodology outlined in the previous chapter (Chapter 3: Methodology). Using web-based content analysis of the front page of twelve Australian online newspapers as an exploratory study (Phase 1), the descriptive statistics of the results were first presented followed by the Q Sort test results (Phase 2) by applying Q-Methodology to find users’ perceptions towards online newspapers. In Phase 1, the data was taken in Autumn 2006 and Autumn 2007, and Phase 2, the Q-Methodology was done in Spring 2007. Basically, both phases that were done in the same year had helped to gain better understanding on both aspects; how people perceive on the constant changes in online news and as well as the nature of online newspaper websites – content and layout, that were made available during that particular period of time.

4.2 Phase 1: Preliminary Study of Web Content Analysis Results

4.2.1 Overview

This research began with the online analysis of content and layout of twelve Australian newspapers websites, which originated from major print-based newspapers in Australia. The twelve Australian online newspapers involved were Herald Sun, Northern Territory News, Sydney Morning Herald, The Age, The Advertiser, The Australian, The Australian Financial Review, The Canberra Times, The Courier Mail, The Daily Telegraph, The Mercury, and Western Australian. The study examined the front page of each online newspaper’s websites within two different assessments. The first snapshot was taken in Autumn of 2006 (refer Appendix 5) and the other in Autumn of 2007 (refer Appendix 6).
4.2.2 The Web Content Analysis Results

As suggested in the methodology mentioned in Chapter 3, the content analysis was structured by an adaptation of Heeter’s (1989) six dimensions of interactivity namely, Complexity of choice, Effort that users must exert, Responsiveness to the user, Monitoring of information use, Ease of adding information, and Facilitation of Interpersonal communication. But, this study had redefined and reconstructed Heeter’s dimensions of interactivity into five major interactivity features of Australian online newspapers’ websites, which were Content Availability and Choice, Communication Opportunity, Effort of users, Responsiveness, and finally, Customisation and Management of Information.

4.2.2.1 Content Availability and Choice

4.2.2.1.1 Value Proposition

Between year 2006 and 2007, Content Availability and Choice was found to be the most prevalent dimension of interactivity, which featured prominently than other interactivity dimensions, especially in the top four Australian online newspapers; the Daily Telegraph, Herald Sun, Sydney Morning Herald, and The Age. The Value Proposition from Content Availability and Choice that contain news information (as shown in Figure 4.1 and Table 4.1), indicated an increase for all twelve newspapers in the amount of news on their homepage although not all top stories provided relevant links within the same issue.

Comparing 2006 to 2007, The Canberra Times (CT) and Western Australian (WA) especially, demonstrated more than 80 percent increase in the number of news articles placed on the home page, followed by the Australian Financial Review (AFR) with a 75 percent increase. As reflected in Figure 4.1, all twelve online newspapers revealed a major growth in terms of news articles placed on their home pages, articles with pictures and videos (Y axis is referring to total numbers or frequency). In addition, within a time frame of one year, there were extensively more online newspapers displaying news articles with pictures and videos.
Prominently, eight of the twelve online newspapers had offered more relevant links within the same issue. At that point in time (in year 2007), The Canberra Times (CT), Western Australian (WA), Northern Territory (NT), and The Age were excluded from this item. However, CT had made an improvement by setting up news alerts such as Really Simple Syndication or generally called, RSS. The RSS is a family of web feed formats used to publish frequent news update, like weblog entries, news headlines, audio, and video in a standardised format (cited in Wikipedia). Meanwhile, WA has progressed by displaying news updates in their online newspaper (refer Table 4.1). In general, all online newspapers featured news updates such as ‘Breaking News’, ‘Latest News’, or ‘News Wire’.

News archive was the other most available features of Content Availability and Choice – Value Proposition, which contained news information elements for Australian online newspapers. Conversely, not all online newspapers websites offered digital news or e-paper (electronic newspaper) except for The Daily Telegraph (DT), The Australian Financial Review (AFR), The Australian (Aus), and The Western Australian (WA).

According to Leckner and Appelgren (2007), e-paper, which stands for electronic paper is actually conceived exactly from print newspaper version into lightweight paper form with low-power, and flexible digital device. For instance, iRex iLiad and Sony Reader
(Ihlström et al. 2009). This technology however, is still not as advanced and fast-growing as online news channels or online news edition. Uniquely, AFR provided the time and source of news (e.g.: Reuters and AAP) in each of their news articles. AFR unfortunately, launched a subscription service in mid year 2006 and as a result, it had limited the study by restricting free content analysis of their website.

Table 4.1 illustrates the Value Proposition changes in all twelve newspapers in terms of relevant links, news updates, news alerts, news archive, and digital news growth between 2006 and 2007.

<table>
<thead>
<tr>
<th>Online newspaper</th>
<th>Relevant Links</th>
<th>News Updates</th>
<th>News Alerts (RSS)</th>
<th>News Archive</th>
<th>Digital News (E-paper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Canberra Times</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Western Australian</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Herald Sun</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Daily Telegraph</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>The Courier Mail</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Advertiser</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
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<tr>
<td>The Mercury</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Northern Territory News</td>
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<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
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<td>The Australian</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<td>Sydney Morning Herald</td>
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<td>2</td>
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<tr>
<td>The Age</td>
<td>1</td>
<td>2</td>
<td>2</td>
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<td>1</td>
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<tr>
<td>The Australian Financial Review</td>
<td>4</td>
<td>2</td>
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</tbody>
</table>

1=No to No; 2=Yes to Yes; 3=Yes to No; 4=No to Yes

4.2.2.1.2 Peripheral Value Proposition

In addition to these Value Proposition (VP) elements in Content Availability and Choice, Peripheral Value Proposition (PVP) elements too had some significant findings. Overall, eight out of fifteen items of PVP (53 percent) had showed tremendous increment. The eight items were Sitemap, Search engine, Company’s background, Advertisements, Entertainment Guide, Audio, Photos, and Cartoons. Other insignificant items, which remained the same within the two years period, were Events calendar,
Weather, and Contests. Meanwhile, Graphs, charts, and currency converter, Games, and Company offering Job offers had a slight decrease from year 2006 to 2007 (for details, refer to Figure 4.2). Unfortunately, among the twelve online newspapers websites, none of them offered Choice of Language.

![Diagram showing peripheral value proposition comparison between 2006 and 2007](image)

**Figure 4.2: Peripheral Value Proposition on 12 Australian Online Newspapers Year 2006 and 2007**

In detail, The Western Australian, The Mercury, and The Advertiser demonstrated positive growth with six news items added on PVP from 2006 to 2007 (items which only existed or reflected in year 2007), followed by five and four items, respectively. The majority offered sitemaps except The Canberra Times (CT) and The Northern Territory News (NT). The Canberra Times offered an in-house search engine similar to the online newspapers owned by News Corporation – Herald Sun, The Advertiser, The Australian, The Courier Mail, The Daily Telegraph, The Mercury, and Northern Territory News. Others that were under Fairfax Digital – The Age, The Australian
Financial Review, and Sydney Morning Herald, and The Western Australian offered both, internal and Yahoo search engine but none had Google as the search engine. The Western Australian, Advertiser, and the Mercury Australian and Canberra Times started to place editorial cartoons on their homepage in 2007, to join others, except for AFR, and the Herald Sun. As for Northern Territory, the online newspaper does not display on the front page but they provide a link to this feature.

Meanwhile, large amount of advertisements appeared on the homepages. The growth on Advertisements, as in Figure 4.3, reflects an average amount of 10.67 advertisements in year 2007.

![Figure 4.3: Advertisements growth between 2006 and 2007](image)

In detail, the Northern Territory carried the most of it by having sixteen advertisements in year 2007. On the contrary, AFR had displayed the least advertisements on their front page, with only three advertisements in both years. Refer Figure 4.4 for details.
Figure 4.4: Advertisements of the 12 Australian Online Newspapers. Year 2006-2007

The majority of online newspapers websites had space allocated for their Company's background and internal job opportunity, Weather, Events calendar, Entertainment guide, Audio, Photos, and Cartoons (except AFR) at their homepage. Unexpectedly, Northern Territory online newspaper website was the only online site going out of their way to satisfy users' by adding the games element at their home page. Few online newspapers websites included Contests except for The Advertiser and The Mercury. In the meantime, The Age and AFR provided graphs particularly for business investors to check on stock updates and currency converter. For details on individual growth and changes, refer to Table 4.2.
<table>
<thead>
<tr>
<th>Online newspaper</th>
<th>Sitemap</th>
<th>Search Engine</th>
<th>Choice of Language</th>
<th>Company's Background</th>
<th>Company offering Job offers</th>
<th>Graphs, Charts and Currency Converter</th>
<th>Weather</th>
<th>Events Calendar</th>
<th>Games</th>
<th>Contests</th>
<th>Entertainment Guide</th>
<th>Audio File</th>
<th>Photos</th>
<th>Cartoons</th>
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<tbody>
<tr>
<td>CT</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
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<tr>
<td>AFR</td>
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<td>3</td>
</tr>
</tbody>
</table>

1=No to No; 2=Yes to Yes; 3=Yes to No; 4=No to Yes
4.2.2.2 Effort of Users

In Effort that users must exert, which designates simple navigation, results showed that archive news were the items where registration was required the most, other than membership, accessing e-paper, and/or the mixture of all the rest were at minimum. Figure 4.5 revealed the growth from year 2006 to 2007 in terms of news clicks, registration for memberships, archives, and others.

![Graph showing effort users must exert on registration, Year 2006-2007](image)

Figure 4.5: Effort Users Must Exert on Registration, Year 2006-2007

Results showed that majority of online news articles were retrieved using a single click (direct link to news article) from the homepage (front page). For example, news headlines and top news, which were placed in the middle of the front page required only a single click to view full article. As McMillan et al. (2008) commented, these were dominant forms of interactive features available on the website. This is in line with Massey and Levy (2000) who also found ‘hard’ news published and were carried through at least with one link. News, which were clicked twice and/or more were news links to relevant news (normally placed at top or side of the front page), archives, international news or links to other news website. The more clicks for readers, indicate the more effort for them to retrieve or get into the full news. As a result, this may cause exhaustion, loss of and reduced interest by the reader to continue reading the online newspaper. Hence, easy and direct navigation is a key focus of this study.
Figure 4.6 summarized the total of twelve online newspapers scenario based on a single and double-clicks effort to retrieve news article in two different years. Overall, the single click effort had increased from an average amount of 48.5 in the year 2006 to 71.2 in the year 2007 (Y axis is referring to average amount). A different situation was reflected for the double-click effort, which reflected an 18.8 average reduction from year 2006 to 2007.

Figure 4.6: Effort Users Must Exert on Retrieving News Articles, Year 2006-2007

Meanwhile, Figure 4.7 (above) indicates the growth in terms of number of clicks required to retrieve news article from the twelve (individual) online newspapers in year 2006 and 2007. The Y axis is referring to number of clicks. Comparatively, The
Canberra Times, Western Australian, and AFR were the top three online newspapers websites that provide the most news with a single click with an average of 80 percent of increase. Meanwhile, The Canberra Times and The Daily Telegraph had decreased the amount of news using the two clicks. Generally, not many online newspaper offered news by having to make 3 and/or more clicks to retrieve news except for displaying previous news, but these only applied to The Australian and Sydney Morning Herald.

In terms of connectedness, the links within the same site (in-house links) were found more frequently than links to other sites. As mentioned by Ha and James (1998), most companies only wanted to detain their visitors to the connected world of the company and not to other sources. Result showed that the links within the same sites (in-house links) are more than the links to other sites, with an increase of more than 50 percent in each year. In detail, links within the same site had increased by 20.58 in year 2007. Meanwhile, links to other sites only had a slight rise, at an average of 5 from year 2006 to 2007. Refer Figure 4.8. The Y axis is referring to average amount of links.

![Figure 4.8: Effort Users Must Exert on Links (in-house or to other websites), Year 2006-2007](image)

### 4.2.2.3 Communication Opportunity

On Communication Opportunity, the majority of online newspapers provided video clips and audio files. Besides video and audio for sessional communication opportunities, games were one of the most outstanding elements and Northern Territory News was the one and only online newspaper that provided it’s users with 15 online games in year 2007. The online newspaper displayed the online games on the front page. Likewise, The Courier Mail and The Mercury, provided online games, but placed
it in a specific column called Fun Column, and SMH and The Age offered a column called Crossword, which required subscription.

In Semi Permanent communication, all online newspapers offered discussions and some (excluding AFR, CT, and NT) had bulletin boards. For the Permanent Communication Opportunity, results showed that CT, HS, DT, Ad. AUS, SMH, and Age had offered opinion columns and weblogs (or blogs). These features confer readers the opportunity to interact and draw comments in addition to other channels such as Letters to Editor and Feedback columns that were generally available.

![Figure 4.9: Communication Opportunity, Year 2006-2007](image)

Figure 4.9 (above) summarized Communication Opportunities, which contained items under Sessional communication: chat room, videos, audios, and games, Semi Permanent communication: discussion and bulletins, and finally, Permanent communication; as like weblogs. Besides that, other communication items are reporter’s email address placed in the news article where the reader is able to forward news articles (the Y axis is referring to frequency). Results have shown that most items had risen from year 2006, except for games and reporters email, which decreased and stagnated. Neither chat rooms nor a reporter’s direct email on a news article was found in this study.
4.2.2.4 Responsiveness

In respect of Responsiveness, two items had been analysed – the System Response Time and User Response Time. As a result, AFR was placed in the medium category with an average of system response time (of within 6-10 seconds). This may be due to the factor of consigning frequent graphs, charts, and currency converter on to the home page. In terms of the User Response Time, some online newspapers (CT, DT, AUS, and AFR) made it available, but some did not. For those available, online readers were expected to receive notification of email, response from reporter or editor on average time of within 72 hours. Both years, reflected almost the same results and Figure 4.10 (below) represents the supporting description.

![System and Users Response Time Diagrams](image)

Figure 4.10: System Response Time (left) and Users Response Time (right)

4.2.2.5 Customisation and Management of Information

Other interactivity elements were equally poor, with respect to customization and management of information as many were not clear on their privacy policy at that point of time, and even though the privacy link was displayed (mainly placed at the bottom page or left side of the home page). For example, The Canberra Times had no information on customer’s full access to the collected information and no contact details were provided. In the meantime, neither Hit counters nor Personalization was favoured by any of the Australian online newspapers.
4.2.3 Summary on the Preliminary Study

The first attempt in Phase 1 was actually an exploratory study of online news websites. Overall results demonstrated the growth and development of the interactivity in online news from year 2006 and 2007. The rationale of having Phase 1 was to have some basic understanding on the nature of the Australian online newspapers’ websites. The online news websites, which were examined were selected originally from print-based newspapers, which were made available in both media channels; printed version and the web. Appendix 5 and Appendix 6 reflected the whole snap-shots of the twelve Australian online newspapers.

The online analysis of content and layout have been reviewed by using Interactivity concept adapted from Hecter’s (1989) and reconstructed to suit the current online news website study. The Interactivity concept generally involved Content Availability and Choice, Communication Opportunity, effort of users, responsiveness, and customisation and management of information dimensions that were used to measure the front page features from online newspapers.

In the overall result, the most prevalent dimension of interactivity in online news websites was Content Availability and Choice – Value proposition and Peripheral value proposition, which was considered a source-oriented interactivity dimension of disseminating news and non-news information. The next most commonly found dimension of interactivity was Communication Opportunity that invited user to participate and interact. The prevalence of the Communication Opportunity dimension can be attributed to the common presence of discussion forum, weblogs, bulletin boards and forwarding articles. Games and chat rooms were found least available in online news websites.

In examining Effort of users, the study noted that many online news websites used a single click, from the front page to get the full news article. While system response time was found high, the user response time was treated as a low level of interactivity as most websites did not make this feature (reporter’s email address) available in each article. According to Paul (2005), reporters nowadays do not make their email address available as it invited more time to confront and to keep the personal communication on
with the reader or sender. On the other hand, weblogs, forums and chats were better communication channels; these were more interactive and able to reach bigger audiences. This study also found low levels of explicit customisation and management of information. In the preliminary stage there were still some unclear information on privacy policy, unpopular usage of hit counters and less personalised features available.

Amongst the twelve online news websites, The Western Australian had tremendous change from displaying simple website to competitive and attractive layout by providing more news links, pictures and also online advertisements. Nevertheless, The Canberra Times also had significant changes by increasing news links, columns such as regional news folder at top right of the page, ‘Send us your news’ and ‘Reader’s Poll’ at the centre or the page, and the most viewed articles, which were placed at the bottom page. Despite marginal changes on SMH and The Age news sites, both online news websites actually shared similar layout except curtain differences on content and features’ settings, for example placement of the National and World news. Some contents like ‘Column 8’, ‘Entertainment Weblogs’ and ‘Obituaries ‘Column were not even included in The Age’s online newspaper website.

In the interim, the year 2007 snapshot showed distinctive development of coherent image and standardization by the big company like Fairfax and News Corporation. The Courier Mail and The Australian online newspapers, which were owned by News Corporation, maintained the same layout across both years. The layout for the Herald Sun, Daily Telegraph, Advertiser and Mercury during the study appeared to resemble The Courier Mail’s website design. Specifically, the Herald Sun and Daily Telegraph menu folder was shifted from the left to top of the page to incorporate a ‘multimedia’ screen at the centre and at the bottom of the page. The Advertiser, was later renamed Adelaide Now, carried a similar design but with different colour presentations. There was also a new look for The Mercury, which had additional columns such as ‘Your Say’, ‘Our Say’, and ‘Entertainment: Gigs and Events’, which were included in the new look.

Finally, the Northern Territory was categorised or chosen as having the simplest layout amongst all news sites under News Corporation. In 2007, the NT had displayed the
news page with no sitemap and most news links were reverted to the main News Corporation news website. No major changes were made for online newspapers, which were under Fairfax, except for a comprehensive layout for AFR as one of the main online sites for financial reviews. Ever since the Rural Press Ltd. merged with Fairfax on 9th May 2007, The Canberra Times layout became more coherent, similar to the other online newspapers, which were under Fairfax ownership, for example SMH and The Age.

4.3 Phase 2: The Initial Stage of Q Sort Results

4.3.1 Overview

This section presents the results and findings of the study conducted using the second method outlined in the Methodology chapter (Chapter 3). Earlier, in Phase 1, content analysis of the websites involving twelve Australian online news websites were used as part of the preliminary study (refer to Phase 1: Preliminary Study of Web-based Content Analysis Results). The Phase 1 results revealed the descriptive analysis and statistics to enable the researcher to have a clearer view of the nature of online news using interactivity dimensions. Meanwhile, in Phase 2, the Q-Methodology was used to divulge an understanding of users’ perceptions towards the changes in online news.

This Q-methodological approach had proven to be a very useful research method to explore people’s perceptions as its main strength is the systematic study and it collects subjective views of participants in a rigorous manner. In addition to that, Q-Methodology does not require a large population to be effectively applied. A Q-sample range within 30 to 50 individuals would be sufficient to produce meaningful results (McKeown and Thomas 1988).

The first Q Sort test (Phase 2) was conducted in Spring of 2007, which was the same year for the Phase 1 study. A total of thirty-four participants, involved Australian University students and staff were engaged in Phase 2. PCQ for Windows Academic Edition, Version 1.41 software was used to run the factor analysis on the sets of data. Results will be shared to further elucidate the users’ perspectives towards online news. Overall, the results from Phase 1 and Phase 2 revealed a good picture of the Australian perspectives on online news.
4.3.2 The Q Sort Results

This research study revealed the results of the first stage, Initial (Pilot) test of the Q-method study. Fifty Q-statements comprised of user views and perspectives on online newspapers were used in this study for the Q Sort. To facilitate the understanding from the results of the Q sorts, this study also categorised these statements into five major categories: Content Availability and Choice (News Related and None News Related), Communication Opportunity, Responsiveness, Effort and Knowledge of Users, and Customization and Management of Information (refer Appendix 1).

These five categories were similar to the interactivity dimensions used for content analysis of the websites in Phase 1 and Phase 4. However, some alteration had been made on the elements of these categories. For example, in Customization and Management of Information category, Trust and Loyalty element were added to this study replacing Privacy Policy. Other elements that had been changed and/or added were Control and Lifestyle from Effort and Knowledge of Users, and Accessibility and Source of Information from Communication Opportunity category.

All these changes were made based on the researcher’s understanding from selected literature reviews of what people perceived towards the constant changes in online news and the significance of it as a source of information and news. Therefore, the Q-statements had been made accordingly in order to garner people’s perceptions. The categories for the statements were used later to evaluate and finalise the meaning of statements from each of the factors. These categories helped to provide a detailed interpretation of the statements meanings and acted as an aid in describing the result findings in the later section.

Thirty-four participants were engaged in the Initial (Pilot) Test and successfully sorted fifty Q-statements, which were previously collected to reflect the range of views that the concourse participants had on their perceptions towards online newspapers. Using PCQ Windows Academic Edition, Version 1.41 software, a two-factor varimax solution was selected. The research study also analysed and reviewed other options including a three-factor and four-factor solution, but after examination of various possible factor solutions, a two-factor solution was chosen.
The two-factor solution explained 68 percent of the variance. A total of twenty-three participants were involved. The remaining eleven sorts indicated either little significance or were confounded with correlation on both factors. The first group contained sixteen participants (47 percent) dominantly loaded in Factor A, and only seven participants (21 percent) loaded on Factor B. While the study considered other factor solutions, a two-factor solution was adopted as it appeared to most clearly represent the views of the participants.

This study found substantial outcome for two-factor solution as results displayed with high correlation (0 and -28), high reliabilities (98 and 96), and low standard errors (31 and 47). The correlations express the relationship between factors. Based on Meloche and Cheng (2005), correlation is considered helpful to express a very specific part of a relationship and connection between sorts as reflected by their presence in the factors. A table of correlation provides the basic statistical relationship from, which factors are extracted.

Thus, the high correlation between factors indicates to similarity between the sorts; a lower correlation designates the extent of difference between the sorts. The correlation between the two-factors varied from 0 for Factor A to -28 for Factor B. The big difference between the two-factors meant, they have little in common. The reason for the variations in the correlations became clearer as each factor were reviewed in turn and then a comparison done between each of them. Details on correlations, reliabilities, and standard errors are as show in Table 4.3.

<table>
<thead>
<tr>
<th>Factors</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
<td>-28</td>
</tr>
<tr>
<td>B</td>
<td>-28</td>
<td>0</td>
</tr>
</tbody>
</table>

| Reliabilities: | 98 | 96 |
| Standard Errors: | 31 | 47 |

Table 4.3: Correlations, Reliabilities and Standard Errors of the Two-Factor

Results also identified that there were 16 consensus items were found in this study, and 24 items that distinguished items between the two-factors (refer Table 4.4). Consensus items are those that received the same or very similar, Q-sort values across factors.
They are items for which all participants held similar opinions. These statements neither help to characterise the sample population nor are useful for defining or characterising differences between factors.

On the contrary, distinguished statements can be extremely useful. These are statements that received wide-ranging scores between factors. Distinguish statements are helpful when it comes to distinguishing between factors and considering the differences in normalized scores (z-scores) item by item for the entire Q-sample. Statements with large normalized score (z-score) differences (both positive and negative) can help clarify differences between factors (also refer Appendix 7 on item scores arrays-varimax between the two-factor). This analysis allows for each factor to be characterised by a brief description of the perspective that it represents.

Table 4.4: Consensus and Distinguishing Statements for Factor A and B

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Factor A</th>
<th>Factor B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I get in-depth news from online newspaper.</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>9</td>
<td>I like more news and news headlines to be placed on the front page.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>I’m more concerned with news information rather than Website design.</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>21</td>
<td>I can even download graphics, wallpapers or postcards from online newspapers.</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>22</td>
<td>Online newspapers offer me choice of language.</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>24</td>
<td>I would place advertisements in online newspapers.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28</td>
<td>I can print the articles of online newspaper.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>If I contribute a comment most likely, my comments will be edited by editors.</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>35</td>
<td>I am able to forward the news by just sending hyperlinks to my friends.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>This is the fastest way for me to communicate directly to editors or journalists.</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>37</td>
<td>I rarely encounter any broken links when I read online newspapers.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>42</td>
<td>I prefer more scrollable pages to hypertext links for online newspaper.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>44</td>
<td>I have easy access on online newspaper because I have technical and computer skills.</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>47</td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>It’s trendy, fashionable to use the interactive and multimedia features available in online newspaper.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>Statements</td>
<td>Factor A</td>
<td>Factor B</td>
</tr>
<tr>
<td>----</td>
<td>---------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>2</td>
<td>I prefer to retrieve online newspaper using personal computer rather than mobile phone, Personal Digital Assistant or Wireless Local Area Network.</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>3</td>
<td>An online newspaper creates more ‘Freedom of speech’ and I am able to get less censored information.</td>
<td>-5</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>An online newspaper is just a copy of the print news.</td>
<td>-1</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>I can have access to online newspapers worldwide.</td>
<td>2</td>
<td>-4</td>
</tr>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
<td>4</td>
<td>-4</td>
</tr>
<tr>
<td>7</td>
<td>I am able to get local news even though I am away or at different state/country.</td>
<td>3</td>
<td>-4</td>
</tr>
<tr>
<td>10</td>
<td>An online newspaper provides me with latest news update (news break).</td>
<td>5</td>
<td>-2</td>
</tr>
<tr>
<td>11</td>
<td>An online newspaper is different from print as it has news with colour pictures, audio and videos.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>I likely read online newspapers for international and world affairs news.</td>
<td>1</td>
<td>-3</td>
</tr>
<tr>
<td>18</td>
<td>I am able to get extensive news through links and related links of that specific information.</td>
<td>2</td>
<td>-2</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>3</td>
<td>-2</td>
</tr>
<tr>
<td>23</td>
<td>Online newspapers provides me with useful features such as site maps, search engine and help page.</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>24</td>
<td>I would place advertisements in online newspapers.</td>
<td>-2</td>
<td>2</td>
</tr>
<tr>
<td>26</td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>I like to be involved in online discussion such as chat rooms, forums and bulletin boards.</td>
<td>-2</td>
<td>3</td>
</tr>
<tr>
<td>32</td>
<td>I am highly involved and feel like a part of the community.</td>
<td>-4</td>
<td>3</td>
</tr>
<tr>
<td>34</td>
<td>I can rank the articles or topics of online newspapers.</td>
<td>-3</td>
<td>2</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>4</td>
<td>-5</td>
</tr>
<tr>
<td>39</td>
<td>Editors or journalist respond to my queries or comments in a timely manner.</td>
<td>-5</td>
<td>1</td>
</tr>
<tr>
<td>43</td>
<td>Simple and direct navigation saves time and effort to retrieve news.</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>45</td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>-1</td>
<td>4</td>
</tr>
<tr>
<td>46</td>
<td>I fear that the quality of writing is less in the online news environment.</td>
<td>-2</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>-2</td>
<td>5</td>
</tr>
</tbody>
</table>

Therefore, the users’ perceptions on the constant changes in online news were analysed and interpreted based on the factor types, which emerged. The study named these two factors; Factor A as ‘Serious News Readers’, meanwhile Factor B as ‘Playful News Readers’. The initial results were shared in the 23rd Annual Q Conference for the Scientific Study of Subjectivity and also published in the *Journal of Human Subjectivity*, Hashim and Meloche (2007).
4.3.2.1 Factor A: Serious News Readers

Among the total of thirty-four participants, sixteen participants were in Factor A that contributed to 47 percent of the loading factor. In terms of demographic information, of the sixteen participants on Factor A, ten were females and six were males, which represented 63 percent and 37 percent, respectively. The majority in Factor A were full-time students. Among eleven full-time students, one was aged 17 and below, eight students from 18 to 24 years old, one student in the age range between 31 and 36, and another student was between the 37 and 42 years old range.

Another participant was a full-time student and was employed in a part-time job in the age range of 18 to 24 years old. The remainder were two part-time students with full-time employment (one between 25 and 30 years old, and the other was between 31 and 36), and one part-time student and also a part-time employee in the age range between 18 and 24 years old. Last but not least, one participant was in part-time employment, aged between 31 and 36.

The country of origin had also been identified. Factor A – the ‘Serious News Readers’ had four Australian, four non-Australian, and the other eight participants were identified as unknown, as they did not state their origin country in their profile information form. Details of the demographic information are explained in Table 4.5.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Ranges</th>
<th>Occupation</th>
<th>Origin Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>17 and below</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Australian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Australian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student &amp; Employed Part-time</td>
<td>Unknown</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Part-time Student &amp; Employed Part-time</td>
<td>Unknown</td>
</tr>
<tr>
<td>Male</td>
<td>25 - 30</td>
<td>Employed Full-time &amp; Part-time Student</td>
<td>Australian</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Employed Part-time</td>
<td>Australian</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Employed Full-time &amp; Part-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>37 - 42</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
</tbody>
</table>
The participants on Factor A strongly believed that online newspapers offer useful content and choice of news (Content Availability and Choice). Results indicated that Factor A had four items with high positive z-scores in this category. This showed that the participants in this group strongly believed that online newspapers offered useful content and a choice of news. The categories of statements they chose, which reflected on news related views were statement numbers:

No.12 (+5): I still rely on printed newspapers, television, and radio to get news.
No.10 (+5): An online newspaper provides me with latest news update (news break)
No.11 (+4): An online newspaper is different from print as I can read news with colour pictures, audios, and videos.
No.20 (+3): I ignore online advertising when I am reading online newspaper.

Another two categories in Factor A, which gained high z-scores (+4) are Communication Opportunity - Accessibility, and Connectedness - System Response Time. Those who were involved in Factor A recognized the online newspapers as valuable source of information and news. They preferred the easy and quick access of online newspapers from home. Furthermore, for them accessibility was also an important element and they favoured fast access to online newspapers. The statements they chose, which reflected these two categories were as below:

No.6 (+4): It is quick and easy to access online newspapers from home.
No.38 (+4): I prefer immediate (fast) access when I am in online newspaper.

Moreover, they even took control on whether to read the online news immediately or later, No. 40 (3) (+3). They were also dependent upon the accessibility of online newspapers. In addition, this factor was concerned with access to the news, for example, No. 7 (+3): “I am still able to get local news even though I am away or at different state/country” and No. 5 (+2): “I can have access to online newspapers worldwide”. It was important for them to be able to save time and effort, as they wanted simple and direct navigation to retrieve news; No. 43 (+2). These people were also highly equipped with technical skills and computer knowledge. That was the reason why they chose, for example, No. 44 (+3): “I have easy access on online newspaper because I have technical and computer skills”. Therefore, this study considered this group of participants as ‘Serious News Readers’.

\[\text{Hereafter the statement will be referenced without the word "statement".}\]
Table 4.6 contains *strongly disagreed* and *agreed* list of statements in Factor A. There are eleven *strongly agreed* statements and nine *strongly disagreed* statements using normalized factor scores or z-scores of ± 1 as a criterion of selecting statements.

### Table 4.6: Factor A - Descending array of z-scores (±1), Statements and Categories

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly agreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>2.267</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>10</td>
<td>An online newspaper provides me with latest news update (news break).</td>
<td>1.820</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
<td>1.775</td>
<td>Communication Opportunity: Accessibility</td>
</tr>
<tr>
<td>11</td>
<td>An online newspaper is different from print as I can read news with colour pictures, audios &amp; videos.</td>
<td>1.484</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>1.341</td>
<td>Connectedness: System Response Time</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>1.335</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>1.328</td>
<td>Effort and Knowledge of Users: Control Communication</td>
</tr>
<tr>
<td>7</td>
<td>I am still able to get local news even though I am away or at different state/country.</td>
<td>1.270</td>
<td>Opportunity: Accessibility Effort and Knowledge of Users</td>
</tr>
<tr>
<td>43</td>
<td>Simple and direct navigation save time and effort to retrieve news.</td>
<td>1.198</td>
<td>Communication Opportunity: Accessibility</td>
</tr>
<tr>
<td>44</td>
<td>I have easy access on online newspaper because I have technical and computer skills.</td>
<td>1.198</td>
<td>Effort and Knowledge of Users Communication opportunity: Accessibility</td>
</tr>
<tr>
<td>5</td>
<td>I can have access online newspapers worldwide.</td>
<td>1.166</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly disagreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>I login to get important developments related to business and financial news.</td>
<td>-1.011</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>31</td>
<td>I participate in the discussion because the issues or news are relevant to me.</td>
<td>-1.062</td>
<td>Communication Opportunity: Connected Communication</td>
</tr>
<tr>
<td>34</td>
<td>I can rank the articles of online newspaper.</td>
<td>-1.095</td>
<td>Opportunity: Connected Communication</td>
</tr>
<tr>
<td>49</td>
<td>It's part of my routine to read online newspaper every day.</td>
<td>-1.114</td>
<td>Effort and Knowledge of Users: Lifestyle</td>
</tr>
<tr>
<td>17</td>
<td>I login to online newspaper to search on archives news.</td>
<td>-1.289</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>13</td>
<td>I am heavily relying on online newspapers for local news and information.</td>
<td>-1.296</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>32</td>
<td>I am highly involved and feel like a part of the community.</td>
<td>-1.561</td>
<td>Communication Opportunity: Connected</td>
</tr>
<tr>
<td>3</td>
<td>An online newspaper creates more 'Freedom of speech' and I am able to get less censored information.</td>
<td>-1.581</td>
<td>Content Availability and Choice: News Related Responsiveness</td>
</tr>
<tr>
<td>39</td>
<td>Editors or journalist will response my queries or comments in timely manner.</td>
<td>-1.736</td>
<td></td>
</tr>
</tbody>
</table>

---

4.3.2.2 Factor B: Playful News Readers

Factor B represented only seven participants. Demographic results revealed that these seven participants in this factor were the International students. Factor B was comprised six female post-graduate students (86 percent) and one post-graduate student was a male (14 percent) aged between 31 and 36 years old. They were mostly full-time students; two were in the age range of 25 to 30 years old, three of them were students were between 31 and 36 years old, and one was between 43 and 48 years old range. Another participant was employed part-time, aged between 18 to 24 years old range. Surprisingly, participants in Factor B were all none Australian (refer Table 4.7).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Ranges</th>
<th>Occupation</th>
<th>Origin Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student &amp; Employed Part-time</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>43 - 48</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
</tbody>
</table>

Table 4.7: Demographic Information for Factor B

The Q-sort results signified that those in Factor B recognized the advanced features offered in online newspapers. However, they still relied on other sources to get news (No. 12; +5). They initially doubted the credibility and quality of news offered from online newspapers, choosing No. 48 (+5), “There is little credibility and legitimacy of information that I get from online newspaper” and No. 46 (+3), “I fear that the quality of writing is less in the online news environment.” But once they had developed trust and loyalty towards the organization or news company (No. 45; +4), they appeared to be willing to not only obtain news from reading online news, but also to contribute their thoughts and ideas (No. 27; +4).

The uniqueness of this group in Factor B is the level of involvement and participation in non news-related activities. The result indicates their interest in participating in polls, surveys, games, puzzles and contests (No. 26; +4). This suggests that Factor B participants not only contributed their ideas in this medium, but they were also actively seeking non news-related items when they visited online newspapers. Therefore, this study categorised this group of participants in Factor B as ‘Playful News Readers’.
Table 4.8 encloses a list of statements, which reflects Factor B’s characteristic. The list contains six strongly agreed statements and five strongly disagreed statements. On the disagreed site, those in Factor B ignore accessibility (Nos. 7, 5 and 6) and immediate or fast access (No. 38) that could be offered by online newspapers.

Table 4.8*: Factor B - Descending array of z-scores (±1), Statements and Categories

<table>
<thead>
<tr>
<th>Item number</th>
<th>Strongly agreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>2.267</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>48</td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>1.360</td>
<td>Customization and Management of Information: Trust/ Loyalty</td>
</tr>
<tr>
<td>27</td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>1.286</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
<tr>
<td>26</td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>1.243</td>
<td>Content Availability and Choice: Non-news Related</td>
</tr>
<tr>
<td>45</td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>1.173</td>
<td>Customization and Management of Information: Trust/ Loyalty</td>
</tr>
<tr>
<td>6</td>
<td>I fear that the quality of writing is less in the online news environment.</td>
<td>1.146</td>
<td>Customization and Management of Information: Trust/ Loyalty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item number</th>
<th>Strongly disagreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>I am able to get local news even though I am away or at different state/country.</td>
<td>-1.333</td>
<td>Communication</td>
</tr>
<tr>
<td>5</td>
<td>I can have access to online newspapers worldwide.</td>
<td>-1.352</td>
<td>Opportunity: Accessibility Communication</td>
</tr>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
<td>-1.427</td>
<td>Opportunity: Accessibility Communication</td>
</tr>
<tr>
<td>14</td>
<td>I favour online news as my source of information in getting national news.</td>
<td>-1.462</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>-1.528</td>
<td>Connectedness: System Response Time</td>
</tr>
</tbody>
</table>

4.3.3 Summary of the Initial Stage of the Q Sort Study

In 2007, the First Stage of Q-Methodology had been done using PCQ Windows. Thirty-four Australian University participants successfully sorted 50 Qsorts’ statements that were collected to reflect the range of views. The statements were gathered to collect their perceptions on the constants changes in online news. Factor analysis using varimax factor rotations were performed on the data. The analysis reviewed options

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including a three-factor and four-factor solution. However, after examination of various possible factor solutions, the two-factor solution was chosen.

The two-factor solution explained 68 percent of the variance, with a total of twenty-three participants. The remaining eleven sorts indicated either little significance or were confounded correlation with both factors. Results from the Initial Stage of the Q-study aligned with 16 participants in Factor A (47 percent) and 7 participants in Factor B (16 percent). The study finally named these two factors; Factor A as ‘Serious News Readers’, and Factor B as ‘Playful News Readers’.

4.4 Chapter Summary

This chapter has revealed results of the Initial Stage on analysis of interactivity using content analysis of the online news website and the Q-study. Phase 1 was the Preliminary studies of content analysis of twelve Australian online news websites, which was done in year 2006-7. In 2007, Phase 2 was done and thirty-two participants from University of Wollongong participated in Q-study.

In Phase 1, the most prevalent dimension of interactivity in online news websites was Content Availability and Choice – Value Proposition and Peripheral Value Proposition, which was consider as a source-oriented interactivity dimension of disseminating news and non-news information. The next most commonly found dimension of interactivity was Communication Opportunity, which invited the user to participate and interact. The prevalence of the Communication Opportunity dimension could be attributed to the common presence of discussion forum, weblogs, bulletin boards and forwarding articles. Games and chat rooms were found least available in online news websites. In Effort of users, many online news websites used a single click to get to full news article. The System Response Time was found high, whereas, the User Response Time was treated as low level of interactivity. This study also found low levels of explicit Customisation and Management of Information.

Phase 2 results revealed the two types of groups; the ‘Serious News Readers’, who read more on news related items, and the ‘Playful News Readers’, who preferred the non-
news related items when they were in online news websites. This two-factor solution was chosen to best describe how people perceive the constant changes on online news. In summary, results from Phase 1 and Phase 2 have indicated some basic understanding on the nature of the content and layout of Australian online newspaper websites and people’s perception towards the constant changes in online news, particularly in the year of 2006-2007. Furthermore, both results gathered local data, as it showed the Australian perspectives. The next chapter (Second Stage results) would disclose results, which represented a larger picture of people’s views and also the extended growth and development of the nature of online newspapers websites.

Whilst, Factor A and B have a strong and incontrovertible correlation, there are still differences between these two groups. The z-values differences between factors analysis results accentuate number of statements, which signify the differences that are listed in Table 5.3. The data (from the table) resemble of dissimilarity especially on accessibility (No. 2, 5, 6, and 7) and news related (No. 10, 14, and 16) categories as the z-score value reflected some variances between these two groups.
CHAPTER FIVE
SECOND STAGE YEAR 2008-2009 RESULTS AND ANALYSIS

5.1 Introduction
This chapter reveals the results and findings of the Second Stage of the research study. As in Initial Stage, the Second Stage also contained two phases. Phase 3 involved the second Q Sort test with more extensive and larger group of participants, which was done in 2008. Meanwhile, Phase 4 involved the revisit of the content analysis of twelve newspaper websites, done in 2009. Both, Phase 3 and Phase 4 used similar approaches, including the process and procedures that had been outlined in Chapter 3. The findings from all the data analysis from Phase 1 to Phase 4 will be explained and interpreted in Chapter 6.

5.2 Phase 3: The Second Stage of Q Sort Results

5.2.1 Overview
This section present results and findings of the study conducted using Q-Methodology, which was outlined in Chapter 3. Phase 3 is the second Q Sort phase, which was more extensive and contained a larger group of people to collect views on the constants changes in online news. In the earlier stage, the Q Sort in Phase 2 was the preliminary study, which involved only thirty-four participants from Australia but in Phase 3, there were a total of eighty-four participants from Australia and Malaysia. Participants included undergraduates, graduates students, academics and other staff in the university. It was assumed that this group was relatively representative of the typical group of Internet users. The overall demographic data of eighty-four participants is shared in the Appendix 9.

5.2.2 The Q Sort Results
In the Q-Methodology, the Q sorts represented as variables and the factors produced signified the groups of people with similar patterns of responses captured during the sorting process. In this case, the factor loading indicated the viewpoints of people on the constant changes in online news.
In Phase 3, a four-factor of varimax solution was made the best selection after having analysed and reviewed other options including the two-factor, three-factor and five-factor solutions. The validations of variances varied from 65 percent, 56 percent, and 59 percent for the two-factor, three-factor and five-factor models respectively. The four-factor solution was selected for interpretation as it appeared to most clearly represent the range of views of the participants. It explained with sixty-two of the eighty-four participants loading significantly on the factors, which represented 74 percent of the variation. The remaining twenty-two participants, 26 percent, indicated either non-significant or were confounded with correlation on these factors. The significant level of 36 was set as the cut off level for this study.

The four-factor analysis comprised of eighty-four sorts with sixty-three female (75 percent) and twenty-one (25 percent) male participants. Among these sorts, forty-three consists of Australian students and staff and forty-one others were Malaysian students and staff. Factor A, was dominantly loaded with thirty-two participants (38 percent), followed by Factor B with seventeen (20 percent), six participants in Factor C (7 percent), and finally, Factor D consists of seven participants (8 percent of loading percentage).

Results identify the correlation between these four-factor scores (refer Table 5.1) indicating a significant degree of similarity and differences among them. The four-factor correlations showed two indicators; strong relationships between Factor A and B with factor correlation reflected as 47. Meanwhile, another Factor is between C and D, whereby the factor correlation was revealed as 1. This denote, Factor A and B, designate high percentages of cohesion of the Q-sort responses with the factors defined by other users’ perceptions and experiences. Conversely, for Factor C and D, as these users had least in common with factor correlation scored at 1, they revealed differences in terms of their perceptions towards online newspapers. The variation of the four-factor correlations is best explained in below table.
On the other hand, of the four-factor solution that was chosen as the best guided criteria and an ultimate selection, these four groups still shared some similarities and differences based on consensus and factor correlations results. There were two consensus statements reported. The first, in one consensus, the mass view scored positive z-score and agreed on item No. 40, “I can choose to read the news immediately or later”, interpreted as the readers were in control, as they could choose to read online news instantly (immediate) or later (refer Table 5.2).

The second consensus reflected on credibility and legitimacy of information of online news websites. All of them disagreed on, “There is little credibility and legitimacy of information that I get from online newspaper”, which was item No. 48. From these two statements, they illustrated the meaning of control (from No. 40) and trust (from No. 48) as the group believed that they were able to control access to and read of the online news and also had some credibility and legitimacy of information, which prompted them to read online news. Table 5.2 (below) illustrates the two consensus statements and also reveals details of distinguishing items between the four-factors.
Table 5.2: Consensus and Distinguished Statements between Four-Factor

### Two consensus statements

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
<th>Factor D</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>-3</td>
<td>-2</td>
<td>-3</td>
<td>-2</td>
</tr>
</tbody>
</table>

### One Item Distinguished Factor A from all other factors

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
<th>Factor D</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspaper from home.</td>
<td>5</td>
<td>-1</td>
<td>-2</td>
<td>1</td>
</tr>
</tbody>
</table>

### One Item Distinguished Factor B from all other factors

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
<th>Factor D</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>I favour online news as my source of information in getting national news.</td>
<td>2</td>
<td>-4</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

### Five Items Distinguished Factor C from all other factors

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
<th>Factor D</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>I can have access to online newspapers worldwide.</td>
<td>4</td>
<td>2</td>
<td>-3</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>I am able to get local news even though I am away or at different state/country.</td>
<td>5</td>
<td>4</td>
<td>-4</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>I always refer to online newspaper for latest jobs offers.</td>
<td>0</td>
<td>0</td>
<td>-5</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>I like to be involved in online discussion such as chat rooms, forums, and bulletin boards.</td>
<td>-4</td>
<td>-5</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>47</td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>-1</td>
<td>-1</td>
<td>3</td>
<td>-4</td>
</tr>
</tbody>
</table>

### Three Items Distinguished Factor D from all other factors

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
<th>Factor D</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>-4</td>
</tr>
<tr>
<td>33</td>
<td>I like weblog/blog in online newspaper because I can read and add my comments.</td>
<td>-2</td>
<td>-2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>45</td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>0</td>
<td>0</td>
<td>-1</td>
<td>-5</td>
</tr>
</tbody>
</table>
Table 5.3: Descending Array of Differences (+1) between Factor A and Factor B

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Statement Difference</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Z-score Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
<td>2.168</td>
<td>-0.139</td>
<td>2.308</td>
</tr>
<tr>
<td>16</td>
<td>I likely read online newspapers for international and world affairs news.</td>
<td>1.204</td>
<td>-0.608</td>
<td>1.812</td>
</tr>
<tr>
<td>49</td>
<td>It’s part of routine to read online newspaper everyday.</td>
<td>0.478</td>
<td>-1.288</td>
<td>1.767</td>
</tr>
<tr>
<td>14</td>
<td>I favour online news as my source of information in getting national news.</td>
<td>0.926</td>
<td>-0.737</td>
<td>1.663</td>
</tr>
<tr>
<td>5</td>
<td>I can have access online newspapers worldwide.</td>
<td>1.810</td>
<td>0.389</td>
<td>1.421</td>
</tr>
<tr>
<td>10</td>
<td>An online newspaper provides me with latest news update (news break).</td>
<td>1.474</td>
<td>0.163</td>
<td>1.311</td>
</tr>
<tr>
<td>7</td>
<td>I am still able to get local news even though I am away or at different state/country.</td>
<td>1.914</td>
<td>0.628</td>
<td>1.286</td>
</tr>
<tr>
<td>2</td>
<td>I prefer to retrieve online newspaper using personal computer rather than mobile phone or Personal Digital Assistant</td>
<td>1.061</td>
<td>0.030</td>
<td>1.031</td>
</tr>
<tr>
<td>43</td>
<td>Simple and direct navigation save time and effort to retrieve news.</td>
<td>1.381</td>
<td>0.369</td>
<td>1.031</td>
</tr>
</tbody>
</table>

Meanwhile, Factor C and D who had least in common (factor correlation scored 1), revealed utter dissimilarity between the two groups in terms of their perceptions towards online newspapers. Results from z-values differences between factors obviously evince that Factor C is fond of Trust and Lifestyle. Likewise, those in Factor D are highly depend on the Interactive feature (refer Table 5.4). Further on, the write-up on this research study will reveal the z-score values by individual factors and will elucidate detail on characteristics and demographic background, which further explain these four-factors. Consequently, the user’s perceptions towards online news were analysed and construed based on these consensus and distinguished statements, as well as the z-score values to match with categories and specification in giving meaning to each factor types. Thus, the study named these four-factor; Factor A as ‘Accessible’, Factor B as ‘Playful’, Factor C as ‘Loyal’, and lastly Factor D as ‘Connected’ news readers.
Table 5.4: Descending Array of Differences (±0.3) between Factor C and Factor D

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Statements</th>
<th>Factor C</th>
<th>Factor D</th>
<th>Z-score Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>It’s part of routine to read online newspaper everyday.</td>
<td>0.238</td>
<td>-0.412</td>
<td>0.650</td>
</tr>
<tr>
<td>47</td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>0.222</td>
<td>-0.396</td>
<td>0.618</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>0.274</td>
<td>-0.269</td>
<td>0.543</td>
</tr>
<tr>
<td>45</td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>-0.078</td>
<td>-0.269</td>
<td>0.527</td>
</tr>
<tr>
<td>30</td>
<td>I like to be involved in online discussion such as chat rooms, forums and bulletin boards.</td>
<td>0.170</td>
<td>-0.228</td>
<td>0.398</td>
</tr>
<tr>
<td>33</td>
<td>I like weblog/blog in online newspaper because I can read and add my comments.</td>
<td>0.033</td>
<td>0.431</td>
<td>-0.398</td>
</tr>
<tr>
<td>11</td>
<td>An online newspaper is different from print as it has news with colour pictures, audios and videos.</td>
<td>-0.042</td>
<td>0.402</td>
<td>-0.445</td>
</tr>
<tr>
<td>5</td>
<td>I can have access to online newspapers worldwide.</td>
<td>-0.254</td>
<td>0.320</td>
<td>-0.574</td>
</tr>
<tr>
<td>25</td>
<td>I always refer to online newspaper for latest job offers.</td>
<td>-0.369</td>
<td>0.209</td>
<td>-0.578</td>
</tr>
<tr>
<td>7</td>
<td>I am able to get local news even though I am away or at different state/country.</td>
<td>-0.261</td>
<td>0.352</td>
<td>-0.613</td>
</tr>
</tbody>
</table>

5.2.2.1 Factor A: Accessible News Readers

Factor A contained thirty-two participants, which contributed to 38 percent of total factor loading. This group consisted of twenty females and twelve males. The majority in Factor A were full-time students, consisting of twenty-three participants (72 percent), followed by two full-time students with part-time employment (6 percent). Three others were employed full-time (9 percent), another three participants were employed full-time and part-time students (9 percent), and finally, one was employed as a part-timer (3 percent).

Interestingly, the group of participants in Factor A represents varied in the range of ages and occupations. This group contained twelve Malaysians: six were international students studying in Australia, whilst four students and two staff were from a Malaysian university. From the Australian university participants, there were four Australians, thirteen were Non-Australians, and three others were identified as unknown as they did not declare their country of origin in the information form. Table 5.5 best describes the demographic information that had been mentioned above plus the age range for Factor A.

123
Table 5.5: Demographic Information for Factor A

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Ranges</th>
<th>Occupation</th>
<th>Origin Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian*</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Employed Full-time &amp; Part-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student &amp; Employed Part-time</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student &amp; Employed Part-time</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>Malaysian*</td>
</tr>
<tr>
<td>Female</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>Malaysian*</td>
</tr>
<tr>
<td>Female</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>Malaysian*</td>
</tr>
<tr>
<td>Male</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>Australian</td>
</tr>
<tr>
<td>Male</td>
<td>31 - 36</td>
<td>Employed Full-time</td>
<td>Malaysian*</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Employed Part-time</td>
<td>Australian</td>
</tr>
<tr>
<td>Female</td>
<td>31 - 36</td>
<td>Employed Full-time &amp; Part-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>31 - 36</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Female</td>
<td>37 - 42</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>37 - 42</td>
<td>Full-time Student</td>
<td>Malaysian*</td>
</tr>
<tr>
<td>Female</td>
<td>43 - 48</td>
<td>Full-time Student</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>43 - 48</td>
<td>Employed Full-time</td>
<td>Australian</td>
</tr>
<tr>
<td>Female</td>
<td>48 and above</td>
<td>Employed Full-time</td>
<td>Australian</td>
</tr>
</tbody>
</table>

Note*: Malaysian students studied in Australia

This study reveals that Factor A has a strong characteristic on accessibility. Based on the results, Factor A had four items scored with positive z-scores same or more than 1. This signified that this group strongly believed that online newspapers offered quick and easy access from home by using Personal Computers rather than mobile phones or Personal Digital Assistants. Moreover, they acknowledged that they were able to access online newspapers worldwide and get the local news even though they were away or in a different state or country. The categories of statements they chose, which reflected the accessibility views were statement numbers:
No.6 (+5): It is quick and easy to access online newspapers from home.
No.7 (+5): I am able to get news even though I am away or at different state/country.
No.5 (+4): I can have access to online newspapers worldwide.
No.2 (+3): I prefer to retrieve online newspaper using personal computer rather than mobile phone or Personal Digital Assistant.

Table 5.6 contains strongly disagreed and agreed lists of statements in Factor A. There are nine in each strongly agreed and disagreed list, using z-score of ± 1 as a criterion of selecting statements. Two other categories in Factor A, which were at high z-scores, were Content Availability and Choice – News Related, and Connectedness - System Response Time. Besides accessibility (mentioned earlier), this group (Factor A) also preferred immediate fast access when they were reading online newspaper. In addition, they favoured online newspapers as it provided them with latest news update. The statements they chose, which reflected these two categories were as below:

No.38 (+4): I prefer immediate (fast) access when I am in online newspaper.
No.10 (+4): An online newspaper provides me with latest news update (news break).

In regard to accessibility, of having quick and easy access, participants in Factor A had a preference for simple and direct navigation that led to saving time and effort upon retrieving the news, No. 43 (+3). Due to this reason, this group were able to choose reading the news either immediately or later, No. 40 (+3). Moreover, they were fond of reading international and world affairs news, No.16 (+3): “I likely read online newspapers for international and world affairs news”. This group can also be considered as an ‘out-going’ group due to the fact that they best referred to accessibility and easy navigation, fast in system response time, in control of reading the news plus sites being well equipped with international and world affairs, and recent news update. Thus, this research study considered this group of participants as ‘Accessible’ news readers.
Table 5.6: Factor A - Descending array of z-scores (±1), Statements and Categories

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly agreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
<td>2.168</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunity: Accessibility</td>
</tr>
<tr>
<td>7</td>
<td>I am still able to get local news even though I am away or at different state/country.</td>
<td>1.914</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunity: Accessibility</td>
</tr>
<tr>
<td>5</td>
<td>I can have access online newspapers worldwide.</td>
<td>1.810</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunity: Accessibility</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>1.547</td>
<td>Connectedness: System Response Time</td>
</tr>
<tr>
<td>10</td>
<td>An online newspaper provides me with latest news update (news break).</td>
<td>1.474</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>43</td>
<td>Simple and direct navigation save time and effort to retrieve news.</td>
<td>1.381</td>
<td>Effort and Knowledge of Users</td>
</tr>
<tr>
<td>16</td>
<td>I likely read online newspapers for international and world affairs news.</td>
<td>1.204</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>2</td>
<td>I prefer to retrieve online newspaper using personal computer rather than mobile phone or Personal Digital Assistant</td>
<td>1.061</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>1.030</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly disagreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>I participate in the discussion because the issues or news are relevant to me.</td>
<td>-1.007</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunity</td>
</tr>
<tr>
<td>34</td>
<td>I can rank the articles of online newspaper.</td>
<td>-1.196</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunity</td>
</tr>
<tr>
<td>48</td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>-1.273</td>
<td>Customization and Management of Information: Trust/Loyalty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Connectedness: User’s response time</td>
</tr>
<tr>
<td>39</td>
<td>Editors or journalist respond to my queries or comments in a timely manner.</td>
<td>-1.304</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
<tr>
<td>27</td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>-1.347</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
<tr>
<td>24</td>
<td>I would place advertisements in online newspapers.</td>
<td>-1.366</td>
<td>Content Availability and Choice: Non-News Related</td>
</tr>
<tr>
<td>30</td>
<td>I like to be involved in online discussion such as chat rooms, forums, and bulletin boards.</td>
<td>-1.501</td>
<td>Communication</td>
</tr>
<tr>
<td>32</td>
<td>I am highly involved and feel like a part of the community.</td>
<td>-1.543</td>
<td>Opportunity: Connected</td>
</tr>
<tr>
<td>26</td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>-1.894</td>
<td>Content Availability and Choice: Non-News Related</td>
</tr>
</tbody>
</table>

5.2.2.2 Factor B: Playful News Readers

Factor B was the second largest group among the four-factor (after Factor A), containing seventeen participants, which explained the 20 present variance of the loading factor. Demographic results revealed that all the participants in this factor were full-time students. Factor B comprised of thirteen females (76 percent) and four males (24 percent).
Aligned with the second largest group, fifteen of them were in the age range of 18 to 24 years, one was 17 years old and/or below, and another student was between 25 and 30 years of age. Notably, this group was dominated by full-time students. Eight of them were from an Australian university; two were Australian students, one Non-Australian student, one Malaysian student who was studying in Australia, and four others were identified as unknown. Another nine students were formerly from a Malaysian university (refer Table 5.7).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Ranges</th>
<th>Occupation</th>
<th>Origin Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>17 and below</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Australian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Australian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Non Australian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Unknown</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>Malaysian*</td>
</tr>
</tbody>
</table>

Note*: Malaysian students studied in Australia

Factor B, were readers who had an optimistic view towards the online news in contributing and appreciating non-news elements. They valued accessing online news websites potentially for leisure and perceived the online news as a space or platform to cooperate and participate while acquiring news through online sites. Table 5.8 demonstrates the list of statements with z-scores range of ± 0.5, which best described this group’s most agreed and disagreed statements towards online newspaper.

In Factor B, the factor analysis results showed that the group still relied on other sources to get news (No. 12; +5). They also preferred immediate access when they were using online newspapers (No. 38; +5). Furthermore, they acknowledged that online newspapers were different from print due to the fact that online news featured coloured pictures, audio, and videos (No. 11; +4). Accessibility is also an important element for
this group as they were able to get local news even though they were away, No. 7 (+4). One common statement that was shared across the whole group is No. 40, which Factor B group scored at +3, “I can choose to read the news immediately or later”.

Table 5.8: Factor B - Descending array of z-scores (+0.5), Statements and Categories

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly agreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>1.421</td>
<td>Content Availability and Choice: News Related Choice: News Related</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>1.019</td>
<td>Connectedness: System Response Time</td>
</tr>
<tr>
<td>11</td>
<td>An online newspaper is different from print as it has news with colour pictures, audios and videos.</td>
<td>0.776</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>23</td>
<td>Online newspapers provides me with useful features such as site maps, search engine and help page.</td>
<td>0.754</td>
<td>Content Availability and Choice: Non-News Related</td>
</tr>
<tr>
<td>7</td>
<td>I am able to get local news even though I am away or at different state/country.</td>
<td>0.628</td>
<td>Communication Opportunity: Accessibility</td>
</tr>
<tr>
<td>18</td>
<td>I am able to get extensive news through links and related links of the specific information.</td>
<td>0.571</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>0.508</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly disagreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>I participate in the discussion because the issues or news are relevant to me.</td>
<td>-0.515</td>
<td>Communication Opportunity: Connected</td>
</tr>
<tr>
<td>16</td>
<td>I can rank the articles of online newspaper.</td>
<td>-0.608</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>39</td>
<td>Editors or journalist respond to my queries or comments in a timely manner.</td>
<td>-0.681</td>
<td>Connectedness: User’s response time</td>
</tr>
<tr>
<td>14</td>
<td>Editors or journalist respond to my queries or comments in a timely manner.</td>
<td>-0.737</td>
<td>Connectedness: User’s response time</td>
</tr>
<tr>
<td>15</td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>-0.744</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>32</td>
<td>I am highly involved and feel like a part of the community.</td>
<td>-0.770</td>
<td>Communication Opportunity: Connected</td>
</tr>
<tr>
<td>30</td>
<td>I like to be involved in online discussion such as chat rooms, forums, and bulletin boards.</td>
<td>-0.827</td>
<td>Communication Opportunity: Connected</td>
</tr>
<tr>
<td>49</td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>-1.288</td>
<td>Effort and Knowledge of Users: Lifestyle</td>
</tr>
</tbody>
</table>

Two outstanding statements from Factor B that differed from other groups of four-factor were statements No. 23 (+4), “Online newspapers provides me with useful features such as site maps, search engine and help page”, and No. 18 (+3), “I am able to get extensive news through links and related links of that specific information”. Furthermore, from four-factor analysis results reported one distinguished statement, No. 14 (-4), “I favour online news as my source of information in getting national news”. Whilst this group conceded that the news-related items (No. 11, 12, and 18) were important, they also valued the non-news related items. Results also showed the z-
score for No.26 (+2) of 0.199, “I like to participate in polls, surveys, games, puzzles and contests”. Due to this reason, this group was considered different from other groups. Consequently, the uniqueness of Factor B group was on the level of involvement and participation in Non-news related activities, as mentioned in No. 23 and 26. Therefore, this study interpreted Factor B group as ‘Playful’ news readers.

### 5.2.2.3 Factor C: Loyal News Readers

The group in Factor C contained only six participants. This number contributes to 7 percent of the factor loading. Among these six participants, four of them were female (67 percent) and two were male (33 percent). All female participants were full-time students from Malaysia, at ages ranging between 18 to 24 years. Meanwhile, there was one Malaysian male in the age range of 37 to 42 years old and was employed full-time. Another male from an Australian university was identified as non-Australian, and as he did not declare his occupation and country of origin, both of this information was specified as ‘unknown’ in this study. All these information are as illustrated in Table 5.9.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Ranges</th>
<th>Occupation</th>
<th>Origin Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Male</td>
<td>18 - 24</td>
<td>Unknown</td>
<td>None Australian</td>
</tr>
<tr>
<td>Male</td>
<td>37 - 42</td>
<td>Employed Full-time</td>
<td>Malaysian</td>
</tr>
</tbody>
</table>

Table 5.10 revealed Factor C on mostly agreed and also disagreed statements from the four-factor results analysis. Whilst, the z-score was averaged below 0.5, there were still a few distinguished items from this analysis. Two distinguished items, which had positive z-scores, were item No. 47 and No. 30. Besides that, there were three other distinguished items; No. 5, 7, and 25, carrying negative z-scores. Other differences regarding the group in Factor C were that, they eventually ignored the online advertising when they engaged were with online newspaper (No. 20; +4), and item No. 49 (+3), “It’s part of my routine to read online newspaper every day”. However, one common statement that was shared or was similar across all four-factor groups including Factor C was No. 40 (+4), “I can choose to read the news immediately or later”.

129
<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly agreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>I favour online news as my source of information in getting national news.</td>
<td>0.362</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>0.349</td>
<td>Connectedness: System Response Time</td>
</tr>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>0.336</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>0.274</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>0.245</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
<tr>
<td>49</td>
<td>It’s part of my routine to read online newspaper every day.</td>
<td>0.238</td>
<td>Effort and Knowledge of Users: Lifestyle</td>
</tr>
<tr>
<td>44</td>
<td>I have easy access on online newspaper because I have technical and computer skills.</td>
<td>0.225</td>
<td>Effort and Knowledge of Users</td>
</tr>
<tr>
<td>47</td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>0.222</td>
<td>Customization and Management of Information: Trust/Loyalty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly disagreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>I can rank the articles or topics of online newspapers.</td>
<td>-0.212</td>
<td>Communication Opportunity: Connected</td>
</tr>
<tr>
<td>24</td>
<td>I would place advertisements in online newspapers.</td>
<td>-0.228</td>
<td>Content Availability and Choice: Non-News Related</td>
</tr>
<tr>
<td>48</td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>-0.238</td>
<td>Customization and Management of Information: Trust/Loyalty</td>
</tr>
<tr>
<td>5</td>
<td>I can have access online newspapers worldwide.</td>
<td>-0.254</td>
<td>Communication Opportunity: Accessibility</td>
</tr>
<tr>
<td>7</td>
<td>I am still able to get local news even though I am away or at different state/country.</td>
<td>-0.261</td>
<td>Communication Opportunity: Accessibility</td>
</tr>
<tr>
<td>26</td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>-0.303</td>
<td>Content Availability and Choice: Non-News Related</td>
</tr>
<tr>
<td>15</td>
<td>I login to get important developments related to business and financial news.</td>
<td>-0.307</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>3</td>
<td>An online newspaper creates more ‘Freedom of speech’ and I am able to get less censored information.</td>
<td>-0.365</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>25</td>
<td>I always refer to online newspaper for latest jobs offers.</td>
<td>-0.369</td>
<td>Content Availability and Choice: Non-News Related</td>
</tr>
</tbody>
</table>

Judging from all these statements, the study was able to interpret that Factor C had strong reliance on the characteristics of trust and lifestyle. Results showed two items scored with positive z-scores (No. 47 and 49) and the categories and specification of Trust and Lifestyle signified the differences from other four-factor group. The Factor C group favoured online newspaper as their source of national news (No.14; +5). Therefore, Factor C group treated online newspaper as part of their daily routine (No.49; +3) and they would choose online news from the print newspaper company (No.47; +3). Once the trust was built, they would be highly involved in online
discussion as in chat rooms, forums, and bulletins (No. 30; +2, “I like to be involved in online discussion such as chat rooms, forums and bulletin boards”).

However, this group had a conservative perspective as they did not refer to any advertisements, or place any online advertisement (No. 24; -3) nor find out on the latest job offers (No. 25; -5), as well as access local and worldwide online news whilst they were away (No. 7; -4, and No. 5; -3). Due to these reasons, this study named the Factor C group as ‘Loyal’ news readers.

5.2.2.4 Factor D: Connected News Readers

Factor D also represented a small scale of participants. There were a total of seven participants in this group, which contributed to 8 percent variance of the factor loading. Six females and one male were aligned with the forth factor group, explaining 85 percent versus 15 percent of differences in terms of gender. The majority of the participants in Factor D were full-time students in the age range of 18 to 24 years except for one, whose age was in the 25 to 30 years range. Six of them were from a Malaysian university, and one student was from an Australian university (refer Table 5.11).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Ranges</th>
<th>Occupation</th>
<th>Origin Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Female</td>
<td>18 - 24</td>
<td>Full-time Student</td>
<td>Malaysian</td>
</tr>
<tr>
<td>Male</td>
<td>25 - 30</td>
<td>Full-time Student</td>
<td>Australian</td>
</tr>
</tbody>
</table>

Contrary to the Factor C group, Factor D group had totally different and unique characteristics. The most notable and distinctive item in Factor D was item No. 33 (+5), as they were very likely to be engrossed in weblog once they were in the online newspaper sites. As a result, they preferred weblog as they were able to read and insert their comments simultaneously. Although this group was well-equipped with technical and computer proficiency (No. 44; +5), they also acknowledged that online newspapers were different from print news as it had colourful news pictures, audios, and videos.
(No. 11; +4), and they also favoured online news as their source of information for national news (No. 14; +4).

Table 5.12: Factor D - Descending array of z-scores (+0.5), Statements and Categories

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly agreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>I like blog/weblog in online newspaper because I can read and add my comments.</td>
<td>0.431</td>
<td>Communication Opportunity: Connected</td>
</tr>
<tr>
<td>44</td>
<td>I have easy access on online newspaper because I have technical and computer skills.</td>
<td>0.409</td>
<td>Effort and Knowledge of Users</td>
</tr>
<tr>
<td>11</td>
<td>An online newspaper is different form print as it has news with colour pictures, audios and videos.</td>
<td>0.402</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>14</td>
<td>I favour online news as my source of information in getting national news.</td>
<td>0.387</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>7</td>
<td>I am still able to get local news even though I am away or at different state/country.</td>
<td>0.352</td>
<td>Communication Opportunity: Accessibility</td>
</tr>
<tr>
<td>21</td>
<td>I can even download graphics, wallpapers or postcards from online newspapers.</td>
<td>0.349</td>
<td>Content Availability and Choice: Non-News Related</td>
</tr>
<tr>
<td>5</td>
<td>I can have access online newspapers worldwide.</td>
<td>0.320</td>
<td>Communication Opportunity: Accessibility</td>
</tr>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>0.317</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>0.311</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Strongly disagreed statement</th>
<th>Z-score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I prefer to retrieve online newspaper using personal computer rather than mobile phone or personal digital assistant.</td>
<td>-0.250</td>
<td>Communication Opportunity: Source of Information</td>
</tr>
<tr>
<td>36</td>
<td>This is the fastest way for me to communicate directly to editors or journalists.</td>
<td>-0.250</td>
<td>Communication Opportunity: Connected</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>-0.269</td>
<td>Content Availability and Choice: News Related</td>
</tr>
<tr>
<td>27</td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>-0.330</td>
<td>Effort and Knowledge of Users: Control</td>
</tr>
<tr>
<td>47</td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>-0.396</td>
<td>Customization and Management of Information: Trust/Loyalty</td>
</tr>
<tr>
<td>49</td>
<td>It’s part of my routine to read online newspaper every day.</td>
<td>-0.412</td>
<td>Customization and Management of Information: Trust/Loyalty</td>
</tr>
<tr>
<td>45</td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>-0.605</td>
<td>Customization and Management of Information: Trust/Loyalty</td>
</tr>
</tbody>
</table>

In addition, albeit always being away of in a different state/country, participants in Factor D were still able to access local and worldwide news (No. 7 and No. 5). One item in Factor D, which differed from other group (besides No. 33) was item No. 21 (+3), “I can even download graphics, wallpapers or postcards from online newspapers”. Furthermore, there were two distinguished items derived from factor analysis results. The first was that they favoured online advertising when they read online newspaper (No. 20) and the second was that they neither trusted online news from reputable
Table 5.12 (below) describe Factor D on the most positive and negative z-score statements and categories.

From these results, the study was able to conclude that Factor D clearly portrayed real characteristics of using the Communication Opportunity of interactivity, apart from conceding online newspapers as part of delivering news information and also non-news information (as stated in No. 21). Due to this reason, this study nominates Factor D as ‘Connected’ news readers.

### 5.2.3 Summary of the Q Sort Results

This research study revealed the results and findings of Phase 3, the Second Stage of the Q-Methodology, which was done in 2008. It was arranged by using the same software, PCQ Windows version and Q sorts statements (of 50 sorts), exactly as it was used in the Initial Stage (in 2007). But Phase 3 was done in more extensive manner, with a larger group of participants. Participants comprised of forty-three students and staff from an Australian university, and forty-one others were students and staff from a Malaysian university. In terms of gender, this study consisted of sixty-three females and twenty-one males, which represented the 75 percent and 25 percent, split. Results indicated that the majority of participants (85 percent from total loading), were full-time students.

In the Q-Methodology, the course of the sorts’ statements had been interpreted based on people perceptions towards online newspapers. The analysis reviewed options of two-factor, three-factor, and five-factor, but the four-factor was chosen based on the best variance of varimax factor analysis performance. Results explained the four-factor solution, which represented 74 percent of significant loading variation with sixty-two among the total of eighty-four participants. The other twenty-two participants (26 percent) as the remaining, were considered as either not significant, or were confounded. Factor A constituted thirty-two participants, followed by Factor B with seventeen participants, six participants in Factor C, and Factor D consisted of seven participants, which give evidence on the loading factor of 38 percent, 20 percent, 7 percent, and 8 percent, respectively.
The user’s perceptions towards online newspaper were analysed and construed based on consensus, distinguishing statements, and z-score values of the four-factor analysis to match with the categories and specifications to give meaning to each factor type. Consequently, this study named these four-factor for Factor A as ‘Accessible’, Factor B as ‘Playful’, Factor C as ‘Loyal’, and finally, Factor D as the ‘Connected’ news reader.

5.3 Phase 4: Revisiting the Websites

This section of the research study represents the results and findings of content analysis on twelve Australian newspapers websites, which was similarly conducted in the earlier section (in Phase 1 – preliminary study in year 2006-2007). The revisiting of twelve Australian newspapers websites included the Herald Sun, Northern Territory News, Sydney Morning Herald, The Age, The Advertiser, which currently is now named as Adelaide Now, The Australian, The Australian Financial Review, The Canberra Times, The Courier Mail, The Daily Telegraph, The Mercury, and the Western Australian.

Similar structures and procedures were used to examine the twelve websites, as was done in Phase 1. The study revisited each front page of the newspapers’ websites and snapshots were taken in Autumn 2009. The main purpose of revisiting the twelve newspaper websites is to capture and disclose the changes in online news in terms of content and layout. The comparison between Phase 1 and Phase 4 will be discussed further in Chapter 6 on the data interpretation and more relevant conclusions and discussion of the future directions of the topic in Chapter 7.

5.3.1 An Overview of Online News Layout

This section reveals overall trends influencing the whole state of news presentation on the newspaper websites. Five major interactivity dimensions were used in this study. There were Content availability and Choice, Communication Opportunity, Effort of users, Responsiveness, and finally, Customisation and management of information. This would help to further understand the content and layout of the websites, which were operational and available within Australian online newspapers.

In general, the online news layout for The Mercury, Adelaide Now (where previously, the online newspaper was named as The Advertiser, similar to the print), The Courier
Mail, and Herald Sun, which were owned by News Limited, shared some resemblance or common features of their front page especially the top layout; having placed three main news at the top left with one news with picture at the centre, and with two advertisements laid vertically at the top page – one next to the title of the online newspaper and the other was placed before the main news. Meanwhile, The Australian, and The Daily Telegraph placed one big picture with a news link at the top left corner of the home page with a few top news headlines stories beside it.

The Daily Telegraph (DT) commonly comes out with news in small pictures on the side, either for the top news stories or in each news section. The same applied to The Courier Mail, Advertiser, The Mercury and Herald Sun. Comparatively, amongst all; DT offered the most news with pictures on the front page (details in later section). Conversely, The Australian only provided news links for main news headlines. As a whole, all top news had related links either to the comments, pictures, video, related news, weather and/or news pertaining to the same topic.

On the other hand, The Northern Territory, which was under the News Limited ownership, had a totally different web page layout from the rest mentioned earlier. On the front page, the side links listed on left portion of the home page was the most outstanding layout for NT, which the others did not have. On top of that, NT also displayed news ticker at the top of the online front page. The news ticker is a long and thin scoreboard screen (moves from right to left), which normally displays news headlines. These news tickers were also found in SMH and The Age.

The newspaper websites listed above were mainly owned by News Limited (NEWS.com.au), which may have influenced the main aggregated supplier of overall design and layout, as well as the content and strategy of the online news presentation (discussed further in the Discussion chapter). The Age and Sydney Morning Herald (owned by Fairfax) however, had their own identity representation, but the front page displayed similar or ‘an exact copy’ of the design and layout concepts. It was different for The Canberra Times and AFR, even though both are under Fairfax, they had their own unique layout style. However, the design outlines on main stories, picture setting at top centre page, and advertisement placements were similar.
Apart from that, The Western Australian (thewest.com.au), under Western Australian Newspapers Holdings Limited ownership, demonstrated a simple and straight forward layout design where news with pictures were displayed at the top of the front page. This was followed by the ‘top stories’ and the ‘breaking news’ sections. News in detail reflected after advertisements were properly defined in each section, for example in the News section, there were splits between the National and World News, next with a list of news and one news with a picture link. The same applied to the other news segments in other sections. The overall front page layout of the twelve online newspapers can be viewed in the Appendix 10.

Detailed features of the twelve Australian newspaper websites are presented in the next section. The following results are presented by using the Interactivity concept outlined earlier in Chapter 3: Methodology. Results from this research are mostly presented in frequency tables, as frequency tables are described as a ‘natural and useful technique for summarizing qualitative data’ (McClave and Benson 1989, pp. 19-20).

5.3.1.1 Content Availability and Choice

5.3.1.1.1 Value Proposition

All the twelve online newspapers had major increase in placing their news on the front page. SMH, DT, and The Age were the top three among the twelve online newspapers, which presented the most news articles with more than 200 news links on their front page. This showed that news articles on the front page of the online newspapers were still the prominent category of value proposition in content availability and choice. However, The Canberra Times presented the least news links. Only 61 news links were displayed at that point of time. Meanwhile, DT recorded 52 news links and had the most news articles with pictures. This was followed by SMH and CM with 43 and 30 links, respectively. The Courier Mail offered sixteen news videos compared to HS, AUS and SMH, with 13 and 11 each. Unfortunately, the AFR had only one link of news with picture and NT did not present any news with video on their front page. For details, refer to Figure 5.1 below.
There was an essential trend found in year 2009, where online newspaper provided relevant links within the same issues at the news headlines. Results from the content analysis of the websites, indicated that all the twelve online newspapers profoundly had this trend. The relevant links were placed next to the main news on their front page. The Age, CT, NT, and WA had transformed their layout to fit into this category as previous snapshot (Phase 1 that was done in 2007) did not indicate its presence.

The related news was also available in the form of links to relevant news, comments (Your Say), pictures and/or video. The reader would be able to choose either to click directly to the comments link or other related news link, regardless of whether they read the main news headline. The reader would be allowed to choose to read the entire article by clicking to the news link, which will also contain pictures, video and/or related link pertaining to the same issue or topic.

Below (Figure 5.2) is the example taken from The Courier Mail news headline on 15 April 2009 as the main news headline, ‘Missing girl’s body found’ also contained 15 comments, which were related to the story, pictures and ‘Lucky escape’, which topic was related to the bad weather impacting Queensland, Weather Central, Traffic cams, and Wicked Weather news. In addition, Appendix 11 reflects the earlier sample, where news article taken from the main news headline (from the front page) contained related
news such as video, other related news (in Extra), and list of comments appeared after the article; in Have Your Say, located at the bottom page of the article.

![Image](image.png)

**Figure 5.2: News Article with relevant links within the same issue**

Apparently, all the twelve online newspapers offered news update (breaking news or latest news) on the front page but with different styles. The Age, DT, AUS, SMH, CT and AFR exhibited their news headlines by displaying the latest time (refer example in Figure 5.3). For the AUS, the Latest News column was presented in three segments: Breaking News, Business News, and Most Read (refer Figure 5.4). Meanwhile, the NT used the Breaking News freshly from News Limited, NEWS.com.au. As for the HS, the Breaking news was also for Latest in Sport, and the Most Popular Today. Besides that, at the bottom the Herald Sun’s front page (and for most of online news under News Limited ownership) it displayed the ‘Today’s Most Popular: What people are reading today’, which contained a list of popular news links from other online newspapers owned by News Limited (refer Appendix 12).
Economy to keep contracting

Aust stocks marginally lower, banks lead losses
The Australian sharemarket closed marginally weaker with gains in the materials sector partially offsetting losses among financial stocks.

Government to try again on alcopops tax
The federal government says it will introduce fresh legislation to resurrect its alcopops tax hike...

Figure 5.3: News articles with updated time in the Age and AFR

Not all the twelve online newspapers accommodated news alerts – Really Simple Syndication, RSS feed update (breaking news or latest news) on the front page. All except the NT and AFR did not have this feature. For AFR it was possibly due to most of the news content requiring subscription. Another element in Value Proposition was the Digital News. The rest, except for the HS, SMH, and The Age, did not engage readers with e-paper (electronic print paper version) on their online news websites. Nevertheless, digital news such e-paper, is one of the way to promote readers to read their papers – online or offline and this required specific subscriptions.

The last but an important element for online newspaper was the archive news. Evidently, all twelve online newspapers had this feature, but again, with different styles...
and format. Most made news available for seven days and normally presented them in text indexes. Some online news retained the online front page for a week. Excellent examples would be the SMH and The Age, where the news archives were available for eight days and for free. It was kept in two sessions; a.m. and p.m., and interestingly, the layout of the front page had been kept the way it was. Apparently, the archive news was also accessible in text indexes (refer Figure 5.5).

![Figure 5.5: The Age Archives News](image)

### The Canberra Times

canberratimes.com.au

- Home
- News
- Sport
- Opinion
- Weather
- Community
- Classified

News + Archive

- 2009 (3836 articles)
- 2008 (13279 articles)
- 2007 (4113 articles)
- 2006 (4209 articles)
- 2005 (3373 articles)
- 2004 (2806 articles)
- 2003 (2863 articles)
- 2002 (3705 articles)
- 2001 (5377 articles)
- 2000 (771 articles)

![Figure 5.6: The Canberra Times Archives News](image)

The Canberra Times however, displayed site archives list by yearly and monthly. This is shown in Figure 5.6 (above). This was an exception for AFR, as most news including archives, required subscription. On the other hand, for WA, the archive news worked by using an in-house search engine that allowed access to only the top ten and recent news.
In the AUS, the link to news archive named the ‘online archive’, was displayed at the bottom of the front page. However, the online newspaper permitted readers to search for archived news using keywords in the search engine and subscription was required (refer Figure 5.7).

Online archive

Search our text library

Our archives contain most articles published in The Australian and The Weekend Australian since 1995. Articles from The Weekend Australian Magazine are also stored here. The archive is an editorial text-only archive, and does not contain pictures or advertisements.

To begin your search, type your keywords in the search box below.

![Search Interface]

How To Search
To search with more than one term (a term or a phrase of several words):
» insert a comma to find articles that contain
» use a comma to find articles that contain

Costs and Registration:
Each download costs $1.75 (Australian). You can download for a period of 14 days, 30 Days, 90 Days, 1 year, 2 years, 5 years, 10 years or Unlimited by a pop-up window before the fee is deducted from your account.

To set up an account ($17.50 minimum), follow the instructions as they appear when you click to download an article.

Your search results will show the headline, first paragraph and other details of the story to help you decide whether or not to purchase the article.

If you experience problems using this service, please contact:
newslettx@newsxtd.com.au

Figure 5.7: The Australian Archive News

In summary, the Value Proposition in Content Availability and Choice, which contain three major items: news articles, news articles with pictures, and videos have shown increased amount and has been accumulated extensively from Phase I that was done in the year 2006 and 2007. In the year 2006, news articles were at an average of 62.42 and gained to 91.58 in year 2007. The numbers of news articles has risen by 39 percent in 2009. It was the same trend for news articles with pictures and videos, which had increased to 36 percent in 2009 from 4 percent in 2006 (details refer Figure 5.8). The Y axis is referring to an average amount of news.
Table 5.13 illustrates changes from 2006 to 2009 on the Value Proposition in Content Availability and Choice. Items include news articles with relevant links, news updates, news alerts, archives, and digital news. Results showed that while the NT and AFR did not offer the news alert feature, the SMH and the Age excluded digital news from their front page. The summary on the Value Proposition is best explained in the table below.

Table 5.13: Value Proposition for the 12 Australian Online Newspapers between Phase 1 and Phase 4 Results

<table>
<thead>
<tr>
<th>Online newspaper</th>
<th>Relevant Links</th>
<th>News Updates</th>
<th>News Alerts (RSS)</th>
<th>Archive news</th>
<th>Digital News (E-paper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Canberra Times</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Western Australian</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Herald Sun</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The Daily Telegraph</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The Courier Mail</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Adelaide Now</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>The Mercury</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Northern Territory News</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>The Australian</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sydney Morning Herald</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Age</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Australian Financial Review</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

1=No to No; 2=Yes to Yes; 3=Yes to No; 4=No to Yes
5.3.1.1.2 Peripheral Value Proposition

The twelve Australian online newspapers also had remarkable results for Peripheral Value Proposition (PVP) of the Content Availability and Choice. Eight among fifteen items in PVP showed significant growth in Phase 4 compare with the Phase 1 results. The eight items consisted of Advertisements, Audio, Contests, Events Calendar, Games, Graphs, charts, or currency converter, Sitemap, and Photos. Figure 5.9 illustrates the summary of PVP from year 2006 to 2009.

![Bar Chart](image)

Figure 5.9: Peripheral Value Proposition of the 12 Australian Online Newspapers in three years studies

Games were the most prevalent item found in Phase 4. Result showed that Games had increased from only three in 2006, one in 2007, and up to nine in 2009. These nine online games were either available on the front page of the online newspaper or connected via a link. The Ad, CT, HS, DT, M, NT, SMH, The Age, and WA were those newspaper websites that included the games item.
Increasingly, games were becoming an essential item and one of the most significant findings on front page at present time. As claimed by Ha and James (1998) games are able to arouse and attract readers and their presence provides a playful environment. The Daily Telegraph (DT) had put up the games feature called, ‘Game On’ at the bottom page of the front page (refer Figure 5.10). Once it is clicked on, the entire selection of games is presented (refer Appendix 13). In HSS and the Advertiser, the front page only engaged readers with Lotto results, information and recite to Lotto’s home page. Other online newspapers provided a link either at the site bar or the top bar at the front page to the games segment.

![The greatest internet games of all](image)

**Figure 5.10: The Daily Telegraph featuring ‘Game On’**

Another interesting finding was found in The Western Australian or thewest.com.au, which exhibited an appealing and extremely advanced feature named, ‘Time Out’ with a feature that looked like a mobile phone. It featured the ‘all-in-one’ entertainment with videos, latest trailers, and latest games to ‘Listen online’, picture galleries, from Fun and Games (online games website). The reader would just need to click on the ‘Time Out’ link from the Entertainment menu at the top toolbar of the front page to get to the games, either the Latest games or Fun and Games. Figure 5.11 shows the detail of this feature.
Advertisement was the second largest item for Peripheral Value Proposition in Content Availability and Choice. The result demonstrated a double increase from 10.67 of average numbers of advertisement in year 2007 to 21.58 in 2009. Figure 5.12 reflects the entire growth on advertisements during the study, in the years 2006, 2007 and 2009. The Y axis is referring to an average amount and X axis is referring to advertisements.

![Figure 5.12: Peripheral Value Proposition on Advertisements from 2006 to 2009](image)
Comparing between the years of 2007 to 2009, The Western Australian (WA), The Australian (AUS), Herald Sun (HS), The Daily Telegraph (DT), and The Canberra Times (CT) were the top five online newspapers that posted the most advertisements on their online front page. These top five demonstrated more than 50 percent of the increase. The WA reported a rise of 70 percent, followed by AUS at 64 percent, 60 percent for HS and DT, and lastly, CT at 59 percent. Other online newspapers were at an increase of below 50 percent, but AFR has a slight fall on placing advertisements at their front page. Figure 5.13 represents the scenario.

![Bar chart showing frequency of advertisements on various online newspapers for 2007 and 2009.](image)

Figure 5.13: Advertisements of 12 Online Newspapers for year 2007 and 2009

Apparently, the layout and presentation of the advertisements at the online newspapers remained the same. The majority of online newspapers placed at least two banners at the top page, one or two in the middle and one advertisement banner at the bottom of the front page. Besides that, there were also picture ads and/or on-site sponsorships allocated at the bottom page, for example ‘Motoring’, ‘Jobs’, ‘Real Estate’, ‘Dating Sydney’, and ‘Holiday’, in SMH and The Age online newspapers. These pictures advertisements contain in-house advertisements and also pay-per-view advertisements.

The recent finding was that Northern Territory (NT) had the most advertisements displayed on the front page, followed by The Canberra Times (CT) and Adelaide Now – The Advertiser (Ad), with the number of advertisements of 30, 29 and 23, respectively. The NT displayed interesting advertisements simply called as ‘On-site
sponsorships’, which only presented company logos at the bottom of the online newspaper’s front page. Figure 5.14 demonstrates the layout and presentation mentioned.

Figure 5.14: On-Site Sponsorships Advertisements for the Northern Territory and Adelaide Now

Another interesting finding in Phase 4 was the video advertisements. As of 28th May 2009, the result illustrated that only the Adelaide Now, Sydney Morning Herald, and The Age exhibited the video advertisements on their online front page. The Sydney Morning Herald and The Age, both shared the same advertisement presentation. These types of advertisements were considered as sessional, due to fact that during the earlier content analysis and snapshot, on 15th April 2009, none of the video advertisements were found on the twelve Australian online newspapers. Figure 5.15 illustrate these two samples.
Video Advertisements:
1. Adelaide Now displays video advertisement on Winter Sale, at the right side of the front page
2. SMH displays Apple Green Notebook video advertisement in front of the web page, before the main news.

![Video Advertisements in Adelaide Now and Sydney Morning Herald](image)

Other advertisements besides using the flash method (moving design, animation or motion graphics), text advertisements (also called as contextual links), gradually became the popular advertisement among the newspapers websites. The Phase 4 results indicated two famous text advertisements, which were Ads from Yahoo! and Ads by Google. These text advertisements were normally found either at the bottom page or at the right side of the online newspaper front page. One example of text advertisement was Ads from Yahoo! Search Marketing taken from The West (or The West Australian) online newspaper that appeared at the bottom of the online newspaper’s front page (refer Figure 5.16).

![Text Advertisements in the West Australian](image)

This type of advertisements only provides advertisement links.
In the Phase 4 results, the Events Calendar was the third most prevalent item in PVP. In the latest findings, the NT, AUS and WA had placed events calendar as they did before in Phase 1, these three did not have this feature available in their online news. However, for the WA, AUS and AFR, these online newspapers only displayed events for business or technology. Readers needed to retrieve these from the side toolbar, which were normally placed at the top side of the front page. Interestingly, the CM, Ad, HS, and M combined events calendar with entertainment guide; 'Television, Movies and Gigs & Events', and placed it at the front page. The readers also a choice to retrieve this item by clicking at the Entertainment or Events link placed at the top toolbar. The sample is shown in Figure 5.17.

![Events Calendar and Entertainment Guide](image)

Figure 5.17: Events Calendar and Entertainment Guide in the Mercury and the Australian Online Newspaper

In terms of Graphs, Charts and/or Currency Converter, they mainly reflected more indices on share markets updates. In Phase 4, results found that two new online newspapers - The Australian and Sydney Morning Herald, placed these feature at the front page. The other two online newspapers - The Age and AFR maintained and continued to display this feature as it did (from Phase 1). The SMH and The Age shared similar layout and design for this item as displayed at their web page.

Photos are always attractive and the 'must have' feature to be available on the front page. All the twelve online newspapers indulged their online news not only with news photos but also with photos galleries. These photo galleries could be composed from the readers' candid or weird pictures, fashion outfits, artists or picture events. But it is an exception for AFR as they did not display a photos gallery at the front page mainly because the online news was focused purely on business and marketing.
As part of entertainment, online newspapers always include videos and audios. These audio files contain either entertainment news and gossips or music. Snapshot had captured AFR with a new video file named, *Financial Review TV*, but this was entirely on business and marketing news. Phase 4 results however, had offered some challenges especially in differentiating audios and videos between the Value Proposition and Peripheral Value Proposition.

Most of online newspapers included videos in their entertainment column or link but seldom provided the radio or audio file. As mentioned earlier, The Western Australian (WA) offered an ‘all-in-one’ entertainment called, ‘Time Out’, which incorporated the radio online links, *Listen Online*. Besides that, the SMH and The Age, also displayed interesting features, which offered readers radio links, such as, 2dayfm.com.au and triplem.com.au (refer Figure 5.18). SMH also presented a list of radio station links in Sydney (refer Figure 5.19). Meanwhile, Herald Sun served readers with a list of songs in their audio file (from the Entertainment link), while the others offered music player (like in The Daily Telegraph and The Courier Mail), video gallery (in Advertiser, Australian and Mercury) or both as like in The Canberra Times (in Multimedia link), Northern Territory was the only online newspaper that went without it.

![Figure 5.18: Radio Link in the Sydney Morning Herald and The Age](image_url)
Phase 4 results also revealed another interesting video file called, ‘Video Now…’, which was taken from Adelaide Now (The Advertiser). This feature had similar functions to the ‘Time Out’ did in The Western Australian. However, the feature was only available in the Entertainment section and not on the front page of the online newspaper. The main attraction of ‘Video Now…’ was that it consisted of a list of videos from the latest video, news video, local video, sports to entertainment, video from editors and flash features. Once the reader placed the mouse at the icon in ‘Video Now…’ the top video would change accordingly. The detailed layout is as shown in Figure 5.20.
Cartoon is the final element in Peripheral Value Proposition, which covering mostly on Editorial Cartoon. All the online newspapers except Herald Sun, The Canberra Times, and AFR did engage readers with Editorial Cartoons. The Australian obviously offered Cartoons on their front page (refer Appendix 10: The Australian). They even provided an individual link under Opinion. Other online newspapers, where readers could only access Cartoons once they click the Opinion link (apply for The Daily Telegraph, Mercury, The Age and Advertiser). For the Courier Mail, Editorial Cartoon was available in the Comment link and as for The Western Australian (WA) the feature was available in the Opinion and ‘Time Out’ link. Apparently, WA named their editorial cartoons as ‘Alston’. On the contrary, the Northern Territory exhibited Cartoons in a weblog form named ‘Wicking’s Weblog’, as part of ‘in-house advertisement’, which was placed at bottom of the front page (refer Appendix 10: The Northern Territory).

As conclusion, Phase 4 revealed significant results in both element, Value Proposition (PV) and Peripheral Value Proposition (PVP) in Content Availability and Choice for the twelve online newspapers. News articles, news article with picture and video were the most significant items in PV. Meanwhile, Advertisements, Audio, Contests, Events
Calendar, Games, Graphs, charts, or currency converter, Sitemap, and Photos were the most prevalent items in PVP. All of these items had demonstrated significant growth from year 2006-2007 (Phase 1) to the most recent year, in 2009 (Phase 4). As for the other elements in PVP such as Cartoons, Entertainment guide, Weather information, Company’s background, Company offering Job offers, Search engine, and choice of language, the results have shown that they experienced either a gradual increment or remained static.

Phase 4 results however, had offered some challenges especially in differentiating audios and videos between the Value Proposition and Peripheral Value Proposition as both could be the source of news and non-news facilities in news websites.

Figure 5.8 and Figure 5.9 elucidated the growth on PV and PVP elements throughout the three-year research study (2006-2007 and 2009), while Table 5.13 and Table 5.14 explicated the detailed changes, which online newspapers had for individual PV and PVP items from the previous study to the latest scenario (year 2009).
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1=No to No; 2=Yes to Yes; 3=Yes to No; 4=No to Yes
5.3.1.2 Communication Opportunity

In the Phase 4 results, the Communication Opportunity demonstrated an extremely complex environment. This was due to the convergence and emergence of online news. In the online news environment, videos, pictures, audios, comments and weblogs can be part of the news information. Eventually, this created greater complexity for the researcher in examining the content of the current news websites. Some of the results in the Communication Opportunity, for example the videos, audios, and games features that may be reported repetitively according to the structure, which had been designed earlier in the methodology chapter. The following are therefore, the results on Sessional, Semi-permanent and permanent in Communication Opportunity element.

The speed, interactivity and technology of the websites make Phase 4 findings were unbelievable. The most notable element that retained readers to online news was the games feature. Figure 5.21 (below) clearly articulates tremendous growth of Communication Opportunity elements throughout the study period (in year 2006, 2007, and 2009). Discussion and Forward news articles were ranked top. Games were ranked last due to the fact that it experienced slower growth in 2006 and 2007. But based on the latest finding, nine online newspapers (as mentioned in PVP results) had incorporated the games features into their websites. The results demonstrated that the online news websites were in the race of increasing Communication Opportunity, not only in the games feature, but also in other elements, which were more highly valued.

Phase 4 also revealed a popular trend of online Poll. The Australian (AUS), The Canberra Times (CT), The Daily Telegraph (DT), and The Western Australian (WA) each posted online polls on their front page. Each online newspaper has named it as ‘Your Vote’ (in AUS), ‘Online Poll’ (in DT), and ‘Poll’ for CT and WA (refer Figure 5.22). Generally, the online poll was featured on the right side of the front page together with a list of advertisements (refer Appendix 10 for an overall picture). As for the rest, The Courier Mail, Herald Sun and The Mercury, the online poll was available either in the Opinion or Comments Column. Others like the Adelaide Now, The Age, SMH, Northern Territory, and AFR did not display this feature, either on the front page or in the column section.
Another Sessional Communication Opportunity item besides the videos and audio files, games and polls is the chat room. Unfortunately, this feature is not popular in Australian newspaper websites. Unlike in the U.S., for instance, Los Angeles Times and The Boston Globe (refer Appendix 14) readers highly use the Chat room feature in their online newspaper. The item mostly appeared in the Entertainment and Lifestyle Column. In Phase 4 results, only the Herald Sun featured the chat room service.
Results indicated that the Herald Sun provide this feature not at the front page but in the Comment and Analysis section in Opinion link. The chat room, owned by a columnist, Susan O’Brien where she wrote an article titled, ‘Don’t tell us how to bring up our children’ on 19th May 2009. She posted a chat forum, which could be accessed from 1pm until 2pm. Hence, this encouraged interaction between the readers and the columnist and others during that time frame. However, if readers missed that particular slot, they could still convey their thoughts and leave their opinions by sending in their comments. The submitted comment icon normally appeared at the top of the comment column, which was located at the bottom of every main article. For details, refer to Figure 5.23 (below).

This comment column actually encouraged reader to make impromptu inputs. The reader could leave a comment once they had read the news article. Furthermore, whatever comments they sent, would most likely be published. In Phase 4, the popular trend in Communication Opportunity was forwarding and sharing articles, emails and comments column that acted as a ‘story tool’ and to invite readers to participate and communicate. These items will be shared in detail later in this section. However, no ranking and rating of news article’s or the capability of or the reporter’s email address were made available in each articles, were found in Phase 4.
Communication Opportunity: Sessional, Chat available from 1-2pm.
In Phase 4 results on Communication Opportunity found an astonishing finding of a famous and popular social networking feature used in Australian websites called, ‘MySpace’. Generally, the Australian online newspapers that used this feature were owned by News Corporation. These include Adelaide Now, Herald Sun, The Australian, The Courier Mail, and The Daily Telegraph. The link labelled as, ‘MySpace AU’ appeared on the first top bar at the front page of the online newspapers. Figure 5.25 shows one example taken from the Courier Mail, which offered this feature. Unlike the Northern Territory and The Mercury, this feature was available only when readers clicked on the NEWS.com.au link, which appeared at the top left corner of the online front page.

![Image of the Courier Mail website with a link to MySpace AU](image)

Figure 5.24: Social Networking called ‘MySpace AU’ in the Courier Mail

Another micro-blogging service called, ‘Twitter’ was also found in the Phase 4 findings. All the Australian online newspapers except The Northern Territory provided the ‘Twitter’ service to the readers. This micro-blogging service was useful in providing the latest news updates by tweeting the news headlines and links via the ‘Twitter’ website by using Short Message Service (SMS). The reader had to be a ‘Twitter’ follower to follow all the news updates. Table 5.15 shows the number of followers in ‘Twitter’, as of 26th May, 2009 for the eleven Australian online newspapers. Results indicate that Sydney Morning Herald had the largest followers in ‘Twitter’, as it has 2509 followers. On the other hand, The Mercury news named as ‘tasmercury’ in Twitter only had 36 followers.
In Communication Opportunity under the Semi-permanent communication, results also showed significant use of discussion and bulletin boards. The snapshots indicated that discussions were normally placed in the Opinions column (as in AFR, AUS, Ad, and DT) and/or Comments column (such as in CT, and CM), which either appeared on the front page or as a site link at the top menu bar of the front page, or even a combination of both. The Age, Ad, HS, SMH, and WA were examples of sites, which displayed both features in their online newspaper.

The later trend like in The Daily Telegraph named ‘Most Discussed’ was one of the examples of discussion column that displayed comments from readers, which was displayed on the front page of the online news. Meanwhile, both, The Mercury and Northern Territory (NT) had named their readers column as, ‘Your Say’ (as in Figure 5.25). In fact in NT, readers were able to send Short Message Service (SMS) to the editor and their text would be displayed in Your Say column at the online front page.
The Herald Sun also had this feature, which displayed on the front page, but named it as, ‘Latest Readers’ Comment’ (as shown in Figure 5.26).

Figure 5.25: Discussion Column in the Daily Telegraph, Northern Territory and Mercury

Furthermore, The Adelaide Now also displayed a discussion board on the front page, named as, ‘Yours’ in Opinion column, which showed the latest issue posted (refer Figure 5.27). Details of it could be retrieved once the readers clicked the link. This feature was popular as it encouraged readers to participate in giving their ideas and inputs. Most importantly, their comments were highly appreciated and were considered value-added once their comments were posted online.
The findings from Phase 4 revealed that the bulletin boards were mostly on events and calendar, announcements, and advertisements, which available in all twelve online newspapers. Detailed results as explained in Content Availability and Choice: Peripheral Value Proposition (in Section 5.3.2.1.2).

In the most recent findings, in Permanent Communication, weblogs was still a dominant item. Results demonstrated that eleven of the Australian online newspapers provided weblogs. Eight of them allocated weblog columns on the front page (the Herald Sun, The Courier Mail, Western Australian, Adelaide Now, The Canberra Times, The Daily Telegraph, The Australian, Sydney Morning Herald, and The Age), while the other two provided weblogs as a sub column; The Mercury from ‘In Depth’ and Australian Financial Review from ‘Columnists’ link. On the other hand, Northern Territory did not provide weblogs either at the front page or from any site link.

In terms of the weblog layout and presentation, there were variations among the online newspapers. For instance, The Daily Telegraph displayed weblogs in two sections. One as part of the content on the front page column and the other one as an in-house advertisement placed on the right side of the front page. The Courier Mail displayed it differently, where ‘Hot Weblogs’ revealed a list of weblogs with diversified topics from parenting, politics to health (in Figure 5.28). The simplest of the weblog layout was by the Mercury, as it only presented the writer’s name with the picture on the side, on the front page (refer Figure 5.26).
Another interesting Communication Opportunity found in Phase 4 was some new tools and features in sharing news articles with other readers. The findings indicate that readers could easily forward news article to others by sending the news link via emails or through the social network channels like ‘Facebook’, ‘MySpace’, and others. Some online newspapers, for example, The Canberra Times allowed the sending of (email a friend), saving it by using bookmark, of the news article, e.g. in ‘Favourites’ or ‘Del.icio.us’, and shared by using ‘Facebook’, ‘Digg’, ‘StumbleUpon’, etc. Figure 5.29 shows one of the news article taken from the main news article, which reflected those icons. This tool was presented at the top as well as at the end of the article.
Communication Opportunity: Reader able to print, enlarge or minimize the size of the article’s font, send, save and share through Facebook and others as listed.

Figure 5.29: Other Communication Opportunity – Send, Save & Share the news article in The Canberra Times

The Australian (AUS) online newspaper had a similar style of forwarding news article as The Canberra Time, but made it only available to share and email the article. In the AUS, the news article offered more shared link to social network, a total of fifteen from ‘Digg’, ‘Reddit’, up to ‘Google’, ‘Netscape’, and ‘Yahoo’ (refer Figure 5.30). Indeed, this was the latest and popular trend on how readers communicate and get the news to proliferate to others.
In summary, the Communication Opportunity is becoming more dynamic and complex, where most of the communication elements (regardless of whether they are sessional, semi-permanent or permanent) emerge and converge mostly with the news (Content Availability and Choice) links to videos, pictures, and audios, as well as section for readers to contribute their ideas. Nowadays, videos, pictures, audios, comments and weblogs can be part of the news information. This created greater complexity for the researcher in examining the Phase 4 website contents. Despite the presence of an enormous amount of videos and audio files, the most notable element that engaged readers to get and stay connected was the games item. Appendix 15 displayed the twelve Australian newspaper websites Communication Opportunity and social network links.
5.3.1.3 Effort of Users

Phase 4 revealed a minimum change in Effort of users when compared to results in Phase 1. This was despite the fact that, in year 2009, there were more simplified and straight forward navigation tools involved. However, registration was still needed mainly on the archived news, e-paper, and classifieds. In the Herald Sun, The Mercury, Sydney Morning Herald and Northern Territory, registration is still required for the archive news. On the other hand, the news alert registration was required for The Western Australian, Advertiser (Adelaide Now), and The Canberra Time online newspapers. Meanwhile, the Courier Mail, The Daily Telegraph, The Age and The Australian had offered registration for the Classifieds and Jobs and/or combination of news registration for the archive, news alert or e-paper. As for the AFR, most of the news published online required readers to register and subscribe.

Apart from the registration aspect, this study also looked at the effort that users must exert in retrieving or accessing their online news article. It was assumed that fewer clicks would cause less exhaustion for reader and the fewer the clicks would make the reader continue to read the online news. Most importantly, easy and simple navigation would make the reader ‘loyal’ towards the online news. Thus, the research study had looked into amount of clicks that user must exert in terms of viewing the full online news article.

Results showed that most of news was retrievable with a single click, which was a direct link to the full news article from the front page. Simple examples were news headlines and top news placed at the front page, which required only a single click to view the full version of the news article. The findings revealed that The Daily Telegraph (DT), Sydney Morning Herald (SMH), and The Age (Age) presented the most news using a single click, compared to the other online newspapers. A total of 166 news articles for DT used a single click, followed by 134 and 126 news respectively, for SMH and Age. On the contrary, AFR displayed only one full news article from a single click to view the entire article, as most of the news required subscription. For details refer to the figure below (Figure 5.31).
Figure 5.31 (below) also represented news retrievable with two clicks. The Western Australian had the most number of news articles, totalling 143 links using the two clicks version. The SMH and The Age were at the second and third in the top rank, with 99 and 95 links. News that was clicked twice was usually found at the top or side bars of the front page. It can also come from archive news, international news or links to other news website.

![Graph showing frequency of news retrievable with one and two clicks for different newspapers in 2009.]

Figure 5.31: Online Newspapers with a single click and two clicks to retrieve news article

However, The Daily Telegraph, The Courier Mail, The Age, and Sydney Morning Herald online newspapers still offered news with three and/or more clicks. Most of these prompts appeared at the top (side bars menu, refer Figure 5.32, below) and/or bottom (for example, to retrieve the archive news) of the front page. An exception was AFR, as most news required subscription. But in Phase 4, the results showed that The Canberra Times online newspaper had the least news using this method. The Western Australian and The Northern Territory have none available using this method.
Figure 5.32: Example on 3 Clicks from Sydney Morning Herald

Figure 5.33 summarizes the entire analysis on the effort users exert in terms of web navigation in Phase 4, which consisted of a single click (1 Click to retrieve news article), two clicks (2 Clicks to retrieve news article), and three and/or more clicks to retrieve the full news article. The X axis is referring to an average amount of news clicks. Results demonstrated that the single click to retrieve news article was the popular and amongst the highest usage of the twelve online newspapers. The single click scored an average number (the mean value) of 95.4 clicks, while the two clicks only at 75.7. This made the difference of 19.7 between the two. Finally, the three clicks and/or more were at the average of 60.2. The more clicks for readers indicated the more effort for them to retrieve or get into the full news. As a result, the three clicks and/or more were the least popular as it may have caused exhaustion and readers could have lost interest in further reading of the online newspaper. Hence, easy navigation was a key factor in this study.
Meanwhile, Figure 5.34 displays a summary of the twelve online newspapers' results on a single, and two clicks to retrieve news article from Phase 1 to Phase 4 (from 2006, 2007 and 2009). The Y axis is referring to an average amount of news clicks. In general, a single click to retrieve news article had a consistent increase throughout the three years of observation; from an average of 48.5 in year 2006 to 71.2 in year 2007, and at an average of 95.4 in year 2009. There was a rise of 46 percent from year 2006 to 2007 and 34 percent increase from 2007 to 2009. Unfortunately, there was a different scenario for the two clicks. Results signified a decline of 18 percent from year 2006 to 2007. In 2009, there was also a slight fall of 9 percent from the year 2007.
As part of Communication Opportunity element, this research study also looks into connectedness, which contained links within the same site (in-house website address or URL), links to other websites (brings to different URL once the reader clicks the link from the front page), and also broken links (error on the URL). Phase 4 results indicated that a similar pattern was found in the previous content analysis of Phase 1, which was carried out in the year 2006 and 2007. Results demonstrated zero broken links and an increase towards links within the same site (in-house links). In Phase 4, results also showed an increase of 81.5 percent from year 2007, compare to only a 29.6 percent growth between 2006 and 2007. This significant growth is illustrated in Figure 5.35 (below), which explained the links within the same site and also links to other sites for the three-year period of the study. The Y axis is referring to an average amount of links.

Notably, the links within the same site (in-house links) experienced far beyond 50 percent rise in the year 2009, compared with the previous years studied, 2007 and 2006. In contrast, links to other sites also increased, but on a gradual mode at 17.5 percent from 2006 to 2007, and at 14.4 percent from 2007 to 2009. Meanwhile, the difference between links within the same site (in-house links) and links of other sites in year 2006 was big. It was of 59.7 percent in 2006, followed by 63.4 percent and 77.0 percent in 2007 and 2009 respectively. This strongly supported Ha and James, who commented
that most website companies only detain visitors to their in-house links rather than links to other websites (1998).

5.3.1.4 Responsiveness

This research study also detailed the responsiveness element, which analyses two main items; the system response time (in retrieving news articles) and users’ response time (between reporters or editors). Results signified that all the twelve online newspapers had high system response time with zero to five seconds response time. In Phase 4 results, the AFR which heavily displayed graphs, charts and indexes improved from previous results (in Phase 4) as they were in the medium category with an average of six to ten seconds of system response time.

In the respect of the users’ response time, in Phase 4, the researcher only received feedback from editor(s) of two online newspapers – The Herald Sun (HS) and The Northern Territory (NT). An individual email was sent on April 21st, 2009 to the twelve editors. Unfortunately, there were no responses from other online newspapers except these two. The researcher received response from HS within a day but for NT, it took three days to responds to the email. Conversely, Phase 1 received more responses from the editors. Results indicated that these responses came from four online newspapers – the CT, DT, AUS, AFR, and notification emails came from SMH and The Age.

It is assumed that the two-way communication between reporter or editor and the readers would promise a ‘democratize news’ and make the reader the correspondent, inviting in their stories, viewpoints and would help inform reporters about the reader’s real world interests and concerns. Based on Paul (2005), in reality the reporters’ email addresses can be the powerful tool to stay in touch with their readers and yet can also be a potential suck that would just keep the communication flow going one way. Instead, the weblogs is the popular and latest trend, which promises to bring in a new wave of communication linkage with the bigger pool of readers.
5.3.1.5 Customisation and Management Information

Customization and management of information or Monitoring Information is the final element in interactivity. In Phase 4, Personalization and customization was observed as choosing topics and headlines, getting newsletters and alerts/updates via email, getting specific community information (local weather, theatre schedules, etc.), greeted by the site and event calendars. The Australian as an example, displayed local weather, and entertainment schedules. Results showed eight online newspapers offered events calendars (refer Section 5.3.2.1.2). Increasingly, this feature was being recognised as useful and was becoming popular. Results also indicated that most personalised item like RSS news feed needed registration. On top of that, the current status of the twelve online newspapers did not display or include Hits Counter on their online front page. It was presumed that the Hits Counter was the ‘old fashion’ way of presentation as many online news no longer used or had this item available on their websites.

At the same time, this research also looked into privacy policies, considering that the online newspapers highlighted on Privacy Act 1988, the security of customers’ information, third parties or partner’s right, and contact details for further clarification on the matter. Results demonstrated that all the twelve online newspapers presented privacy policy on their online newspapers. Online newspapers such as the Sydney Morning Herald, The Age, The Canberra Times, and The Australian Financial Review displayed a standard version of privacy policy derived from the Fairfax Digital policy.

Fairfax Digital is the main company, which owned these four online newspapers. The privacy policy could be found in the Sitemap link, which was normally placed at the bottom of the front page. Likewise for AFR, the privacy policy was displayed using direct link named Privacy, which was at the bottom of the front page. Appendix 16 is the full version of the privacy policy’s statement that was under Fairfax’s ownership.

The West Australian known as The West online newspaper presented the privacy policy as Privacy link located at the end or bottom section of the front page. Notably, the content of the policy had not been changed since the last content analysis was made, in year 2006-2007. Other online newspapers particularly under News Corporation’s
ownership, such as the Adelaide Now, The Australian, The Courier Mail, The Daily Telegraph, The Herald Sun, The Mercury, and The Northern Territory similarly displayed the *Privacy* link at the bottom of online newspaper. The policy statement came in the standard layout and content, a ‘copy exactly’ format but was addressed to the individual subsidiary company that published the online newspaper. For example, Davies Brothers Pty Ltd for The Mercury online newspaper, and Northern Territory News Pty Ltd for The Northern Territory online newspaper. All the key items in the privacy policy were mentioned clearly.

**5.3.2 Summary on Revisiting the Websites**

Phase 4 was the extension of content analysis of Phase 1, which assessed the twelve Australian online news websites. The main purpose of revisiting the twelve websites in the year 2009 for Phase 4 was to capture and disclose the changes in online newspaper website in terms of content and layout, and the challenges they currently faced. These up-to-date results helped not only in making comparisons between Phase 1 and Phase 4, but also to look at new phenomenon, such as the emergence of media convergence, which will be discussed in detail in Chapter 7.

The Phase 4 results showed statistically significant growth in the amount of news (Value Proposition) and also the non-news element (Peripheral Value Proposition) of the Content Availability and Choice. The Communication Opportunity content was the second dominant dimensions of interactivity. The content and features of Content Availability and Choice and Communication Opportunity is getting more complex and dynamic. Most of these elements emerge and converge with the news links to videos, pictures, and audios, as well as section for readers to contribute their ideas.

This created greater complexity for the researcher in examining the content of the current news websites, which displayed more of ‘all-in-one’ news, whereby the videos, pictures, audios, comments and weblogs could also be part of the news information. Other most notable elements that engaged readers to get on and stay connected was the games feature. Another important element found was personalization, which enabled readers to filter news according to their needs. Phase 4 results also discovered the latest trend where people were more increasingly becoming citizen journalism, in contributing
views, and news to the online websites. Basically all the interactivity dimensions that were examined in this study have shown the increase of complexity and dynamism of the online news environment over the four years of study.

5.4 Chapter Summary

This chapter captured the results of the Second Stage of the Q-study as well as the web-based content analysis of the Australian newspaper websites. In Phase 3, eighty-four participants from Australian and Malaysian university students and staff participated in taking the Q Sort test. Meanwhile, Phase 4 was the revisiting into the content and layout of the twelve Australian news websites.

In Phase 3, the participants engaged comprised of forty-three students and staff from an Australian university, and forty-one others were students and/or staff from a Malaysian university. This study represented a 75 percent and 25 percent split between females and males. Of that, 85 percent of the participants were full-time students. The university students were in their 20s to 30s and this was a good representation of the online and technical-savvy population as they spent the most time online, about an average of 17 to 18 hours weekly (Harris Interactive 2009). Overall, Phase 3 results explained the four-factor solution, which represented 74 percent of significant loading variation with sixty-two among the total of eighty-four participants. The ranges of views were collected on how people perceive the constant changes in online news. After they were analysed and construed based on consensus, distinguishing statements and z-scores values of the four-factor analysis were identified as ‘Accessible’, ‘Playful’, ‘Loyal’, and ‘Connected’ news readers.

Phase 4 results demonstrated that the Content Availability and Choice on both the Value Proposition and Peripheral Value Proposition were still the dominant dimensions of interactivity. Communication Opportunity was the next prevalent dimension of interactivity as it attributed to the frequent presence of games, polls, discussion, comments, weblogs and forwarding news to friends using popular social networking channels. This dimension together with the Content Availability and Choice were getting more complex and dynamic as most of them emerged and converged. News links to videos, pictures, audios, comments, and weblogs were becoming part of the news information. This created greater complexity for the researcher in examining the
content of the recent-most news websites, which display ‘all-in-one’ news. Most notable was that, readers were becoming citizen journalists, contributing news to the online websites. The study also found the important elements of personalization and customization of news.

Essentially, this study had shown the complexity and dynamic growth of the online news environment over the three-year study. Results from Phase 3 and Phase 4 have demonstrated the incredible growth and dynamism of online news environment.

In the next section, Chapter 6 will further elicit the interpretation of Phase 1 to Phase 4 results together with the Activity Theory Analysis for the Initial and Second Stage results. Hence, this valuable results and information would then lead to further analysis of current innovation of online news, which will be presented in Chapter 7.
CHAPTER SIX
INTERPRETATION OF THE RESULTS

Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning. – C. Geerts, 1973 (cited in Ryder 1999, p.1).

6.1 Introduction

This chapter presents a cohesive explanation and interpretation of the results and findings from all the data analyses from Phase 1 to Phase 4. Overall, four sets of data collections were undertaken in this research study:-

- Phase 1: Preliminary web-based content analysis of twelve Australian newspaper websites (2006-2007);
- Phase 2: Initial Q-study of Australian University students and staff (2007);
- Phase 3: Second Q-study of Australian and Malaysian University students and staff (2008);
- Phase 4: Revisit the twelve online newspaper websites (2009).

The results of these four studies were presented in Chapter 4 and 5, and covered the recent preceding of the fast changing topic of online newspapers. The interpretation of results will be evaluated and summarized accordingly based on the main research questions, which were posed for this study: ‘What is the nature of the content and layout of Australian online newspapers?’, and ‘How do people perceive the constant changes in online news?’ The interpretation of the results led to a critical analysis of current state of affairs and a prediction of the future in online newspapers, which will be presented in the next chapter (Chapter 7).
6.2 The Initial Stage

6.2.1 Interpretation of Phase 1 Results

The initial Phase of the research involved a study using the content analysis method of newspaper websites. The results and findings presented in Chapter 4 were basically an exploration or a ‘tour’ of the content and layout of twelve Australian online newspaper websites. The results clearly demonstrated the growth and development of online newspapers from the year 2006 to 2007.

A fundamental understanding of the significant growth and development of online newspapers over this period went along with advances of all information services on the World Wide Web (WWW). It was found helpful at the time of the study, to describe the characteristics of online newspapers in terms of the features offered and the usability. Nevertheless, the Interactivity concept (redefined from Heeter’s interactivity dimensions) was used for this content analysis of the website study to obtain a deeper understanding of the dynamic and robust communication environment – interactivity, immediacy, and unlimited space and boundaries of what the web could offer and how online newspapers differed from the print version. Table 6.1 presents a summary list of all the findings captured in the Phase 1 results.

In Phase 1, the most prevailing dimension of interactivity in online newspapers websites were Content Availability and Choice – Value Proposition and Peripheral Value Proposition, as a source-oriented interactivity dimension in disseminating news and non-news information. The next most commonly found dimension of interactivity was Communication Opportunity, which invited users to participate and interact. The prevalence of the Communication Opportunity dimension could be attributed to the common presence of discussion forum, weblogs, bulletin boards and forwarding articles. Games and chat rooms were found least available in online newspapers websites. In Effort of users, many online newspapers websites used a single click to get to full news article. The system response time were found at medium category (within 6-10 seconds), whereas, the user response time was treated as a low level of interactivity. This study also found low levels of explicit customisation and management of information.
The content analysis of online newspapers websites showed that there were differences in terms of the layout and content of print-based news. The results in the Table 6.1 encapsulate what online newspapers offered during the years of 2006-2007. The highlights and value-added services of online newspapers offered during that time were, for example: sidebars, photographs – photo galleries and slide shows, news audio and videos, news updates and archive news, related news links, weblogs, chat rooms, forums, and emails. These results provided strong evidence that online newspapers were not a replica of the printed versions.

This finding supported previous research undertaken by Peng et al. (1999). The content analysis results of the twelve online newspapers websites also revealed distinctive development of a coherent trend in online image and standardization of format across networks especially by the big companies like Fairfax and News Corporation.

Table 6.1: Interpretation of the Web-based Content Analysis Years 2006-2007 Results

<table>
<thead>
<tr>
<th>Interactivity Concept</th>
<th>Content Analysis Year 2006-2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Availability and Choice</strong></td>
<td></td>
</tr>
<tr>
<td>Value Proposition (news related)</td>
<td>Online newspapers front page increased on news links, news pictures, audio and videos, latest news update, and archive news were also available. Less on relevant (related) news links and Digital news.</td>
</tr>
<tr>
<td>Peripheral Value Proposition (non-news related)</td>
<td>Increased on Advertisements, Cartoons, Photos and Audios, Entertainment guide, Sitemap, Company’s Background, and Search engine.</td>
</tr>
<tr>
<td><strong>Effort of Users</strong></td>
<td></td>
</tr>
<tr>
<td>Navigation</td>
<td>Most news retrieved with single click. Registration still needed especially archive news.</td>
</tr>
<tr>
<td>Connectedness</td>
<td>In-house links increased by 50% Links to other sites increased by 5%</td>
</tr>
<tr>
<td><strong>Communication Opportunity</strong></td>
<td></td>
</tr>
<tr>
<td>Sessional</td>
<td>Videos and audios. Games are not popular (interaction between user and service provider). None on chat room (interaction among users).</td>
</tr>
<tr>
<td>Semi Permanent</td>
<td>Discussions: Letters to the editors, and comments after news article.</td>
</tr>
<tr>
<td>Permanent</td>
<td>Opinions and Weblogs columns.</td>
</tr>
<tr>
<td><strong>Responsiveness</strong></td>
<td></td>
</tr>
<tr>
<td>User’s response time</td>
<td>4 online newspapers websites made available either by sending notification and/or response within 72 hours</td>
</tr>
<tr>
<td>System response time</td>
<td>Medium category (within 6-10 seconds)</td>
</tr>
<tr>
<td><strong>Customization and Management of Information</strong></td>
<td></td>
</tr>
<tr>
<td>Personalization/Registration</td>
<td>Personalization was not popular. Registration is more on archive news, ads classifieds and jobs offer.</td>
</tr>
<tr>
<td>Hit Counters</td>
<td>Not available.</td>
</tr>
<tr>
<td>Privacy Policy</td>
<td>Unclear information: customer’s access on collected information. Display no contact details. Normally placed at the bottom of the front page.</td>
</tr>
</tbody>
</table>
6.2.2 Interpretation of Phase 2 Results

In Phase 2, Q-Methodology was introduced and used to capture public users’ subjectivity and perceptions on the constant changes in online newspapers. The Q-study was undertaken in 2007 and twenty-three out of thirty-four participants at the Australian University who were involved in this study. The two-factor solution was chosen, with 68 percent of the variance, identified and signified two distinctive groups perceptions and views of online newspapers: categorized as the ‘Serious’ and ‘Playful’ news readers. This result revealed sixteen participants in the ‘Serious’ group (47 percent) and seven (21 percent) for the ‘Playful’ news readers.

The most obvious finding to emerge from this study is that there were at least two significant groups, identified from this two-factor analysis, which used online newspapers as a regular medium to seek information. The first group of people, ‘Serious’ news readers used online newspapers to access and read, typically more on news related of information. Meanwhile, the second group, ‘Playful’ group was more focused on non-news related, communication and level of involvement with the medium, and there were also other readers who used the online newspapers as part of their communication channel. The evidence of this study is illustrated using Table 6.2.
<table>
<thead>
<tr>
<th>Interactivity Category</th>
<th>Serious</th>
<th>Playful</th>
</tr>
</thead>
</table>
| **Content Availability and Choice** | News related | 1. Like news updates.  
2. It’s different as it has news with picture, audio and video.  
3. Likely to read international and world affairs news.  
4. Able to get extensive news through links and related links of that specific information.  
5. Ignore advertisements. | 1. Online newspapers are just a copy of the print news.  
2. Online newspapers creates more ‘Freedom of speech’ and able to get less censored information. |
| | Non-news related | 1. Provide useful features such as sitemap, search engine and help page. | 1. Like polls, surveys, games, puzzles and contests.  
2. Like to place advertisements. |
| **Effort and Knowledge of Users** | General | 1. Competence in technical and computer skills | None |
| | Control | 1. Read now or later | 1. Feel empowered in contributing ideas. |
| | Lifestyle | None | None |
| **Communication Opportunity** | Accessibility | 1. Prefer to retrieve online newspapers using personal computer.  
2. Can get worldwide news.  
3. It is quick and easy access from home.  
4. Able to get local news even though away. | None |
| | Connected | None | 1. Like to be involved in online discussion such as chat rooms, forums and bulletin boards.  
2. Highly involved and feel like a part of the community.  
3. Can rank the articles or topics of online newspapers. |
| **Responsiveness** | Navigation | 1. Like simple and direct navigation. | None |
| | User’s response | None | None |
| | System response | 1. Prefer fast access. | None |
| **Customization and Management of Information** | General | None | None |
| | Trust/Loyalty | None | 1. There is little credibility and legitimacy of information from online newspapers.  
2. Trust to only reputable organizations or information experts.  
3. Fear on quality of online newspapers. |
6.2.3 The Link between Phase 1 and Phase 2

This research study has found a meaningful association between the Phase 1 and Phase 2 results. The most prevalent dimensions of interactivity in online newspapers websites assessed in Phase 1 were Content Availability and Choice on Value Proposition (news related). It strongly represented the ‘Serious’ group (from the Q result). Table 6.1, which displayed the Phase 1 results showed significant growth especially in providing news on the front page; news links, news pictures, audios and videos, latest news update, and an archive news link. Consequently, this created an association that matched the Q-sorts results of Phase 2 on the ‘Serious’ group, which chose statement No. 10 as the highest ranking (+5): “An online newspapers provides me with latest news update (news break)”.

Furthermore, this group of people acknowledged the differences of online newspapers to print as it offered colorful pictures, audios and videos (statement No. 11, ranked +4), which matches with the Phase 1 report that there was not only a tremendous increase of news articles placed on the front page but also news with photos and videos. Apart from that, results from the content analysis reflected a high concern with System Response Time (Chapter 4, Section 4.2.2.4: Responsiveness), which matched statement No. 38 (ranked +4) from Q result, that immediate or fast access was important when the ‘Serious’ news readers accessed online newspapers.

The web-based content analysis results also coincided with some aspects of the ‘Playful’ news readers. Results from Phase 1 (Table 6.1) and Phase 2 (Table 6.2) concurred on the rise of Content Availability and Choice: Peripheral Value Proposition, which covered the non-news facilities related to online newspapers. Items such as cartoons, entertainment guides, contests, games, audio and videos had increased from year 2006 to 2007. These results correlate with the results using Q-Methodology where statement No. 26 (ranked +4) was chosen by the ‘Playful’ news readers, Factor stating “I like to participate in polls, surveys, games, puzzles, and contests”.

The content analysis results also revealed an increased focus on Communication Opportunity especially in discussion, bulletin boards, and weblogs (refer to Chapter 4,
Section 4.2.2.3: Communication Opportunity). These findings showed an alignment with statement No. 27 (ranked +4), “I feel empowered because I can contribute my ideas.” The content analysis results in Phase 1 were appropriate and explicitly demonstrated a fundamental understanding of the features and growth of online newspapers. Meanwhile, the results of the Q-Methodology study with regard to the two significant groups on the Factors helped to reveal further understanding on how differently people perceived the constant changes in online newspapers. In addition, results from Phases 1 and 2 of this study reflected a coherent view between each other.

Table 6.3 (below) shows the emergence of the coherence between the results of Phase 1 and Phase 2 and provides a clear display of how the growth of online newspapers incorporated the interactivity dimensions.
<table>
<thead>
<tr>
<th>Content Availability and Choice</th>
<th>Interactivity Category</th>
<th>Content Analysis Results</th>
<th>Q-Methodology of Two Factors Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Year 2006-2007</strong></td>
<td><strong>Serious</strong></td>
</tr>
<tr>
<td><strong>Value Proposition (news related)</strong></td>
<td>Online newspapers front page increased on news links, news pictures, audio and videos, latest news update, and archive news were also available. 2. Less on relevant (related) news links and Digital news (E-paper).</td>
<td>1. Like news updates. 2. It's different as it has news with picture, audio and video. 3. Likely to read international and world affairs news. 4. Able to get extensive news through links and related links of that specific information. 5. Ignore advertisements.</td>
<td>1. Online newspapers is just a copy of the print news. 2. An online newspapers creates more 'Freedom of speech' and able to get less censored information.</td>
</tr>
<tr>
<td><strong>Peripheral Value Proposition (non-news related)</strong></td>
<td>Increased on Advertisements, Cartoons, Photos and Audios, Entertainment guide, Sitemap, Company's Background, and Search engine.</td>
<td>1. Provide useful features such as sitemap, search engine and help page.</td>
<td>1. Like polls, surveys, games, puzzles and contests. 2. Like to place advertisements.</td>
</tr>
<tr>
<td><strong>Effort and Knowledge of Users</strong></td>
<td>Navigation</td>
<td>1. Most news retrieved with single click. 2. Registration still needed especially when archive news.</td>
<td>1. Competence in technical and computer skills. 2. Read now or later (in control).</td>
</tr>
<tr>
<td></td>
<td>Connectedness</td>
<td>In-house links increased by 50% 2. Links to other sites increased by 5%</td>
<td></td>
</tr>
<tr>
<td><strong>Communication Opportunity</strong></td>
<td>Sessional</td>
<td>1. Video, audio, and games (interaction between user and service provider). 2. None on chat room (interaction among users).</td>
<td>1. Prefer to retrieve online newspapers using personal computer. 2. Can get worldwide news. 3. It is quick and easy access from home. 4. Able to get local news even through away.</td>
</tr>
<tr>
<td></td>
<td>Semi Permanent</td>
<td>Discussions: Letters to the editors, and comments after news article.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Permanent</td>
<td>Opinions and Weblogs columns.</td>
<td></td>
</tr>
<tr>
<td><strong>Responsiveness</strong></td>
<td>User's response time</td>
<td>4 online newspapers made available either by sending notification and/or response within 72 hours time.</td>
<td>1. Like simple and direct navigation. 2. Prefer fast access.</td>
</tr>
<tr>
<td></td>
<td>System response time</td>
<td>Medium category (within 6-10 seconds).</td>
<td></td>
</tr>
<tr>
<td>Customization and Management of Information</td>
<td>Personalization/Registration</td>
<td>Hit Counters</td>
<td>Privacy Policy or Trust/Loyalty</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>--------------------------------</td>
</tr>
</tbody>
</table>
|                                           | 1. Personalization was not popular.  
   2. Registration is more on archive news, ads classifieds and jobs offer. | Not available. | 1. Unclear information: customer’s access on collected information.  
   2. Display no contact details.  
   3. Normally placed at the bottom of the front page | None |

1. There is little credibility and legitimacy of information from online newspapers.  
2. Trust to only reputable organizations or information experts.  
3. Fear on quality of online newspapers.
6.2.4 Activity Theory Analysis of the Initial Stage

Results from Phases 1 and Phase 2 identified activities of people involved in online newspapers represented by patterns of relationships between *doers or actors* – news producers and consumers and their different perspectives of the *object* of their activities – online newspapers, with the evolving application of newspaper websites. This pattern of *activity* was best presented using Activity Theory due to its ‘holistic’ approach to analysing and explaining people’s activities. As explained in Chapter 2 (Section 2.6), an activity is a dialectic relationship between the elements of *subject (doers or actors)* and *object* with the assistance of, and mediated by, *tools* in complex and dynamic environments such as those of the global news industry.

News production started as a traditional industry that involved the basic and fundamental activities of news producers, distributors and users, with printers and print medium as tools. There were distinct activities associated with different roles in news production, journalism, editors, type setters etc, and a well defined daily and weekly news cycle (Boczkowski 2004a, Singer 2008, Wilkinson et al. 2009). As will be discussed in Chapter 7, these activities have inevitably changed dramatically with the evolution of online newspapers, with many roles merging or disappearing, new roles emerging and the old news cycle disappearing. This has been inevitable as the activities of the subject changed, by using the tool of the website, replacing print to deliver news online as the object of their activity. As online newspapers have evolved, the activities of users have become a more significant aspect of the news industry as consumers increasingly like to participate and be involved.

These trends are illustrated in the results from Phase 1. Moreover, the results in Phase 2 revealed in more detail, people’s subjectivity perceptions of online newspapers websites. The Q-study uncovered two categories of news readers: ‘Playful’ and ‘Serious’. These were interpreted as two distinct activities involving different types of *subjects*, a different *object* and thus requiring different characteristics of the *tool*, i.e. different website design.
Although there were more participants in the Q-study of Phase 2 on the ‘Serious’ and the ‘Playful’ news readers factors, it is particularly interesting to note the results as an indicator of future trends. They liked to be involved and felt empowered by contributing ideas, and being part of the community of online newspapers. They also enjoyed other features offered in online newspapers websites, such as games, surveys and polls, and placing advertisements. On the contrary, ‘Serious’ news readers were those who only accessed online newspapers websites for news. They use all the online newspapers features available – links, search engine and sitemap, to get details on local and world news (details of these two characteristics as presented in Chapter 4, Section 4.3).

Therefore, using the Activity Theory to interpret the outcome of both Phase 1 and Phase 2, two the patterns of activities were revealed—‘Playful’ and ‘Serious’ readers of online newspapers. In this stage of the research, Activity Theory enabled the researcher to know users perceptions and requirements when engaged in online newspapers activities in the early years of online newspapers. The Activity Theory interpretation of the Initial Stage (Phase 1 and Phase 2) is best illustrated using Figure 6.1. This forms the basis for an expanded view that emerged from the following Stage of the research.

Figure 6.1: A Representation of the activities identified in the Initial Phases of the research
6.3 The Second Stage

6.3.1 Interpretation of Phase 3 Results

Phase 3 of this research study entailed the second Q-Methodology testing, which was used to captured users subjectivity and perceptions towards the constant changes in online newspapers. This Q-study was done in year 2008 and eighty-four participants from universities in Australia and Malaysia were engaged in the study. It was assumed, participants from universities would relatively represent the larger characteristics of Internet users worldwide, as this is a global phenomenon.

A four-factor solution was chosen, which explained 74 percent of variance, with sixty-two participants loaded into the factors. The frequencies of the demographics and social status of the participants were also presented. Notably, 82 percent participants involved were full-time students aged between 20s and 30s. Of those, more than 85 percent were graduate students (under and postgraduates). 87 percent read online newspapers with 23 percent on a daily basis, spending an average of less than an hour with doing so. Whilst, the dominance of females in this profile confirms earlier research, which had found that since year 2000, more women have been engaging with the technology to keep up and also widen their social worlds and relationships (de Waal et al. 2005, Rainie 2000).

The evidence supported the Pew Research Center report (2009) and de Waal et al. (2005) on higher educated background, with those who have attended graduate school and college degree were among the popular group who accessed newspaper websites for news and information. As stated by d’Haenens et al., students are a valuable and constructive test group as they are considered as ‘a natural current, and certainly as a future user group of online newspapers’ (2004, p.367). Therefore, choosing this target group was significant as it was not because they were simply available, but due to their access to newspapers, computers, and the fact that they were Internet-savvy, which is essentially free and universal.

This Q-study was the Second Stage test that was done in 2008, that was replicated and extended from the Initial Stage of Q-study test result in 2007. Previous results revealed the two major readers: the ‘Serious’ and ‘Playful’ news readers, but the latest results
expanded the ‘Serious’ news readers to ‘Accessible’ and ‘Loyal’ groups, and the ‘Playful’ news readers into two other groups, the ‘Connected’ and ‘Playful’ groups of news readers. In the analysis of this Q-study, a four-factor was identified as ‘Accessible’, ‘Playful’, ‘Loyal’, and ‘Connected’ news readers. This result involved thirty-two participants in the ‘Accessible’ group, seventeen in ‘Playful’, six for ‘Loyal’, and seven participants in ‘Connected’, which represented 38 percent, 20 percent, 7 percent, and 8 percent, respectively.

These four groups gave added meaning to this research study. Those in the ‘Accessible’ news readers group are interpreted as being concerned with the website’s usability presentation and appearance. Whilst the main preference for this group was to be able to access news from home, they were also capable of accessing news while they were away. Therefore, simple, direct links and navigation aids are essential (Sundar 2004, Tarafdar and Zhang 2005, Yang 2004).

The ‘Loyal’ group is interpreted as being the conservative type of readers as they were keen on reading news as part of their daily routine lifestyle, and put their trust in online newspapers just as they did in news, which originally came in print form. These two keywords: routine and trust, clearly reflected the ‘Serious’ news reader’s pattern (from the initial Stage 1 results), as they rejected advertisements, and they did not access news while they are away. Only once they acknowledged and built up the trust (Bewsell 2008, Cyr et al. 2005, Flavián and Gurrea 2008, Mackay and Lowrey 2007, Wakefield et al. 2004), would they be likely to be involved in online discussion (Statement No. 30) just as with shopping online or online transactions (Koufaris and Hampton-Sosa 2004, Lee 2005, Park and Kim 2006).

The ‘Loyal’ and ‘Connected’ news readers were the two distinctive groups indicated by the factor correlation of 2 on the four-factor analysis. This meant that the two groups were not similar and had non-common statements. As mentioned in the results and findings (Chapter 5, Section 5.2), the distinguishing or unique elements of the ‘Loyal’ group were concerns with trust and routine. The ‘Connected’ group was more focused on giving comments and discussions in weblogs. This group was different from the ‘Loyal’ group due to the fact that they may not have trusted online newspapers from
reputable organizations or information experts, but at the same time, they could still participate and interact, whereby the ‘Loyal’ group did not make use of forums, discussions and comments on the web, which could have ultimately lead to loyalty (Lawson-Body and Limayem 2004).

The ‘Playful’ group was the extension from the Initial Stage, done in 2007. This group was significantly distinctive from others as they liked to be involved in polls, surveys, games, puzzles and contests (No. 26, ranked +2). Furthermore, they did not favour online newspapers as their source of information in getting national news (No. 14, ranked -4). This was because they relied on other types of news information such as from print, television, and radio (No. 12, ranked +5). Apart from that, another important element this group had was that they liked the useful features of online newspapers websites for example, site maps, search engine, and help (No. 23, ranked +4).

From this evidence, this group was a frivolous group of people that did not take news as seriously as the others did. In view of their ranking of statements No. 26 and 12, it was appropriate to classify this group as ‘Playful’ news readers due to the fact that they did have the ‘play’ element. They were similar to many online readers who tended to seek gratification in escape, entertainment, interaction, and surveillance, that playful features were strong factors in influencing and engaging them (Chen and Yen 2004). Moreover, embedding curiosity-arousal devices and enjoyable features would influence these readers towards revisiting the website (Dholakia et al. 2000, Gustavsen and Tilley 2003, Ha and James 1998).

Table 6.4 represents the summary of the four-factor Q-Methodology results; ‘Accessible’, namely ‘Playful’, ‘Loyal’, and ‘Connected’ news readers, which all incorporated the interactivity dimensions leading to the description of the results of Phase 4 as follows.
<table>
<thead>
<tr>
<th>Interactivity Category</th>
<th>Accessible</th>
<th>Playful</th>
<th>Loyal</th>
<th>Connected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Availability and Choice</td>
<td>- provide me news update</td>
<td>- do not favour online newspapers as source of national news</td>
<td>- favour online newspapers as source of national news</td>
<td>None</td>
</tr>
<tr>
<td>Non-news related</td>
<td>None</td>
<td>- get extensive news through related links</td>
<td>- ignore advertisements</td>
<td></td>
</tr>
<tr>
<td>Effort and Knowledge of Users</td>
<td></td>
<td>- online newspapers provides useful features</td>
<td>- do not refer to latest jobs offers</td>
<td>- noted on advertisements - download graphics, wallpapers or postcards from online newspapers</td>
</tr>
<tr>
<td>General</td>
<td>- like simple and direct navigation to retrieve news</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Control</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>None</td>
<td>- part of routine to read online newspapers every day</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td>- *quick and easy to access from home</td>
<td>None</td>
<td>- cannot have access to online newspapers worldwide - not able to get local news if away or different state/country</td>
<td>None</td>
</tr>
<tr>
<td>Source of Information</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Connected</td>
<td>None</td>
<td>- like to involve in online discussion</td>
<td>- *like weblog/blog because able to read and give comments</td>
<td></td>
</tr>
<tr>
<td>Navigation</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>User’s response</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>System response</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Customization &amp; Management of Information</td>
<td>Personalization Available</td>
<td>None</td>
<td>- *choose online newspapers from the print company - neither trust online newspapers from reputable organizations nor information experts</td>
<td>None</td>
</tr>
<tr>
<td>Trust/Loyalty</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

Note: *both distinguishing statements and unique; normal – unique from other factors; italic – distinguishing statements form four-factor analysis
6.3.2 Interpretation of Phase 4 Results

Phase 4 was an extension of the web content analysis of Phase 1, which assessed the twelve Australian online newspapers websites in 2006 and in 2007. The purpose of revisiting the twelve websites in the year 2009 for Phase 4 was to capture and disclose the changes in online newspapers website in terms of content and layout, and the challenges they currently face in meeting competition from other online newspapers providers. These up-to-date results help not only in making a comparison between Phase 1 and Phase 4, but also to look at new phenomena such as the emergence of media convergence. Thus, this extended the longitudinal results of the study leading to more relevant conclusions and discussion of the present and future directions of the topic, which will be discussed in Chapter 7.

In Phase 4, the Content Availability and Choice options on both the Value Proposition and Peripheral Value Proposition were still the dominant dimensions of interactivity as found in Phase 1. However this was now both as a source of news and as non-news facilities in news website, which was now, featured more links and an enormous amount of video and audio. The next most prevalent dimension of interactivity was Communication Opportunity. The prevalence of the Communication Opportunity dimension could be attributed to the frequent presence of games, polls or online voting, discussion boards, comments and forwarding news to friends via popular social networking and micro-blogging, as like ‘Facebook’, ‘MySpace’, and ‘Twitter’. These two interactivity elements (Content Availability and Choice and Communication Opportunity) empowered users not only to get and stay connected but also to be involved and be part of the online newspapers community.

In fact, the Communication Opportunity content is getting more complex and dynamic, where most of the communication elements (regardless of whether they are sessional, semi permanent and permanent) emerge and converge with news (Content Availability and Choice) links to videos, pictures, and audios, as well as columnist section for reader to contribute their ideas. Eventually, this creates greater the complexity for the researcher in examining the content of the current online newspapers websites, which displayed ‘all-in-one’ news. In the online newspapers environment, videos, pictures,
audios, comments and weblogs can be part of the news information. Despite the presence of an enormous amount of videos and audio files, the most notable element that engaged reader to get and stay connected was the ‘game’ element. The space, speed, interactivity and technology of the web, which trends towards greater access to information, made these findings on games surprising. The evidence from these findings suggests that a complex hybrid form of news website will be generated with a new and evolving culture of current online newspapers.

This study also acknowledges that one of the important elements found in Phase 4 was personalization, which enabled reader to filter news according to their needs. According to Şanlier and Tağ (2005), personalization was one of the Internet major features of Interactivity dimension that challenges traditional journalism practices. Through personalization, users can feel themselves as a part of community and share their experiences with others. However, the findings of this study showed that it was available but the least employed option in online newspapers. Result also discovered that the latest trend is the convergence of journalism roles where people are becoming citizen journalists, contributing news to the online websites. This demonstrated the rise of an era of user-generated content in online newspapers (Hermida and Thurman 2008, Paulussen et al. 2007, Thurman 2008).

Basically, all the interactivity dimensions that have been examined in this study have shown the increase of complexity and dynamic growth in all aspects of the online newspapers environment over the four years of study. Table 6.5 shows the summary and selected highlights of the Phase 4 results.
<table>
<thead>
<tr>
<th>Interactivity Features</th>
<th>Content Analysis Year 2009 Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Availability and Choice</strong></td>
<td><strong>Value Proposition (news related)</strong></td>
</tr>
<tr>
<td></td>
<td>Online newspapers on the front page increased:</td>
</tr>
<tr>
<td></td>
<td>- news articles include related news links, pictures and/or videos, comment column</td>
</tr>
<tr>
<td></td>
<td>- latest news update</td>
</tr>
<tr>
<td></td>
<td>- news pictures, audio and videos</td>
</tr>
<tr>
<td></td>
<td>- capacity in keeping more archive news</td>
</tr>
<tr>
<td></td>
<td>- news alerts (RSS)</td>
</tr>
<tr>
<td></td>
<td>- promote e-paper (digital news)</td>
</tr>
<tr>
<td></td>
<td><strong>Peripheral Value Proposition (non-news related)</strong></td>
</tr>
<tr>
<td></td>
<td>Increased on:</td>
</tr>
<tr>
<td></td>
<td>- Advertisements: on-site sponsorships, video, pop-ups, flash, text links</td>
</tr>
<tr>
<td></td>
<td>- Online Games and contests</td>
</tr>
<tr>
<td></td>
<td>- Events calendar</td>
</tr>
<tr>
<td></td>
<td>- Photos and Audios (all-in-one entertainment)</td>
</tr>
<tr>
<td></td>
<td>- Entertainment guide</td>
</tr>
<tr>
<td></td>
<td>- Graphs, charts or currency converter</td>
</tr>
<tr>
<td></td>
<td>- Sitemap</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Effort of Users</strong></th>
<th><strong>Navigation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- A single click news increased by 34% from 2007</td>
</tr>
<tr>
<td></td>
<td>- 2 clicks decreased by 9% from 2007. More items were on archives, international news, and links other news websites</td>
</tr>
<tr>
<td></td>
<td>- 3 clicks only from DT, CM, Age, and SMH</td>
</tr>
<tr>
<td></td>
<td><strong>Connectedness</strong></td>
</tr>
<tr>
<td></td>
<td>- In-house links increased by 81%</td>
</tr>
<tr>
<td></td>
<td>- Links to other sites increased by 14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Communication Opportunity</strong></th>
<th><strong>Sessional</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Online Games: 9 online newspapers</td>
</tr>
<tr>
<td></td>
<td><strong>Semi Permanent</strong></td>
</tr>
<tr>
<td></td>
<td>- Online Polls: 4 at front page and 3 in other column</td>
</tr>
<tr>
<td></td>
<td>- Chat: HS</td>
</tr>
<tr>
<td></td>
<td><strong>Permanent</strong></td>
</tr>
<tr>
<td></td>
<td>- Social Networking*: ‘MySpace AU’</td>
</tr>
<tr>
<td></td>
<td>- Social Networking/micro-blogging: ‘Twitter’</td>
</tr>
<tr>
<td></td>
<td>- Comments*: after news article, after Chat</td>
</tr>
<tr>
<td></td>
<td>- Bulletin boards: events and calendar, announcements, and advertisements</td>
</tr>
<tr>
<td></td>
<td>- Weblogs*: 8 online newspapers displayed on the front page, 3 others provide sub column link</td>
</tr>
<tr>
<td></td>
<td>- Share/Forward* news article capability</td>
</tr>
<tr>
<td></td>
<td>* combination of all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Responsiveness</strong></th>
<th><strong>User’s response time</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HS and NT online newspapers made available either by sending notification and/or response between 24 to 72 hours</td>
</tr>
<tr>
<td></td>
<td><strong>System response time</strong></td>
</tr>
<tr>
<td></td>
<td>High category (within 0-5 seconds)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Customization and Management of Information</strong></th>
<th><strong>Personalization/Registration</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Available</td>
</tr>
<tr>
<td></td>
<td><strong>Hit Counters</strong></td>
</tr>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td></td>
<td><strong>Privacy Policy</strong></td>
</tr>
<tr>
<td></td>
<td>- Link to parent company; Fairfax and News Corp.</td>
</tr>
<tr>
<td></td>
<td>- Studied items were clearly stated</td>
</tr>
<tr>
<td></td>
<td>- Sitemap or Privacy link at the bottom of the front page</td>
</tr>
</tbody>
</table>
6.3.3 The Link between Phase 3 and Phase 4

As a continuation of the Initial Stage that was undertaken in 2006-2007, this section focuses on the Second Stage, which involved Phase 3 and Phase 4 undertaken in the years 2008-2009. Phase 3 was the Q-Methodology results of a study of 84 participants from two university groups in Australia and Malaysia, which captured users’ subjective opinions and perceptions towards the constant changes in online newspapers. Phase 4 revisited the content analysis of twelve Australian online newspapers websites to gather the latest news trends of content and layout that became available in that time frame (the year 2009).

Results from the Second Stage demonstrated an expansion and extension of the finding from the Initial Stage results. From two groups of online newspapers readers, ‘Serious’ and ‘Playful’, which were revealed in the First Stage, the Second Stage resulted in the revelation of four groups. The Q-study of Phase 3 produced a four-factor solution, named as the ‘Accessible’, the ‘Playful’, the ‘Loyal’, and the ‘Connected’ news readers, whilst Phase 4 revealed the complexity and dynamic of online newspapers, as newspaper websites in 2009 were offering more news and non-news content (Content Availability and Choice) along with emergence of communication features (Communication Opportunity). For the latter, games, polls, discussion boards, comments and social networking plus micro-blogging feature enabled news website readers to interact or forward news links to friends. The Communication Opportunity elements can be understood as a part or subset of Content Availability and Choice (forward news and leave comments after the news) as well as a ‘stand alone’ or a set of features that were made available in online newspapers (as in games, polls, or ‘Have Your Say’ column).

Ultimately, the results of Phase 3 and Phase 4 complemented each other as a new pattern of online newspapers had evolved to meet and suit the needs of readers. According to Kim and Leckenby (2004), online audience are becoming more complex and exposed to changing patterns and behavior. Results from both phases, demonstrate the types of readers that are available in current day scenarios of use: ‘Accessible’, for those who prefer quick and easy access, which leads to sites enhancing the attractiveness of design and navigation facilities in providing news links in online
newspapers; ‘Playful’ for those who prefer games and infotainment elements of online newspapers; ‘Loyal’, the conservative readers, for whom trust in online newspapers carries over from the print version and they read online newspapers as part of their routine; and lastly, ‘Connected’ users who are the citizen journalists interested in user-generated content who are more likely to contribute ideas and comments in online newspapers.

The results of the First (Initial) and Second Stage of the research study showed how the nature of online newspapers had emerged and rapidly changed from the year 2005 up to 2009. The four years of the research study saw an ever-increasing importance of news as source of information and the robust technology changes towards online newspapers. Online newspapers have become an ever changing; pervasive phenomenon in the new millennium, which has made it exigent that the factors affecting its adoption and success be identified. The future directions of online newspapers will be dealt with in the discussion in Chapter 7. Table 6.6 shows the emergence and association between the results of Phase 3 and Phase 4, which incorporated interactivity dimensions of the online content analysis and the Q-Methodology results.
<table>
<thead>
<tr>
<th>Interactivity Category</th>
<th>Content Availability and Choice</th>
<th>Year 2009</th>
<th>Accessible</th>
<th>Playful</th>
<th>Loyal</th>
<th>Connected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Proposition (news related)</td>
<td>1. Online newspapers on the front page increased: - news articles include related news links, pictures and/or videos, comment column - latest news update - news pictures, audio and videos - capacity in keeping more archive news - news alerts (RSS) - promote e-paper (digital news)</td>
<td>1. Provide me news update 2. Like online for international and world affairs news</td>
<td>1. Do not favour online newspapers as source of national news 2. Get extensive news through related links</td>
<td>1. Favour online newspapers as source of national news 2. Ignore advertisements</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Peripheral Value Proposition (non-news related)</td>
<td>1. Increased on: - Advertisements: on-site sponsorships, video, pop-ups, flash, text links - Online Games and contests - Events calendar - Photos and Audios (all-in-one entertainment) - Entertainment guide - Graphs, charts or currency converter - Sitemap</td>
<td>None</td>
<td>1. Online newspapers provides useful features 2. Like polls, surveys, games, puzzles and contests</td>
<td>1. Do not refer to latest jobs offers</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Effort and Knowledge of Users</td>
<td>Navigation</td>
<td>1. A single click news increased by 34% from 2007 2. 2 clicks decreased by 9% from 2007. More items were on archives, international news, and links other news websites 3. 3 clicks only from DT, CM, Age, and SMH</td>
<td>1. Like simple and direct navigation to retrieve news</td>
<td>None</td>
<td>1. Part of routine to read online newspapers every day</td>
<td>None</td>
</tr>
<tr>
<td>Connectedness</td>
<td></td>
<td>1. In-house links increased by 81% 2. Links to other sites increased by 14%</td>
<td></td>
<td></td>
<td></td>
<td>None</td>
</tr>
</tbody>
</table>
Table 6.8: continued Interpretation of the Phase 3 and Phase 4 Results

<table>
<thead>
<tr>
<th>Communication Opportunity</th>
<th>Sessional</th>
<th>Semi Permanent</th>
<th>Permanent</th>
<th>None</th>
<th>None</th>
<th>None</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsiveness</strong></td>
<td>User’s response time</td>
<td>1. HS and NT online newspapers made available either by sending notification and/or response between 24 to 72 hours</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>System response time</td>
<td>1. High category (within 0-5 seconds)</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>Customization and Management of Information</strong></td>
<td>Personalization/Registration</td>
<td>Available</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Hit Counters</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Privacy Policy or Trust/Loyalty</td>
<td>1. Link to parent company; Fairfax and News Corp. 2. Studied items were clearly stated 3. Sitemap or Privacy link at the bottom of the front page</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
6.3.4 Activity Theory Analysis of the Second Stage

A holistic analysis of the second stage of this study is now presented using Activity Theory in the same manner as Section 6.2.4. In this analysis we see online newspapers ‘readers’ becoming ‘users’ of an online newspapers service.

The outcome of the research is interpreted by means of four activities corresponding to the Factors revealed in the Q-Study of Phase 3, ‘Accessible’, ‘Playful’, ‘Loyal’, and ‘Connected’. The ‘Accessible’ activity corresponds to the users who prefer quick and easy access to news online. The ‘Playful’ activity corresponds to the user who is keen on other non-news element such as games, polls and contests when they are available on online newspapers websites. The ‘Loyal’ activity corresponds to the user who trusts traditional newspapers from the print company and then read their online newspapers as routine. The ‘Connected’ user activity corresponds to the citizen journalist who likes to contribute ideas and comments.

The Second Stage results revealed the ‘Playful’ and ‘Connected’ activity groups as an expansion from the First Stage result of the ‘Playful’ news users’ activity. Both groups were active users of non-news related tools so that the Outcomes of their activities highly involved contributing ideas and comments, and participating in games and contests. Meanwhile, the ‘Loyal’ and ‘Accessible’ groups of the Second Stage came from the ‘Serious’ news users’ activity from the previous stage. The ‘Loyal’ users’ activity highly rated trust and routine (statements No. 47 and No. 49, both ranked +3) aspects of online newspapers related content and as for the ‘Accessible’ groups’ activity the emphasis was on quick and easy access to online newspapers.

The difference between the subjects of these two groups was that the ‘Accessible’ user was highly equipped with Internet skills in contrast to the ‘Loyal’ subject who was one of a more conservative user group of people. Results from the Phase 3 Q-study significantly revealed the ‘Loyal’ group as being unable to access online newspapers worldwide (statement No. 5, ranked -3), and were not able to get local news if they are away (statement No. 7, ranked -4).
The Second Stage results also revealed the changes to news production from the beginning of the research study in 2006. The Initial Stage found that news online was more focussed on traditional news, which involved the basic and fundamental activity of news production with news producers as the subject. It simply replaced the tools of print media with the tool of the website to deliver their news online – the object of their activity. The activity of the news user was also considered to have only changed in regard to the tool used, the web replacing paper. Significantly, in the second stage, the consumers of online newspapers evolved from users to users who were becoming a more significant part of the news industry and who liked to participate and be involved.

Based on Kaptelinin and Nardi (2006), Activity Theory begins with the idea of a purposeful activity as a relationship between a subject who has needs to be met by bringing with an object, which includes the subject’s motives and directs the subject’s actions in pursuing the object of the activity. News producers and users are the subjects of traditionally different activities and producing and consuming news with other non-news elements form the objects. Besides that, tool mediation is a key principle in Activity Theory. Here, online newspapers websites were the tools that were of interest to this study, replacing print and thus mediating the activity was a dynamic and sometimes unpredictable way. News producers and news consumers mediate their relationship to reality with tools. The tools evolve through the subject’s experiences with purposeful and intentional activities.

Therefore, using Activity Theory to interpret the outcomes from the Initial Stage and contrasting these with the outcomes of the Second Stage (Phases 3 and 4), revealed new patterns of activities – ‘Accessible’, ‘Playful’, ‘Loyal’, and ‘Connected’ users of online newspapers websites and how this use evolved according to the current context and development of technology. Activity Theory underpins the developing concept of the individual as a technologically empowered and socially contextualised subject of the news-related activities. A summary of The Activity Theory interpretation of the relationships between the outcomes of each phase of the study is illustrated using Figure 6.2. In particular it shows how two user activities (playful and serious use) indentified in the first Q- study of Phase 2 were not only also revealed in the later Q-study of Phase 3 but also expanded into to more insightful
activities, namely connected as specialised playful activity, and Accessible and Loyal as types of serious activities. All four activities however still viewed users as news consumers, i.e. online news readers. Phase 4, the most recent content analysis revealed that there is a blurring between the news reader and the news producers as the interactive features allowed end-users to put in their own content rather than just read news produced by news organisations. Thus, news is becoming mutually generated by the news companies (formally the producers) and the public (formerly just news readers.

![Diagram of results from Phase 2]

Figure 6.2: A Summary of the Activities identifies in Phases 2-4

These findings can then aid in designing news websites to support these different activities. This mode of research, using content analysis and Q-Methodology, and the interpretation of the findings through Activity Theory had enabled the process of getting to know how people perceive the constant changes in the online newspapers environment and adapt their activities when engaged in it.
6.4 Chapter Summary

This chapter elucidates an interpretation of the results and findings collected from Phase 1 to Phase 4 of the research presented in Chapter 4 and 5. This interpretation is the result from the application of two methodology approaches – content analysis of the websites and the Q-Methodology, and aimed to answer the main research questions, expressed in Chapter 2. These questions are concerned first with the nature of the content and layout of Australian online newspapers and, secondly, how people perceive (Australian and Malaysian) the constant changes in online newspapers.

The interpretation from the Initial and Second Stages of the research, underpinned by Activity Theory demonstrates the growth and evolution of online newspapers throughout the four years of research study (from 2005 to 2009). It shows the change from being a traditional news industry, which involved the basic and fundamental activities of news producers and consumers as in the print era, who liked to participate and be involved in contributing to news production. The combination of research approaches – Interactivity concept and Activity Theory, has contributed to an overall understanding of online newspapers website content and layout as well as the users’ subjective perceptions towards online newspapers changes.

The results are beginning to show the convergence of media leading to a whole new world of online newspapers and the convergence of news production with news consumers, as evidenced through citizen journalism and user-generated content. Furthermore, the Activity Theory analysis was eminently suitable for describing patterns of activities where an activity is considered as the ideal ‘holistic’ unit of analysis for analysing and explaining dynamic relationships between people and how people access information and collaborate with the assistance of tools (such as online newspapers websites) in complex and dynamic environments. In the next section, Chapter 7, a discussion and critical analysis of current innovations and the future directions of online newspapers is presented.
CHAPTER SEVEN
CRITICAL ANALYSIS OF CURRENT INNOVATIONS

You redesign your paper and nothing happens; you reorganize your newsroom and nothing happens; you improve the content of your daily and nothing happens...but you invest in your circulation operations and circulation grows. – C. Campos, 2005 (cited in Cokley 2005, p.8).

When newer forms of communication media emerge, the older forms usually do not die – they continue to evolve and adapt. – R. Filder (cited in Biagi 1999, p.212).

7.1 Introduction

This chapter presents a discussion and a critical analysis of current innovations in online news. The chapter begins with the current state of online news, inferred from the longitudinal study of online newspapers websites of this study with data sets on people’s perceptions and web-based content analysis revealing the constant changes in online news. This study demonstrates the revolutionary nature of online news that is impacting not only the business model of news industries, but also the working environment of the journalist’s professions, and the public news consumers in general. The chapter then discusses the possible future of online news to further reflect on the lessons learnt from current changes, and build on these lessons to speculate on where this will take us in the future. This chapter also reflects on the relevance of Activity Theory for the future study of the online news phenomenon.

7.2 The Current State of Online News

In the four years that the study was undertaken, the trend towards online news capability had intensified and expanded. The rapid adoption and popularity of the social technologies of Web 2.0 had laid a platform for increasing user participation in the production and distribution of news anywhere and anytime. The following section describes these changes.

The message of this research study emphasises the transformational changes that are currently occurring in the information industries with the rise of Web 2.0 technologies. Over the past of four years, a general observation and consolidation had made on the twelve newspaper websites on the content and layout of the
interactivity level and people’s perception towards the constant changes in online news. Based on the results collected, there was significant growth and the use of personal weblogs; multimedia content including video and audio reports, pop-up advertising, re-purposed short-form classifieds, or digital-expanded classifieds, personalised news choices based on topics and/or keywords, aggregated news from other sources, as well as expanded letters to the editor, users comments, and discussion forums, which invited peoples’ involvement and interactivity in online news.

This demonstrated what many researchers have called the ‘evolution of the online newspapers’ (Domingo et al. 2008, Greer and Mensing 2006, Sääksjärvi and Santonen 2002). Singer (1997, p.16) commented earlier in her article, ‘interactive media represent a shift in the whole concept of what is information, who provides it, and what can be done with it’.

Observations of the major Australian newspapers showed a trend towards standardising the design of the syndicated outlets. For example, Fairfax Media as Fairfax Digital in Australia merged with Rural Press Limited, Trade Me and stuff.co.nz in New Zealand. This merger created a large integration of media news companies across Australia, New Zealand, America, and worldwide (Fairfax Media Limited Annual Report 2007). This emphasised the traditional disinclination between the corporate news providers and the public news consumers, and some may miss the boat in the current environment where there is a sharp change in the consumers’ definition of what is ‘news’ (Outing 2008).

The most notable trend in the websites of the major Australian newspapers, following on from the 2006-2007 study, is that the dominant syndicates such as Fairfax (see Fairfax Digital, http://www.fairfax.com.au/), had a common production regime (standardisation) for all their sites with a professional corporate look and feel. They had included up-to-date features such as mobile and RSS feeds, and were also linked to sites such as ‘MySpace AU’. Due the reason of the increase level of interactivity, they also had to retain features for readers’ input such as ‘Letters to Editor’ and ‘Feedback’ columns, to which had been added weblogs.
Most of the journalists working for the major news syndicates had their own official or independent weblogs. With all this obvious modernisation, however, the model remains that of distinct and separate roles for news provider and news consumers, with the big newspaper companies still in control of news processes, and the work of the journalists. Nevertheless, outside the big corporate news media companies, the world is moving on. Many of the first images of world events are seen on ‘Flickr’ or ‘Youtube’ well before the ‘official’ media pick them up.

In the year 2009, large numbers of members of the public, who traditionally made up the community of news readers, were not only Internet savvy but avid users of Web 2.0 social technologies such as ‘MySpace’, ‘Facebook’, ‘Meetup’, ‘FriendFeed’, ‘Twitter’, and ‘Slashdot’. These conversational cyberspaces allow users to express opinions, ideas, and pose questions and answers without imposing strict limitations about the content. Such users wanted more from news websites than they did four years ago and the online news sites have now discovered these latest trends. According to Outing (2008), from Editor & Publisher, the very definition of ‘news’ is changing and he urges the newspapers to serve the complete news need of consumers, from the big picture events to high school friend. For these users, news is located within their social circle or social network, serving what he designates as the ‘social networks addiction’. For him, the ‘social networks addicts’ want global-to-micro-personal news as well as news about the people they know.

Current users of news websites wanted to become part of the media conversation to the extent that the news industry is now able to leverage users as reporters or content creators and combine this with conventional online news. The concepts of participatory journalism or user-generated content (Domingo et al. 2008, Paulussen et al. 2007) encapsulate how everyday citizens are participating in the professional news making process. This freedom, in turn, creates an environment in which discussions are not bounded and often stray from the initial topic being discussed. This means that ‘social networks addiction’ is the new trend of online discussion boards that represent a rich repository of knowledge organized in a collection of user-generated content (Wanas et al. 2009).
Some online news broadcasters have put into practice the user-generated content or social networks addiction as predicted by Outing (2008). In Australia for example, the Australian Broadcast Corporation (ABC) online featured ‘Twitter’ in three different modes: Feed, Active, and Hashtags. For instance, the ABC News Breakfast Show (from 6am to 9am every weekday) is using Active Twitter to allow users to vigorously interact and participate. ‘Twitter’ is a mini-weblog application that provides a free service for getting people connected via texting online or mobile phone. Besides the ABC News ‘Breakfast Show’, the ABC also features ‘774Melbourne’, ‘612Brisbane’ and ‘ABCunleashed’ in Active Twitter mode. Meanwhile, ABC News Network was an example of a news service that provided on Really Simple Syndication (RSS) feeds or a collection of RSS and other automated feeds to send out news updates. Elsewhere, the program the ‘Howardyears’ was a case where Hashtags were inserted in a word or phrase by means of prefixed #, used to encode Twitter messages.

‘Twitter’ is basically owned by an American podcast company and started to operate in the year 2006. It offers a social networking and micro-blogging service that reaches the user by posting text messages, restricted to a maximum length of 140 characters. Users would need to sign in to Twitter.com, and set a pool of preferred friends to enable them to communicate by just sending text messages or updates via Short Message Service (SMS) and/or Multimedia Message Service (MMS), which can be received through mobile phones and/or the WWW. There has been a tremendous growth of people who have started using this application as a tool for mass communication and collection news generation. In fact, Wikipedia claims that ‘Twitter’ has reached about 4 to 5 million users (http://en.wikipedia.org/wiki/Twitter). Nielsen Online report that ‘Twitter’ had an enormous increase of users with a boost of 1,382 percent after a year from February 2008 (Nielsen Wire 2009).

So, how does it apply to online news? People who use ‘Twitter’ are able to share their thoughts, lives, opinions, and links on any topic. It can also act as an advertisement tool or advocacy for community causes. The main thrust behind ‘Twitter’ is the exchanges of information around the question, ‘what are you doing’. Users are capable of doing so either by typing it through the Internet or
communicating via their mobile phones. This is a new trend of how people interact with ‘the news’, expanding the experience to cover news of global significance to the micro-personal aspects.

Besides the large public ABC organisation, in Australia the most participatory and innovative use of the Web for news generation comes from independent sites such as the ‘Cricky’ website (http://www.crikey.com.au/). Their motto, ‘Telling what they won’t’, indicates the rebellious approach they take. This is similar to ‘Slashdot’ website, owned by an American company, which serves up millions of pages to online readers with the simple mission, ‘News for Nerds. Stuff that Matters’ (http://slashdot.org/). The ‘Cricky’ is mainly the sponsor of a number of weblogs where debates represent a broad range of views from the public. News sites such as these spearhead the trend to citizen journalism and democratisation of news content.

Domination by the big news media organisations in Australia has meant that there was a decline in local news content delivered by the public print and broadcast companies. To counter this, the Australian government had tried to regulate the industry by demanding a certain percentage of local content in the news offering of the big media syndicates. The TV networks had adhered to these regulations mainly through the news on their websites. For example, ‘Iprime’ (http://www.iprime.com.au/) featuring hyper-local content generated provided local news content based on individual towns and cities in regional Australian. ‘Iprime’ owned by the Seven Network, a local television broadcast company. However, although these contained links called ‘send us your stories’ and ‘send us your photos’, there was no indication that there was much contribution.

An international example of where there is obvious active user participation in generating online news is IReport, from CNN (http://edition.cnn.com/ireport/Slashdot.org). The CNN.com, best known as CNN Interactive, is an American news website. Based on Wikipedia, it is one of the most popular news websites. The CNN Interactive first introduced IReport.com in August 2006 and completed the launch in March 2008 by using beta version. It featured user-submitted news photos and videos (non-edited version that does not have to be screened by editors) send directly by users of all ages with different professions and
backgrounds, and it is viewed worldwide. It is now featured as a program on CNN cable TV, which is viewed around the world and no doubt plays a reciprocal role in getting more people to contribute to IReport.

Another example of a citizen news site that allows participation from readers is Pegasus News, from Dallas, U.S. (http://www.pegasusnews.com/). Similar to IReport, in Pegasus News, users can upload an event or photo, build an RSS feed to oneself, comment on stories and are even invited to tell their own related news story. This initiative provides an opportunity for people to contribute their own news happening around their place, stories, and ideas through pictures and videos. It also encourages people to participate in the news and become public journalists. Most importantly, their news can be instantaneously watched on the website and will be viewed globally. Once a critical mass is achieved these movements become self-sustaining at a low cost for either the large corporate media outlet or independent provider.

7.3 The Future of Online News

The Internet and digital technologies have been responsible for periods of spectacular revolutionary developments among more gradual evolutionary changes in many aspects of human activity.

Distributing the news online has a significant impact on the traditional news cycle (Chung 2008, Hall 2001). The online news services no longer need to meet production deadlines and stories are not set in type until the next edition. Journalists can put up one version of the story as soon as it breaks, then continue to revise and update the content as more is known (Flavián and Gurrea 2008). In the same way that digital technology has revolutionised many industries the change in the world of news delivery has been rapid and transformational.

What is more, many online news sites are now discovering that more and more users want to become part of the media conversation. The once static sites of newspapers have become increasingly interactive, adding advance features and devices such as news chats and weblogs, accepting pictures, video and audio, which allows readers to contribute, becoming writers and reporters. In the process, we are seeing growing
numbers of members of the public contribute media rich reports and opinions to news sites thereby creating a participatory flavour of news that is different from the traditional one way broadcast news. The study indicates that over the past few years, the rapid take up of the phenomenon of social networking is resulting in such a revolutionary change in the news industry (Outing 2008).

As results from the thesis shows, the Internet as a news medium is not a revolution coming from nowhere. Despite its seemingly sudden emergence in the 1990s, online news has had a 160-year evolutionary history from simple consumer telegraphic news services to telephone-based audio news services to the faxed newspaper to videotex to web news. Some of the online news enjoyed immediate successes, some were dead from early days, and some were off and on again after the emergence of media news companies and some are still surviving. As Silverstone (2005, p.63) argued, ‘revolutions are evolutions in disguise. They are hard won and needs have to be created. They do not simply merge fully from natural desires, innocent perceptions or even previous experiences’. However, Bokesoy (2008, p.3) speculated that the news industry will be evolutionary rather than a revolutionary due to the fact that online news have not yet found ‘a balance between the freedom and guidance’ to readers as well as a balance between ‘the levels of interactivity and editorial quality’.

In studying the complexity and dynamic of the online news within a global context, this study also explored the impact and potential development for the future of online news, which will be elaborated in the next sections.

7.3.1 Online News Characteristic

Up until the last couple of years, the majority of online news sites exhibited the characteristics, which seemed to be dominated by the traditional divisions of roles into news providers on the one hand and news consumers on the other. What we are seeing for the future of the online news is ‘the era of convergence’, where the news provider and news consumer converge, as well as between news and a variety of technologies. For example, more news feed and publications go into users’ podcast, videos and photos from mobile and other high technology devices (as like iRex DR1000 series able to retrieve e-paper). Both reporting and reading news can happen
not only at home using desktop computer or personnel computer but now people can also have access to news when they are ‘on the move’ via their notebook (wireless), podcast, and mobile phones (Blackberry and iPhone for example). Based on Ihlström and friends (2007, 2004) mobility, lightweight, readability, interactivity and multimedia, and digital distribution are the combination offers extended advantages to online news.

People are now turning to the web for news, which provide news richness and instantaneous. As discussed in Chapter 2 (Section 2.3), amongst the distinctive characteristics of the digital medium, compared to analogue media such as the newspaper, are interactivity, multimediality and convergence of pictures, moving images, text and sound into one medium of distribution and, finally, immediacy (Boczkowski 2004b, Bucy 2004, Chung 2008, Karlsson 2007).

Immediacy will still be the key factor and continuous pattern in online news, as Bucy (2004) argues that immediacy is a set of features that lend a sense of ‘nowness’ or ‘live’ reporting (Eriksen and Ihlström 2000), and real-time urgency. Karlson (2007) also agrees to this, as in virtual environment there is no lag between information received or created versus the time information is delivered to news consumer.

In future, online news would be ‘overloaded’ with news content. There will be more news links on information news, photographs, timeliness and immediacy, network presence items as well as interactive features of commercial transactions, interactivity (multimedia), and information accessibility, as Bucy commented earlier (highlighted in Chapter 2, Section 2.2.2). The role of personalization and customization (news choices based on topics and/or keyword searches) would be in the priority list for readers to filter their news (Lawson-Body and Limayem 2004, Outing 2008).

According to Eveland et al.(2004), the use of hyperlinks demonstrates the key characteristics of the online news, which brings advantage to the high usage of users who are familiar with the Internet and discourage users who have low usage or rarely use the Internet for online news. As Ihlström et al. (2004) suggested, on the preferred
characteristics of online news are continuous updates, searching, easy and intuitive navigation, hyperlinks, interactivity, possibility to add sound and video.

What readers need are news of global and local happenings, and fast-breaking events, and constant updates throughout the day. Furthermore, we could see more to come in the form of social technologies and networking in online news. As Outing (2008) argues, the changing definition of ‘news’, where users who are now on the ‘social networks addicts’ (such as ‘Facebook’, ‘Digg’, ‘Myspace’, etc.) is the demanding of more news from global-to-micro-personal levels.

‘What is happening is, in short, a revolution in the way young people are accessing news. They don’t want to rely on the morning paper for their up-to-date information. They don’t want to reply on a god-like figure from above to tell them what’s important. And to carry the religion analogy a bit further, they certainly don’t want news presented as gospel. Instead, they want their news on demand, when it works for them. They want control over their media, instead of being controlled by it’ (Murdoch 2005, p.2).

One of the advantages of having the news on to the web is the space and capacity to online and archives news. These archives can be in a format of broadcast, television, print or online news, which now can be captured and kept on the web. Though the presences of news are free, there are some speculation that news and archives news is gradually will be charged or must be paid-per-view (McCarthy 2003).

According to Rupert Murdoch (Clark 2009), all the News Corporation online news websites, which include the Times, the Sun, the News of the Worlds, the Wall Street Journal, the Australian, the Northern Territory News, and the Courier Main will become fee-based in the near future as ‘the digital revolution has opened many new and inexpensive distribution channels but has not made content free. We intend to charge for all our news websites’ (Rupert Murdoch 2009, The Guardian). On the contrary, with the unravelling of expectations of consumer behaviour, the online news is suggested to be content free (Andersen 2009). Otherwise, users would turn away from subscribing to online news to other online news websites (Bell 2005), and news company will loosen their readerships.
‘A web service has a significant influence on users’ assessment of its quality and their intentions to use it again in the future...an extremely important aspect for a website’s survival in that it increases the possibility that users will return to use it again instead of turning to other websites that offer similar services’ (Mazzoni 2006, p.162).

7.3.2 Online News Industries

The Internet is a great enabler of social change and, there is ample evidence that the Internet is a fruitful tool for change of, and through, news online. One study of Spiegel Online (2008), the most popular online resource for news in Germany, claimed that in 2018, the web could be the ‘newspaper’ in Germany and the printed newspaper will have become obsolete. Elsewhere, like in France, Rue89.com and Mediapart.fr launched internet news sites in 2007 and 2008, respectively. In Finland, Taloussanomat, the daily financial newspaper (www.taloussanomat.fi), ended ten years of print-based newspaper, and Uusi Suomi, the daily newspaper (www.uusisuomi.fi), the resurrecting a brand with a 100-year print heritage had turned to digital news in 2007 (cited in Thurman and Myllylahti 2009). In Spring 2008, the Madison afternoon newspaper in Wisconsin, U.S., The Capital News, has stopped printing to concentrate on its online presence (Rogers 2009).

More recently, on March 2009, the Seattle Post-Intelligencer has announced that it was shifting entirely from the printed edition (established in 1863) to online news as SeattlePI.com. A month before that was The Rocky Mountain News. The latest, The Berkeley Daily Planet (established in 1999) shifted to an online-only edition on 25th February 2010 (Bender 2010). This shift indicates how some newspapers have made progress and joined the band wagon from print to the digital arena with online-only editions. Steven R. Swartz, president of the Hearst Corporation (owner of the online news) from the newspaper division stressed how the new SeattlePI.com represents the latest form of news the current period of innovation and experimentation (cited in Yardley and Pérez-Peña 2009).

Li (2006) reported an increase to over 3,400 newspapers that were published online from the end of the 1990s until mid 2001. Now, newspaper websites are exceedingly popular. According to Khattak (2007) in 2006, more than 56 million people per
month accessed U.S. news websites. However, online news does not bring a quick profit to publisher. Their revenues are rather stable with either a slow increase or even a lack of profitability (Greer and Mensing 2006, Lewis 2004). Most news company generate internet revenue from reader subscriptions, banner advertising and local search, classified advertising, community development, and emerging technologies. For example, Google and Yahoo have 28 percent of U.S. online advertising, which is increasing (Khattach 2007).

Many researchers agree that generating multiple or diversify revenue stream is more appropriate than relying heavily on one (Bleyen and Hove 2007, Ihlström and Jonathan 2002, Palmer and Eriksen 1999, Thurman and Herbert 2007). Newspaper companies are finding ways to monetise some or all of their online content, while still remaining popular internet destination. Besides that, a strong online brand such as News Corporation owned by Rupert Murdoch would certainly have an advantage, if the industry moved towards paid content (Thurman and Herbert 2007).

Based on the work of Bleyen and Hove (2007), the online newspaper is still facing the ‘free or fee’ dilemma in offering certain payments for recent and archive news. However, results from the research showed online subscriptions and pay-per-view was relatively low and the bigger newspaper organisations were less pay-per-view-minded. For example, the Irish Times, which was the first newspaper in Ireland to go online in 1994, earns significant revenues from content subscriptions with daily to a yearly payment terms, between £2 and £79 (Khattach 2007). Most subscriptions are for news archives, the pdf-version or e-paper, SMS and RSS services, and full access to articles – specialised content (Palmer and Eriksen 2000) or ‘unique content’ (Thurman and Herbert 2007) that is not available elsewhere. For instance, consumers will pay for valuable and unique content such as the Wall Street Journal, which has proven to be one of the successful newspapers at attracting paying subscribers to its website.

‘Information wants to be free because it has become so cheap to distribute, copy, and recombine – too cheap to meter. It wants to be expensive because it can be immeasurably valuable to the recipient. That tension will not go away’ (cited in Beyers 2004, p.16).
Furthermore, newspaper companies need to carefully balance between subscription and free content on the website, considering charging for their online news in more cost-effective and higher-retention payment plans. The Newspaper Association of America (NAA) report shows that 92 percent of newspapers offered a discount in 2008 for participating users and a 38 percent discount for the new subscriptions (2009a). However, as Thurman and Myllylahti (2009, p.32) urged, ‘the online-only newspaper should be freer to exploit the potential of the online medium’.

Franklin (2008) claims that newspapers are obliged to operate in increasingly competitive and fragmented markets for readers and advertising revenues and is hypersensitive to developments in media technology. This threat has always motivated newspapers to constantly change to their design and contents to meet readers’ shifting requirements for news and its presentation. As Ihlström (2005) stressed, the challenges of the online news from the news industry perspective would be on the news design, organization itself – dedicated journalists and editors that works 24/7 with multi-tasking ability, and lucrative business models that brings continuous profit.

The importance of design driven approach is key to sustain the online news websites. Even though print is still ‘a king’ as claimed by Langeveld (2009) in his article, ‘Print is still king: Only 3 percent of newspaper reading happens online’, but the newspapers companies should be thinking on how to make the print experience better for people who like the print news, rather than trying to change to attract people who don’t get their news in print. As Kevin Lavalla, a Manager Director at Veronis, Suhler and Associates, a New York-based investment bank that specialised in media (Cassidy 1999, p.57) noted a decade ago,

‘Newspapers are an industry that was supposed to go away when television came out; it was supposed to go away when cable come out; and it was supposed to go away when the Internet came out. But it’s still going strong.’

In addition to that, O’Brien (2009, p.2) commented that the newspaper companies should consider improving their online journalism by ‘talking to folks who want to get their news online and design better experiences for them, rather than spending time thinking about how to move print readers to the web, or vice versa’.
On the contrary, many media experts are convinced that it is by using the Internet’s added values, online media can distinguish themselves from their traditional counterparts and it is this distinction that might be the precondition for all readers and advertisers to embrace online news media. The paradox of today’s online news production lies in the fact that traditional news organisations follow a defensive media strategy on the Internet (motivated by profit concerns), in which online journalists cannot take full advantage of those internet-specific features that might make their website more ‘valuable’ and, thus more profitable. The online news is not just about the new methods of distribution, but the main thing is, it is more about new possibilities for production and reception (Meikle 2009).

Convergence of digital media merging broadcast and interactive modes, as well as static and mobile sources and receivers is making the news landscape much more complex and dynamic. Based on Boczkowski (2004a), convergence is multi-platform publishing, to concentrated ownership – the coming-together of content, communications and computing, of industries and audiences, of models and modes. The key aspect of convergence is technological, as media content, telecommunications, and computing become ever more integrated and advanced.

As Thurman and Lupton (2008) stressed, the willingness to invest in the technologies would be greater, popular, and profitable in the a long run. By using Internet, new configurations of news production, distribution and reception, new modes of authorship and audience-hood, new kinds of producer and consumer: pluralisation, multiplication, fragmentation, that is also called as divergence (cited in Meikle 2009). The new era of media divergence are characterised by many-to-many, and decentralised communication, as Poster (1995, p.3) argues that:

‘...a system of multiple producers/distributors/consumers, an entirely new configuration of communication relations in which the boundaries between those terms collapse’.

In the era of convergence, the media industry adapts to cope with changes in society as part of its role of reflecting that society. In addition, Ihlström (2005) earlier discussed the challenges, in terms of newspapers organizations, where they have to change their writing styles, add in with integrated photography, graphics (for
example using ‘Flash’), and design of interesting and interactive storytelling (from text-only to text with videos) (Thurman and Lupton 2008). Gerry Storch (2009) from The Online Journalism Review reports on newspapers companies that are now realigning their editorial staff with a ‘dynamite local news’ websites as they can reallocate their staff for national or international news. But on the other hand, he suggests that the newspaper companies should charge for their content and advertising. As Chuck Schilling, Nielsen Online’s research director agency and media noted in a statement (cited in Kawamoto 2009, p.2):

‘The challenge for newspaper publishers today is to learn how to capitalize on this active online readership and translate their increasing engagement into revenue’.

In each incarnation of news, change occurred, and yet news continued to be disseminated to suit and meet current needs. ‘Technologically, the Internet enables online newspapers to seek a world-wide market’ (Chyi and Sylvie 2001, p.232). Report form U.S. Congressional Research Service claimed that newspapers are attracting online readers from other cities and countries that are beyond the local communities. Report showed that U.S. newspaper websites increased by 10.5 percent from first quarter of 2008 to the same period in 2009, an average of more than 73 million individual visitors a month (Kirchhoff 2009).

The concept of news is changing as well as becoming more personalised, service-oriented, and less institutional. People’s information-seeking trends and behaviours are changing due to this convergence, and now they tend to multi-task and use multiple media at the same time. In fact, some traditional news organisations and alternative news sites are sensing the consumers’ gravitation to user-contributed content. Based on Storch (2009), the use of ‘citizen journalists’ is necessary for ‘neighbourhood news’, which covers local and community news. This ‘citizen journalism’ can cynically be viewed as another way for management to provide content for almost no cost.

These news organisations are realising that this is part of a major shift in the industry, and they are starting to get serious about efforts to include the community in the news process. As mentioned in an earlier section (Section 7.2 on dominant
syndicates), the Internet provides support for multinational companies enabling
global control of media outlets by a single organisation (homogenous) or media
conglomerates (Gordon 2003), such as News Corporation and Fairfax Digital.

On top of that, the Internet also enables global reach from the micro-businesses
particularly in an area such as news, where the product is digital. This allows
individual voices to be heard world-wide and the social networking phenomenon
enables these individual to link up and have considerable influences. This
opportunity for global networked advocacy is a revolutionary aspect of the Internet
as audiences tend to pay more attention to and become reliant on media, which they
consider credible and reliable – media credibility (Bucy 2004, Chung 2008, Meyer
2004). In future, Web 3.0 may be all about tools, processes, and people who use
online news meaningfully, with greater importance, and with more trustworthiness
(Bewsell 2008, Flavián and Gurrea 2008, Hermida and Thurman 2008, Lee-Wright

Online news industries also should be actively considering offering personalised
editions – Personalisation and Customisation in targeting online news readers that
have different lifestyles and values. Interestingly, a study from Chan and Leung
(2005) shows there are several types of online news reading behaviour. The
‘experiencers’ – lifestyle savouring the new and read more online international/China
news and not rely on traditional sources for news. They enjoy the excitement, thrills,
new things, challenges, variety, spending relatively more on fashion, entertainment,
socializing. The ‘strivers’ – those who are seeking for fun and interactive; ‘makers’ –
desire for self-expression and enjoy multimedia features; ‘innovators’ – inspired for
new ideas, and the ‘survivors’ – have no interest in reading international/China news
online. These results imply that customised news services are required to satisfy the
different needs of news readers with diverse lifestyle and personality’s orientations.
7.3.3 Online Journalism

The news industries of the 21st century are products of the dominant technologies of the era: the web, email, broadband, smart software, robust technology, and third generation cell phones. These digital advances and a host of emerging technologies will continue to transform journalism during the next decade. In the era of convergence, journalists will also need to embrace this cultural shift.

‘The future of journalism is becoming clearer but yet remains muddy, as “journalist” becomes more of a function than a title’ (Wilkinson et al. 2009, p.203).

This convergence radically alters the fixed notions of time and place that governed the traditional news cycle. The blurred roles of news media owners are leading to new business models in the news industries. The conglomerates or multinational companies such as News Corporation and Fairfax Digital, enable global control of media outlets. This prospectus influence online journalism. The newsrooms are sceptically being understaffed. Rather than to meet certain cut off time for print, editors are retained to be traditional gate-keeper and with journalists, they require small numbers of employees to run the online news. For example, the Seattle Post-Intelligencer, known as SeattlePI.com, which now runs solely on online newspapers with only twenty employees compare with 165 employees before the conversion from print. Besides original news reporting, their jobs are more focused on commentary, advice and links to other news site (Yardley and Pérez-Peña 2009).

It is useful to position these cultural shifts and changes on Bucy’s (2004 p.103) observation of online news that characterised by three different generations impacting online journalism. During the first generation of Net news, in the early to mid-1990s, where news organisations produced simple hypertext pages and print media learned how to take their efforts online. The second generation, from the mid-1990s to the decade’s end, moved online journalism to a more independent footing, engaging in original newsgathering and production. Continuous updates became more common, streaming audio and video appeared, news become more visual and in-depth, and interactive chats and online discussions emerged, creating news communities. The third generation Internet news sites are not just about
reinvigorating journalism but to leverage in improving interactive applications that create an entirely new integrated news experience to engage consumers.

Based on Bucy’s observation, this concludes that a journalist’s prospects are not only focused on words and writing expertise but far beyond that. Being a ‘web’ journalist or online journalist, the great challenge is to commit to ‘multi-platform working’ (multimedia platforms or multitasking), in getting ‘fresh’ news content that is happening locally and often updated, involving images (through photos and videos), and can be interactive (two-way communication with readers). As Wilkinson et al. (2009) stressed, news has become a ‘conversation’. News is now a ‘sharing’. The editor is more like a guide rather than a gatekeeper.

Quinn and Filak (2005) posit that future journalists spend more time on editing and assembling huge amount of news as they arrive, rather than gathering the news. So, more skills of synthesis and analysis will be required. Therefore, there is the need for quality journalists and editors. Amongst all of these, besides writing ability – the core skills: write clearly, quickly, and accurately, with excellent grammar, and ‘catchy’ headlines (Thurman and Lupton 2008), technology skills – include shooting and editing photos and video, as well as web design, computer programming, and even some knowledge of using wireless technology are criterion for multi-skilled journalist (Wilkinson et al. 2009). Other than that, flexibility of mind, a good broad education, a specialist’s knowledge, and global views are essential for online journalism.

What we are seeing now, the writing styles towards online news, either short form like breaking news or very long format of writing such as like weblogs, or investigative reports, have also changed. The notion of content is not changing as much but delivering the content is open to experimentation and creativity (Wilkinson et al. 2009). An example would be online news with interactive ‘Flash’ graphics and video. The beauty (and promise) of the web is that journalists can present information in countless forms, shapes, sizes, lengths and modes, and can engage almost any of the senses.
In a competitive environment, the phenomenon of user-participation and diversification of sources of online news that is happening now could be seen as a fourth generation Internet news sites. The challenge to online journalism is, “Who is the journalist now?” In many areas, readers who were once just news consumers from the general public are now taking control of providing and generating the news. The prospect for readers to contribute to news stories by posting comment and writing weblogs along with journalists are greater. Now, they are becoming citizen journalists with user-generated content. This is the latest trend of ‘whole new journalism.’

‘Oversight of professional behaviour has become a team sport, and journalists no longer control who gets to play’ (Hayes et al. 2007, p.274).

Concurrently, the trend now is user-generated content (stories from citizens), where users take more control in the sense of contributing news and access to online news rather than news producers. ‘When everyone becomes a publisher, what distinguishes the journalist?’ (Hayes et al. 2007, p.262).

The cross-platform journalism (cultural shift) will certainly ‘create some resistance and tension particularly on quality assurance, legal responsibilities, and revenue opportunities’ (Singer, 2008 p.128). In this robust and fast-paced world, ethics also becomes important, where the journalist should have a strong moral compass and is good at decision making. As Hayes et al. (2007) highlighted the challenges towards journalistic value that affect the credibility of journalists and the content they present would be on the authenticity, accountability, and autonomy. Most importantly, the core of any ethical consideration would be the way people treat each other, ‘with respect for the human dignity of each individual or as the means to an end, with an eye to the common good or an eye to more self-serving goals’ (Friend and Singer 2007, p.216). Therefore, multi-platform storytelling is the future for all; journalists, for media companies, and for the profession as a whole.
7.3.4 Online News Readers as Web Users

In the current state of online news (as mentioned in Section 7.2), large numbers of members of the public are highly involved in the community and social networking. There is an increase of avid users of Web 2.0 social technologies such as ‘Myspace’, ‘Facebook’, ‘Meetup’, ‘FriendFeed’, ‘Twitter’ (instant messages), ‘YouTube’ (videos), ‘Flickr’ (photographs), and ‘Digg’, ‘SecondLife’ and ‘LinkedIn’ (collaborative activities). Venkatesh (2003) defines community networks as systems that use information and communications technologies (ICTs) to help revitalize, strengthen, and expand existing geographically-based human networks. ‘Myspace’, ‘Facebook’, ‘Digg’, ‘Slashdot’, and ‘Twitter’ are famously used in online news readers’ community. These online discussion boards represent a rich repository of knowledge, organised in a collection of user-generated content.

‘Twitter’, which has been discussed in the previous column (refer Section 7.2) for example, has gone beyond the ‘Tipping Point’. This growth epidemic is due to two main factors: readers want to get connected and communicate directly, and reader use ‘Twitter’ to respond to issues, needs, recommendations, and/or transfer on interest and information to others. Currently, most celebrities use ‘Twitter’ to stay in touch with their fans. Celebrity like Britney Spears has more than 447,000 followers (source from: http://twitter.com/brittneyspears). In fact, the new American President, Barack Obama is also using Twitter with over 487,000 followers (source from: http://twitter.com/BarackObama). In Australia, an Online Influence Agency named ShirtsledPixels, is tacking and providing hourly updates on Australia’s Top 100 Influential Twitterers, and Kevin Rudd, former Prime Minister is in the top 5 ranking (Recchia 2009).

The emergence of each new generation of online news is a case of revolutionary change that happened almost overnight. Comparing the spread of fashion to viral epidemics, (Gladwell 2000) uses the concept of a ‘tipping point’ to provide some insight into why this modern type of change happens the way it does. He observes how little causes can have big effects where ‘change happens not gradually but at one dramatic moment’ (Gladwell 2000 , p.9).
In the case of online news, including Bucy’s generation one (mentioned in previous sections, Section 2.2.2 and Section 7.3) where there was a sudden epidemic of newspaper websites and in generation three most began to include interactive media. The fourth generation that we propose follows the ‘tipping point’ in the world-wide use of social technologies. These had evolved in popularity, particularly with the young generation Y, over some time but suddenly appeared in the mainstream, when their legitimate use for social networking became noticed by the rest of us. Significantly, more sociological accounts identifying long term changes in patterns of work and lifestyles are crucial.

As Outing (2008) has mentioned earlier, the ‘news’ is changing to full-fill and serve consumer’s needs – ‘social networks addicts’ who want global-to-micro-personal news as well as news about the people they know. Increasingly, websites are soliciting people to provide video, commentary, amateur reporting, photo essays, cell phone pictures, and just about any other form of content. This initiative is an advantage for people to contribute their own news happening around their place, stories, and ideas through pictures and videos. This also encourages people to participate in news and become public journalists (citizen journalists). Most importantly, their news can be instantaneously watched on the website and will be viewed globally. Primarily, the involvement and excitement is extending and promoting the brand and loyalty of that particular online news website (Wilkinson et al. 2009).

Users of news websites in 2009 wanted to become part of the media conversation to the extent that the news industry was able to leverage users as reporters or content creators and combined this with conventional online news. The concept of participatory journalism (Domingo et al. 2008, Paulussen et al. 2007) encapsulates how everyday citizens are participating in the professional news making process. However, Schoenbach et al. (2005) claimed that online newspapers serve information to elite. They argued that online and also print news shape the agenda of their audiences in different ways and are effective for different groups. Their research showed that online newspapers affect only the highest educated group of society. For example, the Wall Street Journal is for business men, investors, and executives. Consequently, those who were experienced web users were more familiar with
navigating techniques skill than other society group may need less time to unravel the information in online news.

Based on de Waal et al (2005), other media and time spent do not seem to be impacted by the existence of online newspapers. However, albeit more recent studies and the ongoing changes in media behaviour, especially the youngsters (the fourth generation) may give some threat to certain media channels. The tendency to use some information channels more often and more extensively or even regard the printed newspapers would be the biggest threat. Interestingly, results from their research explained the mere use of online newspaper and online news sites came stronger with age, where the older users intend to read more online papers than amongst the younger users, who prefer more leisure, playful, media behaviour with a greater variety of use. Furthermore, results also indicated that women spend more time on online news. Evidently, this supported research from Beyers (2004), which showed women more often used the search feature and archives news.

Supported by Rupert Murdoch (2005) speech titled, “The challenges of the online world”, to the American Society of Newspaper Editors (refer Section 7.3.1) that the young generation has different approach in accessing news, where news are on demand when it works for them, and they are in control over the media instead of being controlled by the media.

‘...the next generation of people accessing news and information, whether from newspapers or any other source, have a different set of expectations about the kind of news they will get, including when and how they will get it, where they will get it from, and who they will get it from’ (Murdoch 2005, p.1).

As Chan and Leung’s study (2005) revealed, there are several types of online news reading behaviour (also mentioned in Section 7.3.2). The ‘experiencers’ – lifestyle savouring the new and read more online international/China news and not rely on traditional sources for news; ‘strivers’ – those who are seeking for fun and interactive; ‘makers’ – desire for self-expression and enjoy multimedia features; ‘innovators’ – inspired for new ideas, and the ‘survivors’ – have no interest in reading international/China news online. The study supported the idea that different news readers have distinctive online news expectations and behaviour. These
predictors help to understand online readers’ attributes and trends towards the changes in online news.

In addition to the ‘playfulness’ element such as online games, polls, quizzes, contests, software downloads, and questions and answers exercises affix to ‘stickiness’ towards online news. As Shaw (2001, p.5) mentioned ‘stickiness involves retaining users and driving them into the site’. This powerful tool offers pleasure, and enjoyability that associates with relaxation and leisure Stephenson (1967). It also arouses reader’s curiosity (1998). According to Wilson and Tan (2005, p.401), reading online news is a ‘process structured by audience’s ludic pursuit of comprehension in response to a website’s agenda, the online newspaper’s elliptical listing of stories’. Thus, to provoke emotional or behavioural response, online readers are more enticed by the entertainment, play, and information features which contain humorous animations or interactive games.

This leads us to speculate where this will go in the future. What will be the next ‘tipping point’ and when will it occur? Will we soon have a fifth generation of online news or will the rate of change slow for a while to let the fourth generation stabilise? Everything is “knowable” in this digital world. This is due to the factor; the great challenge for the reader would be filtering what is needed to know and finding best sources of good information. It is difficult to ignore other non-related information on non-required things. Readers tend to ‘get lost’ in the Web world.

7. 4 Activity Theory Analysis of the Future of Online News

The study has demonstrated how the revolution of functionality and use of relevant web-based technologies has transformed the news industry with a radical and complex operational and business model. Earlier sections of this chapter have shown the challenges to news productions from the industry and journalism perspectives brought about by the move online. In Chapter 6, the Activity Theory was used to interpret the findings of the study up to the current time. Discussions also focused on users’ perceptions on the constant changes of online news that impacted them. The Activity Theory was used to envisage a complex and dynamic participatory of the future in the online news environment.
As described previously, activity is a ‘holistic unit of analysis’, and can be used to represent trends or patterns where people perform or react mediated by tools such as current technologies. Understanding human activities and consciousness can help create technologies that are designed and used to match certain intentions and desires. The very concept of activity implies that there is an agent who acts – people are consider as subjects, constructing and instantiating intentions, needs and desires towards the objects, and tools mediate between the people and the objects of their activities to achieve outcomes. The relationships between elements of activities (people and tools) are considered as mediated (Kaptelinin and Nardi 2006).

In this case, news producers and users (citizen) are the subjects, news and non-news information act as the objects and the online news websites are the tools or mediating devices. Based on Kuutti (1996), a tool can be anything used in the transformation process, including both material tools and tools for thinking. Transforming the object into an outcome requires various tools, for instance, computers, software, methods, ideas, Internet and a communicative culture.

The identified user activities resulting from the Q-study were grouped as; ‘Accessible’, ‘Playful’, ‘Loyal’, and ‘Connected’. A similar study was done by Chan and Leung (2005) using a psychographic approach of values and lifestyle segmentation, which introduced psychological attributes of ‘innovators’, ‘thinkers’, ‘achievers’, ‘experiencers’, ‘believers’, ‘strivers’, ‘makers’, and ‘survivors’. These results showed the different personalities brought out in peoples’ styles as news readers and news website users. It showed how they engaged in different behaviours or exhibit similar behaviours for different reasons and how lifestyles influenced the adoption of online news in Hong Kong. ‘Accessible’ from the Q-results seem to match with ‘experiencers’, ‘Loyal’ with ‘survivor’, and ‘Playful’ and ‘Connected’ with ‘strivers’, ‘innovator’, and ‘maker’ to some extent.

This portrayed how dynamic the changes are in human activity, as people are enabled to act or react towards the current online news. The Q-Methodology and Activity Theory have the capacity to overcome this matter. The Q-Methodology research technique was applied as a field methodology – using its facility as a systematic way of examining and interpreting participants’ subjectivity views and
opinions. The Activity Theory was used to further explore the relationships of tools, subject and objects.

It is certain that these sets of user group’s trends and patterns of human activities will continue to evolve into the future together with changing roles for journalists and others in the news producer professions. According to the Activity Theory, activities are never static or given, but are dynamic. They are changing and developing (Kuutti 1996). Activity Theory focuses on development and change, as people act in culturally meaningful ways to meet their needs and desires. Hence, Activity Theory is a suitable and practical way to anticipate the outcome of the future of online news, with possible patterns of future human activities, consistent with the study results, which indicate a coming together of news producers and users of online news websites.

Many of the actions that were traditionally the province of news producers are now available to the general public who can post news items, text, pictures and video online. The change in technology has abolished the need for a ‘news cycle’. It is often a local member of the public on the spot that first publishes images of news events and the news media’s time frame is driven by this immediacy. The Activity Theory application of the future of online news is best illustrated using the figure below (Figure 7.1).

![Figure 7.1: Activity Theory Application of the Future of Online News](image-url)
7.5 Chapter Summary

The most emphatic ‘tipping point’ that we are currently observing is the one involving user participation in the news reporting and production business. At the same time journalists are engaging users through media such as weblogs both within their employer’s online space and outside in their personal social spaces. This revolutionary trend is impacting not only to the business model of news organisations, but also the working environment of the journalists, and also the public. News industries can certainly lower costs in the online environment with not only a reduction in the capital need to print and distribute printed copy, but also using the unpaid public as news gatherers. At the same time, they have to react fast on how to capitalise on the active online readerships as well as the online advertising and other opportunities to increase their online revenue.

The traditional news cycle disappears as the work of the journalists become less structured, and more flexible. Alongside the large media corporations and the professional journalist there is now a growing role in the online news business for the individual independent commentator and the amateur reporter. This places a greater onus on the news consumers to be discerning in their interpretation of the information they receive. While independent sources are not ‘official’ and therefore, their authenticity suspect, so are many, particularly young people, disenfranchised by the big-business controlled ‘official’ news syndicates. Dealing with and moving beyond this speculation may be one of the biggest challenges for new media professionals and scholars alike. Consequently, online news may still be as supplementary news (de Waal et al. 2005, Outing 2008, Peng et al. 1999) but in future online news will definitely replacing the core news consumption (Ihlström et al. 2004, Meyer 2009).
CHAPTER EIGHT
CONCLUSION

Newspapers have real roots in the communities they serve. They have history, tradition and personal relationships. In some cases, they are a source of local pride. If newspapers are willing to let go of their print-based history, invest in their writers, embrace technology and dedicate themselves to being THE source for local news, they will have readers for as long as people can read. – J. Stark, 2009 (cited in Storch 2009, p.2).

8.1 Introduction

This final chapter provides the conclusion and discussions on the implications of the research. The chapter begins with a summary of the main findings of the thesis, by returning to the research questions to outline the key findings and to highlight the significance of the research in terms of theory and practice in the online news environment. The next section addresses the limitations of the study by revisiting the methodology concerning the sampling strategy, and the rapidly changing contextual influences on journalists, news organisations and the news-consuming public in the online news environment. The chapter concludes by providing recommendations for further research.

8.2 Key Findings

This study embraced an interpretivist theoretical perspective, which ‘acknowledges that human beings are social beings who develop from, and are defined by, interactions with other humans’ (Page and Sharp 1994, p.569). The study’s focus has thus been on understanding the nature of the content and layout of online news websites, and users’ perspectives on the constant changes in online news. The mixed-method approach included content analysis of online newspaper websites, which gathered objective data, and the Q-Methodology study, which unveiled the subjective users’ perceptions of online news. The combination of both approaches were considered the most appropriate way to understand how online news evolves and is aligned with the current technology as well as how the user community changed throughout the four years of research. Studying the content and layout of online news websites together with users’ experiences of the online news spans the provinces of
Human-Computer Interaction (HCI), Computer Supported Cooperative Work (CSCW) and media studies as well as the core field of Information Systems (IS).

The first Phase of the research in 2006-2007 undertook to investigate the nature of the content and layout of Australian online newspapers at that time. Australia is a developed, democratic country where there is a tradition of freedom of speech and rapid adoption of new technologies. These two factors meant that Australia was a country where it was likely that the Internet would be readily used by the newspaper industry. This fact and also due to the proximity and practical reasons, the researcher chose Australian online news websites as the sample population for this research study.

Findings from this objective Phase of the research depicted the growth of content and features of the twelve Australian online newspapers. Phase 1 and Phase 4 together, formed a longitudinal study from 2005 to 2009, and the three lots of content analysis of these newspaper websites (2006, 2007, and 2009) demonstrated the ‘evolution of online news’ as noted by others (Domíngo et al. 2008, Greer and Mensing 2006, Sääksjärvi and Santonen 2002). For most of this time, an online newspaper was consider to supplement or replicate news from the printed edition in terms of content elements (de Waal et al. 2005, Ihlström and Åkesson 2004, Langeveld 2009, Outing 2008, Peng et al. 1999). However, looking at the findings of this study, the potential for the online news to be the main supply for core news consumption is now being realised (Meyer 2009, Seib 2002).

Results from the web-based content analysis showed that Content Availability and Choice on Value Proposition (news information) and the Peripheral Value Proposition (non-news information) are the most prevalent dimensions of online news interactivity, with more news links, videos and audios. The Communication Opportunity dimension is the second most distinguished dimension, with the presence of games, polls, and contests. The study is consistent with previous online news research results from Bucy (2004, 1999), Kenny et al. (2000), Li (1998), and Sanlier and Tağ (2005). Also, Customization and Personalization, and Privacy are now beginning to be essential elements of interactivity. The increasing volume,
speed, and technological capability of the web make these findings incredibly significant but also challenging as they bring greater complexity.

The findings from the longitudinal content analysis study of online news websites demonstrate that the online news is now facing challenges of emergence of new possibilities with the convergence of Content Availability and Choice with Communication Opportunity elements. For instance, news can be delivered with an enormous amount of pictures, videos and audios (mixture between Value Proposition and Peripheral Value Proposition), and often provide with polls or online voting (Communication Opportunity and Peripheral Value Proposition).

At the same time, readers are allowed to leave comments (Communication Opportunity – Semi Permanent) after the news. Most online news provide readers with social networking and micro-blogging channels: e.g. ‘Facebook’, ‘MySpace’, and ‘Twitter’. These conversational cyberspaces represent a rich repository that allow users to express opinions, ideas, and pose questions and answers without imposing strict limitations about the content. This creates a hybrid of content in online news, which ‘blends’ the interactivity elements into an ‘all-in-one’ type of news presentation. These once distinct elements now overlap creating a more complex news system. Online news can simultaneously act as delivering news combining information, entertainment, as well as communication, whilst connecting readers to news producers or readers to readers virtually, using social networks, weblogs, and online communities of interest.

Phase 2 and Phase 3 of the research involved the use of the Q-Methodology to capture public users’ subjective perceptions on the constant changes in online news. As in Phase 1 and 4 for reasons of proximity and practicality, Australia and Malaysian University students and staff were used for this study. It was assumed, however, that these students would be relatively representative of Internet users worldwide as this is a global phenomenon.

Differentiating between users by means of the Q-analysis in Phase 2 revealed two significant segments or groups: ‘Playful’ and ‘Serious’ news readers. This analysis highlighted that Internet users can be differentiated by their needs and intentions.
‘Serious’ news readers heavily accessed online news websites of interest, meeting the need to source news information for latest news updates, locally and internationally, accepting the distinct attributes of online news such as news links, news with pictures, videos and audios. At the outset, ‘Playful’ news readers were differentiated primarily by their intention to interact with non-news elements especially on games, polls, contests, puzzles and surveys. These users exhibited an interest in play because they had a positive association with the other useful features that online news offered.

The results of Phase 3 showed more advanced and dynamic attributes of news readers. There emerged two other groups from the ‘Serious news readers’ found in Phase 2. One was the ‘Accessible’ news readers, who exploited online news for international and local news with quick, simple and direct navigation. The users had a positive relationship with online news features and facilities as they were able to access online news worldwide even though they were away. ‘Loyal’ news readers’ were another group that emerged in Phase 3. They were conservative users of technology and would only reach news online from the trusted print-based news company. They focused more on national news and became devoted to online news reading as it become part of their daily routine. Both groups’ exhibited intentional behaviours involved with the desire to participate and engage in online discussions to learn and share information and opinions. The ‘Accessible’ group valued the network’s ability to help them stay connected and was differentiated from the ‘Loyal’ group by their computer and Internet skills.

The Phase 3 results also exhibited the same ‘Playful’ news readers as in Phase 2, who had a great interest in games, polls, puzzles and contests. Additionally, Phase 3 also disclosed another group, the ‘Connected’ news readers. They had similar interests to those in the ‘Playful’ group but were more focussed on downloading graphics, wallpapers or postcards and advertisements. The most prevalent element of the ‘Connected’ group was in communicating, exchanging information, sharing and expressing their thoughts and opinion in weblogs. They felt the desire to be involved as part of an online community engaging in online discussion through weblogs without too much concern for the reputation or the trust news organisations.
The Q-Methodology research technique was applied as a field methodology – using its facility as a systematic way of examining and interpreting participants’ subjectivity views and opinions. The data illustrates that this online news study reveals something about the Internet. It shows, it to be a technology that can simultaneously be a powerful mediated tool, which is able to act as a functional channel for discovering facts and information on news and specific issues, and also act as a social channel that is used to connect people and allow them to communicate through online connections, to networks and virtual communities of interest. The findings from the Q-Methodology studies addressed the second research question on how do people perceive the constant changes in online news.

These two research questions are pertinent to the next discussion on critical analysis of the current innovation in online news. Based on the results of the study, this discussion focuses on the current state of affairs and speculates on the future for online news mapped into three key points: challenges in the online news industries, the journalism professions, and the future of online news readers or news website users.

Collectively, the findings from the study answering the two research questions have produced knowledge that will make a contribution to theory in website design and use, as well as to theory and practise in Internet, social and communication studies. This is explored in further detail in the following section.

8.3 Significance for Theory

Although emanating from the field of Information System (IS), this research is also theoretically and methodologically significant to the fields of Human-Computer Interactions (HCI) and Media Studies areas associated with the role of the Internet in information dissemination and users’ perspectives of technology. Two different, but complementary theoretical strategies contribute to the growing body of knowledge in this research. First, the concept of Interactivity was used to frame the specific dimensions that would lead to the dynamic aspects of content and layout of online news. Secondly, Activity Theory was used to explore and analyse in a more general and holistic way, the relationships and different purpose for, which people use online news in terms of object, subject, and tools. The theoretical concepts of Interactivity
were used to frame the content analysis phases of the study while, the Activity Theory framework was used to interpret and map the results of the phases that used the Q-Methodology, in order to establish the relationship that existed between the Activity Theory elements of subject, objects, and tools with each factor. Together, these theories and associated methods gave a richer understanding to the rapidly changing phenomenon of the online news.

By focusing on a mixed-method approach incorporating a content analysis of websites, and a Q-Methodology study of readers’ perception, the research covers both the objectivity and subjectivity of the constant changes in online news, and so this research had moved away from a focus on micro-studies of individual behaviour and engaged with a holistic perspective of the topic. In this sense, this research is reflective of a broader shift in consumer research and websites design for online news rather than studies of individual behaviour and news consumption. This research study employed a longitudinal study approach, which also enabled us to understand the shift of focus from the interaction between isolated readers and stand-alone Internet and news features to a larger universal, more ecologically, valid and complex communities of human beings and the online news environment.

A significant proportion of the Activity Theory analysis is dominated by online readers’ and users’ perceptions that focus on a holistic view of online news and the constant changes in online news. Activity Theory provides a common vocabulary to facilitate interpretation of what is done across disciplines and topics. It is well suited to this field of study as a basic tool for understanding social and cultural change.

This study confirms that Activity Theory suits descriptive and explanatory studies involving users or people and the use of technology such as the Internet (Kaptelinin 1996, Kaptelinin and Nardi 2006, Nardi 1996b). It helps to make sense of the dynamic and evolving nature of web design as well as highlighting the rich and multifaceted reality of computer-mediated activity experience by users of online news website. Most importantly, it helps not only by solving the problem but also in recognising and defining it. The nature and structure of user activity, which includes the concept of changing effects of the mediating tool is appropriate as a unit of analysis for the research that is undertaken over an extended period of time. This
research has had to accommodate the greatly enhanced technology in online news over the last few years and Activity Theory provides an ideal framework for the study of evolving of human activities (Hasan 1998, Kaptelinin and Nardi 2006).

‘In Activity Theory people act with technology; technologies are both designed and used in the context of people with intentions and desires. People act as subjects in the world, constructing and instantiating their intentions and desires as objects. Activity theorycats the relationships between people and tools as one of mediation; tools mediate between people and the world’ (Kaptelinin and Nardi 2006, p.10).

In addition to that, development is another notion of Activity Theory (Kaptelinin and Nardi 2006) that assist us to understand the transformation of human activity over a certain time frame. This research study reveals the development of people’s perceptions towards news on the Internet and the changes of online news features and layout that was captured (using web-based content analysis) from 2006, 2007, and 2009. This demonstrates how Activity Theory takes the long term view appropriate to this in-depth study that understands peoples’ activities through cycle of grow and change (Kaptelinin and Nardi 2006). At the present time, more and more users are engaging with online news, which implies continued transformation of activities to constantly change the culture and habit of reading news online. Moreover, as Uden et al. (2008) explained, Activity Theory does not simply mean to interpret individual action but includes the continuous development of context that make collective activities culturally and historically located.

The concept of Interactivity and Activity Theory are two theoretical pillars that complement each other with a descriptive picture of the development of web content in its nature and use, that together provide a useful mechanism to the news industry for understanding the link between web elements and user activities. This understanding can transform into requirements of web design and applications, incorporating users’ requirements at the many levels. These are not static or given, but they are dynamic and complex. This development is changing and it takes place at all levels: interactivity elements, subject, object, and mediated tools (artefacts). New set of activities with complex participatory and interactivity dimensions are formed as participant’s skills and needs increases.
In summary the sets of identified activities and interactivity elements are now presented. Activity Theory distinguishes activities by the relationships between the subject and object using the mediated tool. ‘It is the doing of the activity in a rich social matrix of people and artifacts that grounds analysis’ (Kaptelinin and Nardi 2006, p.9), in this case encapsulating the notion of people acting with technology to get the news. The research concludes with an Activity Theory application via mappings of the results of the Q-Methodology research, in order to establish the whole set of relations that exist between the Activity Theory elements of subject, tools, and objects with each factor throughout the study. Hence, the changing series of activities and their development associated with online news over the period of the research is expressed and shown in Figure 8.1 (this draws from Figure 6.1, Figure 6.2 and Figure 7.1).

The Interactivity concept from Heeter (1989) also considers feature as a dynamic feature and not static. Retzinger (2009) claims that interactivity is a continuum, which can accounts for how interaction works for a specific purpose, in this case, the online news. Interactivity has become a standard dimension used in web design and performance measures in online news studies (Chen and Yen 2004, Chung 2008, Jensen 2008, Leiner and Quiring 2008, Retzinger 2009, Şanlier and Tağ 2005, Sicilia et al. 2005, Spyridou and Veglis 2008). These authors describe ways in which, the term and concept is defined and offer new ways to consider and adapt interactive web elements.

Since communication technologies are constantly changing in a similar fashion to online news websites, it is important for researchers, practitioners, and the industries to continue to be aware of these changes in order to be able to develop content and layout according to audiences’ needs, purposes, and context of interactivity. The five dimensions of interactivity first introduced in Chapter 2 had evolved and Figure 8.2 explains the new continuum of interactivity for online news. It incorporated the results of the final content analysis of the websites undertaken in 2009, which demonstrated a new connection forming between the dimensions as the boundaries between them continued to blur.
Figure 8.1: A Summary of Activities extended from Figure 6.2 to include Phase 5
Figure 8.2: Interactivity Dimensions for Online News as Visualised by the Researcher on Reflection of the Study
8.4 Significance for Practice

In addition to the consumers (news readers and website users), the research reported in this thesis has practical implications for the online news industries and news producers (journalists and editors). Both segments need to reassess the opportunity involved in taking advantage of the Internet as a channel for disseminating news as a source of information to online readers and providing other functionality to news website users.

Future news industries need to consider and plan to meet the challenges resulting from the constant changes to designing and maintaining interactive news for their websites. They must be equipped with specialised skill sets, resources and knowledge new roles as journalists and editors, and to set in place better processes to facilitate the links with other users, partners and stakeholders, such as advertising companies through interactive communication technologies. This reinforces Ihlström (2005) statements that the challenges of the online news from the news industry perspective would be on the design, organization itself – dedicated journalists and editors that work 24/7 with multi tasking abilities making possible lucrative business models that brings continuous profit.

In addition, benefits such as loyalty and brand preference could be gained through customer-centric strategies with user-generated content that empowers readers to become co-producers of news product, becoming part of the media conversation in servicing and delivering news online. As Vargo and Lucsh (2004, p.6) point out, ‘being consumer-oriented, means collaborating with and learning form customers and being adaptive to their individual and dynamic needs’. Industries have to engage readers particularly in generating more local and community news. The results of the study confirm that over the past few years the rapid take up of the phenomenon of social networking is resulting in such a revolutionary change in the news industry (Outing 2008).

Despite the potential benefits that can be realised from consumer orientated co-creation of news, there are challenges (on the management side of online news industries) in controlling unintended participation and also on ethical aspects of
disseminating quality news using the Internet. According to Chung (2007), quality control and credibility of information provided by public, as well as a suitable business model are the main reason for not being able to offer maximum levels of interactivity on news websites.

The evolution of the future online news is not only dependent on the constantly accelerating capacity of technology but also the application of computers to the processing, analysis, and dissemination of information, through which the new communication revolution is shifting power from the press to the people (Lapham 1995). Online news industries need to embrace their mission of defining ‘news’ that is now becoming more crucial and critical (Lapham 1995, Outing 2008). Consequently, the role of the delivery of online news is becoming that of a facilitator of public community-centred discussion and, and the community’s online publishing hub will be a decisive component of the Internet newspaper of the future.

8.5 Limitations

While this research has benefited from the combination of theories, concepts and methods used, namely Activity Theory, interactivity dimensions, web-based content analysis and Q-Methodology, there are some limitations, which need to be considered when reviewing the study.

One limitation of the research came from the task of managing the huge data collection from the longitudinal online newspapers content analysis study. It was a challenge to study the dynamic technology of online news because the content, layout and functionality of the websites, plus users’ experiences, continue to change whilst the data for the study was collected. The rate of change has continued to accelerate, as evidenced by the difficulties experienced in applying the original Interactivity concepts, used in the 2006-2007, to the content analysis in 2009. This was a great challenge especially as for a PhD there is with one person as a coder.

The coding scheme became more complex and harder to differentiate between instances when additional features add interactivity and when they were simply increasing redundancy at sites. For example, a menu could appear at the top of the page, buttons on the side, and text links at the bottom of the page. The current coding
on number of clicks to news article reported a huge increase on this and created exhaustion to the coder. However, the recent salient features of news websites could not be ignored and have heavily influenced the interpretation of the study findings.

The dynamic environment of the World Wide Web has challenged the traditional dimensions of interactivity and the research method of content analysis of the online websites studies which is, normally viewed as descriptive in nature. Interactivity is a complex phenomenon and not only is it multi-faceted involving human’s interaction with the computer, and content, but it is also constantly changing. According to McMillan (2009, 2008), the content analysis can be applied to the web but the researchers must use rigor and creative way to ensure they would not lose focus.

This however, had some benefits, since the study has been able to identify the trends and changes in the content and layout of online news websites, as some of the more advanced features have greatly altered the coding of the units of analysis. The research findings show that, it is not now possible to have one solid measurement with fixed and distinct categories to capture the interactivity of website features. Many of the original categories are now interconnecting and merging as shown in Figure 8.2 while new ones may continue to emerge.

The Activity Theory offers unique benefits for a holistic analysis of toll-mediated human activities and website studies. However, it also has limitations. The key limitation of this approach is that the researcher must have a more complete understanding of the activity system of online news websites than is a traditional reductionist approach to scientific research. In the phenomenon of online news production and consumption, it was difficult to unravel the diversity and complexity of the elements of the various human activities and to indentify meaningful activity systems. Due to this reason, Activity Theory is not highly appreciated to most of researchers whom do not understand the fundamental concept of this theory.

Within Activity Theory one of the key concepts concerns the ‘how’. Individual consciousness is shaped by the experience and subjectivity of human awareness. Hence, tools are what people think they are and this can vary depending on experiences, culture and purpose. What is presented here is the researcher’s
interpretation of what people intend to do with the technical system under this study. Over time there appeared to be changes in the perceived function of primary, secondary and tertiary aspects of the tools, online news websites according to the purpose or object of the activity undertaken. Thus, further work is still needed to improve ways that Activity Theory can be effectively used as a robust method for web-based research.

The strength of Q-Methodology comes from its ability to provide a representation of diverse opinion on a topic. This differs from most empirical research, which seeks proportionality in a random-sampling of subjects. It is therefore more appropriate and important when selecting participants for a Q-study that the sampling set should focus on the variation among the group of people with different core experiences and, in this study, aspects of internet user experiences. Here, for practical reasons, the researcher used university students and staff from both Australia and Malaysia, which provided some diversity but could not be assumed to ensure the full diversity of opinions and experiences such as computer literacy, Internet access and demographics such as gender, age and professional background, although a variety of these were represented in the set of research participants.

The research contributes to the growing body of work in IS that explores how the activity theory framework can be used to interpret findings from descriptive data analyses such as result from the application of the Q-methodology.

8.6 Opportunities for Future Research Study

The outcomes of this study suggest further areas of inquiry. The following future research opportunities emerge from the findings and limitations of this research study. One important way in which the findings from this research could be improved, would be to have interview sessions with online news industries and journalists and/or editors – news producers, to gain in-depth information of their business models and strategies, and their current plus future challenges. It would also be helpful to include this group in a Q-Methodology study in a continuous mode. This proposed study would present an opportunity to extend the focus from relationships between the characteristics of individual Internet reader perceptions in
relation to online news, to also include those from the news industry and journalists perspectives.

The transient nature of the web indicates the value of employing a longitudinal perspective to the study of the evolution of online news websites. One such study by Greer and Mensing (2006) tracked 83 online newspaper websites from the United States between February 1997 and February 2003. In comparison, the current study has only taken a snapshot of years 2006, 2007, and 2009 to study the development of the interactivity of 12 Australian online newspaper websites. It does however cover a period of greater change in this area.

Future research should explore over a longer period of time more news websites, including print-based (together with fee subscription), broadcast and cable media with online news versions to observe the evolution of news. Furthermore, the user-oriented study together with interviews from news producers would able to elucidate on interactivity dimensions and on relationships between the producer company and the readers/consumers at many levels. Additionally, as how people read, use technology and communicate will continue to change and evolve. The new types of interactive of online news websites will continue to emerge. This can be assessed along the time continuum, in order to anticipate how they may operate in the future.

In explicating and extending the use of Activity Theory in this domain, future research should also incorporate the concepts of internalisation and externalisation (Engeström (1987). In Activity Theory, internalisation is manifest in the reproduction of culture by socialising and training individuals to be members of accepted social activity systems. Creative externalisation is seen in innovations with the design of new artefacts and transformations of structure and process. In this case, it would be the development of new forms of online news websites. Focusing on activities provides the means to study socio-technical evolution over time. Using Activity Theory as a framework for design and interpretation of studies of Human-Computer Interaction should also integrate an Activity Checklist such as the one introduced by Kaptelinin and Nardi (1997), which include the structure and dynamics of internal and external components of activity and the transformations.
8.7 Chapter Summary

This chapter has drawn attention to the findings of the two research questions posed in Chapter 2, which in turn were discussed throughout this thesis. Emphasis has been given to the ways on how online news features have affected the current ways people read news. This can be extended by engaging a critical perspective when analysing the interactivity dimensions of the content of online news websites and bringing this together with people’s perceptions on the constant changes in online news. The choice of theoretical frameworks, Interactivity concept and Activity Theory, the importance of news as the source of information in the context of technology and Internet studies, and the methodology and research design were all addressed.

Recommendations for future research in online news study were also proposed. These included future research opportunities in the areas of the evolving concept of Interactivity used for the content analysis of the online news websites together with Activity Theory to give a holistic interpretation of the changing nature of what people do.

The results on the application of Activity Theory and interactivity dimensions to interpreting the data should not be considered as the ultimate guide to the future of online news website, but rather as a guide to leveraging the opportunities that the Internet offers to the news industry. Both represent a workable and flexible framework, which suits the dynamic and interconnected nature of the Internet as the platform for online news environment.

The main contribution of the thesis is that it provides evidence that demonstrates the changing nature of online news content layout and features with greatly-increased interaction and participation by consumers while also showing how different groups of people perceive the constant changes in online news. The different activities of these groups were identified in terms of how they engaged with interactivity dimensions of the websites and how different features of the site should be designed to mediate the different activities.
This thesis has presented a picture of the recent substantiation growth of the nature of online news with the variety of ways and patterns it now meets current social needs and desires. As such, the Internet will continue to be engaged as a potentially powerful and persuasive tool in the future of online news industry in ways that we cannot now anticipate.
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# APPENDIX 1: Q SORT STATEMENT AND CATEGORIES

<table>
<thead>
<tr>
<th>Item No</th>
<th>Statement</th>
<th>Category</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I get in-depth news from online newspaper.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>2</td>
<td>I prefer to retrieve online newspaper using personal computer rather than mobile phone, Personal Digital Assistant or Wireless Local Area Network.</td>
<td>Communication Opportunity</td>
<td>Accessibility</td>
</tr>
<tr>
<td>3</td>
<td>An online newspaper creates more ‘Freedom of speech’ and I am able to get less censored information.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>4</td>
<td>An online newspaper is just a copy of the print news.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>5</td>
<td>I can have access to online newspapers world wide.</td>
<td>Communication Opportunity</td>
<td>Accessibility</td>
</tr>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
<td>Communication Opportunity</td>
<td>Accessibility</td>
</tr>
<tr>
<td>7</td>
<td>I am able to get local news even though I am away or at different state/country.</td>
<td>Communication Opportunity</td>
<td>Accessibility</td>
</tr>
<tr>
<td>8</td>
<td>Too much graphics/visuals slows down my access to the online newspaper.</td>
<td>Communication Opportunity</td>
<td>Accessibility</td>
</tr>
<tr>
<td>9</td>
<td>I like more news and news headlines to be placed on the front page.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>10</td>
<td>An online newspaper provides me with latest news update (news break).</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>11</td>
<td>An online newspaper is different from print as it has news with colour pictures, audios and videos.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>13</td>
<td>I heavily rely on online newspapers for local news and information.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>14</td>
<td>I favour online news as my source of information in getting national news.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>15</td>
<td>I login to get important developments related to business and financial news.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>16</td>
<td>I likely read online newspapers for international and world affairs news.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>17</td>
<td>I login to online newspaper to search on archives news.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>18</td>
<td>I am able to get extensive news through links and related links of that specific information.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>19</td>
<td>I’m more concerned with news information rather than Web site design.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>Content Availability &amp; Choice</td>
<td>News Related</td>
</tr>
<tr>
<td>21</td>
<td>I can even download graphics, wallpapers or postcards from online newspapers.</td>
<td>Content Availability &amp; Choice</td>
<td>Non-news Info</td>
</tr>
<tr>
<td>22</td>
<td>Online newspapers offer me choice of language.</td>
<td>Content Availability &amp; Choice</td>
<td>Non-news Info</td>
</tr>
<tr>
<td></td>
<td>Online newspapers provides me with useful features such as site maps, search engine and help page.</td>
<td>Content Availability &amp; Choice</td>
<td>Non-news Info</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>24</td>
<td>I would place advertisements in online newspapers.</td>
<td>Content Availability &amp; Choice</td>
<td>Non-news Info</td>
</tr>
<tr>
<td>25</td>
<td>I always refer to online newspaper for latest jobs offers.</td>
<td>Content Availability &amp; Choice</td>
<td>Non-news Info</td>
</tr>
<tr>
<td>26</td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>Content Availability &amp; Choice</td>
<td>Non-news Info</td>
</tr>
<tr>
<td>27</td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>Effort &amp; Knowledge of Users</td>
<td>Control</td>
</tr>
<tr>
<td>28</td>
<td>I can print the articles of online newspaper.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>29</td>
<td>If I contribute a comment most likely, my comments will be edited by editors.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>30</td>
<td>I like to be involved in online discussion such as chatrooms, forums and bulletin boards.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>31</td>
<td>I participate in the discussion because the issues or news is relevant to me.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>32</td>
<td>I am highly involved and feel like a part of the community.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>33</td>
<td>I like weblog/blog in online newspaper because I can read and add my comments.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>34</td>
<td>I can rank the articles or topics of online newspapers.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>35</td>
<td>I am able to forward the news by just sending hyperlinks to my friends.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>36</td>
<td>This is the fastest way for me to communicate directly to editors or journalists.</td>
<td>Communication Opportunity</td>
<td>Connected</td>
</tr>
<tr>
<td>37</td>
<td>I rarely encounter any broken links when I read online newspapers.</td>
<td>Responsiveness</td>
<td>Navigation</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>Responsiveness</td>
<td>Connectedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(System Response</td>
</tr>
<tr>
<td>39</td>
<td>Editors or journalist respond to my queries or comments in a timely manner.</td>
<td>Responsiveness</td>
<td>Connectedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(User Response</td>
</tr>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>Effort &amp; Knowledge of Users</td>
<td>Control</td>
</tr>
<tr>
<td>41</td>
<td>I can customize information delivery and news alerts to suit my needs.</td>
<td>Customization &amp; Management of Information</td>
<td>Personalization</td>
</tr>
<tr>
<td>42</td>
<td>I prefer more scrollable pages to hypertext links for online newspaper.</td>
<td>Effort &amp; Knowledge of Users</td>
<td>General</td>
</tr>
<tr>
<td>43</td>
<td>Simple and direct navigation saves time and effort to retrieve news.</td>
<td>Effort &amp; Knowledge of Users</td>
<td>General</td>
</tr>
<tr>
<td>44</td>
<td>I have easy access on online newspaper because I have technical and computer skills.</td>
<td>Effort &amp; Knowledge of Users</td>
<td>General</td>
</tr>
<tr>
<td>45</td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>Customization &amp; Management of Information</td>
<td>Trust/Loyalty</td>
</tr>
<tr>
<td></td>
<td>I fear that the quality of writing is less in the online news environment.</td>
<td>Customization &amp; Management of Information</td>
<td>Trust/Loyalty</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>47</td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>Customization &amp; Management of Information</td>
<td>Trust/Loyalty</td>
</tr>
<tr>
<td>48</td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>Customization &amp; Management of Information</td>
<td>Trust/Loyalty</td>
</tr>
<tr>
<td>49</td>
<td>It's part of my routine to read online newspaper every day.</td>
<td>Effort &amp; Knowledge of Users</td>
<td>Lifestyle</td>
</tr>
<tr>
<td>50</td>
<td>It's trendy, fashionable to use the interactive and multimedia features available in online newspaper.</td>
<td>Effort &amp; Knowledge of Users</td>
<td>Lifestyle</td>
</tr>
</tbody>
</table>
APPENDIX 2: Q SORTING INSTRUCTIONS

Enclosed:
1. Participant’s Consent Form
2. List of Q statement sample (one page contains 50 statements)
3. 50 Q statements (small cards)
4. Q-Sort Grid Answer Sheet (scale from -5 to +5)
5. Profile Information

Here are the steps for you to sort the supplied set of statements:

1. The statements are about your reactions and perceptions towards Online Newspaper that you have explored or experienced. Read through list of Q statement sample to develop an understanding and feel for the range of meanings.
2. In the same process, you can begin to divide the statements into three main groups: “agree”, “neutral” and “disagree”.
3. Then, divide further each group into subgroups. For example: in “agree” statements will be spread scale from +1 to +5. Concurrently, process should also develop subgroup downwards from each scale (+1, +2, +3, +4, and +5).

   ![Diagram of Q-Sort Grid Answer Sheet (scale from -5 to +5)]

4. The same process apply for “disagree” group of statements, which will be divided into most disagree by placing the statements into each scale

   ![Diagram of Q-Sort Grid Answer Sheet (scale from -5 to +5)]

5. All neutral statements will be spread downwards.
6. Results of the sort cards will finally form into Q-Sort Grid Answer pattern (top down pyramid).
7. Once all has been determined and finalised, place in the statements number (at top left of the card) into Q-Sort Grid Answer Sheet.
8. Lastly, kindly fill in your information details at the bottom of Q-Sort Grid Answer. Followed by profile information in Section Two, Three and Four by just thick ☑ as in ordinary surveys questions.

~ Thank you ~
APPENDIX 3: Q GRID ANSWER SHEET

Section One: Individual Statements on Online Newspapers
The following statements are about your reactions towards Online Newspaper that you have explored. Simply read each statement and indicate the extent to which you agree or disagree by sorting it in +5 to -5 in this Q-Sort Grid Answer Sheet.

Most disagree
-5  -4  -3  -2  -1  0  +1  +2  +3  +4  +5

Most agree

(2)  (3)  (4)  (6)  (6)  (6)  (6)  (3)  (2)

Name: ________________________________
Gender: Male / Female
Email: ________________________________
Position: Student / Staff / Lecture / Other: ____________________________
I can be contacted via email: ☐ Yes  ☐ No
Comments: _____________________________________________
(Your sort and comments will be treated confidentially)
APPENDIX 4: PROFILE INFORMATION

Q-Statements on People’s Perception on the Constant Changes in Online News

Section Two: Individual Statements on Internet Experience

The following statements are about your experience towards Internet. Kindly read each statement and indicate the extents to which you are at currently by placing a tick ☒ in the appropriate box.

1. Do you have access to the Internet?
   ☐ Yes
   ☐ No

2. Where do you normally access the Internet?
   ☐ Home
   ☐ School
   ☐ Public Library
   ☐ Community Centre
   ☐ Cyber Café
   ☐ Workplace

3. How frequent do you access to the Internet to search for information?
   ☐ Never
   ☐ Rarely
   ☐ Occasionally
   ☐ Moderately
   ☐ Frequently
   ☐ Very Frequently
   ☐ Always

4. How would you rate your level of Internet usage?
   ☐ Extremely Low
   ☐ Very Low
   ☐ Low
   ☐ Moderate
   ☐ High
   ☐ Very High
   ☐ Extremely High

5. What is your confident level in navigating the Internet?
   ☐ Not confident at all
   ☐ Not that confident
   ☐ Somewhat confident
   ☐ Moderate
   ☐ Confident
   ☐ Very Confident
   ☐ Extremely Confident

continue...
Section Three: Individual Statement on Online Newspaper

The following statements are about your experience towards Online Newspaper. Kindly read each statement and indicate the extents to which you are at currently by ticking a ☐ in the appropriate box.

1. Which print newspaper do you read most? (Choose one only) [For Australia]
   - Daily Telegraph
   - Sydney Morning Herald
   - The Australian
   - The Australian Financial Review
   - Wollongong Advertiser
   - Illawarra Mercury
   - Northern Leader
   - Lake Times

2. Which print newspaper do you read most? (Choose one only) [For Malaysia]
   - print newspaper: ________________

3. Do you read online newspaper?
   - Yes
   - No

4. When did you start reading online newspaper?
   - less than a year ago
   - 1 – 2 years ago
   - 3 – 4 years ago
   - 5 years and above

5. Which online newspapers do you read most? (Answer one only)
   - same as above (print newspaper)
   - Other online newspaper: ________________
   - International online newspaper: ________________

6. Which of the following best describes your online newspaper access location?
   - University Labs
   - Workplace
   - Home
   - Public Library
   - Community Centre
   - Cyber Café

6. What is average time you spend reading online newspaper? (Hours per day)
   - less than an hour
   - 1.01 – 2 hours
   - 2.01 – 3 hours
   - 3.01 – 4 hours
   - 4.01 – 5 hours
   - more than 5 hours

continue...
7. How often do you access online newspaper?
   - everyday
   - two days a week
   - three days a week
   - four days a week
   - five days a week
   - six days a week
   - once a week
   - Other: ____________________

8. When do you normally access online newspaper?
   - between 7am – 9am
   - 9.01am – 11.59am
   - 12noon – 2pm
   - 2.01pm – 4.59pm
   - 5pm – 8pm
   - 8pm and above
   - always online

9. What is your favourite online news topic?
   - Local News
   - National/World News
   - Business and Financial News
   - Sports News
   - Entertainment News
   - Jobs Online
   - Other: ____________________

continue...
Section Four: Personal Information
The following questions ask for your own background and this will be used for statistical purposes only. Please answer each one by ticking ☐ in the appropriate box. This information is anonymous and will be kept strictly confidential.

1. What is your gender?
   ☐ Male
   ☐ Female

2. What is your age?
   ☐ 17 yrs and below
   ☐ 18-24 yrs
   ☐ 25-30 yrs
   ☐ 31-36 yrs
   ☐ 37-42 yrs
   ☐ 43-48 yrs
   ☐ 49 yrs and above

3. Which of the following best describes your employment status?
   ☐ Part-Time Student
   ☐ Full-Time Student
   ☐ Unemployed
   ☐ Employed full-time
   ☐ Employed part-time
   ☐ Retired
   ☐ Other

4. Do you speak second language at home? [For Australia]
   ☐ No
   ☐ Yes (kindly write which language) ______________

4. Name your first language. [For Malaysia]
   ☐ Language you use at home: ______________

5. Which of the following best describes your level of education?
   ☐ Secondary School
   ☐ School Certificate
   ☐ High School Certificate
   ☐ College
   ☐ University – Undergraduate
   ☐ University – Postgraduate
   ☐ Other

6. What is your personal income before tax?
   ☐ Under $20 000
   ☐ $20 000 - $50 000
   ☐ $50 001 - $100 000
   ☐ $100 001 - $150 000
   ☐ Over $150 000

   continue...
7. What is your citizenship? [For Australia]
   - Australian citizen: Personally moved to Australia
   - Australian citizen: Parents moved to Australia
   - Australian citizen: Grandparents moved to Australia
   - Australian citizen: Generation before grandparents moved to Australia
   - None Australian citizen (please state the country):

7. Please state your citizenship (applies to Non Malaysian only) [For Malaysia]
   - Non Malaysian (please state your origin country):

   Thank you for your time and effort.
   Your participation is very much appreciated.
The Advertiser

Fuel Prices Push up Bus, Train Fares
The price of bus, train and tram tickets will rise almost 10 per cent, costing the average public transport user an extra $100 a year, with the State Government blaming rising fuel costs.

Murray Projects Send Money Down the Drain
The Federal Government's plans to boost Murray-Darling flows may be fatally flawed, its own Productivity Commission has found.

Breaking News [South Australian time]
- 3.30pm Road trauma costs $17bn a year
- 3.19pm Canberra 'abusing Hicks rights'
- 3.14pm Spurs fan arrested in press-leak case
- 3.02pm Two hurt in city gas blast
- More breaking news

Top News
- South Australia
  - Protect elderly from family fraud expert
  - Teacher funding to be revamped
  - New school fitness program energises obesity fight
- National
  - Cruel bars from 'victim' passenger
The Age

Appeal could send Koch to jail

Koch, accused of tampering with evidence in the murders of Channel Seven staff, is facing a challenge to a recent quashing of his jail sentence.

'Thank god' for brimble family

The family of Diane Brimble, who died in a car crash, had their son's road rage endorsement.

Point Nepean wins heritage listing

The historic Point Nepean site has been declared a heritage site.

Monkeys' wage war on cell scam

The war of the monkeys.

OTHER TOP STORIES

* Workers report 'dart kiss' claim
* Children hit in face in fatal car blaze
* Howard denies appearing on Indonesian TV
* Man quemzoned over fatal hit-run
* Explosives found in car
* Rape hopes in to fill Quirke's seat
* Kwash widow charged with Richardson's murder

TIME OUT

286
Bali bombing was God's will: Abu Bakar Bashir

TERRORIST leader Abu Bakar Bashir has told Australia yesterday, saying the Bali bombing victims had to die "because it was God's will".

The Australian

June 14, 2006

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The Canberra Times

News
Local
Sport
Editorial
Search
events
Weather
Marketplace
Classifieds
Place an ad
Place Free Ad
Real Estate
Jobs
Auctions
Community
Events
Club Pages
Environment
Local Links
Special Features
Contact
Contact Us
Subscribe
Advertising
photo sales
Privacy
Copyright

LASTEST NEWS:

Canberra running out of gas Voluntary restrictions in place
Canberra and Queanbeyan are running dangerously low on gas after one of the coldest days on record.

Crossing floor not enough to save same-sex rights
The ACT's Daily Mail reports crossed the floor of the Senate yesterday but this vote against its Government was not enough to save them from extinction the ACT legislation formally recognizing same-sex relationships.

Cash crisis set to force hospital sale
Canberra's largest private hospitals must be sold in order to survive, its members were told at a distressed meeting last night.

Veterans of school battles join fight
A group of over-50s campaigners who fought against school closures in Canberra in the early 1990s has formed the Save Our School Network in the wake of a new round of proposed closures.

Hargreaves' future in limbo Given bond for drink-driving
The political future of former transport minister John Hargreaves has been left hanging after he was sentenced for a drink-driving charge yesterday.

Free membership is never required to view some classified categories.

Canberra Forecast

18° (max)

Cartoonist's View

13 63 55
The Canberra Times
CLASSIFIEDS
Sell or buy or advertise

The Canberra Times
The Canberra Times
Education Supplement

FAMILY FUN RUN
SUNDAY, SEPTEMBER 12, 2005

The Canberra Times

The Canberra Times

The Canberra Times

The Canberra Times

293
The Daily Telegraph

June 16, 2006

Call for long weekend as Aussies face Brazil

BIG DAY OFF

Train fares going up

Train fares going up

Drugged for peace

Fat flop

Extra e-tag fans

Santa sex fiend

Nic’s designs

Four accidents

No charge

Entertainment

HOROSCOPES

FORECAST

TOP JOBS

HOROSCOPES

FORECAST

TOP JOBS
Bracks denies 'dirt unit'
Pремьер-министр Стив Бракс сегодня отказался от заявления о создании специального отдела для расследования обвинений в отношении лидера оппозиции Пола Ралла.

Man interviewed after girl dies in hit-run
Полиция провела интервью с водителем, который въехал в девочку на пешеходном переходе. Водитель был пьян.

Murder charge: Police hold $1 million widow
Вдову мужчины, убийство которого было совершено недавно, удерживают около миллиона долларов.
$1.3b tonic

The Lennon Government yesterday unveiled a big-spending State Budget for 2006-07, with its centerpiece a record $1.3 billion slug on troubled hospitals and health.

Tasmanian news

Serious shortfalls, say Libs, Greens

Both opposition parties have condemned the State Budget as a rash of Labor election promises with serious shortfalls in other areas.

Family wins justice for dead son

Aревining family’s quest for justice for their son killed in a workplace accident took a leap forward yesterday.

Fox follow-up wanes

Dwindling fox taskforce resources mean as few as 50 per cent of reported sightings are being investigated.

More State news

Today’s national news
Cruise ship men 'very scary'

A cruise ship passenger tells of how the crew Diane Lomax killed a man on the night before she was found dead.

Monkeys' wage war on call scam

Monkeys use mobile phone scam.

Warning to queue early for Ashes tickets

Cantau wants fans to arrive early for the next stage of tickets.

Plea for Socceroos right owls' day off

Three Socceroos are being encouraged to give football a break off for the Socceroos.

World Cup wrap

OTHER TOP STORIES

NEWS WIRE

TIME OUT

WORLD

Two found dead in volcano shelter

Two men who sought shelter from the erupting Krakatoa have been found dead.

NATIONAL

Anger over trinket law increases

Malaysia to use more fines for lesser offenders.

OPINION

The US writes up to the world's germ

The US writes up to the world's germ.
APPENDIX 6: PHASE 1 – 2007 AUSTRALIAN ONLINE NEWSPAPERS

The Advertiser
The Courier Mail
Rival clubs intercepted but Corey's staying put

Rival clubs have interception plans for Canberra Raiders halfback Todd Corey but manager David Hale and theBredary's legend Ray Thomas have counter plans. The Raiders have interest in the idea. (more)

Johnson only 30 per cent chance to start: code

The Tigers' mid-season player exchange has offered a chance for Richard Johnson to make an impact. He is only 30 per cent fit. (more)

RSS news feeds now available

Send us your news

Have you just seen something that everyone else should know about?
Do you have a photo of a recent event or just a great trip?
We want your news and photos

send more

WORLD

Israel PM, top US officials visit Lebanon

Israeli Prime Minister Ehud Olmert and top US officials flew to the tense border with Lebanon on Sunday for talks with Hezbollah, the main group fighting Palestinians in the region. (more)

No school stands down over cannabis

Tasmania's Education Department will not respond to a proposal by the Latrobe Valley School Board for students to be suspended for using cannabis. (more)
Victorian footy needs help

KEVIN'S job comes first.

Kevin's partner, Fiona, has abandoned him because of his constant attachment to his mobile phone.

Kevin's job comes first.

Kevin's partner, Fiona, has abandoned him because of his constant attachment to his mobile phone.
Kevin comes first for Therese

Kevin Rudd's embattled wife will tell the Australian arm of her company, it was announced last night.

Bondi stabbing: taxi driver charged

A Sydney taxi driver has been charged over the stabbing of a man at Bondi Beach.

Mid-air delivery for Australian doctor

Australian photographer helps a Brazilian woman - who didn't even know she was pregnant - give birth above Pacific Ocean.

* Suspended P-plater 'cracked at 192kmh'
* Obesity epidemic spinning out of control
* Fire evacuation false: Suffolks' son
* Snag threat for drivers in tunnels
* Courier looks at Evobe case

Pirates: $4 billion booty

- Art on naked bodies
- Paparazzi TV is here
- Nudes buried under teeth

New face of Australia

Braddon best: jut margina and is now staring at epic.

Target sketches: juices of Stella McCartney designs.

'Everyone will die': Kendall Jenner warns against drugs policy for footballers.

Hillery considered divorcing cheat Bill

Hillary Clinton contemplated divorce out of a sense of rage at her husband's affairs, says a new biography.
### APPENDIX 7: PHASE 2 – ITEM SCORE ARRAYS (VARIMAX) FOR THE TWO-FACTOR

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Factor A</th>
<th>Factor B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I get in-depth news from online newspaper.</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>2</td>
<td>I prefer to retrieve online newspaper using personal computer rather than mobile phone, Personal Digital Assistant or Wireless Local Area Network.</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>3</td>
<td>An online newspaper creates more 'Freedom of speech' and I am able to get less censored information.</td>
<td>-5</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>An online newspaper is just a copy of the print news.</td>
<td>-1</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>I can have access to online newspapers world wide.</td>
<td>2</td>
<td>-4</td>
</tr>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
<td>4</td>
<td>-4</td>
</tr>
<tr>
<td>7</td>
<td>I am able to get local news even though I am away or at different state/country.</td>
<td>3</td>
<td>-4</td>
</tr>
<tr>
<td>8</td>
<td>Too much graphics/visuals slows down my access to the online newspaper.</td>
<td>-2</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>I like more news and news headlines to be placed on the front page.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>An online newspaper provides me with latest news update (news break).</td>
<td>5</td>
<td>-2</td>
</tr>
<tr>
<td>11</td>
<td>An online newspaper is different from print as it has news with colour pictures, audios and videos.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>I still rely on printed newspapers, television and radio to get news.</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>I heavily rely on online newspapers for local news and information.</td>
<td>-4</td>
<td>-1</td>
</tr>
<tr>
<td>14</td>
<td>I favour online news as my source of information in getting national news.</td>
<td>-2</td>
<td>-5</td>
</tr>
<tr>
<td>15</td>
<td>I login to get important developments related to business and financial news.</td>
<td>-3</td>
<td>-1</td>
</tr>
<tr>
<td>16</td>
<td>I likely read online newspapers for international and world affairs news.</td>
<td>1</td>
<td>-3</td>
</tr>
<tr>
<td>17</td>
<td>I login to online newspaper to search on archives news.</td>
<td>-4</td>
<td>-2</td>
</tr>
<tr>
<td>18</td>
<td>I am able to get extensive news through links and related links of that specific information.</td>
<td>2</td>
<td>-2</td>
</tr>
<tr>
<td>19</td>
<td>I'm more concerned with news information rather than Web site design.</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>3</td>
<td>-2</td>
</tr>
<tr>
<td>21</td>
<td>I can even download graphics, wallpapers or postcards from online newspapers.</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>22</td>
<td>Online newspapers offer me choice of language.</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>23</td>
<td>Online newspapers provides me with useful features such as site maps, search engine and help page.</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>24</td>
<td>I would place advertisements in online newspapers.</td>
<td>-2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>I always refer to online newspaper for latest jobs offers.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26</td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>I can print the articles of online newspaper.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>If I contribute a comment most likely, my comments will be edited by editors.</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>I like to be involved in online discussion such as chat rooms, forums and bulletin boards.</td>
<td>-2</td>
<td>3</td>
</tr>
<tr>
<td>31</td>
<td>I participate in the discussion because the issues or news is relevant to me.</td>
<td>-3</td>
<td>0</td>
</tr>
<tr>
<td>32</td>
<td>I am highly involved and feel like a part of the community.</td>
<td>-4</td>
<td>3</td>
</tr>
<tr>
<td>33</td>
<td>I like weblog in online newspaper because I can read and add my comments.</td>
<td>-1</td>
<td>2</td>
</tr>
<tr>
<td>34</td>
<td>I can rank the articles or topics of online newspapers.</td>
<td>-3</td>
<td>2</td>
</tr>
<tr>
<td>35</td>
<td>I am able to forward the news by just sending hyperlinks to my friends.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>This is the fastest way for me to communicate directly to editors or journalists.</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>37</td>
<td>I rarely encounter any broken links when I read online newspapers.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>38</td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>4</td>
<td>-5</td>
</tr>
<tr>
<td>39</td>
<td>Editors or journalist respond to my queries or comments in a timely manner.</td>
<td>-5</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>I can choose to read the news immediately or later.</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>41</td>
<td>I can customize information delivery and news alerts to suit my needs.</td>
<td>1</td>
<td>-2</td>
</tr>
<tr>
<td>42</td>
<td>I prefer more scrollable pages to hypertext links for online newspaper.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>43</td>
<td>Simple and direct navigation saves time and effort to retrieve news.</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>44</td>
<td>I have easy access on online newspaper because I have technical and computer skills.</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>45</td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>-1</td>
<td>4</td>
</tr>
<tr>
<td>46</td>
<td>I fear that the quality of writing is less in the online news environment.</td>
<td>-2</td>
<td>3</td>
</tr>
<tr>
<td>47</td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>48</td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>-2</td>
<td>5</td>
</tr>
<tr>
<td>49</td>
<td>It's part of my routine to read online newspaper every day.</td>
<td>-3</td>
<td>-1</td>
</tr>
<tr>
<td>50</td>
<td>It's trendy, fashionable to use the interactive and multimedia features available in online newspaper.</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
### APPENDIX 8: PHASE 3 – ITEM SCORE ARRAYS (VARIMAX) FOR THE FOUR-FACTOR

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
<th>Factor D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I get in-depth news from online newspaper.</td>
<td>1</td>
<td>-1</td>
<td>-2</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>I prefer to retrieve online newspaper using personal computer rather than mobile phone, Personal Digital Assistant or Wireless Local Area Network.</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>-3</td>
</tr>
<tr>
<td>3</td>
<td>An online newspaper creates more ‘Freedom of speech’ and I am able to get less censored information.</td>
<td>-2</td>
<td>-2</td>
<td>-5</td>
<td>-1</td>
</tr>
<tr>
<td>4</td>
<td>An online newspaper is just a copy of the print news.</td>
<td>-2</td>
<td>1</td>
<td>1</td>
<td>-2</td>
</tr>
<tr>
<td>5</td>
<td>I can have access to online newspapers world wide.</td>
<td>4</td>
<td>2</td>
<td>-3</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>It is quick and easy to access online newspapers from home.</td>
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<td>-1</td>
<td>-2</td>
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<td>I am able to get local news even though I am away or at different state/country.</td>
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<td>8</td>
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<td>-1</td>
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<td>I like more news and news headlines to be placed on the front page.</td>
<td>1</td>
<td>2</td>
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<td>An online newspaper is different from print as it has news with colour pictures, audios and videos.</td>
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<td>I still rely on printed newspapers, television and radio to get news.</td>
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<td>I heavily rely on online newspapers for local news and information.</td>
<td>-2</td>
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<td>I login to online newspaper to search on archives news.</td>
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<td>2</td>
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<td>0</td>
<td>-2</td>
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<td>19</td>
<td>I’m more concerned with news information rather than Web site design.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>I ignore online advertising when I am reading online newspaper.</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>-4</td>
</tr>
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<td>21</td>
<td>I can even download graphics, wallpapers or postcards from online newspapers.</td>
<td>-1</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>Online newspapers offer me choice of language.</td>
<td>0</td>
<td>0</td>
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</tr>
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<td>Online newspapers provides me with useful features such as site maps, search engine and help page.</td>
<td>1</td>
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</tr>
<tr>
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<td>I would place advertisements in online newspapers.</td>
<td>-4</td>
<td>-1</td>
<td>-3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>I always refer to online newspaper for latest jobs offers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>0</td>
<td>0</td>
<td>-5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I like to participate in polls, surveys, games, puzzles and contests.</td>
<td>-5</td>
<td>1</td>
<td>-4</td>
<td>0</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel empowered because I can contribute my ideas.</td>
<td>-4</td>
<td>-2</td>
<td>1</td>
<td>-4</td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can print the articles of online newspaper.</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If I contribute a comment most likely, my comments will be edited by editors.</td>
<td>-2</td>
<td>-2</td>
<td>0</td>
<td>-2</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I like to be involved in online discussion such as chat rooms, forums and bulletin boards.</td>
<td>-4</td>
<td>-5</td>
<td>2</td>
<td>-3</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I participate in the discussion because the issues or news is relevant to me.</td>
<td>-3</td>
<td>-3</td>
<td>0</td>
<td>-2</td>
</tr>
<tr>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am highly involved and feel like a part of the community.</td>
<td>-5</td>
<td>-4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I like weblog in online newspaper because I can read and add my comments.</td>
<td>-2</td>
<td>-2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can rank the articles or topics of online newspapers.</td>
<td>-3</td>
<td>-1</td>
<td>-3</td>
<td>0</td>
</tr>
<tr>
<td>34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am able to forward the news by just sending hyperlinks to my friends.</td>
<td>1</td>
<td>1</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This is the fastest way for me to communicate directly to editors or journalists.</td>
<td>-1</td>
<td>1</td>
<td>0</td>
<td>-3</td>
</tr>
<tr>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I rarely encounter any broken links when I read online newspapers.</td>
<td>-1</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
<tr>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I prefer immediate (fast) access when I am in online newspaper.</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>38</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Editors or journalist respond to my queries or comments in a timely manner.</td>
<td>-3</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
<tr>
<td>39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can choose to read the news immediately or later.</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can customize information delivery and news alerts to suit my needs.</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I prefer more scrollable pages to hypertext links for online newspaper.</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Simple and direct navigation saves time and effort to retrieve news.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I have easy access on online newspaper because I have technical and computer skills.</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I only trust online newspapers which are from reputable organizations or information experts.</td>
<td>0</td>
<td>0</td>
<td>-1</td>
<td>-5</td>
</tr>
<tr>
<td>45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I fear that the quality of writing is less in the online news environment.</td>
<td>-2</td>
<td>0</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I started reading online newspaper from the same company as the print.</td>
<td>-1</td>
<td>-1</td>
<td>3</td>
<td>-4</td>
</tr>
<tr>
<td>47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is little credibility and legitimacy of information that I get from online newspaper.</td>
<td>-3</td>
<td>-2</td>
<td>-3</td>
<td>-2</td>
</tr>
<tr>
<td>48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It's part of my routine to read online newspaper every day.</td>
<td>1</td>
<td>-5</td>
<td>3</td>
<td>-5</td>
</tr>
<tr>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It's trendy, fashionable to use the interactive and multimedia features available in online newspaper.</td>
<td>0</td>
<td>0</td>
<td>-1</td>
<td>2</td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 9: PHASE 3 – DEMOGRAPHIC RESULTS FROM THE PROFILE INFORMATION

Section Two: Individual Statements on Internet Experience

1. Do you access to the Internet?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>82</td>
<td>97.6</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100</td>
</tr>
</tbody>
</table>

2. Where do you normally access the Internet?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>45</td>
<td>45.5</td>
</tr>
<tr>
<td>School</td>
<td>26</td>
<td>26.2</td>
</tr>
<tr>
<td>Public Library</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>Community Centre</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Cyber Café</td>
<td>16</td>
<td>16.2</td>
</tr>
<tr>
<td>Workplace</td>
<td>9</td>
<td>9.1</td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>100</td>
</tr>
</tbody>
</table>

3. How frequent do you access to the internet to search for information?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Rarely</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Occasionally</td>
<td>5</td>
<td>6.0</td>
</tr>
<tr>
<td>Moderately</td>
<td>10</td>
<td>11.9</td>
</tr>
<tr>
<td>Frequently</td>
<td>20</td>
<td>23.8</td>
</tr>
<tr>
<td>Very Frequently</td>
<td>13</td>
<td>15.5</td>
</tr>
<tr>
<td>Always</td>
<td>31</td>
<td>36.9</td>
</tr>
<tr>
<td>Did not answer</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100</td>
</tr>
</tbody>
</table>

4. How would you rate your level of internet usage?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Low</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Low</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>21</td>
<td>25.0</td>
</tr>
<tr>
<td>High</td>
<td>31</td>
<td>36.9</td>
</tr>
<tr>
<td>Very High</td>
<td>17</td>
<td>20.2</td>
</tr>
<tr>
<td>Extremely High</td>
<td>10</td>
<td>11.9</td>
</tr>
<tr>
<td>Did not answer</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100.0</td>
</tr>
</tbody>
</table>
5. What is your confident level in navigating the internet?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not confident at all</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Not that confident</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>4</td>
<td>4.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>24</td>
<td>28.6</td>
</tr>
<tr>
<td>Confident</td>
<td>33</td>
<td>39.3</td>
</tr>
<tr>
<td>Very confident</td>
<td>14</td>
<td>16.7</td>
</tr>
<tr>
<td>Extremely confident</td>
<td>6</td>
<td>7.1</td>
</tr>
<tr>
<td>Did not answer</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Section Three: Individual Statement on Online Newspaper

1. Name the print newspaper do you read most.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Telegraph</td>
<td>4</td>
<td>6.0</td>
</tr>
<tr>
<td>Sydney Morning Herald</td>
<td>8</td>
<td>11.9</td>
</tr>
<tr>
<td>The Australian</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Wollongong Advertiser</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Illawarra Mercury</td>
<td>8</td>
<td>11.9</td>
</tr>
<tr>
<td>Others</td>
<td>45</td>
<td>67.2</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>100.0</td>
</tr>
</tbody>
</table>

2. Do you read online newspaper?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>9</td>
<td>10.7</td>
</tr>
<tr>
<td>Yes</td>
<td>63</td>
<td>75.0</td>
</tr>
<tr>
<td>Did not answer</td>
<td>12</td>
<td>14.3</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100.0</td>
</tr>
</tbody>
</table>

3. When did you start reading online newspaper?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a year ago</td>
<td>8</td>
<td>11.76</td>
</tr>
<tr>
<td>1-2 years ago</td>
<td>27</td>
<td>39.71</td>
</tr>
<tr>
<td>3-4 years ago</td>
<td>17</td>
<td>25.00</td>
</tr>
<tr>
<td>5 years and above</td>
<td>16</td>
<td>23.53</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>100.00</td>
</tr>
</tbody>
</table>

note: 16 consider unknown
4. Which online newspaper do you read most?

<table>
<thead>
<tr>
<th>Newspaper</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBC News</td>
<td>4</td>
<td>6.06</td>
</tr>
<tr>
<td>Berita Harian</td>
<td>9</td>
<td>13.64</td>
</tr>
<tr>
<td>Channel News Asia</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>China Dairy</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Compas</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Daily Telegraph</td>
<td>2</td>
<td>3.03</td>
</tr>
<tr>
<td>Harian Metro</td>
<td>3</td>
<td>4.55</td>
</tr>
<tr>
<td>International Online newspaper</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Kosmo</td>
<td>3</td>
<td>4.55</td>
</tr>
<tr>
<td>Malaysiakini</td>
<td>2</td>
<td>3.03</td>
</tr>
<tr>
<td>Mingguan Malaysia</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Nanyang Siang Pau</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>NST Online</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Online Newspaper</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Print Newspaper</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Sin Chew Daily</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Star Online</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Sydney Morning Herald</td>
<td>6</td>
<td>9.09</td>
</tr>
<tr>
<td>Thai n American Papers</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>Thairath</td>
<td>2</td>
<td>3.03</td>
</tr>
<tr>
<td>The Star</td>
<td>7</td>
<td>10.61</td>
</tr>
<tr>
<td>Utusan Malaysia</td>
<td>16</td>
<td>24.24</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100.00</td>
</tr>
</tbody>
</table>

5. Which of the following best describes your online newspaper access location?

<table>
<thead>
<tr>
<th>Access Location</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>University labs</td>
<td>15</td>
<td>22.4</td>
</tr>
<tr>
<td>Workplace</td>
<td>14</td>
<td>20.9</td>
</tr>
<tr>
<td>Home</td>
<td>25</td>
<td>37.3</td>
</tr>
<tr>
<td>Community centre</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Cyber cafe</td>
<td>12</td>
<td>17.9</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>100.0</td>
</tr>
</tbody>
</table>

6. What is average time you spend reading online newspaper?(Hours per day)

<table>
<thead>
<tr>
<th>Time Duration</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than an hour</td>
<td>40</td>
<td>60.6</td>
</tr>
<tr>
<td>1.01-2 hours</td>
<td>21</td>
<td>31.8</td>
</tr>
<tr>
<td>2.01-3 hours</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>3.01-4 hours</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: 18 consider unknown
7. How often do you access online newspaper?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a week</td>
<td>22</td>
</tr>
<tr>
<td>2 days a week</td>
<td>5</td>
</tr>
<tr>
<td>3 days a week</td>
<td>7</td>
</tr>
<tr>
<td>4 days a week</td>
<td>3</td>
</tr>
<tr>
<td>5 days a week</td>
<td>4</td>
</tr>
<tr>
<td>6 days a week</td>
<td>1</td>
</tr>
<tr>
<td>Everyday</td>
<td>15</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
</tr>
</tbody>
</table>

8. Time access online newspaper

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00am - 9:00 am</td>
<td>5</td>
</tr>
<tr>
<td>9:01 am -11:59 am</td>
<td>18</td>
</tr>
<tr>
<td>12:00 noon -2:00 pm</td>
<td>10</td>
</tr>
<tr>
<td>2:01 pm -4:59 pm</td>
<td>11</td>
</tr>
<tr>
<td>5:00 pm -8:00 pm</td>
<td>10</td>
</tr>
<tr>
<td>8:01 and above</td>
<td>18</td>
</tr>
<tr>
<td>always online</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
</tr>
</tbody>
</table>

9. Your favourite online news topic

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local News</td>
<td>38</td>
</tr>
<tr>
<td>National/ World News</td>
<td>19</td>
</tr>
<tr>
<td>Business and Financial News</td>
<td>1</td>
</tr>
<tr>
<td>Sports News</td>
<td>7</td>
</tr>
<tr>
<td>Entertainment News</td>
<td>8</td>
</tr>
<tr>
<td>Jobs Online</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
</tr>
</tbody>
</table>

**Section Four: Personal Information**

1. Gender

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>21</td>
</tr>
<tr>
<td>Female</td>
<td>62</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83</strong></td>
</tr>
</tbody>
</table>

2. Age Range

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 years and below</td>
<td>1</td>
</tr>
<tr>
<td>18-24 years</td>
<td>56</td>
</tr>
<tr>
<td>25-30 years</td>
<td>12</td>
</tr>
<tr>
<td>31-36 years</td>
<td>8</td>
</tr>
<tr>
<td>37-42 years</td>
<td>3</td>
</tr>
<tr>
<td>43-48 years</td>
<td>1</td>
</tr>
<tr>
<td>49 years and above</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83</strong></td>
</tr>
</tbody>
</table>
3. Your employment status

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part-Time Student</td>
<td>5</td>
<td>5.75</td>
</tr>
<tr>
<td>Full-Time Student</td>
<td>69</td>
<td>79.31</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Employed Full-Time</td>
<td>10</td>
<td>11.49</td>
</tr>
<tr>
<td>Employed Part-Time</td>
<td>3</td>
<td>3.45</td>
</tr>
<tr>
<td>Retired</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>87</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

5. Which of the following best describe your level of education?

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary school</td>
<td>1</td>
<td>1.20</td>
</tr>
<tr>
<td>School certificate</td>
<td>1</td>
<td>1.20</td>
</tr>
<tr>
<td>High school certificate</td>
<td>6</td>
<td>7.23</td>
</tr>
<tr>
<td>College</td>
<td>1</td>
<td>1.20</td>
</tr>
<tr>
<td>University-Undergraduate</td>
<td>53</td>
<td>63.86</td>
</tr>
<tr>
<td>University-Postgraduate</td>
<td>21</td>
<td>25.30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

6. What is your personal income before tax?

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $20,000</td>
<td>43</td>
<td>74.14</td>
</tr>
<tr>
<td>$20,001-$50,000</td>
<td>9</td>
<td>15.52</td>
</tr>
<tr>
<td>$50,001-$100,000</td>
<td>5</td>
<td>8.62</td>
</tr>
<tr>
<td>$100,001-$150,000</td>
<td>1</td>
<td>1.72</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

7. Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysian</td>
<td>51</td>
<td>60.7</td>
</tr>
<tr>
<td>Australian</td>
<td>9</td>
<td>10.7</td>
</tr>
<tr>
<td>Non-Australian</td>
<td>16</td>
<td>19.1</td>
</tr>
<tr>
<td>Unknown</td>
<td>8</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>84</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
Australian Financial Review
Swan dares Turnbull over nicopops tax

Swan dares Turnbull over nicopops tax

Total of accused Mumbai gunman bagthas

Title of accused Mumbai gunman bagthas

Top End plan to allow crocodile hunt

Top End plan to allow crocodile hunt

Buyers found for 260 ABC centres

Buyers found for 260 ABC centres

THE NATION

LITTLE support for defence budget plan

LITTLE support for defence budget plan

MULTIMEDIA

Swan dares Turnbull over nicopops tax

MULTIMEDIA

Top End plan to allow crocodile hunt
Because the more we know, the less we assume, the more you can save.
Pirates fire rockets at food aid ship
2:15pm: Somali pirates attacked and damaged an American ship carrying humanitarian aid Tuesday, but the ship and crew are safe under Navy escort. 10 hostages taken

- Thailand issues Thai seal warrant
- Guilty of treating her daughters-in-law like "slaves and dogs"
- Teachers boycott V8 milk student after catching him in bed with her
- Former US Aid official being reascruated by Iraq. Bediracan to female doctor
- 22-year-old frozen sperm used to conceive baby girl

Video

Business Day
Rio warned against re-electing Eddington
JAMES REID 5:36am RSSMeters recommends against the re-election of 9th of Eddington to the Rio Tinto board.

- 4000 won the output slump
- newTrend FIV
- AAFB stocks were wrecked
- Bolton loses his Brits wish for deal details
- Stephen Maye in defence of Bolton
- Hibs win local area battle
- US tax records need year CCI
- Economic growth ahead
- Business terms slowed as firms paused
- AGI rejects E2's gas assets
- Rio raises $US 7.1b in bond market
- Thrivent: target over 52-weeks of ABC Learning centres

ExecutiveStyle
Blackberry devotes
Tips from 100 executives who swear by the BlackBerry

moneymanager
Avoiding a stock after death
Assess before selling stocks may have large tax consequences

SmallBusiness
Unaimed breaxes post video
Nielsen's Creativeindex to explain collapses to customers.
Missing girl Brandi Allen’s body found by canoeist

A CANOEIST has found the body of a young girl on Queensland’s Sunshine Coast, nearly 15km downstream from where she was swept away in floodwaters.

Brandi Allen was swimming with friends at the wall on the Caboolture River when the current dragged her over the wall on Monday afternoon.

The 12-year-old disappeared in the turbulent water. Her body was found on Wednesday afternoon.

Inspector Terry Boland says her body was taken kilometres downstream in the flood-swollen river.

“There’s no good result in this at all. The only saving grace for her family is that she has been found, and there’s some closure there for her parents,” he said.

“A huge amount of water has come down the river in the last couple of days and it’s run as high as it has in many years.

“With that volume of water coming down it’s not surprising to think she would be down that far.”

“Water police and SES boats searched that area extensively, but it’s a wide area of water and on Wednesday afternoon a canoeist was working his way back up around the edges of the river, on the normal course of what he does, and he came across her.”

“The SES, police and helicopter crews have done an extremely good job, working under very trying conditions with dynamic, fast-moving water over the last two days,” he said.

“Unfortunately, people are still testing floodwaters, and they really need to think about that.

“They’re extremely dangerous and volatile places to be when you have large volumes of water coming down river systems or creeks and stormwater drains, and they need to think twice about going into those places.”

Share this article

All the latest news updates, in your Facebook Profile.

facebook

UNPAY up to 12.5%.
Links to relevant news:
1. Video (at top right side beside main news)
2. Pictures (in Extra)
3. Lucky escape (in Extra)
4. Weather Central (in Extra)
5. Traffic cams (in Extra)
6. Wicked Weather (in Extra)
7. Comments (in Have Your Say)

Have Your Say

Latest Comments:

My heart goes out to all those involved. To Brandi's family and friends and also to the friend who was with her when it happened. I hope she has a long and happy life. We need to remember that they were only children, they aren't reading or listening to news reports. At that age we think that nothing bad will ever happen to us. Unfortunately it can and does happen.

Posted by Gayle of Caboolture 4/My today

It should be a basic provision of property ownership that fencing be provided and maintained. I feel great sorrow for this family.

Posted by Sharon Newman of Townsville, Qld 2:35pm today

Brandi was a very sweet young lady and was a great friend to all those that knew her.

RIP sweet Angel... we will miss you, but know that you will always shine your bright angel light on the world.

Our dearest condolences to mum and dad. They are in our prayers.

Your Friends J&A.

Posted by one of Caboolture 2:35pm today

As a long time resident of the area I can only hope that this tragedy is a warning to others that may use the Caboolture River as a 'fun' place. There are many photographs available from the Caboolture Historical Society to show the power of this small coastal river. Unfortunately lack of education has cost a life of a beautiful child of the area. This is the responsibility of all community members which seems to have failed in their duty.

Very sorry for your loss. I cannot imagine the pain you are going through please accept my condolences to the Allen family and friends of Brandi.

Posted by Michael of Morayfield 1:31pm April 15, 2009

We welcome your comments on this story. Comments are submitted for possible publication on the condition that they may be edited. Please provide your full name. We also require a working email address - not for publication, but for verification. The location field is optional. Read our publication guidelines.

Submit your feedback here:
Full name: 
Email address: 
Location (Optional): 
Your comments: 
Remember my details:
(As you don't have to retype your details each time):
Email me if my comment is published:
Submit Comment

Email: for more details on Newsdesk, see news archive service. Click here.
APPENDIX 12: THE HERALD SUN – NEWS UPDATES

(IN BREAKING NEWS, SPORTS, AND MOST POPULAR TODAY IN)

<table>
<thead>
<tr>
<th><strong>BREAKING NEWS</strong></th>
<th><strong>LATEST IN SPORT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>5:36pm</td>
<td>5:17pm</td>
</tr>
<tr>
<td>Woman dies while scuba diving</td>
<td>Warner rebukes bosses on IPL</td>
</tr>
<tr>
<td>5:33pm</td>
<td>4:22pm</td>
</tr>
<tr>
<td>Airline offers 80 per cent discounts</td>
<td>OneAsia tees off</td>
</tr>
<tr>
<td>5:29pm</td>
<td>3:15pm</td>
</tr>
<tr>
<td>Man charged over $25,000 in cannabis haul</td>
<td>Mourne unique goes up rackets in Mackay</td>
</tr>
<tr>
<td>5:18pm</td>
<td>3:45pm</td>
</tr>
<tr>
<td>Jackman makes $20,000,000 Twitter pledge</td>
<td>Storms snap play at Bells</td>
</tr>
</tbody>
</table>

**MOST POPULAR TODAY**

Rob Dickson’s son loses fight.
Killer taunts Tahz Ablett.
Wild storms wreak havoc.
Triple-0 operator scolded dying teen.

**Today’s Most Popular**

<table>
<thead>
<tr>
<th><strong>Herald Sun</strong></th>
<th><strong>Daily Telegraph</strong></th>
<th><strong>Courier Mail</strong></th>
<th><strong>Adelaide NOW</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rob Dickson’s son loses fight</td>
<td>1. Girl band student killed</td>
<td>1. Missing boy’s 999 call un answered</td>
<td>1. Musty - you want a bite with...</td>
</tr>
<tr>
<td>5. Rocky mystery trip leads</td>
<td>5. ‘My dog ate my story’</td>
<td>5. LNP wants new election</td>
<td>5. Humphrey B Bear in all manner of...</td>
</tr>
</tbody>
</table>

*View today’s home page*
APPENDIX 13: THE DAILY TELEGRAPH – ‘GAME ON’ FEATURE

RACING

Top Motorcross
NOW is the time to show off what kind of
skills you can pull off in this ripped
motorway.

Bike Challenge
RIDE your way to success by doing
all of the obstacles in your bike path. Use
the points you earn to upgrade your bike.

Start Drive
JUMP on your bike and race some of the
world’s greatest icons.

MiniClip Rally
Ninja, Monkey, and Zeal challenge each
other to race it out on their home turf... let
the rally begin!

Monkey Kart
JUMP: Bananas need to reach the finish
line in a spectacular race. There are eight
different courses and five unique worlds.

Super Racer
RACE your super racer through wash
downs as many laps as you possibly can.

3D Racing
30 fast racing games. Race against two different cars for the best time and score.

3D Rally Racing
CHOOSE your favorite car and race
against some of the best racers on
different levels.

Drive Bugsy
RACE: your car through the map less road.
Boss levels containing many bugs you
Can by familiar things.

SHOOTERS

Wings of Glory
Use your skills and tactics to become one
of the best WW2 fighter pilots.

Absolute Zero - Space Shooter
DESTROY enemy ships and rescue
infected astronauts in this multi
dimension space shooter.

Metal Slug Brutal 3
SLUG: your enemies and eliminate
each one of them.

Smokin Barrels
YOU are a young cowboy looking to make
some extra cash by killing to win many
bucks, so you can.

CIVIL WAR

Chuck Norris Challenge
DESTROY the rebels by knocking
on their door to alert our forces.

Nacho Kung Fu
WRESTLE with enemies, apply special
kung fu moves, and defeat the
enemies to win the game.

SPORT

Stick Cricket
GET for this refreshing, multi
player game.
Communication Opportunity (Sessional): Chat Room. Once the reader clicks at Chat link on the home page (side), it will redirect to American Idol Chat Room (bottom).
### APPENDIX 15: COMMUNICATION OPPORTUNITY AND SOCIAL NETWORK LINKS

| Comment | Print | Enlarge/min | Email | Fav. | Del. | FB | Digg | MyS | Link | Kwoff | StU | Nsv | Reddit | Mag | Google | Furl | Tecn | WinL | Nets | Blink | Tail | YMW | Slas | RSS |
|---------|-------|-------------|-------|------|------|----|------|-----|------|-------|-----|-----|--------|-----|--------|------|------|------|------|-------|------|-----|-----|-----|-----|
| NT      | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | X   | ✓    | X     | X   | ✓   | X      | ✓   | X      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| CT      | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| Ad      | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | X   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| M       | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | X   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| DT      | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| HS      | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| CM      | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| AUS     | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | X   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| SMH     | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| Age     | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| AFR     | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |
| WA      | ✓     | ✓           | ✓     | ✓    | ✓    | ✓  | ✓    | ✓   | ✓    | ✓     | ✓   | ✓   | ✓      | ✓   | ✓      | ✓    | X    | X    | X    | X     | X    | X   | X   | X   | X   |

Note: ✓ - Available; X - Not Available

Fav. = Favourites    Link = LinkedIn    Tecn = Technorati    Tail = Tailrank
Del. = Delicious     StU = StumbleUpon   WinL = Windows Live   YMW = Yahoo My Web
FB = Facebook        Nsv = Newsvine      Nets = Netscape       Slas = Slashdot
MyS = MySpace        Mag = Magnolia      Blink = Blinklist
APPENDIX 16: FAIRFAX DIGITAL PRIVACY POLICY

(FOR THE AGE, AUSTRALIAN FINANCIAL REVIEW, CANBERRA TIMES, AND SYDNEY MORNING HERALD)

Fairfax Privacy Policy

In this policy, "we", "us" or "our" means Fairfax Media Limited (ABN 15 008 863 181) and its related bodies corporate.

This policy sets out:
- what kind of information we collect,
- how we collect it,
- why we collect it,
- how we use it,
- how we disclose it,
- our internal management and security,
- how to seek access to and update your personal information and
- how to contact us.

We are bound by the National Privacy Principles contained in the Privacy Act 1988 (Cth) (subject to exemptions that apply to us under that Act).

We may, from time to time, review and update this policy, including to take account of new or amended laws, new technology and/or changes to our operations. All personal information held by us will be governed by the most recently updated policy.

This policy was last updated on 31 March 2009.

What information we collect

In general, the personal information we collect about you includes (but is not limited to) your name, contact details (including phone numbers and addresses) and possibly financial information, including your credit card information.

We also collect information about you that is not personal information. For example, we may collect data relating to your activity on our websites (including IP addresses) via tracking technologies such as cookies, or we may collect information from you in response to a survey. We generally use this information to report statistics, analyse trends, administer our services, diagnose problems and target and improve the delivery of our products and services. To the extent this information does not constitute personal information, the National Privacy Principles do not apply to us and we may use this information for any purpose and in any manner whatsoever.

We preferentially advise that you do not publish or communicate personal information, or at least limit the personal information that you publish or communicate, to the public via our services, such as in our newletters, forums or blogs (Non-Confidential Information). You acknowledge that we cannot control any third party collection, use or disclosure of your Non-Confidential Information. You agree that we may use and disclose Non-Confidential Information for any purpose and in any manner whatsoever.

How we collect it

We may collect your personal information from a variety of sources, including from you, advertisers, mailing lists, recruitment agencies, contractors and business partners.

We may collect your personal information when you request or acquire a product or service from us, register with us as a member, provide a product or service to us, complete a survey or questionnaire, enter a competition or event, contribute in a fundraising event, participate in our surveys (including our radio programs, blogs and forums) or when you communicate with us by email, telephone or in writing (for example, if you contact customer service to make a complaint or provide feedback).

If, at any time, you provide personal or other information about someone other than you yourself, you warrant that you have that person's consent to provide such information for the purpose specified.
Why we collect it

The primary purpose for which we collect information about you is to provide you with products and services you have requested. We also collect information about you for the purpose outlined below.

We may state a more specific purpose at the point we collect your information.

If you do not provide us with the information that we request, we may not be able to provide you with our products or services. For example, if you do not register as a member of a website, you will not be able to access features or services that are reserved for members only.

How we use it

In addition to the primary purpose outlined above, we may use the personal information we collect, and we consent to using your personal information:

- to provide you with news and information about our products and services, and opportunities that we believe you may be interested in;
- for purposes necessary or incidental to the provision of goods and services to you;
- to personalise and enhance your experience;
- to manage and enhance our products and services;
- to communicate with you, including by email, mail or telephone;
- to conduct competitions or promotions;
- to verify your identity;
- to investigate any complaints about or made by you, or if we have reason to suspect that you are in breach of any of our terms and conditions or that you have or have been otherwise engaged in any unlawful activity; and/or
- as required or permitted by any law (including the Privacy Act).

How we disclose it

We may also disclose personal information, and you consent to us disclosing your personal information to:

- engaged by us to perform functions or provide products and services on our behalf, such as messengers, processing credit card information, mailists, direct mail collection, marketing, research and advertising;
- that are our agents, business partners or past visitors entities or partners;
- that sponsor or promote any competition that we conduct or promote via our services;
- authorised by you to receive information held by us;
- as part of any investigation into you or your activity, for example, if we have reason to suspect that you have committed a breach of any of our terms and conditions or have otherwise been engaged in any unlawful activity, and we reasonably believe that disclosure is necessary to the Police, any relevant authority or enforcement body, or your Internet Service Provider or network administrator;
- as part of a sale (unsupervised sale) of all or part of our business; and/or
- as required or permitted by any law (including the Privacy Act).

Opting in or out

At any point we collect information from you, you may be asked to "opt in" to consent to us using or disclosing your personal information other than in accordance with this policy or any applicable law. For example, you may be asked to consent to receive further information or communications from our advertisers and suppliers.

You will generally be given the opportunity to "opt out" from receiving communications from us or from third parties that send communications to you in accordance with this policy. For example, you will be given the option to unsubscribe to communications sent by us.

If you receive communications supporting to be connected with us or our services that you believe have been sent to you without your consent, please write to us at the address set out below.

Management and security

We have appointed a Privacy Officer to oversee the management of personal information in accordance with this policy and the Privacy Act.

Other than in relation to non-confidential information, we will take all reasonable steps to protect the personal information that we hold from misuse, loss, or unauthorised access, modification or disclosure, by means of firewalls, access controls, secure servers and encryption of credit card transactions.

However, you acknowledge that the security of electronic transactions and the security of communications sent by electronic means or by post cannot be guaranteed. You provide information to us via the Internet or by post at your own risk. We cannot accept responsibility for misuse of your information or unauthorised access to your personal information where the security of information is not within our control.

You acknowledge that we are not responsible for the privacy or security practices of any third party (including third parties that we are permitted to disclose your personal information to in accordance with this policy or any applicable laws). The collection and use of your information by such third parties may be subject to separate privacy and security rules.

If you suspect any misuse of loss of, or unauthorised access to, your personal information, please let us know immediately.
Accessing and updating your information and how to contact us

Subject to some exceptions in the Privacy Act, you have the right to seek access to and update the personal information we hold about you. If you make an access request, we will ask you to verify your identity. We may charge a fee to cover the costs of meeting your request.

Members of our websites will generally be able to access and update their membership details online.

We request that you keep your information as current as possible so that we may continue to improve our service to you.

If you would like to seek access to personal information we hold about you, or if you have any questions or complaints about how we collect, use, disclose, modify, or store your personal information, you can contact the department that collects your personal information in the first instance, or write to:

Privacy Officer
GPO Box 506
Sydney NSW 2001