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Andrew Connery
University of Wollongong

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TITLE SHEET

**AN EXAMINATION OF THE SUSTAINABILITY OF ONLINE
COMMUNITIES IN AUSTRALIA INCLUDING THE FINDINGS
OF PARTICIPATORY ACTION RESEARCH UNDERTAKEN ON
A BETA 3RD GENERATION NETWORK TYPE REGIONAL
COMMUNITY PORTAL IN NEW SOUTH WALES**

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

MASTER OF INFORMATION SYSTEMS - RESEARCH

from

UNIVERSITY OF WOLLONGONG

by

ANDREW CONNERY

SCHOOL OF ECONOMICS AND INFORMATION SYSTEMS

2006

THESIS CERTIFICATION

CERTIFICATION

I, Andrew Connery, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Master of Information Systems, in the School of Economics and Information Systems, 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.

.....
Andrew Connery

Date:.....

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0.0 ABSTRACT

This thesis examines the operations and viability of community portals (RCP) generally and within Australia specifically. It records and analyses, through participatory action research undertaken by the candidate, the development of a beta 3rd generation network type community portal (NCP). The particular aspect of interest in this community portal is that it is a commercial venture aimed at achieving long-term economic sustainability.

The evolution of portals can be traced back to the origins of the internet. As a group they can be classified into three broad categories: internet, intranet and extranet. In this thesis it is assumed that a community portal is a further subgroup of the internet type portal, with a regional community portal has the added attribute of being geographically prescribed in essence. Whilst it is freely accessible to any web user, it is only of continuing interest or amenity to persons residing in a specific area or community. The research presented here focuses on the development of communities that are essentially web-based but are situated in, and serve the needs of, a bounded local region. The capability of the Web to enable the creation and sustaining of communities is becoming increasingly more common for a wide range of activities, which can be in the commercial as well as non-profit or educational sectors. The problem of the sustainability of web-based communities, and regional community portals in particular, is now a widespread phenomenon, and is capturing the interest of researchers in many disciplines in academia and the professions. There is an increasing need for these communities to be commercially viable and demonstrate return on investment in a pragmatic sense.

In conducting the research three models were investigated as a precursor to the development and design of the research method for this thesis. The alternatives reflect the researcher's business and academic background. The research approach also justifies a model of portal sustainability developed with colleagues at the University of Wollongong.

This study has found overwhelming evidence that the widespread introduction and on-going operation of 'not for profit' community portals in Australia has been universally compromised by lack of skilled management, an absence of long term financial support and a scarcity of relevant technological expertise.

Even well funded government initiatives, both state and federal (2000 onwards), in line with the overseas experience (UK & Canada) have been mostly unsuccessful. The technical complexity and rate of change in technology has in many instances hidden more fundamental underlying structural problems inherent with the operation of regional community portals undertaken to date. As in some other traditionally community based services, most significantly after hours child care the introduction of a ‘community’ front end and ‘corporate’ backend business models seems to be the solution now being favoured by governments over more orthodox approaches in the 21st century. This is meeting a growing market need in a time of increasing pressure on dwindling public resources to maintain existing service levels.

The study identifies structure, ownership and the business model as the most critical issues for achieving sustainability. The research confirms that the emergence of regional community portals into the mainstream coincides with the most turbulent economic time the mass media and telecommunications companies have ever encountered in this country. This context has severely hampered their introduction by diverting attention to the survival of the traditional forms of media rather than exploring inherently more efficient content delivery systems which have the potential to negatively impact the incumbent proprietors’ older technologies and strong revenue streams.

This research points to a future in which numerous and as yet unimagined new technologies will be developed for the gathering and sharing of information using the internet platform. Web based communities or social networks are becoming the online phenomena of the early 21st century and regional community portals are the natural home for such activities.

1.0 KEYWORDS

Online Communities

Regional Portals

Sustainability

Network Model

Citizen Journalism

Social networks

2.0 INTRODUCTION

The term 'portal' or 'gateway' has taken on a specialised meaning in the digital information age (Tatnall 2005) and the evolution of web-based portals can be traced back to the origins of the internet. As a group information portals can be classified into three broad categories: internet, intranet and extranet. Each share the same basic structure comprising, on the client side, a standard web browser for ubiquitous access and, on the server side, a variety of software applications, data repositories and online tools all of which are rendered seamlessly as standard webpages. A distinguishing characteristic of portals is the audience which each grouping serves and associated issues of accessibility. There are limitations to access with both intranet and extranet type portals as they are owned by a corporation who restrict access to an audience of members and clients. In the case of internet type portals access is only restricted by the audience's technical equipment and skill. A regional community portal (RCP), the focus of this thesis, is a further sub-group of the internet type portal with the added factor of being geographically prescribed. In essence, whilst it is freely accessible to any web user, it is only of continuing interest or amenity to persons residing in a specific area and members of that community. This thesis examines the operations and viability of community portals generally and within Australia specifically and records, through participatory action research undertaken by the researcher, the development of a beta 3rd generation network type community portal aimed at achieving sustainability.

2.1 Background

Community Portals and in particular Regional Community Portals have been an integral part of the world wide web since its inception. From the outset, it seemed to many pioneers that the internet was an obvious vehicle with the power of a unique costless distribution system to harness and to build social capital in local communities. In fact, the perceived benefits of the model were so compelling that numerous governmental bodies throughout the developed/online world embraced the concept wholeheartedly and embarked upon ambitious and often

well funded but ill-conceived ventures, (for example, the One City One Site (OCOS) program of the Australian Government)

The role and utility of RCP in general is now well understood (Preece 2000). The provision of tools, the improvement in access and the use of the internet, the science of human computer interaction (HCI) are now all taken as givens. However research relating to the establishment and promotion of RCP has been limited (Musgrave 2005). In February 2001 a small group of Wollongong based business people including the researcher decided to establish a community portal with the URL: www.wollongongonline.com based on the traditional technical configuration of RCPs at that time but set up as a commercial venture. This was in marked contrast to the more familiar externally funded non-profit enterprises common throughout the online world. The participatory action research commenced, with official launch in May 2001, on what was thought to be a two year time frame but which has now become a much longer term project and is the basis for this thesis – The URL for the first community portal is now:

www.wollongong.youronlinecommunity.com.au This generic URL has allowed expansion of the product into other regions and will be shown in the thesis to be a beta 3rd generation portal.

The community, for which the RCP was built, is a predominantly working-class, industrial town together with its surrounding coastal area, and includes several hundred thousand inhabitants. There is a strong sense of local identity and the area is going through some economic and social challenges with unemployment relatively high. Despite this, the region has a positive outlook with opportunities for growth in the tourism and education sectors. The region is large enough to have an integrated local area health service, a university, and arts centre, a daily newspaper and a local TV station. It surrounds an industrial coal/steel town with traditionally one large employer, a history of shared catastrophes (mines and bushfires) as well as challenges and competition from two neighbouring big cities. This has meant that the population is not blasé about community values. People are also drawn together in support of local sports teams in the national

competitions of football and basketball, with associated well-known local heroes (Connery & Hasan 2004). Among the many issues that continually challenge regional communities is the need for local content in the media. The key, identifying characteristics of a local community, in terms of media, is that they are usually dominated by national networks for electronic media (TV and radio) and serviced by a single newspaper, owned by a national publishing company. Most editorial content is provided top down with limited local content and, importantly, the bulk of advertising revenue is earned from national advertisers. This usually means that local advertisers are cross-subsidised creating a situation where it is difficult for locally-based media owners to compete and provide local content. This results in a distortion of the market, which does not have the financial or social capital to correct. This problem is common to most if not all regional areas. What is new, and the objective of this innovative project, is the realisation that there is an opportunity to remedy this in a virtual space by providing local content with locals utilising a low cost advertising model. In early 2005 a similar venture was launched in Washington (see www.backfence.com)

2.2 Research Question

"The research question for this thesis is as follows: What factors are critical to achieving sustainability in a regional community portal?"

2.3 Research Focus

In answering this question the research focuses on two broad areas in relation to RCPs in the Australian context. Firstly, it critiques the establishment, structure and operation of community portals generally and includes a detailed analysis of a commercially based beta 3rd generation RCP which is the basis of the participatory action research. Secondly, it identifies from an on and offline literature review and the data gathered from the participatory action research the major factors which impact the establishment, structure and

operation of community portals and proposes a model which has the most likelihood of achieving true sustainability."

2.4 Research Objective

The objective of the research is to answer the research question keeping the research focus using an action research approach which allows practice to inform the data collection, analysis and interpretation. In this way the research findings will in turn inform practice and be of interest to both academia and industry.

2.5 Arrangement of the Thesis

Desk research and literature review immediately suggested a number of factors which appeared to impact the development of RCPs however the identification of the most critical and influential factor only emerged during the action research phase. The five areas of research are examined in Chapter 4 and placed in context. Chapter 3 investigates three theoretical models as a precursor to the development and design of the research method for this thesis and describes the choice of research methodology and emphasises the co-evolution of Research and Practice inherent with this type of iterative based research approach. Chapter 5 outlines the findings of the research undertaken and also identifies areas worthy of further research and comments upon other related developments. Chapter 6 addresses a number of strategic issues which became evident during the research some of a general nature and some with specific relevance to the development of RCPs. Chapter 7 briefly touches upon technological advances which have been identified during the course of the research and although not directly related to achieving sustainability in RCPs are seen as being of significant commercial opportunity and as such are also worthy of further research. Chapter 8 concludes with the Bibliography, Media references, Website references and a series of YOC templates showing the current design and hierarchy of the NCP under research. Server logs are included.

2.6 Definitions

Most terms used within this thesis appear regularly in common language but some have a specific meanings attributed to them by the researcher – most however are used in their normal sense and are listed below (2.6.7 onwards) with the exceptions being (2.6.1 – 2.6.6) which are described here in more detail:

2.6.1 Sustainability

The Concise Oxford Dictionary defines sustain as...enabling to last...hold up... keep from falling..uphold...confirm...ergo sustainability being the ability to sustain.

A Google search revealed at least 25 definitions of which three are particularly germane:

Sustainability is effectively the goal of sustainable development.

It is the ideal end state which we must aspire –

www.esd.rgs.org/glossarypopup.html 28 May 2005

To keep in existence, to maintain or prolong –

www.ifdn.com/teacher/glossay.html 28 May 2005

The likelihood of a program to continue over a period of time, especially after grant monies disappear –

www.uwyo.edu/sig/definition.asp 28 May 2005

For the purposes of this thesis to achieve the status of sustainability portals must have established, or be in the process of establishing, an-ongoing self generating revenue stream sufficient to meet future operating costs without reliance upon unpredictable external funding sources.

2.6.2 Community

Traditionally a community has been thought of as a body of people living in the same locality and the prefix 'regional' in the term Regional Community Portal (RCP) underscores this perspective. However it is contended that not only does this definition misrepresent the more modern and/or 'online' understanding of the word 'community' but it significantly overlooks the most important constituents of its current meaning viz: the sharing of a common interest and the chance to interact with real people (Walden 2000) and be willing to help each other (Andersen 1999)

The definition of an online community as a group of people sharing a common interest or interests in a geographically described area would seem preferable.

This approach provides a continuum which traverses from one extreme being 'a very prescribed and powerful interest' for all web users in the world right through to the mooted 3rd generation sustainable RCP which aggregates a number of less compelling interests (including domicile) within the confines of a tightly defined geographical area. It is not considered that the single common interest of being born or simply living in a particular area is sufficient enough reason to render a group of citizens/web-users into a community in the current modern sense.

2.6.3 Portals

First generation portals were treated as the repository for online information and/or links to other sources. It was noted that many early communities (portals) had more in common with lonely museums than the vibrant communities they set out to create (Kollock 1996). Most 1st generation portals comprised of

a basic HTML page with rows of hyperlinks to related and/or interesting websites. Little or no effort was expended on aesthetics or attempting to assist users with navigation and their functionality was perfectly described by their name portal – being an entrance or gateway. The term portal has largely given way to the friendlier online community as a descriptor in common usage although in technical or academic circles it continues as a preferred alternative. The originating purpose has been mostly usurped by high profile search engines such as Google and Yahoo which in their earliest configurations were accessed through portals. Most lesser known search engines still reside within portals to tap into their traffic flows ie web users do not access them directly from the internet. With the increase in the importance of search on a global and increasingly local scene the *raison d’etre* for many of these older portals has now been largely extinguished. Certainly the change of use has tended to lessen web users’ reliance on portals generally and has largely shifted the research focus from portal development to search engine R&D. The current or second generation of community portal are often referred to as being of the ‘walled garden’ variety reflecting their traffic management approach which is to contain all traffic within the portal itself. The absence of an external search engine within the portal is a key indicator and the handling of all referrals to linked websites utilising a new/tied window optimises the number of hits harvested from each visitor to the portal. For the purposes of this thesis we have termed the Wollongong based RCP a ‘beta’ 3rd generation portal or NCP (Network Community Portal) to reflect its variance from the current 2nd generation portals. Traditionally RCP have been standalone, bottom up in orientation, with a tourist based focus and externally funded on an ad hoc basis. The development of an alternative ‘network’ model (NCP) or beta 3rd generation portal with an internal focus and potentially self supporting forms the basis of this research

2.6.4 Trust

For the purposes of understanding the nature of trust in online communities two definitions are helpful (Preece 2000).

Either, trust is the expectation that arises within a community of regular, honest, and cooperative behaviour, based on commonly shared norms, on the part of the members of the community (Fukuyama 1995). Or, the positive expectation a person has for another person, organisation, tool, or process that is based on past performance and truthful future guarantees made by a responsible person or organisation (Shneiderman 2000).

2.6.5 NEDI

Is an acronym developed by the researcher (non-expensive data input) and relates to the low cost of acquiring content which is considered essential to achieving sustainability.

2.6.6 Lurkers

Is the colloquial term for regular visitors to online communities who do not actively contribute in any tangible way, also described by the researcher as non-participating members.

2.6.7 Awareness

The term used within the marketing and media industries to describe a prospects ability to recollect a brand or product. This information can be prompted or unprompted and is commonly used to measure advertising campaign effectiveness.

2.6.8 Stickability

Is a measure of a web users inclination to return regularly to a specific website, portal or other online tool without prompting

2.6.9 Functionality

Refers to a websites ability to deliver to all users the developer's desired informational outputs or online tools in an efficient and easily navigable format

2.6.10 Connectivity

Is the degree to which an online property is able to interface seamlessly with other platforms without loss of operating efficiency or data integrity. By definition the optimum connectivity is enabling universal ubiquitous access.

2.6.11 Distribution

Is the total number of possible consumers that can be reached utilising a specific channel.

It is a theoretical maximum figure and its calculation varies from media to media. Traditionally newspapers have calculated distribution (or readership) as the actual number of issues printed multiplied by an assumption usually between 2 and 2.5 whereas magazines use a higher factor (3-4 times) to reflect their longer shelf life and/or tendency to be passed on.

2.6.12 Audience

Total audience is effectively analogous to distribution however it is the preferred term of marketing and advertising practitioners when used for segmentation purposes eg 27% of a magazines audience is from the sought after AB demograph.

2.6.13 Granularity

This is a term that is used in several areas of computing; generally though it refers to the smallest size that can be set or addressed. For the purposes of this thesis it refers to the smallest offline population that can economically support an online community.

2.6.14 Platform

Framework, either hardware or software, which allows 3rd party software to run. Typically includes a computer's architecture, operating system or programming language.

2.6.15 Scalability

The ability and flexibility of an application or business model to meet growth requirements of an organisation

2.6.16 Blogging

A weblog (usually shortened to blog, but occasionally spelled web log) is a web-based publication consisting primarily of periodic articles (normally in reverse chronological order). Although most early weblogs were manually updated, tools to automate the maintenance of such sites made them accessible to a much larger population, and the use of some sort of browser-based software is now a typical aspect of "blogging".

en.wikipedia.org/wiki/Blogging

2.6.17 Versioning

A form of publishing where different versions (hard or soft copy) may go to different geographical areas or people with different income levels.

2.6.18 Engagement

The act of sharing in the activities of a group; "the teacher tried to increase his students' engagement in class activities"

wordnet.princeton.edu/perl/webwn

2.6.19 Interaction

Exchange of information, ideas, opinions, usually mediated through technology with the aim of facilitating learning.

2.6.20 Action Research

A qualitative, interpretive, reflective and experimental methodology that requires all the participants to be collaborative researchers. Is carried out by people who usually recognise a problem or limitation in their workplace situation and, together, devise a plan to counteract the problem, implement the plan, observe what happens, reflect on these outcomes, revise the plan, implement it, reflect, revise and so on.

2.6.21 Heuristics

Rules, suggestions, guides or techniques to be used when designing web interfaces that optimise human computer interactions.

2.6.22 Rich media

Rich media is a term for technical specifications which can support pictures, video, audio, animation and user interactivity – also called multi-media

2.6.23 Localised search

Term for the activity of locating information online relating to a users' local vicinity. This approach is usually able to provide more detailed information than traditional global search methods and is processed quicker due to the smaller domains involved.

2.6.24 Convergence

The concept that all modern information technologies, currently based on very disparate technological paradigms and systems, are becoming digital in nature. At present information is received by telephone, television, radio, newspaper and print. In the future these different information delivery systems may be replaced by a unified system based wholly on digital technology.

2.6.25 Video-on demand

An umbrella term for a wide set of technologies and companies whose common goal is to enable individuals to select videos from a central server for viewing on a television or computer screen. VOD can be used for entertainment (ordering movies transmitted digitally), education (viewing training videos), and videoconferencing (enhancing presentations with video clips). VOD content is not live but rather pre-encoded content available at any time from a server.

2.6.26 3G

3G or third generation wireless is digital and includes but is not limited to such enhanced features as high-speed transmission, global roaming and advanced multimedia access. This generation will become more and more visible within the next few years. globalvalueconnect.com/Glossary/G.htm

2.6.27 Trust based search

A search tool which ranks listings according to values input by independent third parties.

2.6.28 Server Logs

Are files automatically created and maintained by a server of activity performed by it. A typical example is a web server log which maintains a history of page requests.

2.6.29 Incumbent media

Traditional forms of media such as newspapers, radio and television with a vested interest in maintaining the current media-scape unchanged.

2.6.30 Search engine optimisation

Is the process of enhancing the design, content and link network of a website in accordance with the latest search engine scoring formulas and ranking technologies. The aim at all times is to improve a site's position on search results pages.

2.6.31 Domain names

The unique name that identifies a website eg www.empoweraustralia.com. They always have two or more parts, separated by dots. The part on the left is specific (empoweraustralia), and the right is the more general (eg .com) or more commonly for Australian based organizations (.com.au).

2.6.32 Traffic management

The process of establishing inter-linking internet properties and creating architectures within related web-pages with a view to maximising the amount of time users spend on a portal.

2.7 Issues

The research approach undertaken for this thesis was always intended to be developmental, involving an iterative process of continual testing and refinement. Based on the researchers traditional offline experience and background in marketing and publishing there were a number of topics which clearly presented themselves as starting points and this together with further desk research framed the initial approaches adopted when constructing the prototype community portal www.wollongongonline.com in early 2001. From a reflective analysis it is estimated that there were at least eight key factors involved.

2.7.1 Awareness

Clearly any community portal must have or gain awareness by its intended audience in its primary geographical area to attract

traffic to the website. This is a fundamental prerequisite for the sustainability of any commercial or web based venture and for the purposes of this thesis is taken as a given. Of interest is how this can be achieved and supported on an on-going basis and particularly how a portal can sustain the initial interest once awareness has been achieved – refer 2.7.3

2.7.2 Subscribers

Historically online communities have been measured in terms of their subscribers ie the number who have logged on and provided certain personal information. This approach is misleading in the sense that it measures the number of people who have joined as opposed to those actively participating. Also the actual participation of ‘members’ has not been extensively addressed formally before (Millen 2002) and certainly there has been no concerted attempt to gauge the ratio of ‘lurkers’ ie non-participating members to active participating members.

2.7.3 Stickability – content

Considerable effort and awareness-raising is required to attract prospects to an RCP initially. If the first visit is unexceptional or more likely the experience does not change over time the prospect will not return regularly to become a participating community member. The quality of maintaining interest over time is referred to as the site’s ‘stickability’.

Stickability can be considered under three headings – Freshness, Quality and Relevance.

2.7.3.1 Freshness

Increases in portal activity stimulated by the use of alerts has been noted (Millen 2002) and this effect is addressed in the researcher’s publications to date for the (Connery & Hasan 2004, 2005). Of particular interest is that whilst

traffic peaks on publication of the WollongongOnline e-Zine the increase in traffic is still spread throughout the week and weekends – ie not only on the day new information is posted. Return visits are also the norm with nearly all subscribers returning within the weekly cycle. RCPs are restricted in their abilities to provide the daily updates favoured by many mainstream online news sites (Fairfax Digital SMH et al) not only through lack of resources but due to the relative paucity of locally based newsworthy items. Much information and editorially poor content based news is generated free on a weekly basis such as sports results – see website linked to the portal which is the object of this research www.sportslive.com.au

2.7.3.2

Quality

Most published material is sourced from volunteers and/or professionals and small business owners wishing to promote themselves. The trade off being no payment for copy means free sub-editing, free distribution and often free advertising opportunities for regular contributors. This use of non-professional or citizen journalists must be addressed with good sub-editing and a deliberate policy of restricting material which is overtly advertorial in nature. Retired journalists can be a source of well written and professionally produced copy and should be encouraged wherever possible to participate. A shorter more concise format should be adopted and the use of legacy content designed for print should be avoided or reformatted (Jones 2001). It is

recommended that during the initial phase postings, blogs and e-magazine articles be seeded with material prepared by experienced writers to stimulate maximum reader interest and excitement (Millen 2002).

2.7.3.3

Relevance

Considerable research has been undertaken in the US relating to the editorial approach community newsletters and e-zines take there to sustain reader interest (Millen 2002). It is considered that their findings are relevant in Australia and have been adopted with the RCP being researched. These include:

- 1) Local politics – City Hall
- 2) Town Planning issues
- 3) Health – hospital care etc
- 4) Local personalities – profiles
- 5) e-Democracy
- 6) Encourage interaction

Hard news is not plentiful at the community level and even in an area the size of Wollongong it is often difficult to find six suitable items per week (see the RCP's GET CONNECTED column <http://www.wollongong.youronlinecommunity.com.au/page.aspx?site=8&page=archive>)

As a consequence much use is made of material which is either opinion based commentary or informative but not time sensitive. This factor is magnified in smaller areas and is problematic – particularly if the smaller RCP is not networked and does not have ready access to legacy content.

2.7.4 Cost of acquisition (NEDI)

Non Expensive Data Input is an essential component in achieving sustainability. Even under a best-case scenario RCPs are unlikely to ever attract a major or significant proportion of the advertising revenue in the short to medium term (5.5% to June 2005 after growth of 63% year on year) that traditional print and electronic media do. To offset this RCP management focus must be kept on keeping content production costs to a minimum. In our research case most editorial content was sourced free but pre-production and posting online was performed by TAFE and UOW students working part time on a paid basis. Paid staff were used for two reasons. 1 – a knowledge of HTML and PhotoShop precluded most available volunteers and 2- the reliance on unpaid labour for time critical activities was considered an unacceptable publishing risk. The concept of payment for citizen journalism and community editors has also been pursued in the US – see network online publisher www.getlocalnews.com. Although soliciting for free news and digital images is now more widespread and prevalent anecdotal evidence suggests strongly that a substantial amount of news-worthy material that could have been published online by community news sites is now appearing as blogs. It is suggested that news of a less general nature would still find community news portals more of a natural home than mainstream blog sites and in fact the increasing publication of independently sourced news items online may indirectly stimulate the availability of publishable free material at the community level.

2.7.5 Attachment and Interest

The very nature of a regional community portal, which is inherently general in interest, is at odds with the traditional model of online community which entails strong attachment and interest to a narrow prescribed topic/interest. The level of

commitment to local ‘off-line’ community and the notion of social capital has demonstrably diminished in recent decades both in Australia and throughout the industrialised world and has been explained as a natural consequence of time poor modern lifestyles. The participatory action research undertaken as part of this research study highlighted this factor finding that the level of attractiveness of a RCP as opposed to a single interest commercial website/community is relatively low. This is a major finding – see 2.7.2 and 6.4 - insofar as it highlights that a large number of potential offline community members (greater than 200,000 or approx 80,000 households) are required to propagate an online community which is geographically defined. Based on desk research there are very few RCPs which are of this size within Australia germane is the fact that the two best known ‘civic-type’ RCPs being the Brisbane City Council portal and the Victorian Government’s mc2 network are still functioning albeit with fully publicly funded operations. Virtually all the small low population (rural/regional) ‘community-type’ RCPs which commenced with Federal Government seed funding provided under the Networking the Nation program have either ceased operations entirely or at best remain hosted but with no overt activity in terms of current content. Since there were several hundred originally funded there maybe a small number of exceptions (in addition to the Albany Gateway in WA) any more would be surprising given the effort and resources required to maintain a RCP with limited or no ability to derive income in their own right and all Federal and most State Government support now withdrawn.

2.7.6 Access and the selection of a URL domain name

Until recently it has not been possible to obtain geographically described (.au) Domain Names for RCPs in Australia. Although suffixes such as .org, .info and .net have been readily available they are not as widely recognised or used when searching URLs

intuitively. The auctioning (May 2005) of 2nd Level Domains which replace '.com' with relevant State (eg .NSW) will likely lead to a dramatic rise in the number of new community based portals being established however given the present state of the emerging category these non-profit ventures will have little chance of attaining sustainability as defined. A generic Domain element (youronlinecommunity) with geographic name as a Sub-Domain to provide branding conformity over a network of RCPs. Eg www.wollongong.youronlinecommunity.com.au was favoured by the researcher to minimise registration and marketing costs. See also 6.7.

2.7.7 Functionality

The subject portal is a variation on the second generation type often referred to as the 'walled garden' variety and differing from first generation RCPs which are characterised by an external focus and the provision of numerous links to external sites and ready access to search engines such as Google or Yahoo.

One of the most appealing aspects of RCPs generally is their seemingly infinite ability to host diverse information and distribute useful tools to members. The researcher has deliberately limited the number of options available to those which appeared to have the potential to earn revenue either immediately or in the short to medium term. This decision has dramatically reduced the number of features commonly found in RCP including chat-rooms, free websites, directory (being reintroduced in July 2006) and email.

2.7.8 Trust

Anecdotal evidence strongly suggests that the internet is viewed by many as an unsafe environment and it has been noted that mechanisms to support cooperation are extremely important in

building trust (Kollock 1996). Following an off and online literature review the researcher concluded that whilst knowledge management research such as (Hildreth 2001) touched on trust building and relationships in his work on Communities of Practice (Lave and Wenger 1991, and Wenger 1998) was more germane they only developed themes the findings which although insightful and confirming real world experience were not specific enough to assist or direct with the scope or development of this research. The importance of facial recognition (Wenger MJ and Townsend J 2001) and others as a related factor in building trust however validated the researcher's intuitive decision to preclude chatrooms (only allowed moderated forums) from all planned RCPs over two years before Microsoft (MSN) shut down its Australian chatrooms on 24 September 2003 over paedophile concerns. Further, based on infield experience it is recommended that RCPs should address certain operational matters to lower perceived risk and promote the building of trust.

- 1) Log Ins should not be used at the outset. First time users and Lurkers are disinclined to share personal information. They should be able to sample the RCP before being required to provide confidential details.
- 2) All forms of interaction should be moderated. No direct didactic communications should be tolerated
- 3) Privacy Policy should be displayed and articulate the basis for protecting supplied names, emails etc
- 4) Sponsorship of suitable community activities should be encouraged to demonstrate social responsibility to the general public - see www.sportslive.com.au
- 5) National or Industry Awards should be entered to demonstrate professional competence and integrity – the RCP under review won a Prime Minister's Award in 2004.

2.8 Gaps in the Knowledge

The introduction and adoption of an innovative complex new technology into a highly concentrated marketplace is always going to be challenging. There are numerous factors which must be addressed to achieve this desired result. Five are considered major influencing factors (see 342) and as shown in the findings of those identified the choice of Business Model (4.2.5) is considered the most critical question.

2.8.1 Background

The most basic question any person commencing a new business venture must ask themselves is whether a large enough market exists for the product or service the new entity wishes to produce. With established businesses and/or mature products/services this can be readily quantified by a site inspection, desk research or by seeking advice from a consultant with specific industry expertise. The difficulty arises with new technology or product/service categories since none of these usual steps are available. This has been the case for RCPs, however the ready availability of government funding at commonwealth and state levels attracted a large group from the non-profit sector who proceeded to undertake projects which were not only non-traditional activities for them but also had no commercial footing in fact or in prospect. There is no available evidence that major players within private enterprise ever seriously contemplated establishing RCPs in Australia although TELSTRA Research Laboratories did develop and trial a pilot community portal, in conjunction with a local council in Tasmania, which concluded in 2002 – see www.eLaunceston.com. Attempts have been made to network newspaper related websites with little success. Most publish limited legacy content and promote advertising in their core businesses. The best example is the network created by Rural Press in 2000 see www.yourguide.com.au where they linked

120 community based websites in an Australia-wide portal tied to their 160 local newspapers. NineMSN's portal is a network of related off and online publications with a top down orientation but no capacity to incorporate local content or deliver local advertising. Local online advertising opportunities are only now becoming available through search engines such as Google (May 2006), Yahoo and YellowPages Online but local search is forecast to become a significant fraction of the national search market.

2.8.2 Considerations

Online publishers, in common with their offline counterparts have only two revenue earning choices to consider, the alternatives being to become either subscription or advertising driven. Historically subscription based models were preferred but increasingly advertising has become the major and often sole revenue generators for traditional newspaper and magazine publishers. Online subscriber based models are rare and as a consequence were never seriously considered. When utilising an advertising model for the basis of establishing a RCP there are two fundamental issues to consider:

2.8.2.1 Subscribers / Members

How many subscribers will be attracted on an on-going basis? Simply stated if an advert is placed within the planned RCP how many people will likely see it? With a new technology the likely users will be early adopters who represent only about 16% of a total population (Diffusion Theory). It is argued that internet usage is now approaching the 'late majority' stage and that the increasing adoption of broadband will also hasten the process

2.8.2.2

Advertisers

How many advertisers will be interested in using a non-traditional media channel at a local level? Standalone RCP by their nature are restricted to local advertisers and the overwhelming characteristic of modern retailing is the predominance of national chains and franchised operations at the local level. Their standard approach to advertising is to utilise traditional above the line mass media (TV, radio and print) for primarily branding purposes (product specific to a lesser degree) and increasingly below the line direct 'junk' mail, catalogues, coupons and free community newspapers. All with centralised media selection and production control. In nearly all instances the level of discretion over advertising expenditure at the local level is minimal. It is posited that this critical impediment will be difficult to overcome and will be greatly assisted by adopting a network approach which will enable national advertisers to place their advertising at a metro level as for traditional media. It must be emphasised that a compelling case must still be made for advertising the new way ie it must deliver a measurable audience (comparable in size to traditional media) and at an attractive rate (cpm). The climate for attracting online advertising is currently very favourable and all major online players are recording massive growth rates (41% in 2004 – 63% to June 2005). It has also been noted that share of media consumption time standing at 14-15% lags advertising spend significantly (5.5% as at June 05) and locks in

continued growth in this category for the foreseeable future (Packer, James et al).

2.8.3 Areas of interest

In the RCP being researched the operators deliberately confined their operations to the B2B sector for several pragmatic reasons:

2.8.3.1 Connectivity

High percentage of target audience are online (98% SMEs use email) and a significant number (>50%) had broadband connections – broad band users typically spend 50% more time on line than dial-up.

2.8.3.2 Distribution

The researchers had access to compiled B2B databases with appropriate permissions in place to distribute e-newsletters

2.8.3.3 Audience

Close correlation between subscribers and potential advertisers – assisted in building awareness to new technology

2.8.3.4 Experience

Pre-existing relationships with traditional B2B print media consumers enhanced prospects of trialling new media

2.8.3.5 Strategy

A niche product was considered more likely to succeed in a marketplace dominated by broad based mass print and electronic media and also

lower the likelihood of retaliatory action by incumbents with associated online news sites.

2.8.3.6 Access to content

The operators had ready access to potential content providers and an extensive background in off line pre-press production and experience selling B2B advertising in regional NSW markets.

2.8.4 Conclusion

The extent of previous efforts both overseas and within Australia to establish RCPs and the widely acknowledged ubiquity and convenience of internet-mediated tools inspired the participatory action research project reported in this thesis to commence in February 2001. There appeared to be a broad acceptance within the local community generally and within the original researchers particularly for this endeavour. This situation remains unchanged in 2006.

It was considered appropriate that the original research question be briefly stated as ‘ascertaining the prerequisites to achieving sustainability’ should not be overly prescriptive and risk limiting its possible findings. In fact it was considered at the outset, and confirmed in the field, that many previous efforts to attain sustainability were handicapped by introducing techniques, processes and business models which whilst orthodox and well known were in fact untested online and had no real application or advantage when attempting to establish a new and relatively complex technology into a marketplace dominated by both public sector incumbents and private enterprise players with conflicting interests and agendas.

Given the scale of commonwealth government funded initiatives to establish RCP within Australia on a largely voluntary basis (\$200m+ under the Networking the Nation program) and the

subsequent failure of virtually all sponsored sites the very notion of community based activities being exclusively community owned and managed was always going to be questioned. Of the five major influencing factors identified in this research Business Model (see 4.2.5) was selected as the single most important issue because of its overarching impact and influence on all other aspects of implementing the introduction of an innovative product into a new market. It is particularly significant that since the advent of the world wide web, pure internet enterprises have been responsible for the adoption and commercialising of all new online business models both world-wide and in this country. Given the extent of self promotion and lack of objective reporting about truly innovative online services in the traditional mass media it is easy to over estimate the major players' and telecommunications companies' influence over the development and rollout of online search products, web based auctions and other more media related sites such as online classified advertisements. It is speculated that the paradigm shift involved to commercialise what has historically been perceived as a non-profit domain in the face of entrenched media opposition will require the adoption of a business model which is not only a vast improvement over existing models in terms of comparative costing and efficiency but also offers a clearly richer user experience and is also well suited to manage complexity and continual technological change. The hardware and software now employed by the researcher is truly advanced in RCP terms however similar technology would be readily available to a major player and is not seen of itself to be a competitive advantage or a significant barrier to entry. Obviously, professional journalistic resources and legacy content is more accessible to existing media companies however their cost of production is problematic and their ability to incorporate low cost online operations into their high cost regimes is always going to be a challenge. The new business

model must also be capable of withstanding retaliatory attacks from existing media who are already active in cross subsidising initiatives which can reduce or remove market opportunities. Fairfax's Bid2Buy online auctions and Newscorp's TrueLocal online search products introduced into local communities in early 2006 are clear examples of rearguard actions since they have little prospect of commercial success standalone but may in fact spoil the opportunity for other top down pure online players.

3.0 THEORETICAL BACKGROUND TO THE RESEARCH

Three models were investigated as a precursor to the development and design of the research method for this thesis. The alternatives reflect the researchers business and academic background. Diffusion theory is a well accepted marketing tool used to gauge the adoption of new products and services. Metcalfe's Law relates to the beneficial 'network' effect and is well regarded by economists and business analysts and underpins much strategic planning. The researcher also refers to a model of portal sustainability developed with colleagues at the University of Wollongong (Vrazalic 2003).

3.1 The s3 Model of Sustainability

A framework was developed by a number of researchers, including the writer, at the University of Wollongong (Vrazalic 2003) to gauge the development phase of RCPs within Australia. The research did not attempt to ascertain specific requirements or to make recommendations to achieving sustainability but reviewed existing RCPs and theorised on what key characteristics were essential. The s3 model formed the basis for a review of the operational, policy and implementation level issues in RCPs with a view to developing an RCP framework which best met the government's desired outcomes in terms of functionality, financial sustainability and appropriateness in the Australian environment.

3.1.1 The principle

The S3 model comprises three distinct sequential developmental steps. Starting with S_SET UP and progressing through S_SURVIVE and concluding with S_SELF-SUSTAIN. This research strongly suggests that each of these phases is about 2 years in duration and contrasts this critical time-line with the actual funding time horizons used for governmental RCP grants awarded in this country.

3.1.2 Alternative models

The only other academic research found which specifically addresses the Life-Cycle of a portal is the work of (Damsgaard

2002) Damsgaard's model allows portal implementers to monitor and reflect on their portal implementation process and to identify appropriate strategies to improve their community building efforts. The portal management model (PMM) is a lifecycle model that contains four stages. Each stage is identified and described by a number of characteristics and an associated existential crisis. Each crisis must be addressed for the portal to remain in business but it must be overcome to move on to the next – more advanced – stage. Four competitive strategies are presented as effective for steering the portal through each of the stages. At the initial stage, the new portal should seek to be the unavoidable pesky little brother and seek to imitate the older established portals. At the second stage the appropriate strategy is for the portal to gain strength through marriage rather than staying single – called the battle of the sexes strategy. At the third stage it is time to take firm control over the portal community. Here open confrontation is unavoidable as in the fairytale of Tweedledum and Tweedledee. At the fourth and final stage, the established portal must ceaselessly monitor the market for new contestants and counter them. Damsgaard's approach is top down offering a strategic view with suggested strategies to maintain competitive advantage in a dynamic growing marketplace. It does not comment upon or make specific recommendations regarding the successful operation of a community portal.

3.1.3 Inadequacy of existing research

A literature review and extensive online searching indicates that there has not been any significant primary research undertaken which specifically addresses the sustainability of RCPs.

3.1.3.1 Time Frame

Primary research undertaken in the US indicated that the estimated number of years from inception to profitability

for Portals generally (ie ‘top down’ commercial ventures as opposed to RCP) as ranging from 4 – 6 years (McKinsey 2003). Assuming RCPs also require at least this time this would indicate that an extended period of time is necessary to properly record and analyse information to produce meaningful research on the topic. The RCP which forms the basis of this participatory action research was officially launched in May 2001.

3.1.3.2 Relevance

There does not appear to be any significant research undertaken in Australia or elsewhere which specifically addresses the sustainability of RCPs as described in 2.6.1 (ie second generation or walled garden variety) other than the preliminary work on modelling by the writer with colleagues at the University of Wollongong (Vrazalic 2003)

3.1.4 Criteria for thesis

Since there are no overt examples of sustainable second generation RCPs the research has monitored the evolution of a third generation ‘beta’ version which the researcher has developed from a traditional second generation portal to overcome many of the deficiencies observed as part of his participatory action research.

3.2 Diffusion Theory

A decision-support tool used by marketers to predict the adoption of an innovative product or service within a target population.

3.2.1 The principle

Diffusion of innovations theory was formalized by [Everett Rogers](#) in a 1962 book called *Diffusion of Innovations* (Accessed Wikipedia 4 November 2006) Rogers stated that

adopters of any new innovation or idea could be categorized as innovators (2.5%), *early adopters* (13.5%), early majority (34%), late majority (34%) and laggards (16%), based on a *bell curve*. Each adopter's willingness and ability to adopt an innovation would depend on their awareness, interest, evaluation, trial, and adoption.

Rogers also proposed a five stage model for the diffusion of innovation:

1. *Knowledge* - learning about the existence and function of the innovation
2. *Persuasion* - becoming convinced of the value of the innovation
3. *Decision* - committing to the adoption of the innovation
4. *Implementation* - putting it to use
5. *Confirmation* - the ultimate acceptance (or rejection) of the innovation

This well established principle has been the basis for predicting and monitoring the adoption of new products and service for the marketing discipline for decades and has proven its utility in the field with its readily identifiable graphic representation of buyer profiles and classes. Innovators and Early Adopters being germane to the research undertaken.

3.2.2 Relevance

Diffusion Theory is applied to both the existing standalone RCP and supports the rollout of a portal network.

3.2.2.1 To a standalone RCP

The Participatory Action Research undertaken for this thesis has utilised this traditional marketing approach to link the findings with the three early stages of the

Diffusion Model viz Innovators, Early Adopters and The Early Majority correlating with the S1, S2 & S3 phases of the s3 Model of Sustainability.

3.2.2.2 To networks of RCP

Not included in this research however it is an area highlighted for future study.

3.3 Metcalfe's Law – the Network Effect

The efficacy of viral marketing and the well recorded spread of social networks are overt examples of Metcalfe's Law in action online however whilst its underlying philosophy is not in question the precision of its predictions is being examined.

3.3.1 The Principle

(Metcalfe 1993) states the usefulness, or utility, of a network equals the square of the number of users. There has been recent criticism of this pioneering 'rule of thumb' (Odlyzko 2005) however its basic assertions have been largely confirmed and it is a useful tool to reference when reviewing traffic flows and other online behaviour.

3.3.2 Raising awareness

The beneficial effect of greater numbers of people becoming aware of an RCP would seem straightforward. Anecdotal evidence strongly suggests that people become more inclined to participate in some way when approached if they are already aware of the RCP and have gained a favourable impression from a credible third party source such as a friend or work colleague. This is in line with conventional sales and marketing related research and theory. However of critical importance is the means used to both raise awareness initially and sustaining the level given the limited resources and cash flow commonly available to fledgling RCPs.

Certainly the vast sums expended on television and newspaper advertising in the dot com era (pre 2000) to drive traffic to new websites and portals is no longer readily available and/or considered an appropriate means to achieve recognition.

Viral marketing would seem a useful approach to leverage the network effect to assist raise awareness. The rapid ascent and dominance of GOOGLE in the online search arena achieved with a complete absence of traditional advertising in any media strongly suggests that awareness raising is in fact possible through internal resources, face to face interaction, PR and word of mouth.

3.3.3 Increasing interaction

Recent criticism of Metcalfe's Law (Odlyzko 2005) largely centred on two issues viz: 'locality' and 'intensity' of connections and indirectly the impact of Zipf's Law - which describes the normal distribution of groups within a domain. This research reinforces the importance of these two factors and addresses the effect of them in the context of the adoption of members within a RCP.

3.3.4 Impact on adoption

It is conjectured that the adoption of RCPs will be enhanced as additional RCPs are added to the planned network. The operation of a Parramatta based RCP in conjunction with the Wollongong based hub (under research) has already provided additional advertising opportunities and great interest has been shown in the network concept of providing targeted online advertising throughout metropolitan markets.

3.3.5 Economies of structure

Open source or low cost software has been available for non-profit organisations contemplating the establishment of a RCP for many years. Programs are readily available for standalone use (as distinct from coming under the umbrella of a ‘civic’ type portal) but commonly they have limited if no capacity to carry advertising material and also are not usually configured to function as part of a wider network. Both these factors are seen as major limiting constraints to making RCPs sustainable.

3.3.6 Access to national advertisers

The participatory action research revealed that in the 21st century a networked marketplace is the norm and a characteristic of this global phenomenon is the prevalence of chains and retail networks at the local/community level. Since the marketing functions of most large organisations are centrally controlled purchase decisions on advertising are in virtually all cases referred to head office. Practical management issues usually preclude the use of local media notwithstanding its utility or desirability or the wishes of locally based and often community minded managers. It is considered that the only practical method to overcome this constraint is to create a network of RCPs and secure advertising at the top level on a ‘top down’ basis for an aggregated audience. This is considered to be a major finding of this participatory action research and gave rise to the concept of a Network Community Portal (NCP).

3.4 Methodology and Design

The research described here began with an action research study in January 2001 of a locally-based RCP that appears to have developed a successful model for sustainability from both a commercial and social perspective.

3.4.1 The choice of research site.

The initial case involves a regional community portal that has been designed to meet specific needs of that regional community. The region has a long-standing identity, which serves to give a solid foundation and focus to the portal. The owner, and director, of the project, also one of the researchers, has allowed it to evolve over the past 60 months with market research and investigations into the requirements and demands of the community, ensuring these remain paramount. From a research standpoint this case was opportune as it brought together an innovative business venture with an academic research program that was investigating aspects and uses of Web technologies in communities. The case is analysed to determine possible reasons for its continued success, both commercially and socially.

3.4.2 The method - Action Research in Case Studies

There is a growing realisation in the field of Information Systems of the general research value that can be gained from the use of action research in a single case study or a small number of them (Walsham 1995). This is particularly true when the topic of concern relates to early adoption of cutting edge technology, as such endeavours may be the only source of reliable and relevant data, as the phenomenon of interest is emergent. For the topic of this thesis, i.e. the commercial and social sustainability of RCP, it would be extremely difficult to use any other research method. To that end we will now describe the cases and present data demonstrating their achievements to date. We will then discuss the issues that emerge from our interpretation of the success of the communities to date.

3.4.3 The research design and process

The formal research began with a case study when the owner/manager of the business designing and managing the RCP commenced a research degree. Data was gathered and analysed from extensive internal documentation and detailed server logs plus descriptions and recollections from the owner manager in conjunction with feedback from contributors to the site and subscribers. The data was then summarised in conjunction with a review of the literature.

3.4.4 Co-evolution of Research and Practice

The project began when a strategic alliance developed between Empower Australia, a well-established local media representative group, which had also published in its own right, Internetrix, a locally-based software developer and the DMW Group, a financial partner. The group felt that the Internet could be the means to remedy the problems caused to regional communities by the stranglehold of large national consortia, stifling local content in the public media. They began cautiously, somewhat bewildered by the euphoria of the, then, boom in Internet-based activity. Following the subsequent dot.com crash, they were encouraged by the confidence that their combination of skills and knowledge would be equal to others in the field. The objective was to conduct an entrepreneurial endeavour to establish a RCP, capitalising on the core skills of Empower in traditional publishing, marketing and selling advertising, in the belief that an opportunity existed to utilise the power of the Internet while also utilising traditional business methods. The project was supported by action research using established marketing principles to understand the potential of web-based media and this research focus grew into links with Information System's researchers at the local University. This project attracted considerable attention at local

and state government levels and was officially launched by the NSW state premier at the inaugural Innovation Week in May 2001 at the University of Wollongong's Science Centre.

3.4.5 Description of the RCP and related e-Zine

The RCP www.wollongongonline.com began as a standalone portal (see below) and commenced publishing a weekly e-newsletter in August 2002.



The main section of the e-newsletter was designed as two column pages, using the familiar format of a magazine. This enabled subscribers to clearly distinguish advertising from content, which included short opinion articles from local people.



The project worked as an e-Zine, sent every Monday as HTML to the email address of subscribers, and linked back to the portal (now a news website) the current version. Circulation was increased by referrals from current subscribers and the e-Zine was not overtly promoted in the sense of email spam. Feedback from constant market research has evolved the design and content over the life of the site. Features that were introduced early in its life were the ability for subscribers to give their feedback on the opinion pieces and an evolving section for local amateur sporting groups. The community served by the portal has always had a strong sporting heritage but the local newspaper, owned by a nation-wide group, mainly reported on local professional teams in national competitions such as football and basketball. This resulted in the portal now being designed as three portlets for local news, sport and entertainment with appropriate domain names acquired as part of the business plan, including youronlinecommunity.com.au newslive.com.au sportslive.com.au and nightlive.com.au. The latter sent alerts to subscribers rather than be a full e-Zine and has been discontinued.

3.4.6 Philosophy and heuristics

The action research, experimented with a number of different strategies and developed a set of five guiding philosophies or *heuristics for RCPs* :

- * Online activities were to replicate offline activities as closely as possible. If it doesn't happen in the 'real' world it shouldn't be in a RCP either. A clearly defined membership base reduces the need to cater for cultural differences

- * 'Old Economy' publishing and marketing methodologies would be utilised. It was found that market forces remain constant on/or offline. Offerings should be targeted to an identified demographic

- * The primary and over-riding strategic goal would be to find ways for the project alliance to sustain the RCP economically in the intermediate and longer term since, as is often the case, governmental/corporate seed funding is only available short term for most projects.

- * The RCP operators are to be committed solely to web publishing and not an adjunct to any other media (TV, newspapers), government utility, institution, company or community organisation

- * The internet culture / language of members was accepted and no content was prescribed or overly censored ie freedom of speech first, political correctness second. Credibility and trust would be built through allowing the community to shape opinion and discussion.

These guiding principles, determined early in the project, have been regularly tested and continue to apply.

4.0 SCOPE OF THE RESEARCH

4.1 Introduction

The research presented here focuses on the development of communities that are essentially web-based but are situated in, and serve the needs of, a bounded local region. The capability of the Web to enable the creation and sustaining of communities is becoming increasingly more common for a wide range of activities, which can be in the commercial as well as non-profit or educational sectors. The problem of the sustainability of web-based communities or regional community portals (RCP) is now a widespread phenomenon, and is capturing the interest of researchers in many disciplines in academia and the professions. There is an increasing need for these communities to be commercially viable and demonstrate return of investment in a pragmatic sense. Reviewed, published work of the researcher has firmly established the significance of this issue (Connery & Hasan 2004, 2005).

4.2 Areas for research

This thesis will describe a case study based on 60 months of action research in an Australian RCP set up by a private company as a venture with the objective of becoming commercially viable in its own right. Criteria for success are discussed and evaluated from both the commercial and social perspectives.

The success of any innovative new industry particularly one utilising a range of complex technologies is reliant on a myriad of interlinking factors and inter-dependencies. In this instance the researcher has chosen to take as a given traditional methodologies and knowledge from both publishing and marketing and focus on areas that are either completely original and/or at variance with the current approaches. The five major influencing factors have been identified broadly as granularity, technology, content, engagement and structure, specifically the optimum business model.

4.2.1 Granularity

Historically most RCP in Australia have been established in small population centres and/or remote rural areas (CTC et al) and there appears to be limited primary research available concerning expected participation rates i.e % lurkers to active RCP members. Our research reveals that online interaction does not appear to be a good indicator of portal usage. Server Logs show that NPUs (non-participating users) or 'lurkers' make up the vast majority of all portal visits. This may appear contradictory, given how easy it is to participate online, but it in fact replicates the offline experience in traditional media. Participatory Action Research also strongly suggests initial penetration/adoption is extremely low with a population base measured in 00,000s being necessary to establish a RCP successfully. This Economic Justification factor has been documented in a Canadian study - smaller communities have more difficulty in justifying the expense of self managed portals (Loughheed 2003)

4.2.2 Technology / Tools

Most RCPs utilise low cost or free open source software and even the few (initially well funded) ventures which employ purpose built technology platforms are not specifically designed to display advertising material or to ultimately become an integral part of a wider network operation. These deficiencies are commented on below.

4.2.2.1 Platform

UK based research shows that existing open source or low cost software does not possess the power or functionality to establish a viable online service (Musgrave 2005). The NCP under review incorporates much of the required functionality utilising a robust commercial application - Microsoft .NET. Tools should

be limited to those which both enhance user experience and are easy to maintain. Bells and whistles which primarily demonstrate technological innovation should be avoided. New tools should only be added if their user value or income stream can be readily monitored. Tools involving privacy issues (such as un-moderated chat rooms), high maintenance costs and/or excessive and unrecoverable download charges should also be avoided.

4.2.2.2 Scalability

Network models should necessarily be constructed to operate from a hub to enable extra nodes to be added as required. Attention must be given to maintaining navigation around the planned network (and future interconnected websites and portals) by using suitable consistent branding identification and URLs.

4.2.2.3 Connectivity

RCP platform selection criteria must cover the ability to readily interface with the maximum number of differing digital devices, tools and protocols. The RCP in this study chose a platform which incorporated the SOAP interface since it offered the most current capacity and future flexibility

4.2.2.4 Suitability

If an RCP is to become self sustaining through advertising the portal must incorporate in its design and construction the capacity to present and monitor advertising material – usually JPEG , GIF and Animated GIF file formats. It is recommended that they should also incorporate XML to enable the delivery of Audio files, Video on-demand and RSS feeds and also handle streaming video when available. A recent innovation

which should be addressed in the future is designing a front end capable of small screen rendering for content delivery to 3G mobile phones (mobile internet).

4.2.3 Content / Blogging / Versioning

Content should be a function of portal orientation. Who is the target audience? (See 2.7.3 Stickability of content). And is the target audience of value to would be supporters/advertisers? See Media References 8.2 Are questions which are fundamental and seem to be overlooked by most RCP operators. Virtually all 1st generation portals had an external ‘tourist’ focus which was of strictly limited use to local community members and did not deliver an audience for advertisers. RCPs must follow the dictates of traditional media if they wish to share their advertising spend. Blogging and/or citizen journalism may become integral parts of community portals see *Mark Day The Australian 16 June 2005* comments regarding www.backfence.com The subject NCP in this study utilised an hybrid blog device seeded with stories by experienced writers to stimulate initial interest in the portal. In a media-scape of convergent technologies with streaming video being the preferred mode and delivered to multiple platforms such as TVs, PCs, PDAs and mobile phones ‘local content’ will always play an important strategic role. Most consumers of information/entertainment are attracted to rich content with high profile celebrities/sport people and presenters however not only is this type of content expensive to acquire, or produce, it can never totally satiate consumers’ appetites for news and entertainment. In fact the desire for localised albeit low interest content is more consistent than for any other source. But who will dominate this space? Historically newspapers have provided the majority of local content in both metropolitan and regional markets. However traditional long copy or ‘legacy content’ is not readily re-configured to rich media or to a lesser

degree text based internet content. Reformatting legacy content – requires professionals accustomed to the media platform the content is to be delivered to. Which means current print journalists will require extensive training to acquire the requisite online skills. In many cases a changed or reconfigured photo/journalist role – to one encompassing video capture and audio collection may well be preferable. Numerous recent breaking news stories eg the London bombing and Toronto plane crash were in the main part captured by amateurs with phone cameras and home video cameras. In a future local context it seems very likely that so-called ‘citizen-journalists’ will play a major role in the collection of content for broadcast. An emerging category will likely be ‘syndicated freelance specialists’ – that is sole operators (journalists or professionals) providing prescribed quantities of content on set topics to networks of online content publishers on a long term contractual basis. Many community newspapers are reducing their newsprint consumption by restricting or curtailing their coverage of low interest amateur sports and local events. This content is readily migrated to the internet and can be delivered in much more compelling and/or useful ways – including the provision of archiving and search functions. Video will be required to provide the desired online experience. At a local level incumbent television stations have had great difficulty producing this type of content – in terms of quantity and cost. It seems likely newspapers would suffer the same way if they were compelled to utilise expensive tenured professional news gatherers to perform the same role.

4.2.4 Engagement

The fundamental driver to engaging any community in cyber space – is a locality of interest (see 5.4). However it has been observed widely and commented upon as the so-called ‘gravity laws’ (Odlyzko 2005) that most traffic, whether in physical goods, or in information, has historically been local – that is geographic locality and this would appear to provide and underpin the logical basis for implementing RCPs. The role and use of citizen journalists has been explored as part of this ongoing research. An extended trial of ‘Suburban Editors’ was undertaken as part of the participatory action research. Following newspaper advertising and selection by an external HR consultancy a group of 12 candidates was provided with elementary sales training and allocated specific territories to manage as mini-newspapers. Most candidates had some writing skills a number were ex-journalists all were very committed to the communities in which they lived and expressed great interest in providing a much needed independent grass roots media voice. In an experiment spreading over nearly six months it was proved conclusively that the challenge of establishing a new media venture by not only securing local advertising support but also gathering email addresses for local distribution and writing content was well beyond the abilities of the candidates and any other likely candidates meeting the initial selection criteria. The well established dichotomy between editorial and advertising departments so stereotypical of mainstream newspapers seems well founded not only in history and practice but by recognising the differing skill sets, motivations and probably more importantly the diametrically differing personality types involved. Any future role of citizen journalists will only entail the provision of content. Sub-editing and pre-production would also appear to be beyond the capabilities of any voluntary staff although this was not specifically researched. Based on findings

it seems likely a minimum of one part-time professionally trained writer/journalist is necessary per NCP. Currently one of the two in the on-going study is a volunteer however for a full scale roll out of NCPs, to establish a network, it would seem prudent to employ locally based paid staff albeit for only 1-2 days per week. It is argued that locality of geography and interest must both be combined to not only reach but hold a web based community portal together and in the process aggregating an audience of sufficient size to sustain an RCP with advertising revenue.

The operators of the subject NCP have further acknowledged this factor by adopting the slogan GET CONNECTED and initiated an on-going program of face-to-face activities bringing community members into physical contact with regular online contributors. This development is inline with promotions of many successful commercial portals such as RSVP.com.au an online dating service and has been remarked upon by many internet observers (Rheingold 2002). The building of social capital at a community level is of particular importance to society generally given the background of home grown racially based violence and the overt absence of this type of activity sponsored by traditional media. It would seem that community portals are uniquely positioned to assist in addressing many of the shortcomings of living in modern societies and they should actively promote community building exercises where ever possible. Further research in this area is recommended as a matter of urgency.

4.2.5 Structure / Ownership/ Business Model

Traditionally RCP have been standalone, bottom up in orientation, with a tourist based focus and externally funded on an ad hoc basis. The development of an alternative 'network' model (NCP) or beta 3rd generation portal with an internal focus

and potentially self supporting forms the basis of this research. Almost without exception RCPs are operated by non-profit organisations and/or are partnered with non-profit organisations. A recent Canadian Report on the subject noted the fragility of such organisations (Gurstein 2005). The regular difficulties with funding and policy realignment were emphasised. The sole NCP is a commercial enterprise and online activities will be its on-going core activity. Virtually all RCPs established to date in Australia have been not-for-profit ventures fully sponsored with little if any revenue derived from subscribers or local advertising and as a consequence once the initial seed funding was expended they usually severely curtailed their activities and in most cases ceased operations altogether. It has been noted in a recent Canadian Government funded online study that fragility and organisational uncertainty is not uncommon in the not-for-profit sector where challenges faced on a regular basis include financial crises, personnel changes and organisational policy realignments (Gurstein 2005). The portal researched is an advertising based (privately owned and operated) model. It is posited that in a network configuration these NCPs would have national advertiser appeal and be sustainable. It is further argued that the choice of Business Model is the single most significant factor (amongst the five identified) in ascertaining the likely future viability and sustainability of a RCP.

4.3 Contributions to Sustainability

We propose that the continued viable existence of the online community is the most realistic measure of its success rather than the achievement of any other stated goals for which there are often no easily identifiable measures. In the research presented here, we consider both social and commercial aspects that contribute to their continued existence and sustainability. In doing so we are influenced by the trend in many enlightened organisations where the one 'bottom

line' has become the 'triple bottom line', economic, plus environmental and social (Raeside 2001). This has been particularly so in public and not-for-profit organisations and many corporations and even private companies are broadening their goals to include those of the triple bottom line. We feel that it is too early in our case to consider environmental issues but we will look at both economic and social determinants to the success of our RCP. Recent research (Vrazalic 2003) reveals that there are numerous examples of RCPs and Business Portals established without heed to their social and economic value and with goals which do not directly address or recognise the fundamental requirement of having a common focus either of interest or practice. Many of these communities have failed to achieve and/or maintain a critical mass and suffered the consequences of not being sustained. Essentially, prospective community members must perceive a real need to participate in the first instance, but additionally and more importantly to become motivated to continue to return regularly to the site. "All communities must first meet one basic requirement: they must engage and involve members (Cothrell 1999). To this end, identifying informational/sociological need or needs that are not satisfactorily provided by any other organisation/media is a key to establishing both social and commercial RCP value in the longer term. We argue that this fundamental requirement is a prerequisite for the successful establishment of any RCP and that all other developmental strategies adopted to grow and sustain the RCP must leverage off this requirement. The project described in this thesis is an RCP model that seems to work. It has added a solid business foundation to aspects of technological capability and social awareness that appear to be essential for success. It adopts a business model commonly used in the broadcast media of attracting advertising based on circulation data obtained through solid market research. It also takes advantage of the low transaction costs, information currency and flexibility of electronic media in comparison with traditional paper based distribution.

4.4 Outcomes

As mentioned previously the success of the community would be determined on both social and economic criteria. Commercial performance measures such as profitability and return on investment would apply. However, the amount of activity on, and interest in, their targeted demographics, would be more an indication of the social success of the RCP. There is no doubt that this RCP project is becoming increasingly successful for an innovative venture of this kind, on both the social and economic criteria. The model of using the e-Zine and email alerts to drive the portal and portlets respectively has resulted in growing bands of subscribers. Current data indicate that the project will break even before the end of the year 2006. Evidence of this, from the system logs, is presented in Appendix 8.5 for the main portal, driven by the e-Zine, the sports portlet, SportsLive and NightLive.

It is interesting to note that the number of visits is stabilising, although the number of page hits is decreasing as subscribers are more familiar with the layout of the site and do less random browsing. The e-Zine driven newsletter style of the main portal is essentially been seen as a B2B endeavour. In contrast to the main portal, the amateur sport portlet, SportsLive, is seen as a B2C endeavour, and has found considerable popularity since its launch in August 2003, with increased numbers of targeted visits and interactive features that appeal to its primarily youth demographic. The action research approach has produced the following distinguishing design characteristics that have been adopted for the e-zine newsletter style portal and subsequent portlets. These have evolved through experience and appear to have contributed to the success of the RCP. They would therefore be recommended for any similar project:

- All online activities are free to members with no subscription fees
- Income is generated through advertising with continuous dynamic banners and Towers on all portal pages with linkages are only by paid banner advertisements. There is a high percentage advertising mix (over 50%) in the HTML newsletter with not a single complaint after nearly three years of weekly publications.
- The newsletter editorial content is targeted at the local community with non-mainstream opinion pieces provided by experienced journalists
- Traffic is driven to the RCP by permission-based HTML emails ie the delivery is pro-active not reactive and independent of other paid media support. Most new subscribers come from word of mouth recommendations together with the use of occasional competitions to attract volunteered email addresses of new subscribers.
- There is no chatroom - all online dialogue is moderated so that participants are unable to conduct 1:1 (face to face) discussions with unidentified persons
- No external links to Search Engines, as this leaks traffic off site,
- Online services do not duplicate or directly compete with established products and services.
- Portlets are demographically positioned by interest in this case local sport.

4.5 Current Developments

The following section discusses both the sustainability of this project and the potential for new projects using this basic model in different settings. In 2006 WollongongOnline continues to thrive with a high volume of traffic starting to attract paid advertising with the project entering the commercialisation phase of development with a foreseeable

future as a viable business enterprise. The management group has continued to review and revise the general approach leading to some specific new functionality within the consistent philosophy of the newsletter style portal. The first major change was a basic one to replace the specific domain name www.wollongongonline.com with www.wollongong.youronlinecommunity.com.au. This sets a platform for the establishment of new RCP projects in different regions, one of which has already been launched as will be described below. It is interesting to record that the Australian and NSW State Government has also acknowledged the significance of domain names to reinforce local identity in its One City One Site (OCOS) project www.ocos.com.au. As shown in www.wollongong.youronlinecommunity.com.au there is currently a new look RCP and Wollongong Online e-Zine www.wollongong.youronlinecommunity.com.au/page.aspx?site=8&page=ezone with the new design a response to feedback from users. There is still not chat or general discussions forum, as in the original approach but community involvement and feedback has increased with a visible influence on the site. The business management also regularly gave thought to the prospect of extending their sphere of operations into new markets. One such venture into suburban areas of a major city was seriously considered for some time and in 2004 was implemented as described below. The prospect of moving into smaller country towns was not given immediate consideration due to the difficulties envisaged with viability in a smaller market while the product was still being developed with associated costs. Late in 2003 the decision was made to change the initial site designation from the location specific 'WollongongOnline' to the generic 'Youronlinecommunity'. This opened the way to expand the business into another market and an ambitious decision was made to investigate the prospects of creating a community in the municipality of Parramatta an area of suburbia in the Western part of Sydney. So www.parramatta.youronlinecommunity.com.au was born in an attempt to expand the business. This was potentially a much larger, but less well-defined, market with a different demographic and a different concept of local community. As citizens of Sydney, a

very cosmopolitan city on the world stage, subscribers would probably be more sophisticated with a broader range of interests and connections perhaps requiring a corresponding more up-market look and feel. Identifying the actual geographical area to target was a challenge. Consideration was given to using a footprint based on support for a local football team in the national competition or the distribution area of the local weekly paper. In order to proceed, it was decided to let the market identify itself once the site was launched. The project used the tested model of the RCP with newsletter style e-Zine and with the SportsLive portlet.. An investor with a journalistic background from the Parramatta area was encouraged to establish the first 'satellite' portal in the YOC network and a great deal of meetings, market evaluations and garnishing of support ensued. The project went live in May 2004 and the uptake is being closely monitored for variance from the initial RCP. The long-term prognosis for the project was greatly improved when it recently attracted the attention of top management of a large Sydney-based media company that owns a substantial number of community newspapers in Sydney. These are big players in the business but are stuck in a traditional newspaper paradigm. The 'your online community' project has aroused their curiosity and they are anxious to learn from it.

4.6 Discussion

The project has clearly demonstrated its social value although its commercial value is yet to be determined. It is interesting to note that while the social value is readily acknowledged by the community, there was always scepticism from local businesses of its moneymaking potential. From the research perspective we are now able to develop a useful model of this type of RCP and confirm the main issues that should be considered. While most virtual communities are set up by enthusiastic amateurs, some with sponsorship from government or research funding this project was established as a business venture. There will inevitably be others who will want to do the same. A business needs to identify markets, produce an income stream, build up

a customer base and develop and continue to improve a product. It was fortunate that good business expertise was available to the project but also that there was also a strong awareness of the needs and character of the community. This RCP aimed to serve the day-to-day information needs of the local community without directly competing with other media such as the local paper, radio, TV or community noticeboards. As other broadcast media are now becoming more interactive, letters to the editors, talkback radio etc also take advantage of Internet technology to provide an exciting cost effective service that can engage the community and meet its needs. The business model developed aims to produce an income stream from both local and national advertising at a level sufficient to cover on-going operational costs and earn a return on investment. It is a subscription free service with locally generated editorial content with a facility for readers to comment and retrieve feedback but not open discussion. Subscribers receive the weekly e-zine in their email and they are encouraged to recruit new subscribers with competitions. No traditional mass media is used to promote the RCP activities. At the same time there is an awareness of community values and basic characteristic of communities which operate online: common interest, social capital and economic value. While this is moderately successful in the Wollongong case, time will tell whether it is sustainable and transferable. For the former issue, continued feedback from the community is allowing it to evolve as both the technology and the community changes. There will always be a concern to understand how size of community influences viability with the need to balance the need for income with the need for a coherent social identity. The other major driver of the NCP is the enthusiasm for the project that is evident in the development phase. Is this essential and if so what will happen once this style of RCP goes beyond the early adopter stage. Will there be people who are community socially minded, have business knowledge plus the foresight of what the new technologies can offer and the ability to manage the technology/business/community mix? The rewards for this project are certainly not primarily financial but rather the satisfaction of being a

leader in new and exciting endeavour creating something worthwhile for the community. It may even be that this work can drive social change in renewing a sense of community meeting needs in the city, town and country.

5.0 FINDINGS

This study has found overwhelming evidence that the widespread introduction and on-going operation of 'not for profit' community portals in Australia has been universally compromised by lack of skilled management, an absence of long term financial support and a scarcity of relevant technological expertise. Even well funded government initiatives, both state and federal (2000 onwards), in line with the overseas experience (UK & Canada) have been mostly unsuccessful. I have examined the operations of numerous community portals, in this country and overseas, in detail and over the period of the participatory action research many of the identified major factors necessary to achieve sustainability (see 2.4 and 4.2) have been introduced into the beta 3rd generation RCP and tested. The technical complexity and rate of change in technology has in many instances hidden more fundamental underlying structural problems inherent with the operation of RCPs undertaken to date. As in some other traditionally community based services most significantly, after hours child care (Federal Budget 2006) the introduction of a 'community' front end and 'corporate' backend model seems to be a real 21st century solution now being favoured by governments over more orthodox approaches to meet a growing market need in a time of increasing pressure on dwindling public resources to maintain existing service levels. Based on the findings of this research I will contend that the development of a 3rd generation community portal in a network configuration has the potential to create an extremely cost effective, scalable and robust business model which will achieve sustainability and overcome all the impediments identified and I have further identified structure, ownership and business model as the single most critical question to achieving sustainability.

5.1 Server Logs: Evidence to support the Findings

As prescribed in the Introduction, this thesis examines and records, through participatory action research undertaken by the researcher, the development of a beta 3rd generation network type community portal aimed at achieving sustainability. The findings reported in this chapter have credibility through evidence provided from the Server Logs

supported by work already published from this research (see Appendix 8.5 and 8.6).

The progress of the RCP researched in this thesis has been closely tracked on a monthly basis since its official launch in May 2001. Of particular interest has been the number and trends in visitations by frequency and duration of visit. All operational decisions with regards to the adoption or deletion of any functionality or tools have been based on actual logged data.

Appendix 8.6 includes server logs for both the WollongongOnline and SportsLive linked websites during the period May 2003 through to March 2004 on a monthly basis. The rapid increase in visitations 157% in 10 months for WollongongOnline and 407% for SportsLive during the same period clearly illustrates the growing popularity of these online properties. For commercial reasons the latest information has been withheld. It is acknowledged that this type of information is usually included in a thesis however the secrecy surrounding commercially funded primary research is not uncommon in all areas of market research and there appears no other way the investment in the intellectual property involved can be protected.

The follow sections of this chapter present the findings from the research that are interpreted as contributing to the commercial realisation of the RCP.

5.2 Sustainability

Using the criteria as defined (see 2.6.1) virtually all community portals in Australia, existing or findable by online search in May 2006, would not be considered sustainable since all receive substantial funding support from their sponsoring parent organisations and/or grants and do not appear to derive any discernible income from their various online activities. Typically Maleny Enterprise Network Association (MENA) see www.mena.org.au/mena started in 2000 and received a total of \$694,000 in assorted Federal and State grants shows no signs of online activity since 2004. The Victorian state run 'my connected community' mc2 portal www.mc2.vicnet.net.au which launched in 2001 is top down

in orientation and scalable - sometimes referred to as a Civic type portal (Musgrave 2005) as opposed to a true community type portal being bottom up in orientation and usually regionally located and operating in isolation and/or not part of a network. The Brisbane city council civic portal www.ourbrisbane.com has been attracting 200,000 visitors a month (since January 2005) to its site and advertising space is now being offered on both the portal and e-newsletter and as at May 2006 is finally attracting some well known national online advertisers – such as www.SEEK.com.au, www.wotif.com and www.RSVP.com.au. The Albany Gateway community type portal in Western Australia appears to be the most likely 2nd generation candidate to achieve sustainability (as defined) to date since it is attracting significant traffic – 55,000 unique visitors in April 2005 and actively sells advertising with the appointment of dedicated staff for that purpose see www.albanygateway.com.au. The Wollongong RCP which is the basis of this research is considered a ‘beta’ 3rd generation site since it is a hybrid civic/community portal insofar as it is both bottom up in orientation and also scalable (being able to become part of a network) through the XML capable Microsoft .NET platform utilised and the generic YOC branding adopted.

It is potentially self supporting from advertising revenue and should become commercially viable by late 2006 and attain the status of ‘sustainability’ in terms of the definition we have adopted. The definition for sustainability adopted allows for the emergence at some future date of a ‘reliable’ external source of funding to cross-subsidise on-going community portal operations. It seems likely the recognition that portals can provide a very real contribution to the modern community in terms of local knowledge management (digital version of a library) and online access to all levels of government via a single uniform and easily accessible interface (amongst other already established amenities) will in the absence of any other viable mechanism emerging (publicly or privately operated) see this role being undertaken by the states or commonwealth government in Australia.

Such an initiative is analogous to other infrastructure projects which were historically undertaken due to their large scale and potential for monopoly control such as power, water and telephony. A Canadian study concluded that Federally driven program was the only solution (Loughheed 2003). This unproven approach however is not without considerable challenges with clashing technology platforms, cultures and agendas as evidenced in the United Kingdom (Musgrave 2005). It seems likely that the popular Brisbane City portal will continue its presence substantially supported by the Council and thus become sustainable. This model follows the traditional path of patronage and is similar to the tertiary education sector and university R&D funding through regular non-commercially based grants by central government. As long as society in general perceives the need or benefit to support these types of activities through taxation they will continue. In this regard all publicly funded institutions must be mindful of maintaining the broader community's support to remain sustainable. Based on our participatory action research commenced in February 2001 we have ascertained that RCPs in their current or 2nd generation format are not sustainable either within Australia or globally. However it is predicted that a newer and more sustainable 3rd generation of portal could become the norm and this version would differ from the current generation of portals in a number of significant ways.

5.3 Internal focus and orientation

All communities must first meet one basic requirement: they must engage and involve members (Cothrell 1999). To this end, identifying informational/sociological need or needs that are not satisfactorily provided by any other organisation/media is a key to establishing both social and commercial RCP value in the longer term. On Tuesday 2nd August 2005 the first of a planned on-going series of quarterly meetings was convened to introduce YOC community members to the writers of online commentary in the WollongongOnline e-Zine associated with the NCP under research. This initiative was a deliberate step to engage and involve online community members. The event was promoted

primarily online with some telemarketing and limited press coverage. The GET CONNECTED @ THE RITZ attracted a total of about 60 people of which at least 30 were regular readers and or subscribers but completely unknown to the operators other than in the online context. This figure correlates with the established regular WOL readership of in excess of 3,000 per weekly publication. This equates to a participation rate of 1.0%. The get together was convened to establish an independent disinterested guiding body to influence policies to be adopted by community/e-Zine moderators and also consider wider sociological policy issues such as sub-group formation and overall editorial content. Three community members agreed to join with a columnist and staffer to form a five person 'think tank' which arranged to meet within two weeks to settle a number of items including: Naming the new group (early suggestion Policy Advisory Group subsequently adopted). Formulating the purpose for the group, and developing specific recommendations (on any topic of the group's choice) including the timing of regular offline community meetings (mooted monthly or bi-monthly – quarterly as at May 2006). A number of social activities were also on the agenda including the presentation of SportsLive appreciation awards and the running of a simple quiz to gauge community member readership likes and dislikes. Citizen-journalists were presented with personalised tee-shirts to aid with recognition and add humour to proceedings. Suitably badged GET CONNECTED tee-shirts and caps were given as prizes. All attendees also received YOC information packs and gift vouchers for attending. The planned activities were conducted between 5.30 -7.30pm and a number of columnists lingered for another hour or so to socialise. Feedback from the night suggests that the light-hearted approach to proceedings taken by the organisers was well received by attendees and that all the RCP operator's goals were achieved. On the night two representatives of the local council approached the organisers to discuss possible co-operation to produce an online community or events calendar. This approach being primarily motivated by the action of

local newspapers to curtail their traditional support for publicising not for profit and community events.

5.4 Critical size

In Australia, RCPs have traditionally been the province for relatively small towns (5-10,000 max) and even smaller regional/rural communities with the significant exception being the www.albanygateway.com.au since it aggregates 28 West Australian townships into a regional network. The RCP under review in that sense is not typical. It covers an area encompassing nearly 200,000 people and current indications (in terms of actual advertising support achieved and in prospect) are that in the medium term this population base should just be sufficient to sustain an RCP however to succeed and prosper they will need to be in a networked configuration. However it should be noted that with the wide-spread adoption of the recommended network approach and the attendant increase in awareness and use the critical population base for RCPs to attain sustainability will likely fall over time.

5.5 Locally based editorial content

Identifying informational/sociological need or needs that are not satisfactorily provided by any other organisation/media is a key to establishing both social and commercial RCP value in the longer term (Cothrell 1999). The proliferation of 'top down' websites, portals and search engines will likely dominate the globalised online media space into the foreseeable future. And reflecting the offline media reality it seems certain this will become the norm. Given this scenario the opportunity for RCPs and their associated e-newsletters is at the grass roots or 'bottom up' level analogous to the positioning of free community newspapers. Instead of being delivered manually to your letterbox it will be delivered electronically to your inbox. Email based media products have the further advantages of being linked to additional online information sources, possess the ability to archive content indefinitely and to also able to provide free tools such as

localised search. The younger generation in particular are strongly attracted to more environmentally friendly products - in the newspaper context 'saving trees'. This on demand positioning together with a fundamentally superior offering will become even more attractive as broadband adoption (at the household level) gathers momentum.

5.6 Rich media

The internet is an audio-visual media which has been largely limited in its delivery to date by lack of bandwidth. The earliest examples of websites and RCPs basically comprised of blocks of text (with links) in unattractive typefaces with little if any images. Few newspapers have ever utilised such an unappealing format and television has always confined text messages to headlines and pointers – delivering the body of their communications verbally with on-screen presenters. Once high speed delivery is commonplace with broadband connected to most households it is a given that all websites including RCPs capable of rendering rich content will eventually deliver / stream it to households – on demand as opposed to traditional television based broadcasting. In fact not to do so will turn off their existing subscribers akin to requiring them to watch black and white television / movies / videos when colour is readily available elsewhere and accepted as the norm. The RCP in this study introduced video-on demand advertising segments in early 2006 and is planning editorial on demand delivery commencing July 2006.

5.7 Aggregate interests

Bottom up RCP content publishers will necessarily follow the tested newspaper model which embraces numerous interest areas in their quest to capture and hold reader interest. A common top down magazine or niche approach on its own is not sustainable since by its nature this strategy will not attract sufficient numbers of subscribers in a small geographically described area. It may well be possible to aggregate a number of non-geographic specific special interest audiences over a whole network which could be delivered at the local level as part of a

basket of content. That is sum a large number of small audiences to create a single sizeable one. This approach is similar to the use of RSS feeds and has been used by the RCP under review with its replication of generic WollongongOnline columns see YOUR BUSINESS, MINDSET, YoY and MARKETING MIX in ParramattaOnline.

5.8 Source of income

The RCP under review differs from nearly all others studied in that the majority of revenue is gained from its associated e-Zine rather than the traditional banner advertising or sponsorship on the portal itself. Over four years of trialling differing formats it was discovered that most buyers of advertising preferred the traditional 'push' (e-Zine) media than the 'pull' type websites and portals. The operators also adopted a print type of approach to selling online space which presents the advertising packages in a familiar print format readily understandable by less sophisticated users of the internet. For example terms such as 'unique visits' and CPMs were avoided and FULL TOWER sizes such as 160 pixel wide x 480 pixel deep were likened to 19x2 print adverts or 85% of a DL paper size. CPMs or cost by thousand impressions or hits were also avoided and replaced with fixed campaigns such 'as per six week'. Duration of visits – say average 8 minutes per visit twice per week with nearly 2.5 million Hits on the portal per month were delivered verbally to reinforce the written sales messages. However numbers of emails delivered per week and size of Opt-in database often provided a more compelling proposition to would be advertisers testing the online medium for the first time. It is anticipated that with growing awareness the volume of traffic to the portal by browser will increase however as at May 2006 less than 5% of all online traffic to the RCP is browser driven.

5.9 Free tools

Portals have always provided free tools as a means to attract traffic. Originally all search engines resided within portals and were made available free to portal users. Whilst search engines have now ditched

their traditional home free email, instant messaging, chat rooms and storage continue to supplement core activities on major top down portals. Many older RCPs had and continue to have available external search tools often in addition to an internal search tool however most 2nd generation or 'walled type' portals such as the RCP under review prefer not to offer this service since it aids visitors escaping from within the portal. In any event few web users would now deliberately seek access to a search engine from within a portal. An area of great promise is an enhanced localised search tool which could confine its domain to a specific community and as a consequence deliver very fast search results with an abundance of hard to obtain collateral information such as travel directions and even trust based recommendations from other community members. The RCP under review introduced its SmartPages local online directory in May to Wollongong and will officially launch on 3 July 2006. Archives are also a popular tool in the sense that they can be compiled with little effort but can provide peerless functionality.

5.10 Sponsored links

Portals traditionally were gateways to other websites and or other accessible online resources and most RCPs researched continue to deliver these services. The RCP under review does not follow that policy and confines links to related communities, websites within the YOC network and from paid adverts.

5.11 Network configuration

RCPs are complex in design and operation and the reasons for not achieving sustainability are numerous. The one area identified which holds out the promise of sustainability through enhanced earning capacity and reduced running costs is by networking. It is not argued that the 'network effect' (Metcalf 1993) will of itself provide this fillip but rather the well known low cost producer status as outlined by Porter as a generic strategy to gain sustainable competitive advantage (Porter 1985). A network structure can provide access to previously unavailable national buyers see Macquarie Regional Radioworks

strategy – *The Australian Media Section Page 18 August 4, 2005* – improve buying power by aggregating demand and also spread overheads. All other mass media, print, radio and television are networked consequently the benefits of the structure are well known but to date have only been used by NineMSN and to a lesser degree Fairfax Digital – but both with a top down orientation.

5.12 Localised search

There is an opportunity to provide a powerful localised search tool and online business directory once a RCP has achieved a critical size. This is an area worthy of further research.

5.13 Trust based

RCPs are uniquely positioned to capture and store local information particularly opinions, polls, recommendations and personal judgments on a range of local products and services. This previously unavailable source of detailed personal knowledge could be harnessed as a commercial opportunity. This is an area worthy of further research.

5.14 s3 Model applicability

This conceptual approach is based on three developmental phases : set-up, survival and self-sustainability (Vrazalic, 2003) and each phase involves a number of social, technical, administrative and policy dimensions however the underlying dimension is funding. It seems clear that overwhelmingly the RCPs researched in this thesis faltered and/or ceased operation during the second phase which is characterised by the withdrawal of major funding and whilst the s3 model is useful in identifying on-going funding as the root cause it does not offer any solutions or recommendations to rectify the situation. However it could be argued that the failed RCPs in question would never have been launched if the s3 Model had been applied to their business plans at the planning stage.

6.0 STRATEGIC ISSUES

The emergence of RCPs into the mainstream coincides with the most turbulent economic time the mass media and telcos have ever encountered in this country. This context has severely hampered its introduction by diverting attention to the survival of the traditional forms rather than exploring inherently more efficient content delivery systems which have the potential to negatively impact the incumbent proprietors' older technologies and strong revenue streams. It seems likely that a new well resourced player will be required to challenge this status quo and that once the fundamentals of higher bandwidth (ADSL2) and connectivity (household broadband adoption) link with innovative new telecommunication technologies (3G) the compelling commercial imperatives will ensure its extremely rapid adoption. How long the critical tipping point is delayed is more an issue of competitive strategy rather than one of technological break throughs or issues of government cross media policy. These issues are examined in this section.

6.1 Threats and opportunities

The prolonged introduction of interactive digital TV into Australia by the incumbent free-to-air networks together with the slow introduction of PayTV has presented an opportunity for the adoption of competing broadband based technologies to fill the void. The foreshadowed repeal of the cross media laws by the federal government may accelerate the process by not only encouraging new players into the electronic media but also prompting the incumbents to speed up their changeovers and/or launch their own internet initiatives. The window would appear to be available until at least 2008 based on current industry projections. Local internet (LI) is a candidate which presents limited barriers to entry and relatively inexpensive distribution costs. The application of the internet in this mass media role is evolutionary rather than revolutionary insofar as most of the required hardware and software have been available for over a decade. What has remained elusive to researchers and entrepreneurs alike is the business model to commercialise the available technology. LI is a networked combination of community portal, linked

generic websites and permission based electronic newsletters (e-Zines). This model achieves the three fundamental prerequisites necessary to survive and prosper in an over crowded and strongly guarded advertising marketplace. Firstly, it captures low cost local editorial content (NEDI) or non expensive data input. Secondly, it taps into national advertisers and media buyers by presenting them a network distribution option. Thirdly, it does not require expensive on-going cross media promotion to attract traffic to the portal and related websites. The rapid adoption of broadband currently underway will enhance the experience for new users of LI and the increasing connectivity rates of Australian households in general will also provide the opportunity for new players to achieve mass scale in distribution.

6.2 Convergence / Video On-demand

The converging of digital platforms within Australia is being driven by the adoption of 3G telephony the so-called 'smartphone' with local internet. In June 2005 a strategic alliance between NineMSN (PBL/Channel Nine) and the country's No.2 telco was announced which foreshadows the exclusive delivery of proprietary internet content including, text based data, audio, images and initially Video On-demand to Optus mobile phone customers. This play in conjunction with the PBL's existing partnership in FOXTEL (with TELSTRA and News Corp) guarantees that the Packer organisation will be ideally placed to dominate this emerging sector as they have in other traditional media such as TV and magazines.

6.3 Technology Platform

There are basically only two fundamental issues which must be addressed when choosing software for a sustainable RCP. The platform and content management system must be able to not only publish conventionally but it must be able to also display advertising materials and manage the associated workflow. The software must also be scalable, robust and most importantly be able to render web pages for mobile phone delivery. The ability of poorly resourced non-profit

web based communities as we now know them to overcome these technological and financial hurdles is seriously questioned.

6.3.1 RCP software

Many RCPs are developed with open source software or low cost commercial applications and with some notable exceptions do not enjoy the functionality or professional appearance of similar commercial enterprises. This situation may be overcome by utilising a network set-up with common software or by licensing more powerful applications if and when they become available. Software must include the ability to display advertising in a compelling and cost effective way and to both manage and measure the effectiveness of the advertising placement process. Without a ready market of prospective users with significant funds there is currently a lack of suitable off the shelf packages.

6.3.2 Impact of 3G

Terrestrial 3G spectrum as of mid 2005 is being delivered in Australia by two alliances of telcos. The pioneer Hutchison (3) has joined forces with the country's major player TELSTRA and is lined up against the combined OPTUS and VODAFONE networks. 2.5G and other 3G so-called equivalents are also being delivered in the larger metropolitan areas by new providers utilising wireless delivery. There are a number of differing technologies used with differing delivery characteristics most usually relating to number of nodes/towers required to ensure acceptable coverage and reception. The adoption of mobile phones as part of a suite of content delivery channels utilising the internet also including PCs and digital television is a development which may have a profound negative impact on current RCPs developed with open source software or non-XML based operating systems.

6.4 Engagement with community

All communities must first meet one basic requirement: they must engage and involve members (Andersen 1999). Successful RCP demonstrate significant social and economic value (Connery & Hasan 2004, 2005) This research has highlighted the difficulty in nurturing interaction and whilst significant traffic has been generated and maintained over a prolonged period the degree of interaction has remained relatively low. It is speculated that the interaction actually achieved in the research is similar to that achieved in offline traditional media and there has been sufficient anecdotal evidence to corroborate this informed 'guess' although this type of information is not readily available for obvious commercial reasons. A simple check on the Letters to the Editor page provides an insight into the number of newspapers which must be distributed to elicit a certain number of printable responses. To stimulate interaction the portal under research introduced a basic HTML newsletter in August 2002 and subsequently upgraded to a web based Content Management System approximately two years later. The data obtained in the early phase of the participatory action research reproduced (see Connery & Hasan2004) overwhelmingly demonstrated that alerts and newsletters are the most fundamental and necessary drivers to traffic which reinforces earlier research for IBM (Millen 2002). All major portals researched commercial and community based incorporate e-newsletters and significantly nearly all RCPs which are struggling with sustainability or have ceased operations have not included this vital tool. RCPs have always embraced tools as a means to encourage and or sustain community – in the commercial arena the provision of free email has been a major tactic to build membership and has been a resounding success for dominant players such as Yahoo, Google and NineMSN. The provision of yet to be developed specialised community search tools which can provide rich data such as trust based information in addition to the usual directory services may be an opportunity to build community patronage. This is an area for future research.

6.5 Cost effectiveness

In common with all portal developments researched (McKinsey 2003) RCPs are relatively inexpensive to operate particularly when compared to traditional media which have both major barriers to entry through massive capital investment for production and distribution and also significant on-going recurring costs. Cost per se is not considered problematic. The most pressing issue has steadfastly remained the building of revenue. Paradoxically most RCPs researched as part of this study have not made serious efforts to pursue advertising sales notwithstanding the well known unwillingness of web users to pay for content online and the overt failure of subscriber based models which is a universal phenomena.

6.6 Competitive advantage

From a technological point of view the internet itself does not create competitive advantage and neither do RCPs. As a consequence any such benefit must relate to Intellectual Property (IP). This fact is particularly problematic since most features become observable as soon as a portal is launched on the web and are as a consequence readily copyable – legally or otherwise. IP includes such things as knowing how to publish online in a style which will entice browsers back to the RCP regularly week after week (stickability). It includes the harvesting of email addresses to build databases. It also covers the management of databases for Opt-in newsletters and the selling of advertising in a new media. It can also include branding and network structure – as opposed to the traditional standalone model – although it seems likely that even these factors could ultimately be copied without permission or redress. The only aspect which has the potential to develop IP with some prospect of protection would be a specialised tool - such as localised search tool which uniquely utilises RCP specific technology. Since the long term protection of such IP is questioned R&D must be on-going to maintain any competitive advantage – in the short to medium term there will remain First Mover Advantage – this is similar to Google's current situation. Long term market dominance is never assured.

6.7 Traffic management / Searchability

The evolution of domain names has reflected the increasing sophistication of internet users and changing government policy has also significantly impacted the choice of URL. The increased use of search engines generally has also affected how people navigate the web however the push focus of the studied RCP has deflected its importance for its locally based audience to date.

6.7.1 Domain Names

The use of sub-domain names for community portals is recommended eg URL:

www.wollongong.youronlinecommunity.com.au since it is a blend of branding (YOC) which will not only benefit from having additional sister sites when the network is complete but also be differentiated with a geographical name and will become intuitive over time and use. .au Domain Names incorporating geographical names have until recently been unavailable for purchase and now are only available ad hoc by tender from the Commonwealth Government and it is hard to imagine how they could be grouped satisfactorily without major inconvenience and/or expenditure. The use of suffixes such as ~ or / following .com.au are no longer widely used and second level domain names do not appear to provide any great benefit for a networked community portal set up – see Item 6.7.3.

6.7.2 Search Engine optimisation

Whilst the primary focus of the research has been developing locally based traffic and the NCPs under research were deliberately not optimised for the first three years of participatory action research some work was undertaken in mid 2005 to enable visitors and particularly would be advertisers to gain easier access the portal using a browser search tool – specifically GOOGLE. Well known methodologies for

optimisation such as using intuitive .com.au domain names and meta tags were taken as givens. The most important finding relates to how the proprietary 'ranking' technology uses URLs to ascertain ranking. It should be emphasised that there appears to be a number of factors considered however it is also clear that taking relatively large sites, as opposed to single websites, the URL exactly fitting the search name usually appears first in an array of ranking techniques. It should be noted that GOOGLE defaults to a .com domain name (or whole of web search) in Australia and this can negatively effect the search results since exact name matches (including geographical names) which have the customary .com.au domain names will not automatically rank highly when searched in default mode.

6.7.3 2nd level Domain Names

The introduction of 2nd level domain names has been seen by the federal government as a revenue raising opportunity to introduce RCPs throughout Australia with mandated community participation and public ownership.

Our research suggests using a geographic name as a URL is not particularly beneficial and certainly does not provide any significant or long term marketing advantage given the planned release of additional domain names able to be used in conjunction with geographic addresses – which until recently has been expressly disallowed with the country domain name .au. Australian place names have always been available from the .com registry – although most URLs for capitals and large towns in Australia are now in private hands - and place names with extenders such as WollongongOnline.com are also readily available for commercial purposes for a nominal fee if available or a price if privately held. The use of sub domains such as with our subject portal www.wollongong.youronlinecommunity.com.au provide a blend of geographic name and branding. This

approach is now being adopted widely in preference to the older style use of suffixes following a / or ~ or other HTML string.

The use of non-intuitive domain names or any other than .com.au is not to be encouraged since experienced web surfers often take that part of the address as a given when guessing a URL – before resorting to a search engine.

Some advantage can be obtained by acquiring multiple suitable Domain Names eg wollongongonline.com (and particularly com.au) and pointing them to the RCP since this not only provides additional access points to novices and or would be advertisers but also improves the searchability by raising the number of links and in turn improving the site's ranking as measured by Google with its proprietary software PageRank see www.google.com/technology/

6.8 Member acquisition

The acquiring and retention of active members is fundamental to the on-going success of any RCP although the majority of portal users are characterised as low involvement 'lurkers' who make up the mass audience that potential advertisers seek. Active members generally work on a voluntary basis or relatively low stipend - certainly not the commercial rates most journalists enjoy or expect. Active members are attracted to the work involved by several factors. Publishing in any form is perceived as a high form of communication and well educated people are often keen to communicate their thoughts and opinions in a suitable vehicle to a wide audience. Many have a commercial imperative insofar as they may see this as an opportunity to raise their profile and achieve expert status in the eyes of potential customers. Others may have lifestyle considerations such as providing a meaningful vocation for retired professionals. The maintenance of low involvement users (LIU) consumes the bulk of time and resources not devoted to the creation of content. Gaining loyalty is achieved by

offering interesting and relevant editorial on a regular basis – the participatory action research project which is the basis of this thesis replenished material weekly and anecdotal evidence strongly suggests that this is optimal. The continual acquisition of new LIUs is necessary to replenish the user base which loses regular visitors through change of address actual or email and natural attrition – ethnographic research indicates a range from 0.05% - 0.1% per use is typical when e-zines are distributed weekly with the lower figure being related to length of participation time ie long time subscribers are less likely to Opt-out.

6.9 s3 Model

The beta 3rd generation RCP which is the basis of the participatory action research and the gateWAY portal are the only two identified RCPs (not including civic type portals mc2 and ourBrisbane) in Australia which have the realistic prospect of reaching phase three of the s3 model and can be referred to as achieving the state of sustainability as defined see 2.6.1.

7.0 REFLECTION AND FURTHER RESEARCH

Web based communities or social networks are becoming the online phenomena of the early 21st century and RCPs are by general agreement the natural home for such activities and it seems likely that numerous new technologies will be developed for the gathering and sharing of information using the internet platform. These digital advances will be greatly assisted by increasing bandwidth and some will utilise technologies already identified in this thesis such as 3G mobile phones and improved localised search tools which are discussed further below.

7.1 Research Question

The underlying proposition of this thesis see 2.5 is what factors are critical to achieving sustainability in a RCP? The issues were identified by using the participatory action research method (albeit utilising a commercial venture rather than the traditional non-profit model) since this was the best way to enable the practice to inform the research and also the practice was enhanced through the reflection of the research. The research's single major finding was identified as the choice of structure – incorporating ownership and business model. This conclusion may well be timely since it has much in common with the thinking behind recent Commonwealth Government moves to satisfy unfulfilled market expectations through corporatisation of another traditionally non-profit field of involvement – long stay child-care (see Budget 2006). The findings have also greatly improved the understanding of the operation of RCPs generally and filled a wide gap in the knowledge in what is becoming an area of great interest to all tiers of government, social scientists and researchers operating in the social networking sphere, both in Australia and throughout the world.

7.2 3G mobile phones

The wide spread introduction of 3G mobile phones will enable internet based information to be distributed to virtually the total populace on a

1:1 basis with attendant widespread productivity gains and enhanced interactivity.

This is an area with significant commercial opportunity and would benefit greatly from further research with emphasis on the role of RCPs.

7.3 Localised search

RCPs are uniquely placed to dispense information of local interest on demand. The types of information are virtually limitless and currently text based but also images and video with further bandwidth increases. A bottom up approach rather than the traditional top down also greatly reduces database domain sizes and improves speed of search.

This is an area with significant commercial opportunity and would benefit greatly from further research with emphasis on the role of RCPs.

7.4 Trust based search

RCP's are a natural source of comprehensive and trustworthy information on locally based products and services. Material can be easily gathered by online polls, reviews and surveys and when privacy and defamation issues are addressed will provide greatly enhanced directory type services free to subscribers.

This is an area with significant commercial opportunity and would benefit greatly from further research with emphasis on the role of RCPs.

7.5 Research methodology suitability

Participatory Action Research was adopted as the research methodology initially because it alone offered a mechanism which not only did not require access to previous research findings for validation but was capable of accommodating frequent and often unplanned changes in

procedures. Technology, and society generally, in the 21st century is characterised by both complexity and rate of change. The area of social networking is an extreme example of this phenomena and as a consequence traditional quantitative approaches were considered impractical and unlikely to deliver meaningful findings. Given the researcher is a commercial enterprise and its research efforts are largely funded by business angels the expeditious identification of a viable means to operate RCPs was always an imperative and from an investment point of view the ethnographic based iterative approach offered a unique blend of commercial realism and academic rigour.

7.6 Reflections & considerations

7.6.1 Realisation of Commercial Viability

As presented in Section 5.1 of the Findings of the research, the progress of the RCP has been closely tracked on a monthly basis since its official launch in May 2001. The server logs shown in Appendix 8.6 for both the WollongongOnline and SportsLive depict rapid increases in visitations for these two linked sites. The distinctive feature of this RCP and the research of the thesis is this demonstration that an RCP can be, and indeed is probably best, set up to be commercially sustainable and not propped up by government grants and volunteer organisations in the long term.

7.6.2 Not for profit versus free enterprise

The motives of the researcher in pursuing a potentially profit making business in an area perceived by most as non-profit have been viewed by many with suspicion. The common perception that ‘nothing’ can be free has taken many years to overcome. The matter of trust is particularly relevant online and the researcher has addressed this issue in a number of ways including offering free hosting to amateur sporting groups (SportsLive) and free e-zine subscriptions (WollongongOnline) for over five years. YOC has received a PrimeMinister’s Award

for community service however in some quarters the suspicions remain.

7.6.3 Incumbent Media

Virtually all media, until recently, have chosen to ignore online initiatives which have any potential to threaten their existing business models. The efforts by the researcher in Wollongong to establish a dialogue with both local print and television outlets have been largely ignored. Certainly no coverage has ever been forthcoming in national media notwithstanding the recognition and importance given to the research internationally. In fact articles about less advanced overseas examples of RCPs are given prominence whereas more established local research efforts are steadfastly ignored.

7.6.4 Adoption of online media

The acceptance of online media as mainstream has become apparent only in the past 18 months. The widespread adoption of broadband has been influential in this development. The ability to attract support through advertising has improved dramatically and the scale of expenditure is now well recorded on a national basis.

7.6.5 Localness

The current widespread focus on local search highlights the interest of major internet players in reaching local markets. To date no one company has been able to dominate this space and 'bottom up' community portals seem to offer a blend of functionality and localness which will be hard to surpass utilising a top down approach. Of course top down online models (world or national) are the orthodox approach and the adoption of a 'bottom up' model will involve a paradigm shift in global thinking.

7.6.6 Lack of VC funding

The opportunities to roll out well researched innovative online products or services with Australian-based venture capital funding seem extremely limited based on the researcher's efforts. At least two unproven US based ventures have secured VC funding to establish RCP networks within the last two years. It appears that some business angel funding can be located in this country however the investor must have relevant business experience and/or have personal and/or business ties with the party seeking funds. The researcher has successfully acquired funds in this way.

7.6.7 Pure online versus offline incumbents

The successful development of market leading websites and portals has been dominated by pure online players to date. The difficulties in accommodating culture clashes and competing with established core products in hybrid organisations is well recorded. Based on US and local experience the development of RCPs will require an online business, preferably standalone, to ever be successful. Certainly the widespread introduction of RCPs by an existing offline organisation seems extremely unlikely.

7.6.8 Development Phase

A McKinsey Quarterly Report in 2003 reported research that indicated the number of years from inception to profitability for most online media properties was 6-10 years (for pure plays) but 4-6 years for sites associated with offline media. These timelines correlate well with the RCP under review in this thesis.

7.6.9 Market Distortions

Virtually all mass media in Australia is networked with some remaining standalone radio properties becoming networked by

Macquarie Media in 2005. See Media references 8.2 This model creates two pricing structures in regional markets. National buyers of television, print and radio pay a certain figure to secure premium spots and local buyers purchase highly discounted rates for any space which remains unsold. This ‘dumping’ severely impacts any solely locally based off or online operators and virtually dictates that all media on or offline must network or risk their long term survival.

7.6.10 Media diversity

The much discussed but still not implemented changes in cross media ownership will not only reduce the number of players but will inevitably lead to a reduction in media diversity as we now know it. Citizen journalism and blogs hosted at a local level have the potential to increase media diversity once the online platform has been successfully monetised. Networked RCPs could potentially become a mass media player under these circumstances.

7.6.11 Traditional business approach

Whilst the action research approach to establishing a business model adopted by the researcher is an unorthodox approach the actual operation of RCPs is in all other respects in accordance with customary business forms. That is there must be a real market for the service being offered and value must be perceived to entice customers to buy regularly. The research has confirmed that when a brand new product is being offered and a completely new market is also being created it takes at least five years to achieve viability. Persistence and substantial resources are a necessity and success is not assured – nothing changes.

7.6.12 Commercial opportunity for Universities

The researcher has a long established business career and has been involved in a number of successful enterprises including

five different start ups spanning nearly four decades in business. It appears from my involvement undertaking this thesis that universities in this country are not interested in supporting or commercialising research undertaken by their students. This seems at odds with stated government policy and certainly at odds with the approach widely adopted in the US. This would seem to be an opportunity overlooked.

APPENDICES

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8.2 Media References

HEADLINE	TOPIC	BY LINE	KEY ISSUE	MEDIA	DATE
Interactive advertising: When will the revolution come?	Interactive media has not yet capture advertiser's interest	J Rose, E Gross, N Eechambadi	Low level of spending on interactive media research has been because of poor experiences.	http://premium.mckinseyquarterly.com	1995
The real impact of internet advertising	Impact of Internet on advertising and marketing	C Cartellieri, A Parsons, A Rao, M Zeisser	Internet will change advertising market, bring business closer to consumer	http://premium.mckinseyquarterly.com	1997
Building digital brands	Digital brands are influenced by consumer online experiences	S Dayal, H Landesburg, M Zeisser	How do marketers build and manage a digital brand	http://premium.mckinseyquarterly.com	2000
What went wrong for online media?	Economics of online media vs off line counterparts	J Bughin, S Hasker, E Segel, M Zeisser	Why online medias is reaching potential	http://premium.mckinseyquarterly.com	2001
Simplifying Web segmentation	Online segmentation of B2C	E Hutt, R Le Brun, T Mannhardt	Content is what lures consumers to websites and brings them back.	http://premium.mckinseyquarterly.com	2001
Reversing the digital slide	Online media requires innovative models	J Bughin, S Hasker, E Segel, M Zeisser		http://premium.mckinseyquarterly.com	2001
Another chance for newspapers on the web	Newspapers have not made full use of internet	F Gren, D Maor, L Ubinas	Wireless and broadband technologies provide an opportunity for more industries to take advantage of the internet.	http://premium.mckinseyquarterly.com	2001
Homepage Real Estate Allocation	Inefficient use of website real estate	Jakob Nielsen	How to best use website real estate CD/DVD will provide a powerful and versatile marketing tool for the region	www.useit.com	10-Feb-03
Illawarra icons send out a powerful image	Icons of the Illawarra - CD and DVD	Greg Ellis	Newspapers changing the content/layout of their online sites in afternoon/evening to attract more hits.	Ill Mercury	13-May-03
New sites experiment with 'Dayparting' by tailoring content	Relationship between time of day and people's news interests.	Maria Trombly		Online Journalism Review	7-Jul-03
Seek and ninemsn sign content distribution deal	Seek to become exclusive careers content provider for ninemsn			www.idm.net.au	13-Aug-03

WebCentral kicks rivals into touch	Challenge of hosting large amounts of info and traffic for Rugby World Cup 2003		Importance of minimising site downtime Electronic business brings opportunities to leverage information technology and integrate current work processes with record keeping Fed Govt wants increased use of broadband across all community levels. Formation of Broadband Advisory Group.	www.idm.net.au	13-Aug-03
New guidelines to help identify and manage records	New National Standards released for organisational identification and management of records			www.idm.net.au	13-Aug-03
Government advocates widespread use of broadband	Fed Govt report - Australia's Broadband Connectivity			www.idm.net.au	13-Aug-03
Influence of website look on amount of traffic	Credibility measures of websites. Guidelines for website transparency and fairness		46% consumers use visual design to judge, then information structure and focus.	III Mercury	15-Sep-03
Users prove it pays to go online	Findings from ABS technology use survey	David Crowe	Australians spent \$4 billion online in 2002	III Mercury	16-Sep-03
Tourism centre a virtual reality	New tourism centre at Bulli Tops	Nathan Simpson	Feature high tech touch screens allow tourists to access information 24 hours, even book accommodation	The Wollongong Advertiser	22-Oct-03
Big rise in ad spending tipped for online media	Upturn in advertising revenue overall	Rochelle Burbury	Predicted 50% jump in online advertising	AFR	20-Jan-04
Online ads to create dotboom	Renewed interest in online advertising	Michael Sainsbury & Jane Schulze	Online advertising market predicted to be worth \$1 billion by 2010	The Australian	21-Jan-04
WLAN the star of cricket coverage	Wireless infrastructure at SCG	Jennifer Foreshaw	IT resources deployed to where needed, not restricted by access to cable network	The Australian	9-Mar-04
Security cannot rely on market forces	Software security quality needs to be improved to avoid terrorist threat in cyberspace	Karen Dearne		The Australian	9-Mar-04
Changing places	Movement of white collar IT jobs offshore	Helene Zampetakis	Offshore outsourcing gathering pace. Need to make Australian companies more competitive.	SMH	9-Mar-04
Ziggy signals Sensis spin	Sensis's purchase of Trading Post	Michael Sainsbury	Possibility of a bulked up Sensis becoming a separate company	The Australian	9-Mar-04

Telstra Spam crackdowns	Planned safeguards on free webmail service to prevent spammers	Kate Mackenzie		The Australian	9-Mar-04
Yahoo! Intensifies push for local ads	Yahoo! Increasing efforts to capture share of local advertising market	Michael Bazeley	Local advertising thought to be largest untapped revenue source for search engines and web portals	Ill Mercury	9-Mar-04
Sensis deal turns up heat on suburban chains	Effects of telstra's purchase of Trading Post	Wendy Frew	Suburban newspapers to feel effect most keenly, but doubt over Telstra's ability to improve business/push into new products and territories		9-Mar-04
Media braces for full-frontal assault on classifieds	Telstra purchase of Trading Post	Alan Kohler	Telstra attacking Fairfax's classified revenue base	SMH	9-Mar-04
Sensis says it makes sense	Telstra purchase of Trading Post	Colin Kruger	Key part of Telstra's growth strategy	SMH	9-Mar-04
Telstra pays \$630 m for Trading Post	Telstra purchase of Trading Post	Katrina Nicholas	Acquisition a natural extension for Sensis	AFR	9-Mar-04
Telstra must get back to basics	Telstra purchase of Trading Post		Acquisition preparing for final sale of Sensis in the near future	AFR	9-Mar-04
Let your thumbs do the voting	Impact of reality TV and SMS to marketing companies	Rachael Osman-Chin	Permanent SMS gateway infrastructure is making traditional voice response units obsolete	AFR	9-Mar-04
Voice of the people shows five key issues in Illawarra	Report by the Chain Reaction Foundation - people's Voices	Laurel-lee Roderick	Leading concerns of Illawarra residents were education opportunities and prioritising youth services	The Advertiser	10-Mar-04
Telstra post-mortem: senseless	Telstra's purchase of trading Post	Katrina Nicholas	Concern over strategic benefit of purchase	AFR	10-Mar-04
The unappreciated value of Sensis makes sense of Telstra's acquisition	Telstra's purchase of trading Post	Stephen Bartholomeusz	Market consensus that Telstra paid too much or Trading Post	The Age	10-Mar-04
SPAM Act	New Spam Act of 10 April 2004			email	10-Mar-04
New media might be the death of old style journalism	Movement away from print media could have profound social impacts	Mark Day	Online news means more money is spent on distribution platforms than news gathering => lower stnds of journalism	The Australian	18-Mar-04
Bidding war looms for FM licenses	Radio stations bidding for licenses for new Sydney and Brisbane FM station	Neil Shoebridge	Brisbane license to attack most ferocious bidding, surprise at lack of bidders for Sydney]	AFR	25-Mar-04

Specs for telephony apps	VoiceXML 2.0 - standard for building speech based telephony tools			The Australian	30-Mar-04
Offshoring Survivor	IT workers in Aust need to upgrade skills to avoid their jobs being outsourced	Jennifer Foreshaw		The Australian	30-Mar-04
it's a long struggle to can Spam	Spam is a problem that can be managed, but not eliminated	Bruce McCabe	Stopping Spam is no easy task, and requires a lot of cooperation and coordination from involved bodies.	The Australian	30-Mar-04
Nation's top dogs under threat from new mix	Radio listener ratings	Sally Jackson	In Sydney, Austereo's 2Day FM has lost ground to DMG's Nova 96.9	The Australian	1-Apr-04
Sound plans for new challengers	Introduction of a new radio station in Sydney or Brisbane.	Lara Sinclair	Radio advert revenue in Sydney for first six mths of 2003 was \$108bn	The Australian	1-Apr-04
Nova's star is shining bright in radio market	Nova's dominance of Sydney radio market		Overall listener share of 12%	Ill Mercury	Apr-04
Web services get traction	Uptake of web services by large businesses is surging	Kate MacKenzie	Increasing use of web services to carry out data exchanges between businesses. Security issues	The Australian	6-Apr-04
SOAP cleans up airline bookings	Adoption of SOAP in online travel company	Kate MacKenzie	SOAP allows company to deal with diverse range of platforms across its suppliers.	The Australian	6-Apr-04
The power of search	Advances/lacking of search engines, focus on local searches	Nathan Cochrane	Increasing amount of information being provided by engines, movement to individualising searches.	SMH	13-Apr-04
Advertising on the up and up	Upturn in advertising expenditure	Neil Shoebridge	Online ad market grew 41% 2003	AFR	15-Apr-04
Google in Adwords strife	Google accused of selling clients trademarks to competitors	Lawrence Day	What constitutes as infringement of Trademark law?	australianIT.com.au	27-Apr-04
Google: Search or be destroyed	Battle between google, Microsoft and Yahoo! for command of search engines	Ben Elgin	Google's freewheeling management is hoped to bring breakthrough innovations	AFR	1-May-04
Sensis to combine search results with paid links	Sensis' all-in-one search site	David Crowe	Combining yellow pages, white pages, trading post into one 'doorway'	AFR	10-May-04
The rise and rise of internet newsletters	Growing number of online investor newsletters and share advice	James Dunn	Online newsletters can fill a gap between market and self reliant investors	The Australian	12-May-04

Newspapers, far from dying, are the healthiest medium	Formation of national lobby group to reverse negative image	Sheena MacLean	Publishers adopting a more aggressive marketing strategy	The Australian	13-May-04
Graphic Google changes policy on banner ads	Google is going to being selling graphical banner ads, instead of text only	Saul Hansell		SMH	18-May-04
Making the right overtures	Overture has built the most extensive online advertising network in Australia	David Adams	Users of the sponsored search service will see advertising relevant to their searches.	SMH	18-May-04
Old system still has bandwidth to burn	Features of ISDN	Ian Grayson	For those who can't get broadband, ISDN is a faster alternative to dial up.	The Australian	18-May-04
Fast evolution keeps eBay ahead of the pack	Net revenue growth of 80%	The Economist		The Australian	18-May-04
Online advertising chases \$300mn	Online adv. \$300mn threshold, increases of more than 50%	Paul McIntyre	40% revenue from SME market. Engine will focus on info that is locally relevant. Online search advert revenues are increasing by 68%	smh.com.au	20-May-04
Sensis plot to whack Google	Sensis to establish new youth-focused search engine brand	Lara Sinclair		The Australian	20-May-04
Metropolitan newspapers lose readers	Newspaper readership figures fell 03/04	Neil Shoebridge	Competition from Internet has hurt newspaper industry	AFR	21-May-04
Nortel innovation leading city towards bright future	Launch of Nortel's wireless laboratory in Wollongong	Lisa Sewell	CDMA technology can bring wireless capability to people in rural/remote areas at speeds comparable to broadband	Ill Mercury	21-May-04
Explorer vulnerable to surge in spyware	Internet explorer more susceptible to invasive software	John Davidson	Computers are being crippled by spyware, 80% due to Explorer	AFR	3-Jul-04
New search engine says it's got what it takes	Launch of Sensis.com.au	Katrina Nicholas	Search engines judged on relevance of results, not volume.	AFR	14-Jul-04
Further Ad Threat to Local Papers	Search engines targeting local advertisers		News and ads moving online increasingly, some newspapers may be forced to reduce frequency	Mediaweek.co.uk/newspapers	16-Jul-04
Partners win	Web grows unity	Advert	Empower win PM's Award	Cumberland	29-Jul-04
Latham backs lift in R&D funding	Lack of investment in R&D in Australian economy		Labour's productivity agenda to increase education, training and research	Ill Mercury	10-Aug-04

Net conquers the great outdoors	Net to become 5th largest medium in 2005	Lara Sinclair	Most mass media will grow 3.5-5.4% net projected to grow 19% compound	The Australian	26-Aug-04
Publishers question readership	Roy Morgan Research on newspapers	Sally Jackson	Mercury figures down - being questioned	The Australian	26-Aug-04
Publishers question readership figures	Questioning Roy Morgan's data on National/NSW newspaper readership	Sally Jackson	Errors in research samples	The Australian	26-Aug-04
How one pollster makes sure its research numbers add up	Roy Morgan method for collecting research data	William Burlace		The Australian	26-Aug-04
Matilda waltzes into cynical politicians	Launch of online political magazine	Sheena Maclean	Internet can provide an alternative to mainstream media	The Australian	26-Aug-04
Our broadband two years behind	Australian broadband services far behind other countries	James Riley	Broadband residential penetration to grow 20% by end 2005	The Australian	31-Aug-04
No action on telcos' privacy breach	Telstra, Optus, breaching Telecommunications Act and Code of Conduct	James Riley	Telephone companies sharing subscribers personal details with internet providers - not charged because no evidence of 'malicious intent'.	The Australian	31-Aug-04
Rural Press to buy up big	CEO Brian McCarthy 03/04 record profit		Want to expand - core competency	Ill Mercury	8-Sep-04
Viewers switch off to digital	Networks pushing but viewers don't like	Neil Shoebridge	Switchover meant to be 1 Jan 06 analog to stay on - only 5% household uptake	AFR	27-Sep-04
Sorting the trends from the futurists and the fads	10 mega trends that shape future of consumer goods	Neil Shoebridge	Increasing focus on local community	AFR	27-Sep-04
Money to burn	CEO packages	Sally Jackson	Peter Yates \$10.5m include 6.5 termination	The Australian	7-Oct-04
Fast forward publisher	Derwent Howard massive growth	Sally Jackson	25 titles - Berkley & Flynn principals	The Australian	21-Oct-04
Online players come of age	\$17.4 million rev last financial year	Mark Day	Top Advert \$350 per day	The Australian	21-Oct-04
Singo to float	Crikey.com now has 5,400 subscribers	Simon Canning	Up to \$400m	The Australian	11-Nov-04
Network ropes in Paterson	Possible radio network float		Basic economics of all networks the same	The Australian	16-Nov-04
Linux will rattle Microsoft in 2005	Paul Paterson ex TELSTRA to NECG	Paul Broekhuysen	2005 brings 5-6% increase in IT budgets	The Australian	16-Nov-04
Crunching the numbers	Push for development of desktop Linux	Kelly Mills		The Australian	18-Nov-04
	TV Audience share				

Retail giants to scoop advertising	Supermarkets set to take p/o \$10 billion	Simon Canning	Attack on mass media in 2005	The Australian	18-Nov-04
Sore losers take a swipe at Aussie libel laws	Online defamation of Joe Grutnick	Michael Cameron	Online articles are subject to libel laws in country where they are downloaded, not uploaded	The Australian	18-Nov-04
Innovation's Soft Spot	Microsoft's dilemma	Carleen Hawn	\$US7billion R&D pa - no result Innovation=brilliance+timing+luck	SMH	23-Nov-04
One man's quest to save the world (wide web)	New internet protocol to provide billions more internet addresses	Danny O'Brien		SMH	23-Nov-04
Womens mags gain readers	Newspaper readership	Sheena MacLean	Merc Sat -11.4% midweek -1.2%	The Australian	25-Nov-04
Hanging in there	Sydney Harbour Bridge	Bruce Holmes	Details background websites etc	SMH	27-Nov-04
Internet tipped to be choice hit	Fastest growing medium in next 2 years	Neil Shoebridge	5% share of ad market \$493m in 2005 full year 2006 \$641m - 6.2%	AFR	29-Nov-04
Australian Communities Foundation	Woolworth Foundation	Advert	Sponsor communities	Ill Mercury	29-Nov-04
Print them yourself - coupons go online	CouponStar offers online coupons	Rochelle Burbury	Revenue increase of 120% 03/04. Redemption rates of 20/25%	AFR	29-Nov-04
Searching for an angle	New Search engine www.ansearch.com.au	Ian Cuthbertson	Hopes to attract 500,000 un visits /month	The Australian	30-Nov-04
The business of great journalism	Integrity of journalism - Fairfax	Mark Scott	Taking advantage of online information, not seeing it as a threat.	Remarks to the Sydney Institute	6-Dec-04
Portal doorway to Gong	Online community website in Wgong		Portal to direct people to local businesses, groups and services	Ill Mercury	
Community portal supported	Establishment of community web site portal		More info at www.dsl.uow.edu.au/ocos		
Good news for Newspapers	Position of newspapers in media industry is still quite strong	F Gren, L Ubinas, M Wachtmeister	Newspaper circulation growth is strong. Internet used to compliment print, not replace	http://premium.mckinseyquarterly.com	

8.3 Website References

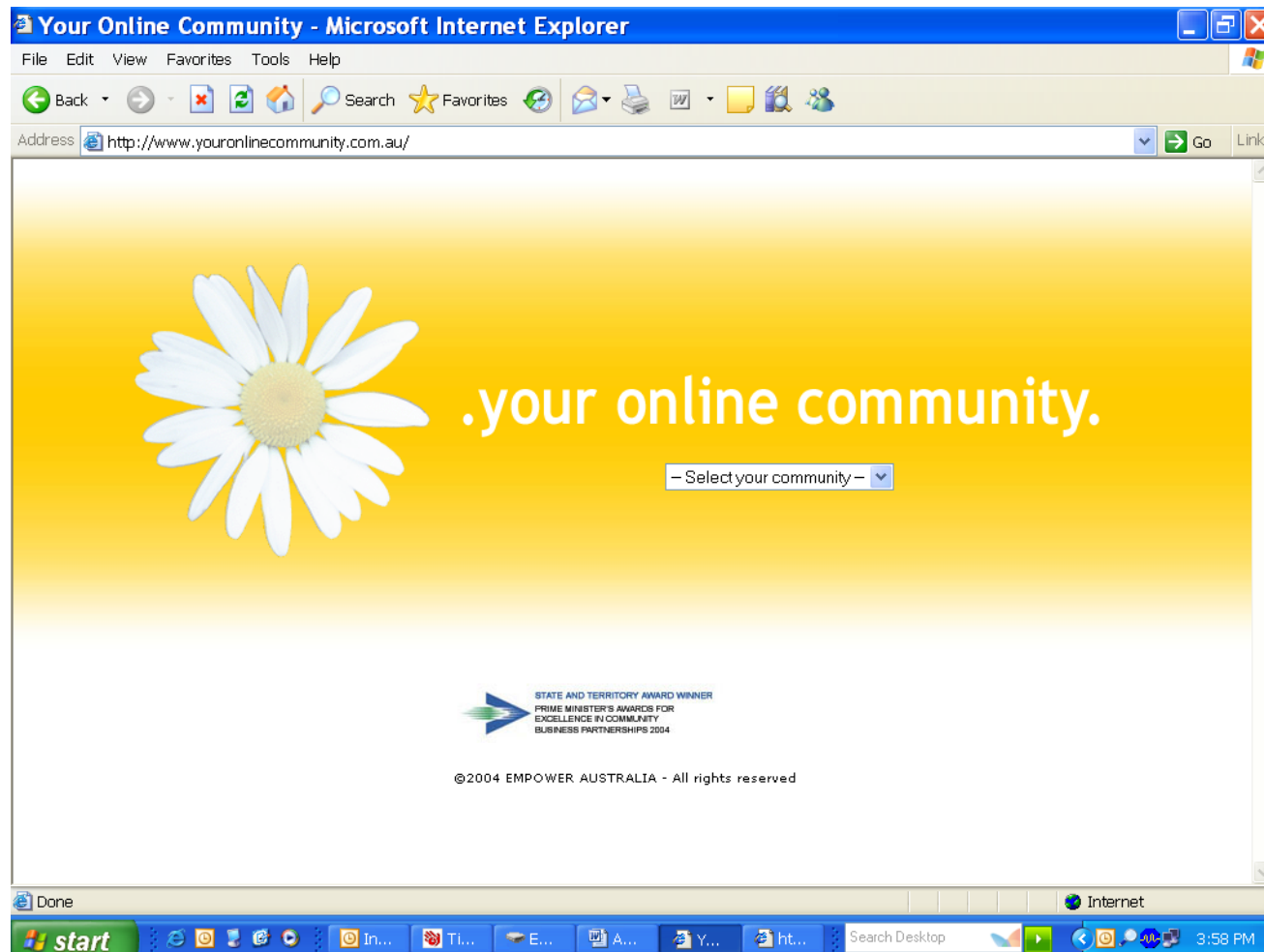
URL	WEBSITE	SIGNIFICANCE	REFERENCE							
www.wollongongonline.com	Wollongong based RCP	Original online community	2.1	2.7	3.4.5	4.5				
www.wollongong.youronlinecommunity.com.au	3rd generation beta	First YOC hub site	2.1	2.7.6	3.5	4.4.6	5.1.4	6.7.1	6.7.3	
www.esd.rgs.org/glossarypopup.html	Online search result	Definition of Sustainability	2.6.1							
www.ifdn.com/teacher/glossay.html	Online search result	Definition of Sustainability	2.6.1							
www.uwyo.edu/sig/definition.asp	Online search result	Definition of Sustainability	2.6.1							
www.sportslive.com.au	Sports website	Part of YOC test portal	2.7.3.1	2.7.8						
www.getlocalnews.com	Online newspaper	Citizen Journalism	2.7.4							
www.eLaunceston.com	Online community	Telstra Laboratory Pilot	2.8.1							
www.yourguide.com.au	Newspaper linked websites	Example of network	2.8.1							
www.backfence.com	Online community	US based network model	2.1	4.2.3						
www.ocos.com.au	One city one site	2nd level domain name	3.5							
http://www.wollongong.youronlinecommunity.com.au/page.aspx?site=8&page=ezone	HTML e-newsletter	YOC weekly e-zine	4.5							
www.parramatta.youronlinecommunity.com.au	3rd generation beta	First YOC satellite portal	4.5							
www.mena.org.au/mena	Community Portal	Non-operational	5.1							
www.mc2.vicnet.net.au	Network of RCP	Sustainable	5.1							
www.ourbrisbane.com	Civic Portal	Sustainable	5.1							
www.SEEK.com.au	Online Advertisers	Sustainable	5.1							
www.wotif.com	Online Advertisers	Sustainable	5.1							
www.RSVP.com.au	Online Advertisers	Sustainable	5.1							
www.albanygateway.com.au	Network of RCP	Sustainable	5.1	5.3						
www.google.com/technology/	Search engine	Page ranking technology	6.7.3							
http://www.wollongong.youronlinecommunity.com.au/page.aspx?site=8&page=archive	WollongongOnline archive	Online reference	2.7.3.3							

8.4 YOC templates

Structure of beta 3rd generation network type community portal

8.4.1	www.youronlinecommunity.com.au	YOC navigation website	Generic YOC branding
8.4.2	www.wollongong.youronlinecommunity.com.au	Wollongong community portal	Generic YOC branding
8.4.3	www.parramatta.youronlinecommunity.com.au	Parramatta YOC community portal	Generic YOC branding
8.4.4	http://www.wollongong.youronlinecommunity.com.au/page.aspx?site=8&page=ezone	WollongongOnline weekly e-magazine	Cross advertising & HyperLinks
8.4.5	http://www.parramatta.youronlinecommunity.com.au/page.aspx?page=ezonepage	ParramattaOnline weekly e-magazine	Cross advertising & HyperLinks
8.4.6	www.sportslive.com.au	SportsdLive navigation website	Cross advertising & HyperLinks
8.4.7	www.wollongong.sportslive.com.au	Wollongong SportsLive website	Cross advertising & HyperLinks
8.4.8	www.smartpages.com.au	SmartPages navigation website	Cross advertising & HyperLinks
8.4.9	www.wollongong.smartpages.com.au	Wollongong SmartPages website	Cross advertising & HyperLinks

8.4.1 www.youronlinecommunity.com.au



8.4.2 www.wollongong.youronlinecommunity.com.au



8.4.3 www.parramatta.youronlinecommunity.com.au



8.4.4 <http://www.wollongong.youronlinecommunity.com.au/page.aspx?site=8&page=ezone>



8.4.5 <http://www.parramatta.youronlinecommunity.com.au/page.aspx?page=ezonepage>

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SMALL BUSINESS
SMARTPAGES
ABOUT US
YoY
SPORTSLIVE

The wait is over

By John Bown

Helping to dispel the myths
With a keen interest in social justice issues Christine Ambs' role as community liaison co-ordinator with the Office of Fair Trading provides her with an opportunity to pursue her interests across a wide area of the state

Sponsoring sports at the local level
Does this type of promotion pay off?

By Andrew Connery

Kidzwish launch a beauty
The back room at the WIN Entertainment fairly bristled last week when the KidzWish Foundation officially launched its annual

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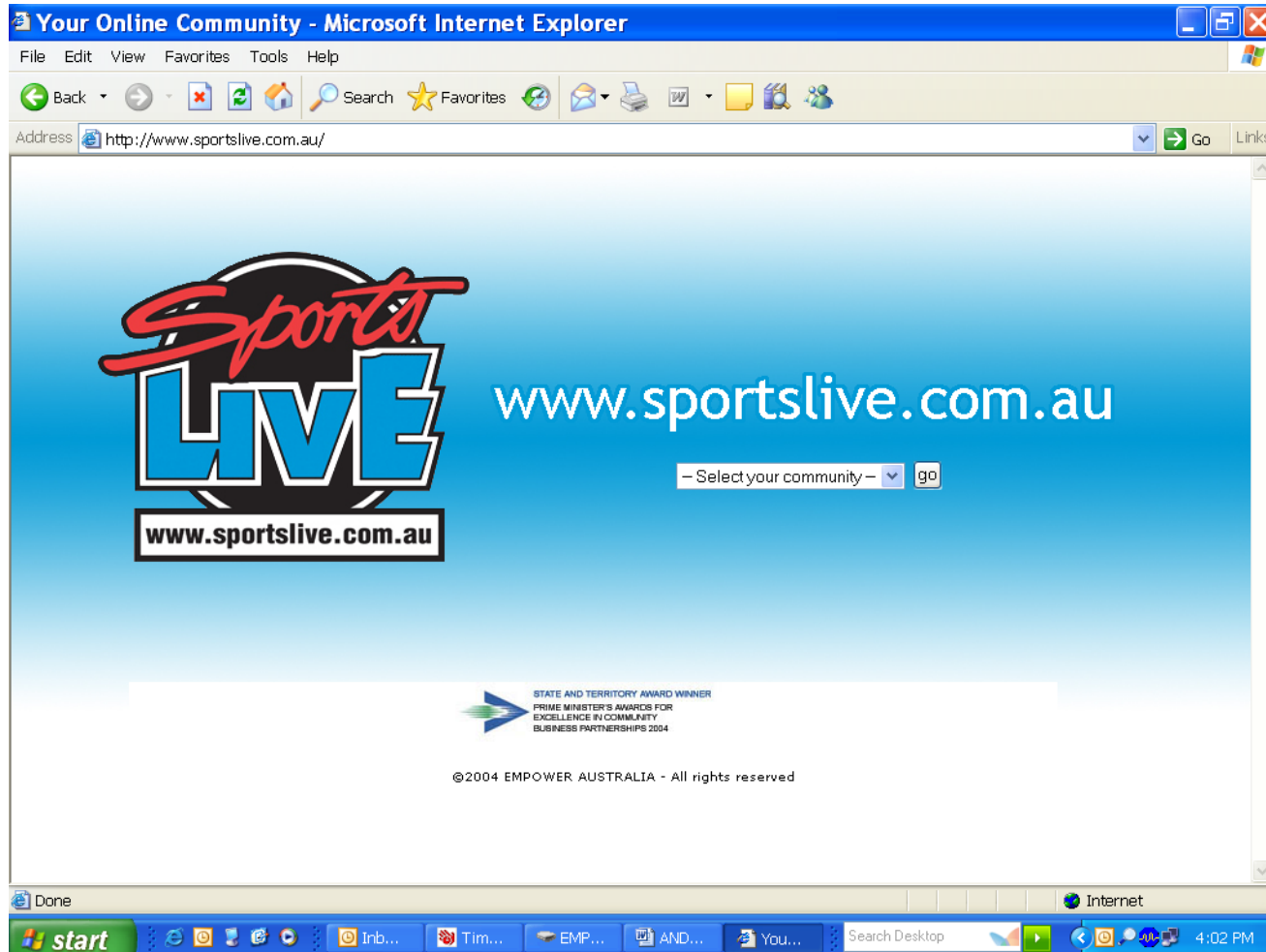
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http://www.youronlinecommunity.com.au/

start Inb... Tim... EMP... AND... http... Search Desktop 4:01 PM

8.4.6 www.sportslive.com.au



8.4.7 www.wollongong.sportslive.com.au

Welcome to Sportslive - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.wollongong.sportslive.com.au/> Go Links

Home Select Sport Pics Forum Bookmark | Make Your Homepage

Sportslive

Home . Illawarra/Wollongong return to your online community

Section Links

- Senior Cricket Home
- Junior Cricket Home
- Men's Hockey
- Netball Home
- Illawarra Rugby
- Junior Soccer Home
- Bradman Foundation
- Cup Home
- Tennis Wollongong
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- **Wollongong Council's Sports Administration Development Program:** Wollongong City Council and the NSW Department of Tourism, Sport and Recreation are offering all Sporting Clubs a **FREE** Sports Administration Development Program... [CLICK HERE!](#)

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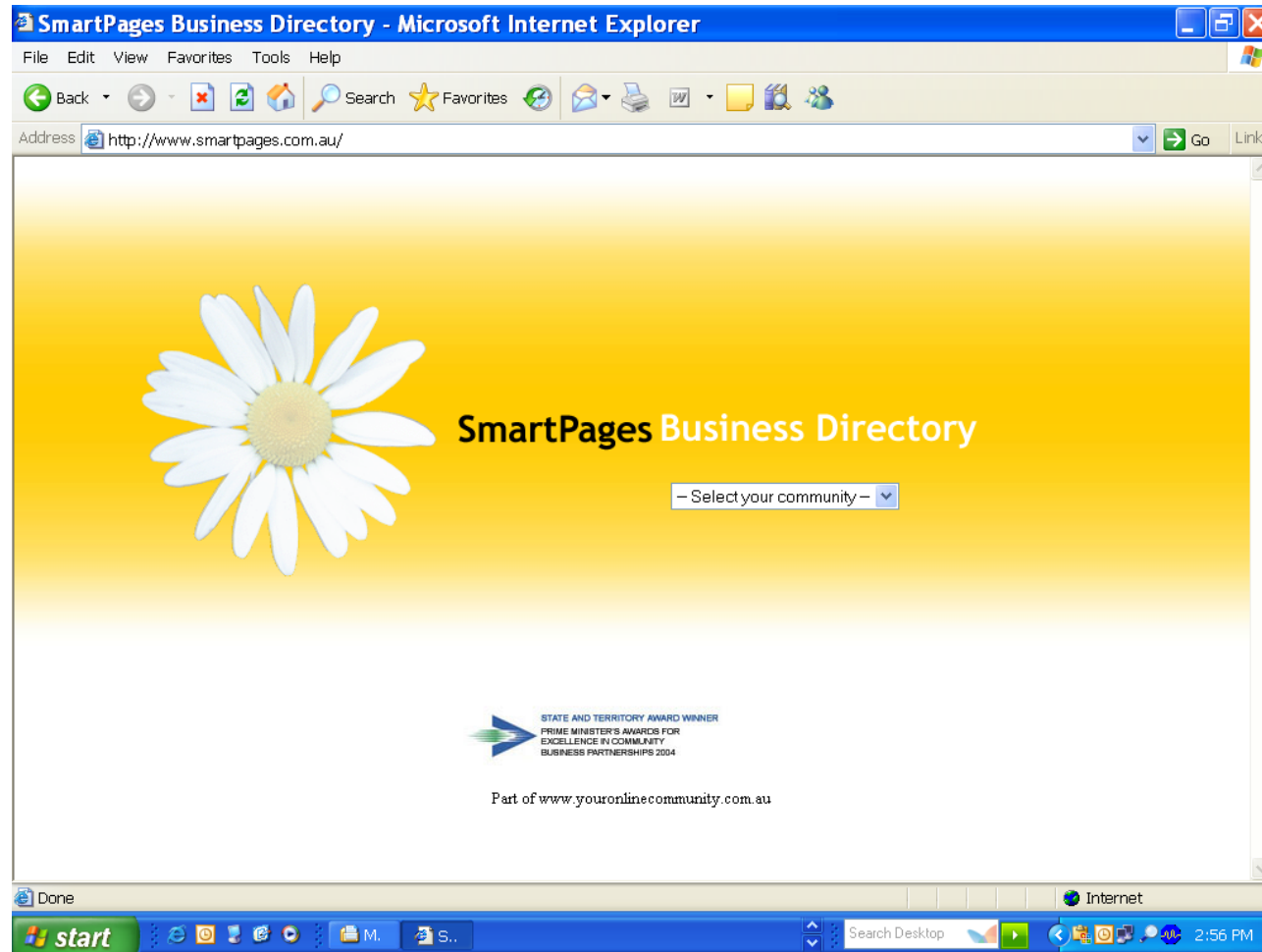
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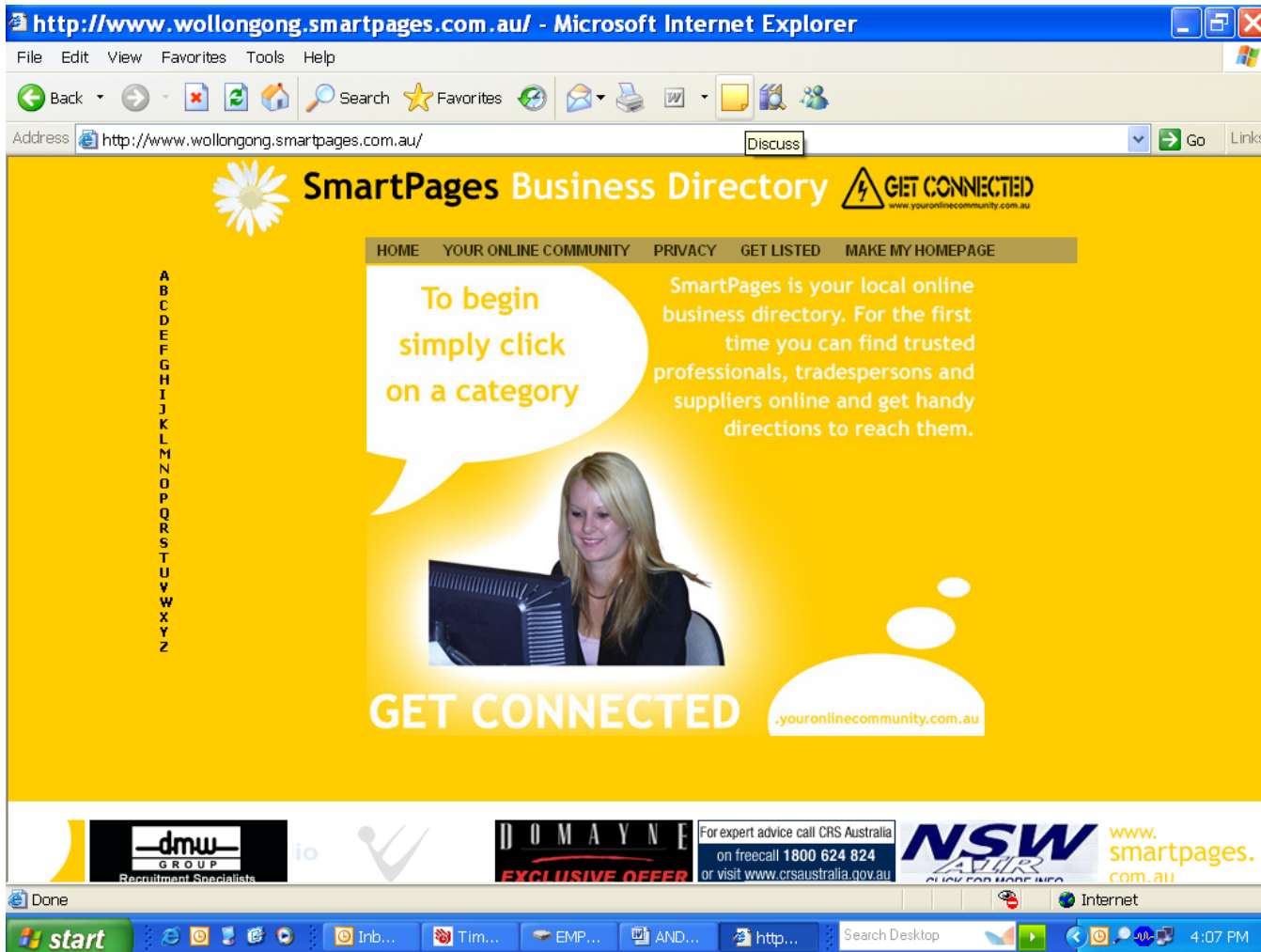
Opening page <http://www.wollongong.youronlinecommunity.com.au/recordview.aspx?docid=1900...> Internet

start Inb... Tim... EMP... AND... Wel... Search Desktop 4:06 PM

8.4.8 www.smartpages.com.au



8.4.9 www.wollongong.smartpages.com.au



8.5 CONNERY A. AND HASAN H. (2005) SOCIAL AND COMMERCIAL SUSTAINABILITY OF REGIONAL WEB-BASED COMMUNITIES, JOURNAL OF WEB-BASED COMMUNITIES 1/3 246-261.

Social and Commercial Sustainability of Regional Web-based Communities

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hasan@uow.edu.au

ABSTRACT

New information and communications technologies have disrupted many traditional forms of community but enabled the emergence of new ones. This paper examines pertinent characteristics of communities, before describing three case studies of commercially operated web-based communities. The research demonstrates the social and commercial value of the concept of community.

KEYWORDS

Web-based community, regional location, sustainability, social capital, economic value

1. Introduction

The desirability of supporting and encouraging online communities to build social capital is now well documented (Preece 2000, Rheingold et al.). A group of people interacting via the Web is popularly referred to as a 'virtual community' which Koh and Kim (2001) define as one that is "extended via emerging technologies" whether 'online originated' or 'offline originated'. Following discussion that accompanied the presentation of earlier work on this project (Connery & Hasan 2004), the authors have decided to no longer use the descriptor 'virtual' for such communities as they are believed to be as 'real' as any other. This decision will be reflected in this paper where the generic term 'community' will be used. The research presented here focuses on the development of communities that are essentially web-based but are situated in, and serve the needs of, a bounded local region. Although in such circumstances there usually exist offline links between members, a new sense of community can emerge in the online environment.

The capability of the Web to enable the creation and sustaining of communities is becoming increasingly more common for a wide range of activities, which can be in the commercial as well as non-profit or educational sectors. There is indeed a business imperative for intellectual capital creation which is a socially constructed dynamic process of situated collective knowing that is capable of being leveraged into economic and social value (O'Donnell et al 2003). Paradoxically, the problem of 'sustaining' a web-based community, in the intermediate and longer term, is not particularly well understood. The Internet landscape is littered with the remains of failed websites and no longer functioning portals, i.e. not updated recently or displaying any visible signs of interaction with some notable exceptions (see for example the report of Arthur-Anderson, 1999, and work of Skogseid & Jansen 2001).

The problem of the sustainability of web-based communities (WBC) is now a widespread phenomenon, and is capturing the interest of researchers in many disciplines in academia and the professions. Some of the more successful communities, designated as 'communities of practice' (Wenger et al 2002), are sponsored by large commercial firms, while other online communities, loosely described as 'communities of interest' are managed by the members themselves. It can be argued that all 'successful' WBCs (including intranet, extranet and internet type portals) share this single

characteristic, commonality of interest, notwithstanding any other stated policies or promoted objectives. This appears to be a necessary condition for both the creation and continuance of WBC, however there is also an increasing need for these communities to be commercially viable and demonstrate return of investment in a pragmatic sense.

This paper will examine characteristics of communities in the era of the Internet, before describing a case study based on 30 months of action research in an Australian WBC set up as a regional community portal by a private company as a venture with the objective of becoming commercially viable in its own right. Outcomes of this study are described and compared with the situation in two subsequent exploratory cases, one for a large city market and one for a smaller country town. Criteria for success are discussed and evaluated from both the commercial and social perspectives.

2. Communities in the era of the Internet

The realisation of the importance of community is not new but like other concepts, such as that of information, it was once taken for granted and has taken on more significance with the emergence of sophisticated information and communications technologies (ICT). Communities are collections of people that engage in activities that encompass a common interest, not only in their leisure time, but also as part of their work as employees of organisations or in classes at educational institutions. The influences of a modern lifestyle driven by new ICT, have disrupted many traditional forms of community but enabled the emergence of new ones. No longer is the local neighbourhood the only place where gossip is exchanged and the problems of the world are solved. Social exchange is just as likely to occur in chatrooms or appear as 'blogs' (weblogs) of anonymous participants from all over the world.

2.1 Changing Characteristics of Communities

People in skilled employment in developed western societies are time poor and feel the pressure of an ever-changing workplace battling to meet the demands of the global economy. The Internet and global mass media have made people better informed and broadened their horizons while the functionality of the World Wide Web (WWW) has given them more flexibility and control of the transactions in their daily lives. There is a general up-skilling of the population now confident with computers or who have grown up with them. We can bank, shop, be entertained and informed any where, any time as long as we have access to the Internet and the skills to use it. The downturn in global travel due to cost and danger is another aspect of modern life that encourages the use of ICT such as tele- or video-conferencing for human interaction at a distance.

Some of the traditional characteristics of communities have endured in this new environment while many are undergoing change. A number of studies have been done on the effect of size on communities (see for example Stoel 2002). It appears that the use of technology has not altered to any great extent the maximum number of people, around 9-12, that can work creatively as a team. It has also not increased the number of people with whom we can have a working acquaintance (around 150). We have anecdotal evidence that these numbers may be lower in stressful, technologically driven contexts. There is also a great deal of research into the richness of different communications and broadcast media such as face-to-face, video, audio, written, electronic (see for example Dennis & Kinney 1998). Of particular concern in the online environment is the need for members of a community to feel the presence of others and considerable research has been done on the concept of 'social presence' (see for example Suh et al 2003).

Attempts to understand these evolving phenomena have uncovered various factors that appear to be of some importance. Koh and Kim (2001) treat online communities in terms of three dimensions: belonging, influence and immersion. Wenger et al (2002) also have three dimensions of communities of practice:

- What it is about – its *joint enterprise* as understood and continually renegotiated by its members
- How it functions – mutual engagement that bind members together into a social entity
- What capability it has produced – the *shared repertoire* of communal resources (routines, sensibilities, artifacts, vocabulary, styles, etc.) that members have developed over time.

Hasan and Crawford (2003a,b) list five elements that appear to be important to the socio technical model when applied to genuine communities of people with common interests and goals as follows:

- Being clear about the purpose of community, including what can it achieve.
- Recognising the importance of diversity in the community and how different members are encouraged and their contribution valued.
- Encouraging a mix of work, learning and entertainment.
- Taking into account how trust is developed in different modes of interaction, in particular face-to-face and online.
- Noting how different characteristics and capabilities of the people and technology affect the viability of the community, identifying the functions of technology and skills of people to be enhanced.

2.2 Contributions to Sustainability

We propose that the continued viable existence of the online community is the most realistic measure of its success rather than the achievement of any other stated goals for which there are often no easily identifiable measures. In the research presented here, we consider both social and commercial aspects that contribute to their continued existence and sustainability. In doing so we are influenced by the trend in many enlightened organisations where the one 'bottom line' has become the 'triple bottom line', economic, plus environmental and social (Raeside & Walker 2001). This has been particularly so in public and not-for-profit organisations but even many private companies are broadening their goals to include those of the triple bottom line. We feel that it is too early in our case to consider environmental issues but we will look at both economic and social determinants to the success of our WBC.

Recent research (Vrazalic et al 2003) reveals that there are numerous examples of WBCs, Community Portals and Business Portals established without heed to their social and economic value and with goals which do not directly address or recognise the fundamental requirement of having a common focus either of interest or practice. Many of these communities have failed to achieve and/or maintain a critical mass and suffered the consequences of not being sustained. Essentially, prospective community members must perceive a real need to participate in the first instance, but additionally and more importantly to become motivated to continue to return regularly to the site. "All communities must first meet one basic requirement: they must engage and involve members" (Cothrel & Williams 1999). To this end, identifying informational/sociological need or needs that are not satisfactorily provided by any other organization/media is a key to establishing both social and commercial WBC value in the longer term. We argue that this fundamental requirement is a prerequisite for the successful establishment of any WBC and that all other developmental strategies adopted to grow and sustain the WBC must leverage off this requirement.

The initial project described in this paper is a WBC model that seems to work. It has added a solid business foundation to aspects of technological capability and social awareness that appear to be essential for success. It adopts a business model commonly used in the broadcast media of attracting advertising based on circulation data obtained through solid market research. It also takes advantage of the low transaction costs, information currency and flexibility of electronic media in comparison with paper distribution.

3 The Research Problem and Design

3.1 The choice of research sites

The research described here began with an action research study in 2003 of one instance of a locally-based WBC that appears to have developed a successful model for sustainability from both a commercial and social perspective. The initial case involves a regional community portal that has been designed to meet specific needs of that regional community. The region has a long-standing identity, which serves to give a solid foundation and focus to the portal. The owner, and director, of the project, also one of the researchers, has allowed it to evolve over the past 3 years

with market research and investigations into the requirements and demands of the community, ensuring these remain paramount.

From a research standpoint this case was opportune as it brought together an innovative business venture with an academic research program that was investigating aspects and uses of Web technologies in communities. The case is analysed to determine possible reasons for its continued success, both commercially and socially, and used to predict the course of two projects underway that are using modifications of this model into different local situations.

Whereas the initial case was situated in a medium sized regional town with a well-defined and accepted identity, the research has been extended to study two subsequent sites which are, on the one hand, a less well-defined section of large city and, on the other, a much smaller country township. One aim of this part of the research is to determine characteristics of these secondary sites that differ from those that appeared to determine the success of the initial site. A second aim is to observe if and how the original model can be modified to suit the new situations.

3.2 The method -Action Research in Case Studies

There is a growing realisation in the field of Information Systems of the general research value that can be gained from the use of action research in a single case study or a small number of them (Walsham 1995). This is particularly true when the topic of concern relates to early adoption of cutting edge technology, as such endeavours may be the only source of reliable and relevant data, as the phenomenon of interest is emergent. For the topic of this paper, i.e. the commercial and social sustainability of WBC, it would be extremely difficult to use any other research method. To that end we will now describe the cases and present data demonstrating their achievements to date. We will then discuss the issues that emerge from our interpretation of the success of the communities to date.

3.3 The research design and process

The research began with the first indepth case study where an experienced researcher worked with the owner/manager of the business designing and managing the WBC who was beginning a research degree. Data was gathered and analysed from documentation plus descriptions and recollections from the owner manager in conjunction with feedback from contributors to the site and subscribers. The resulting case descriptions were then read and reconfirmed by the owner/manager. This process was continued for the second, expanded site by the same group. For the third site initial interviews were conducted with the site managers and representatives of the subscriber community. Data was then summarised in conjunction with review of the literature.

4 The Initial Case

4.1 Attributes of the Local Community

The community, for which the WBC was built, is a predominantly working-class, industrial town together with its surrounding coastal area, and includes several hundred thousand inhabitants. There is a strong sense of local identity and the area is going through some economic and social challenges with the downsizing of the main local industry with unemployment relatively high. , Despite this, the region has a positive outlook with opportunities for growth in the tourism and education sectors. The region is large enough to have an integrated local area health service, a university, and arts centre, a daily newspaper and a local TV station. It surrounds an industrial coal/steel town with traditionally one large employer, a history of shared catastrophes (mines and bushfires) as well as challenges and competition from 2 neighbouring big cities. This has meant that the population is not blasé about community values. People are also drawn together in support of local sports teams in the national competitions of football and basketball, with associated well-known local heroes.

Among the many issues that continually challenge regional communities is the need for local content in the media. The key, identifying characteristics of a local community, in terms of media, is that they are usually dominated by national networks for electronic media (TV and radio) and serviced by a single newspaper, owned by a national publishing company. Most editorial content is provided top down with limited local content and, importantly, the bulk of advertising revenue

is earned from national advertisers. This usually means that local advertisers are cross-subsidised creating a situation where it is difficult for locally-based media owners to compete and provide local content. This results in a distortion of the market, which does not have the financial or social capital to correct. This problem is common to all regional areas. What is new, and the objective of this innovative project, is the realisation that there is an opportunity to remedy this in a virtual space by providing local content by local on a low cost advertising model.

4.2 Co-evolution of Research and Practice

The project began when a strategic alliance developed between Empower Australia, a well-established local media representative group, which had also published in its own right, Internetrix, a locally-based software developer and the DMW group, a financial partner. The group felt that the Internet could be the means to remedy the problems caused to regional communities by the stranglehold of large national consortia, stifling local content in the public media. They began cautiously, somewhat bewildered by the euphoria of the, then, boom in Internet-based activity. Following the subsequent dot.com crash, they were encouraged by the confidence that their combination of skills and knowledge would be equal to others in the field. The objective was to conduct an entrepreneurial endeavour to establish a WBC, capitalising on the core skills of Empower in tradition publishing, marketing and selling advertising, in the belief that an opportunity existed to utilise the power of the Internet while utilising traditional business methods. The project was supported by action research using marketing principles to understand the potential of web-based media and this research focus grew into links with Information System's researchers at the local University. This project attracted considerable attention at local and state government levels and was launched by the state premier at the inaugural Innovation Week 2001 at the University's public Science Centre.



Figure 1 Part of a 1st generation e-Zine

4.3 Description of the WBC

The WBC began as portal (www.wollongongonline.com) with associated weekly e-newsletter as shown in Figure 1. The main section of the e-newsletter was designed as two column pages, using the familiar format of a magazine. This enabled subscribers to clearly distinguish advertising from content, which included short opinion articles from local people. The project worked as an e-Zine, sent every Monday as HTML to the email address of subscribers, and linked back to the portal the original version of which is shown in Figure 2. Circulation was increased by referrals from current subscribers and the e_Zine was not pushed in the sense of email spam.



Figure 2 The Community Portal as of November 2003

Feedback from constant market research has evolved the design and content over the life of the site. Features that were introduced early in its life were the ability for subscribers to give their feedback on the opinion pieces and an evolving section for local amateur sporting groups. The community served by the portal has always had a strong sporting heritage but the local newspaper, owned by a nation-wide group, mainly reported on local professional teams in national competitions such as football and basketball. This resulted in the portal now being designed as three portlets, as can be seen in Figure 2, for local news, sport and entertainment with appropriate domain names acquired as part of the business plan, including www.wollongong.youonlinecommunity.com.au, www.newslive.com.au, www.sportslive.com.au and www.nightlive.com.au. The latter sends alerts to subscribers rather than be a full e-Zine and is becoming popular with the local youth.

4.4 Philosophy and heuristics

The action research, undertaken in the region to be serviced by the WBC, experimented with a number of different strategies and developed a set of five guiding philosophies or *heuristics* for the WBC:

- Online activities were to replicate offline activities as closely as possible if it doesn't happen in the real world it shouldn't be in a WBC either. A clearly defined membership base would reduce the need to cater for cultural differences

- 'Old Economy' publishing and marketing methodologies would be utilised. It was found that market forces remain constant on- or offline. Offerings should be targeted to an identified demographic
- The primary and over-riding strategic goal would be to find ways for the project alliance to sustain the WBC economically in the intermediate and longer term since, as is often the case, governmental/corporate seed funding was only available short term for the project
- The WBC operators are to be committed solely to web publishing and not an adjunct to any other media (TV, newspapers), government utility, institution, company or community organisation
- The internet culture / language of members was accepted and no content was prescribed or overly censored ie freedom of speech first, political correctness second. Credibility and trust would be built through allowing the community to shape opinion and discussion. These guiding principles, determined early in the project, have been regularly tested and continued to apply.

4.5 Outcomes

As mentioned previously the success of the community would be determined on both social and economic criteria. Commercial performance measures such as profitability and return on investment would apply. However, the amount of activity on, and interest in, the portlets, within their targeted demographics, would be more an indication of the social success of the WBC.

There is no doubt that this WBC project is becoming increasingly successful, for an innovative venture of this kind, on both the social and economic criteria. The model of using the E-Zine and email alerts to drive the portal and portlets respectively has resulted in growing bands of subscribers. Current data indicate that the project will break even at the end of the year 2004. Evidence of this, from the system logs, is now presented for the main portal, driven by the E-Zine, and the entertainment portlet, nightlive.

Summary by Month										
Month	Daily Avg				Monthly Totals					
	Hits	Files	Pages	Visits	Sites	KBytes	Visits	Pages	Files	Hits
Oct 2003	4366	2111	4366	510	5312	855396	15815	135366	65465	135366
Sep 2003	4909	2402	4909	544	5274	878155	16341	147294	72066	147294
Aug 2003	5843	2667	5843	505	4846	802081	15683	181154	82696	181154
Jul 2003	5267	2503	5267	532	4884	824669	16503	163295	77619	163295
Jun 2003	4875	2465	4875	534	4804	807351	16025	146250	73958	146250
May 2003	4120	2279	4120	452	4274	793532	14020	127743	70676	127743
Apr 2003	3744	2271	3744	429	4035	839595	12880	112321	68156	112321
Mar 2003	4594	1945	4594	350	4451	718102	10861	142444	60304	142444
Feb 2003	4588	1939	4588	352	4101	573413	9880	128478	54308	128478
Jan 2003	3192	1435	3192	241	3435	503258	7480	98963	44512	98963
Dec 2002	3541	1576	3541	239	3145	550162	7417	109796	48882	109797
Nov 2002	3799	1654	3799	257	3092	365301	7730	113998	49624	113998
Totals						8511015	150635	1607102	768266	1607103

Figure 3 – Portal usage at the beginning of November 2003

It is interesting to note that the number of visits is stabilising, although the number of page hits is decreasing as subscribers are more familiar with the layout of the site and do less random browsing. The E-Zine driven newsletter style of the main portal is essentially been seen as a B2B endeavour.

Summary by Month										
Month	Daily Avg				Monthly Totals					
	Hits	Files	Pages	Visits	Sites	KBytes	Visits	Pages	Files	Hits
Oct 2003	1759	1307	1759	114	761	628950	3559	54548	40533	54548
Sep 2003	2735	2275	2735	105	674	591915	3167	82066	68276	82066
Aug 2003	3004	2502	3004	82	315	526098	2544	93129	77570	93129
Jul 2003	7	1	7	1	40	4049	57	226	42	226
Jun 2003	1	0	1	0	6	10	6	21	6	21
May 2003	1	0	1	0	10	17	10	32	10	32
Totals						1751039	9343	230022	186437	230022

Figure 4 – The new Nightlive Portlet usage at the beginning of November 2003

In contrast to the main portal, the entertainment portlet, nightlive, is seen as a B2C endeavour, and has found popularity since its launch in August 2003, with increased numbers of targeted visits and interactive features that appeal to its demographic (See Figures 3 and 4).

The action research approach has produced the following distinguishing design characteristics that have been adopted for the e-zine newsletter style portal and subsequent portlets. These have evolved through experience and appear to contributed to the success of the WBC. They would therefore be recommended for any similar project:

- All online activities are free to members with no subscription fees
- Income is generated through advertising with continuous dynamic banner advertising on all portal pages with linkages are only by paid banner advertisements. There is a high percentage (50%) advertising mix in the HTML newsletter with not a single complaint after 14 months of weekly publications.
- The newsletter editorial content is targeted at the local community with non-mainstream opinion pieces provided by a mixture of professional and amateur journalists
- Traffic driven by permission-based HTML emails ie the delivery is pro-active not reactive and independent of other paid media support. Most new subscribers come from word of mouth recommendations together with the use of occasional competitions to attract volunteered email addresses of new subscribers.
- There would be no chatroom or open for a with all online dialogue moderated so that participants are unable to conduct 1:1 (face to face) discussions with unidentified persons
- No external links to Search Engines, as this leaks traffic off site,
- Online services not to duplicate or compete with established players eg Yellow Page directories
- The specific portlets are demographically positioned by interest in this case local sport and youth entertainment.

The following section discusses both the sustainability of this project and the potential for new projects using this basic model in different settings.

5 Current Developments and Flow on Cases

5.1 Developments of the initial case

In 2004 the initial regional WBC has continued to thrive. With a high volume of traffic ensuring continued paid advertising the project has stabilised as a viable business enterprise. It has however not been static. The small management group has continued to review and revise the general approach leading to some specific new functionality within the consistent philosophy of the newsletter style portal.

The first major change was a basic one to replace the specific domain name 'Wollongong OnLine' with a generic one 'Your Online Community' so that 'www.wollongongonline.com' has become 'www.wollongong.youronlinecommunity.com.au'. This sets a platform for the establishment of new WBC projects in different regions, one of which has already been launched as will be described below. It is interesting that the Australian government is also considering the significance of domain names to reinforce local identity in its One City One Site (OCOS) project (OCOS 2004).

As shown in Figure 5 there is currently a new look Wollongong Online portal with the new design a response to feedback from users. A new feature 'Your Smart Pages' has been added to provide a suite of tools and new services that are for payment and not free to general subscribers. These include a facility for users to design their own website, place classified advertisements and place entries into the community calendar. There is still not chat or general discussions forum, as in the original approach but community involvement and feedback has increased with a visible influence on the site.

The business management regularly gave thought to the prospect of extending their sphere of operations into new markets. One such venture into suburban areas of a major city was seriously considered for some time and in 2004 is being implemented as described below. The prospect of moving into smaller country towns was not given immediately consideration due to the difficulties envisaged with viability in a smaller market while the product was still being developed with associated costs. However it was not discounted entirely and an attempt by another small business to set up an online community in a nearby small town is also described below. The comparison between the issues involved is then made in the following discussion.

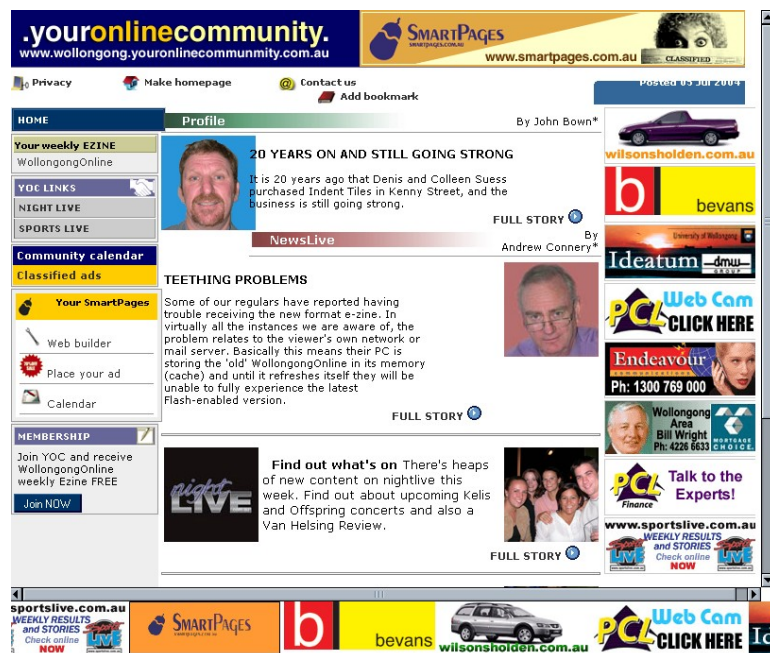


Figure 5 The new look Wollongong Online portal

5.2 Issues of scaling up

Late in 2003 the decision was made to change the initial site designation from the location specific 'Wollongongonline' to the generic 'YourOnlineCommunity'. This opened the way to expand the business into other markets and a decision was made to investigate the prospects of creating a community in Greater Sydney. The municipality of Parramatta an area of suburbia in the Western part of Sydney see URL: www.parramatta.youronlinecommunity.com.au was chosen as the optimal area to attempt to expand the business model. This new WBC was potentially a much larger, but less well-defined, market roughly 50% larger by number but with a different demographic and a different concept of local community. As citizens of Sydney, a very cosmopolitan city on the world stage, subscribers would probably be more sophisticated with a broader range of interests and connections perhaps requiring a corresponding more up-market look and feel. Identifying the actual geographical area to target was a challenge. Consideration was given to using a footprint based on support for a local football team in the national competition or the distribution area of the local weekly paper.

The new project utilised the tested 'WollongongOnline' model of the newsletter style e-zine with the Nightlive and Sportslive portlets. A locally based publisher/investor from the Parramatta area became involved and a great deal of meetings, market evaluations and garnishing of support ensued. The project went live in May 2004, as shown in Figure 6, and uptake is being monitored. Preliminary evidence is showing that traffic to the site already nearly equals the Wollongong site's in its first 2 months of operation.

Interestingly the SportsLive portlet which now emphasises reporting and photos as opposed to being results driven is exceeding its counterpart results ie traffic to the shared portlet has over doubled. NightLive does not appear to be experiencing the same level of popularity as of July 2004.

The long-term prognosis for the project appears greatly improved since it recently attracted the attention of top management of some large Sydney-based media companies. These are big players in the print business stuck in the traditional newspaper 'legacy based' paradigm or the Minimal Disruption Model (Jones M 2001) described in his doctoral thesis. The 'your online community' project has aroused their curiosity and they are anxious to learn from it so that preliminary investigations of an alliance are under consideration.



Figure 6 The Newslive and Nightlive Screens from the Parramatta site.

5.3 Issues of downsizing

To provide a balance to the research a case is now described of a project to create a commercially viable WBC in much smaller market in a small coastal town of Ulladulla. There are at most 10,000 potential subscribers in the town and nearby countryside. There has always been a strong sense of local identity in this region, which has traditionally been centred around a fishing village. There is no large business in the area which is dominated by small businesses in fishing, tourism and hospitality as well as businesses that provide goods and services for the local population. There is a local high school, hospital, radio and weekly newspaper. Notably the population includes a major influx of tourists over the summer and increasing numbers of

retirees and 'seachange' families are now moving into the area. There are many local issues of common interest including the environment, the drift of youth to the cities, and the effect on business of the limited tourist season so it is likely that in this area the e-zine would be of interest as would Sportlive but not Nightlive. A significant demographic in the area involves the retiree and other seniors who are growing in their use of the Internet and have the time in retirement to engage in pursuits such as genealogy, writing, painting, photography and so on. The challenges here would be to evolve the WBC model so include such other portals and to test if the market sufficient to make a WBC commercially viable where limited numbers of local advertisers now have radio and a newspaper.



The Milton Mollmook Ulladulla area is an ideal holiday or weekend destination located in the Southern Shoalhaven Region of the South Coast NSW. Driving time from Sydney is 3 hours and Canberra 2.5 hours. The district attracts holiday makers from Canberra, Queanbeyan, the Riverina and Southern Highlands, Wollongong and Sydney.

Ulladulla's online community & holiday information portal for accommodation, events & festivals, news, business, entertainment, shopping, history, community, arts & culture, sports & recreation and others. Covering the area from - [Manyana & Bandalong](#) in the North through to Bawley Point in the South, including [Milton](#), [Mollmook](#) and [Burrill Lake](#).

The area offers many excellent beaches, [cultural attractions](#) and [accommodation](#) catering for all tastes, interests and budgets.



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Celebrate and learn from like minded women in business. Profile your business and learn tips and tools to increase your business success. Facilitated by South Coast Promotions, each participant will receive a Rural Women in Business Week Resource Kit.

Date: 18 August 2004
Time: 10am - 12noon
Location: Rudolfs Restaurant Ulladulla
Cost: \$20 - Registrations essential
Phone (02) 4455 4780 [email](#)

[RSPCA Pets](#)



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[Tabula Rasa Festival](#)

Ulladulla region at the 2004 [South Coast Tourism Awards](#)



[Tabula Rasa Festival](#)
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Figure 7 Ulladulla.info

There have already been a number of attempts to set up a local website to act as a WBC which have not been sustainable. There is a new one that has recently been developed as 'www.Ulladulla.info', shown in Figure 7 that has some similarity with the model of wollongongonline with local advertising and news. A regular newsletter is produced and sent out by email but it is not an e-zine in the sense that it links back to the portal. There is however more opportunity for interaction as a community forum is provided. This was originally open to all and unmoderated, which attracted some undesirable content. There is now a subscriber only, moderated forum facility that is gaining in popularity.

6 Discussion

The initial project at Wollongong has clearly demonstrated both its social and commercial value, the latter being reflected in its increasing viability. It is interesting to note that while the social value was readily acknowledged by the community, there was always scepticism from local businesses regarding its moneymaking potential. This is revealing from a business perspective but also from the research perspective where we are now able to develop a useful model of this type of WBC and confirm the main issues that should be considered. While many web based communities are set up by enthusiastic amateurs, with some private support or with sponsorship of government or research funding this project was established from the outset as a business venture. A business needs to identify markets, produce an income stream, build up a customer base and develop and continue to improve its product offerings. It was fortuitous that in-depth marketing/publishing expertise was available to the project but also that there was also a strong awareness of the needs and character of the local community. WollongongOnline deliberately aimed to serve the day-to-day information needs of the local community without competing with other existing traditional media such as the local paper, radio, TV or community noticeboards. This is an extension of areas in which many traditional broadcast media have been to some extent interactive, such as letters to the editors and talkback radio. There is a current trend towards a coming together of TV and the Internet with many stations having interactive facilities on their website. There will no doubt be more exploration of other schemes, which can take advantage of Internet technology to provide an exciting cost effective service that can engage with the community and meet a need.

The business model is predicated on producing an income stream from local advertising based on the level of activity, which it is therefore necessary to monitor. It is a subscriber based service with quality locally generated content and facility for reader comment and feedback but not open discussion. Subscribers receive the weekly e-zine in their email to entice their patronage of new content. They are encouraged to recruit new subscribers with competitions and flyers are circulated at sports functions and nightspots but no (mass) advertising is used. Other portlets, such as sport and youth entertainment, need to be created to engage clearly identified demographics in the community. At the same time there is a sense of awareness of community values and the due application of the basic characteristics of communities which operate online: common interest, social capital and economic value.

While this approach is currently successful in the Wollongong case, time will tell whether it is sustainable and transferable. For the former issue, continued feedback from the community is allowing it to evolve as both the technology and the community changes. For the latter, the two secondary cases presented here will help to determine how the model can adapt to different communities. Costs to produce a second site will always be much less than the first where the upfront design and development are sunk costs. Fixed and variable costs do not increase proportionately with size but the potential for income does. A major area of interest is to understand how size of community influences viability with the need to balance the need for income with the need for a coherent social identity.

The other major driver of a WBC is the enthusiasm for the project that is evident in the development phase. Is this essential and if so what will happen once this style of WBC goes beyond the early adopter stage. Will there be people who are community socially minded, have business knowledge plus the foresight of what the new technologies can offer and the ability to manage the technology/business/community mix? The rewards for this project are certainly not primarily financial but rather the satisfaction of being a leader in new and exciting endeavour creating something worthwhile for the community. It may even be that this work can drive social change in renewing a sense of community meeting needs in the city, town and country.

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