

**.comUnity:
A Study on the Adoption and Diffusion
of Internet Technologies
in a Regional Tourism Network**

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Abstract

This thesis describes the initiation and evolution of an action research project, which investigates the adoption and diffusion of Internet technologies in a regional Australian tourism network. The research evolved out of a portal development consultancy. The aim of the study was two-fold: to investigate the nature of the change process when a collaborative network seeks to adopt e-commerce; and to determine how the change process differed in the face of incremental change (adding some e-commerce solutions to the network), or radical change (changing the overall business model). The purpose of the study was to gain a better understanding of the economic, strategic and social potential of regional business networks in the current techno-economic climate.

The study builds on Rogers' (1995) seminal work on the diffusion of innovations and makes a unique contribution to existing diffusion studies by its focus on the nature of the network links as the unit of analysis; and by its application of an action-oriented methodology to untangle the effects of the embedded network structure on diffusion. The study suggests a strong relationship between diffusion and network positioning, both in terms of place (status and position in the network) and space (the geographic make-up of the network). Diffusion further hinged on network cohesion, actors' trust in and engagement with the network. Adoption of e-commerce was obstructed by actors' worldview; lack of time, reflexive learning, and commitment to change.

The incorporation in the study's diffusion framework of contextual moderators such as network position, worldview, trust, time and commitment considerably extends Rogers' traditional diffusion framework. Based on its emergent analysis framework, the study introduces a dynamic change model towards sustainable regional network development. It is suggested that both the diffusion framework and the regional innovation model developed in this study may, either jointly or separately, be applicable beyond the tourism and service sector.

Statement of Authorship

Except where explicit reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No other person's work has been relied upon or used without due acknowledgement in the main text and bibliography of the thesis.

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Date	Date

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In the technological systems of tomorrow—fast, fluid and self-regulating—machines will deal with the flow of physical materials; men with the flow of information and insight.

— Alvin Toffler, *Future Shock* (1970)

Chapter One

Introduction

Nothing endures but change.

— Heraclitus (540–480 BC)

1.1 The E-Society

This work is set in regional Australia at the beginning of the third millennium in the so-called information age. During the past two decades, mankind has been witnessing an information and knowledge revolution as the result of the rapid development of information and communication technologies (ICT). The arrival of digitised telephone networks and the computer modem in the 1980s facilitated the electronic retrieval, transmission and exchange of data, thereby transforming computers into veritable gateways to information (Leebaert, 1991). Soon thereafter, globally connected computer networks started linking and exchanging information via the Internet, allowing millions of people around the world to access, contribute and retrieve information as well as interact with one another online (Ingram, 1995). An extended history on the formation of the Internet and the World Wide Web, commonly referred to as “the web”, is presented in my earlier work on the potential of the Internet as a community information vehicle (Braun, 1997).

The global Internet audience is currently estimated at half a billion people in more than 200 countries, who are linked in myriad data and service exchanges. eMarketer (2002) estimates the number of Internet users around the world to increase by a compound annual growth rate of 19.1%, reaching an estimated 709.1 million by 2004. A mere nine percent of the world population is currently connected to the Internet; and it may take another decade or more before global computer and equitable online access will be a reality, while in some instances global linkage with the Internet may always be

incomplete (Nua Internet Surveys, 2002). Be that as it may, Marshall McLuhan's (1968) vision of a global village no longer appears elusive.

The concept of a global information society produces vastly disparate attitudes on its perceived benefits, ranging from an almost Utopian openness and bliss to Orwellian big brother fear (Burton, 1992). Standage (1998) has likened the Internet and its capabilities to the telegraphic communication revolution, which had a similar impact in irreversibly accelerating the business pace, although the author, perhaps prematurely, argues that telegraphic communication in the mid-19th century did more to change society than the development of the Internet. Cairncross (2001) argues that the death of distance will revolutionise the way companies do business; lead to information-based industries becoming increasingly clustered in regional centres of specialisation; and help give birth to new global opportunities of which we have only just begun to scratch the surface. The exact nature, impact, and outcomes of the information revolution are yet to be determined, but it has already become apparent that the information revolution is changing the way we live, communicate, work, learn and consume.

1.2 The Network Society

The advent of e-commerce has been compared to the railroad in the Industrial Revolution: "a totally new, totally unprecedented, totally unexpected development. And like the railroad 170 years ago, technology-enabled e-commerce is creating a new and distinct boom, rapidly changing the economy, society, and politics" (Drucker, 1999, 47). We have entered a new wave of techno-economic activity, in which new communication and transaction technologies are contributing to a global economy, and in which networks play an increasingly important role (Castells, 1997). With economic agents operating in global networks of interaction, we can indeed now speak of a global economy (Castells, 2000), but what may be different in the new economy is the "extreme rate of change in certain areas related to the production and use of ICT and the breadth of the impact across regions as well as social groups" (Lundvall & Archibugi, 2001, 3).

On the Australian level, policy bodies across government tiers recognise the changing economic environment and the need to build strong regions (Commonwealth of Australia, 2001). In line with global trends, Australian federal and state initiatives are strongly focused on connectivity and the expansion of regional and rural business communities through network formation and technology-enabled business capabilities such as e-commerce. By building a platform for sustained efficiency gains, the net benefits of e-commerce for regions, industry and business are expected to be considerable (Department of Industry Science and Resources, 2002). In the state of Victoria, where this study takes place, the *Connecting Victoria* policy is the state's strategic vision to improve infrastructure and access; build a learning society; and boost e-commerce across the state (Multimedia Victoria, 1999a). State funding initiatives include connectivity programs such as *The Regional Connectivity Project* which, with funding aid from the Commonwealth Government, was established to support regional business and community development through community enterprise centres (Multimedia Victoria, 1999b); and *The Victorian Tourism Online Project*, which was established to develop of a state-wide online gateway to market urban and regional tourism operators (Multimedia Victoria, 2000).

With change being the order of the day, connectivity and e-commerce constitute both a challenge and an opportunity, which puts those of us in the connected world in a position to either choose involvement in the nature and the extent of ICT change in our businesses and homes or allow society and technology to dictate its effects (Burton, 1992). The interlinking of society and technology is a complex attitudinal issue, whereby adoption and diffusion of ICT and e-commerce may be viewed as "a kind of social change, defined as the process by which alteration occurs in the structure and function of a social system" (Rogers, 1995, 6).

1.3 Significance of the Study

This study stems from the 1999 *Regional Connectivity Project*, which is an industry partner in the research, and its aim is to evaluate the factors determining regional adoption and diffusion of ICT in Western Victoria, its

domain of operation. The study concerns one particular regional network within this domain and explores the nexus between new technology adoption and regional network structure. There are myriad business and social network studies in a cross-section of disciplines and frameworks on the adoption and diffusion of ICT. Most all use traditional methods to measure such elements as the rate of adoption, the speed of diffusion, and adopters' network linkages. While such studies generate important data, they do not adequately capture the change *process* that leads to an innovation being adopted or rejected. Inquiries have shown that there are few diffusion studies that focus on the actual process.

1.3.1 Aims and Purpose of the Study

The research evolved out of a portal development consultancy with a regional cooperative tourism marketing network, which provided a unique opportunity to study factors facilitating or inhibiting adoption and diffusion of Internet technologies by a service sector network in regional Australia. The aim of the study was two-fold: to investigate the nature of the change process when a cooperative network is seeking to adopt e-commerce; and to determine how the change process differed in the face of incremental change (adding some e-commerce solutions to the network), or radical change (changing the overall business model). The purpose of the study was to gain a better understanding of the economic, strategic and social potential of regional business networks in the current techno-economic climate.

The research builds on Rogers' (1962, 1995) seminal work on the diffusion of innovations. It makes a unique contribution to existing diffusion studies by focusing on the nature of the network links as its unit of analysis; and by applying a hands-on and action-oriented methodology to untangle the effects of the embedded network structure on diffusion. The study draws on the (regional) innovation, economics, tourism and action research bodies of literature. Through its emergent literature-derived analysis framework, the study uncovers a set of network drivers considered critical for the development of sustainable regional innovation models.

By its very nature, the study is multi-disciplinary, and multi-dimensional in focus, which has implications for the style of this thesis. I will represent a number of different network voices and will offer multi-actor perspectives, including my own as a consultant, researcher and actor in the network. In discussing theoretical issues, my voice will typically be passive. I take on a more active voice in recounting the consultancy path and in offering personal reflections on the intended course of action versus what actually transpired during the intervention.

1.4 Organisation of the Study

In this chapter, I have briefly outlined the location of my work and discussed the main foci of the thesis. Since my consultancy concerned tourism and technology, Chapters Two and Three provide an overview of these two domains. I first turn my attention to tourism as an industry. Chapter Two opens with an overview of the size and scope of the Australian tourism industry in general, and of regional tourism in particular. I also briefly touch on global impacts on the industry. In discussing the Australian tourism industry, I identify the (predominant small business) make-up and atomistic nature of the industry; the role of government; the development of regional tourism in the state of Victoria; the development and structure of the Victorian regional cooperative marketing program; and its cooperative marketing body that engaged me as a portal design consultant. I conclude the chapter with a portrait of the Grampians product region, which is the network domain of the study.

Tourism and technology have become inextricably linked and are changing the way we gather travel and tourism information, and purchase tourism products. In Chapter Three, I look at the impact of the techno-economic paradigm on the tourism industry in general and on small tourism firms in particular. I review the literature on tourism and technology and discuss supply chain, intermediary and demand-side issues that have arisen with the advent of the Internet. Since my study examines ICT and tourism adoption within a regional network structure, I also explore tourism networks in this chapter. In the final part of the chapter, I present an overview of technological

developments in the Australian tourism industry, in the state of Victoria and, lastly, in the Grampians product region.

In Chapter Four, I review evolving business models. In reviewing the ways in which and extent to which Internet technology has affected aspects of our business life, global, national and regional issues are included in this chapter. I open the chapter with brief discourses on the new economy and globalisation and their impact on regional economies. Next, I turn my attention to innovation. In discussing the nature and sources of innovation, I present established and emerging innovation models and views, followed by a discussion of Rogers' (1962,1995) work on the diffusion of innovations, which includes his approach to ICT-related diffusion. The latter discussion also clarifies the need for this study. The diffusion discourse is followed by a closer look at regional innovation strategies, related clustering, community building, social networking and learning trends; as well as the role of government and regional institutions within this context. Having discussed a number of broader impact issues, I then narrow my focus to the actual business models that are emerging from the techno-economy. I explain e-commerce and the concept of portals. As in the previous chapter, I look at both supply-side and demand-side issues in relation e-commerce, marketing, value creation and customer interaction. I conclude the chapter by discussing the central concept that permeates and underpins today's business models and typifies the nature of our techno-economy, namely change. I unite change with six other core concepts, discussed in this and the previous two chapters, into a loose framework, described as the 7C framework, which I adopt to assist the analysis of perceived, barriers, drivers, and pathways for network innovation and change.

In Chapter Five, I consider my selection of an action-oriented research methodology. After establishing the parameters for the study, I provide a brief history of action research in general, and of the action research streams that I consider relevant to my work in particular. I look, inter alia, at intervention approaches and settings; action research cycles; reflexivity; and learning. In discussing the action research mix I adopt as the basis of my study, I touch on issues such as client-centred intervention, collaboration, a domain-oriented

scope, and my own positioning within the research frame. Action research is an emergent process and designing such a process may seem incongruous with the nature of the methodology. In the last part of this chapter, I nonetheless present an overarching portal development approach as starting conditions for the consultancy/research process. The chapter concludes with a brief review of potential pitfalls for and limitations of the study.

In Chapter Six, I outline both the action research methodology I adopted for the consultancy and the portal development process I had intended to undertake with Grampians Campaign Committee actors. In Chapter Seven, I describe what actually happened. In detailing the intervention as it progressed, I take the reader from the point of consultancy negotiation; to the practical realities of the consultancy; and through the various phases I had proposed as part of the portal development process. A chronology of activities is provided, as well as an overview of actors' position in the network and their perceived drivers, issues or barriers encountered within the network. I describe where and how I needed to readjust both the intervention process and my own perspective towards intended outcomes. After each phase or cycle where action occurred, a brief reflection is offered on what I learnt from the interaction and how I learnt to redirect the process.

In Chapter Seven, I provide an analysis of the intervention by using the 7C framework proposed in Chapter Four. In determining the ICT and e-commerce adoption and diffusion process in the Grampians, the 7C framework was adopted to aid the analysis of perceived, barriers, drivers, and pathways for network innovation and change. The analysis is presented in terms of seven recurring themes, discussed at length in Chapter Four. The themes—connectivity, clustering, communication, collaboration, community, cooperation and change (the 7Cs)—are examined both as separate and interrelated components from an individual, group and domain perspective. The individual perspective focuses on the views of individual actors, as identified in Chapter Six. The group perspective refers to the Committee as a whole. The domain perspective, discussed as part of the methodology approach in Chapter Five, includes intervention actors; Grampians-based tourism operators; public institutions and/or industry organisations that share

direct or indirect domain interests. Each theme is followed by a summary. The chapter concludes with a review of the 7C framework. Framework factors are identified according to their significance; and new factors that have emerged from the study are integrated into the framework.

In Chapter Eight, I present my conclusions for the study and discuss the wider implications of my findings for regional communities, networks and policy makers. In discussing my conclusions, I highlight the contributions the study makes to diffusion of innovation frameworks, to regional development, and to action research. A dynamic change model is introduced and discussed in conjunction with the diffusion framework developed in the study. I conclude the last chapter of my thesis with a personal reflection on the intervention and research process.

Chapter Two

Tourism and the Grampians

A change is as good as a holiday.

— Proverb

The study is set in a tourism cluster in the Grampians region of Victoria. As an industry, tourism has a number of important supply-side and demand-side features, which may be expected to influence both the scope of required ICT innovation and the factors that affect ICT adoption by a geographic group of tourism operators. This chapter deals with tourism as an industry. The chapter opens with an overview of the size and scope of the Australian tourism industry in general, and of regional tourism in particular. I also briefly touch on global impacts on the industry. In discussing the Australian tourism industry, I identify the (predominantly small business) make-up and atomistic nature of the industry; the role of government in the development of the industry; and the progressive development of regional tourism in the state of Victoria where this study is set. I then turn to the history, structure and implementation of the Victorian regional cooperative marketing program; and its cooperative marketing body that engaged me as a portal design consultant. I conclude the chapter with a portrait of the Grampians product region, which is the network domain of the study.

2.1 Tourism in Australia

Tourism and travel, encompassing the transport, hospitality, visitor services and gaming sectors (see Figure 2.1) are considered to be the world's largest service industries (World Travel and Tourism Council, 1996). Tourism in Australia equates to big business as tourism is increasingly considered a viable income alternative to traditional agricultural and resource-based industries. In 1996/97, international and domestic tourism represented, either directly or indirectly, about ten percent of Australia's GDP and generated more

employment than the construction, agricultural, forest, fishing, mining and communication industries combined (Prosser, Hunt, Braithwaite, Bonnett, & Rosemann, 2000). By 2001, tourism was generating an estimated 175,000 jobs for the Australian economy, many of which were regionally based (Australian Tourism Commission, 2001).

Australia had an estimated 4.8 million international visitors last year, while domestic tourism contributed A\$50.5 billion to the Australian economy during the year ending September 2001, an increase of 17% since December 1998 (Bureau of Tourism Research, 2002). As the federal Minister for Small Business and Tourism recently commented “Australians are obviously getting out there and travelling and that’s good news for the local economy, especially regional Australia” (Travelpress, 2002, online).

It was indeed welcome news for regional Australia following the drop of 10.7% in international arrivals after the terrorist attacks in North America on 11 September 2001 and the completion of the 2000 Sydney Olympics (DITR, 2002). Australia is still experiencing somewhat of a slump in international visitor arrivals and, although the 2002 inbound figures are back up, growth for Australia’s inbound tourism for 2003 and beyond remains heavily dependent on global economic recovery (Tourism Forecasting Council, 2002).

A combination of unforeseen macroeconomic forces and the collapse of Australia’s second largest domestic airline, Ansett, also impacted on domestic travel habits. Many chose to abandon overseas travel plans and stay at home. This appears to be a temporary situation, however, as forecasting figures show that Australians are expected to continue undertaking outbound travel, albeit at a slower rate than initially forecast (Tourism Forecasting Council, 2002). For a time, domestic tourism experienced a marked increase, not the least due to the extensive A\$16 million “See Australia” domestic public relations campaign, jointly financed by the Commonwealth, State and Territory Governments and the tourism industry, which was aimed at getting Australians to take an Australian holiday and, in part, at increasing regional tourism to keep pace with tourism growth in the capital cities (Perry, 2001). Domestic tourism accounts for 76% of all tourism activity in Australia and is

largely measured in terms of visitor nights. While the importance of domestic tourism cannot be stressed enough, the domestic travel market remains volatile at every level, with Australians taking shorter or no holiday breaks, perceiving overseas holidays to have more value and, of late, showing unwillingness to experience the drought, bushfire threats and distress of the countryside (Brunton, 2002). The latter is of significance to this study as a high proportion of Victoria's approximately 5,500 tourism operators are located in regional areas and, in stable times, make an important contribution to regional economies and communities (Morrison, 2001).

2.1.2 *The Role of Government*

Over the past years, the tourism sector has gained increased recognition as a creator of wealth; yet, in the past, Australia has not had a national tourism strategy that specifically underpinned directions for the development of tourism (Carroll, Donohue, McGovern & McMillen, 1991). The Commonwealth Government's role, or so the prevailing view has been, should be one of supporting market forces, not one of intervention. Carroll (in Carroll et al., 1991) provides an interesting history of tourism developments in the face of haphazard tourism planning, and macroeconomic, fiscal and other policies that have impacted on the tourism industry.

Today the industry remains largely unregulated, although the Commonwealth Government has increased its planning and monetary efforts to support the industry. In early 2002, the Ministry for Small Business and Tourism announced a 10-year plan, which was intended to provide a framework to "assist the tourism industry, in partnership with government, to achieve specific outcomes that are economically, culturally and environmentally rewarding and sustainable" (Commonwealth of Australia, 2002, 1). If successful, the plan's most significant contribution to tourism development could well be its aim to identify significant overlaps and synergies in organisational structures; and its planned activities in both the public and private sector to harmonise structures, reduce duplication, and leverage outcomes. The site of this research is a constructed network of small tourism operators that typify tourism around Australia.

In recognition of the fact that Australia has a wealth of attractions in regional areas and that tourism is one of the solutions to sustain the Australia's regions, the federal government has also implemented a \$16 million Regional Tourism Program (Barry & Robins, 2001). This program provides funding for the development of tourism attributes and facilities, special interest markets, and cultural and heritage attractions. Tourism can generally be built on existing infrastructure, and in certain instances it actually contributes to infrastructure. Furthermore, tourism has the potential to stimulate the regional economy via increased construction and jobs and is, hence, from a public policy perspective, a lower-cost public fund investment than many other industries (Prosser et al., 2000).

Between 1996 and 2006, federal government expenditure for travel and tourism is expected to continue in an upward trend to 3.7% of total government expenditure (World Travel and Tourism Council, 1996). While the Commonwealth is implementing a medium to long-term cost strategy to ensure that the tourism industry successfully faces new global challenges and reaches its growth potential (DITR, 2002), the upward trend in total commonwealth spending covers quite a diverse range of expenditures from tourism research and promotion, to highway and aviation administration, to immigration and park services (World Travel and Tourism Council, 1996). Nonetheless, given the rapidly increasing level of expenditure by government bodies on tourism, infrastructure and recreation, it may be assumed that the tourism sector is considered a highly important economic development area (Lankford, Williams, & Knowles-Lankford, 1997). As tourism is considered a significant growth industry, regional tourism research such as this study can make a timely contribution towards a better understanding of the sector.

Tourism responsibilities by the Australian public sector are distributed among three tiers, namely on a federal, state and local government level. Federal organisations such as the Australian Tourism Commission, the Bureau of Tourism Research and the Department of Industry, Science and Resources are respectively responsible for national tourism marketing (e.g., the "See Australia" marketing campaign); market research and forecasting; and tourism investment and product development. Organisations such as Tourism Victoria,

Tourism Queensland and the New South Wales Tourism Commission, which operate on the state tier, are responsible for marketing their respective state or territory; and work with the various regional and local industry bodies (Ritchie, 2001).

The typical role of local government has been to provide and maintain infrastructure such as visitor information centres; local parks, gardens and tourist trails; convention and performing arts centres; signage, rest stops, and car parks. Today, that role has expanded to include the development, management and promotion of regional and local product (Ritchie, 2001). However, the local government tier—which has traditionally enjoyed the lowest tourism profile, but which is growing in importance as local areas attempt to increase tourism—does not always play its part in advancing regional and local destinations.

Shire amalgamations, related restructuring of managerial positions, and replacement of tourism development positions have left many councils with little time, resources or unified effort to put towards tourism development, especially in the last decade (Mieldazys, 1994). These days, local government officials often act in the dual role of economic development officer and tourism officer. Funding towards tourism development is either unavailable or not specifically designated to meet tourism needs, especially where local councils do not necessarily equate tourism with economic development (White, 2002).

A study of third-tier public sector tourism officers, conducted in the states of New South Wales and Victoria, has raised a number of questions about the qualifications of public sector tourism officers, and the lack of professionalism of local government in the tourism and marketing fields (McKercher & Ritchie, 1997). In the interest of regional competitive advantage, tourism management on the local government tier needs to go far beyond issuing planning permits for bed and breakfast establishments or installation of public barbeques. Mieldazys (1994) argues that it should be about

attracting more people through the provision of infrastructure and other services through supporting community commercial interests, the provision of services and facilities and capitalising on natural assets. A change in attitude and a

more meaningful understanding of tourism's broader influence is required in order to achieve economic revival, employment opportunities, and increasing domestic and international expenditure (Mieldazys, 1994, 19).

While these are indeed important issues to consider, policy directives are generally too demand-side focused, neglecting serious supply-side concerns such as the ability of operators to deliver quality product and attract repeat visitations to the regions (Hollick, 2003). In considering regional marketing policies, this study will need to take both demand-side and supply-side concerns into consideration.

2.1.3 The Australian Tourism Industry

The Australian tourism industry is a diverse and labour intensive industry catering to local, intrastate, interstate and international markets. But before attempting to describe the industry in more detail, it is necessary to define who belongs to the industry in terms of the type of suppliers of particular goods or services. The Commonwealth Government—which applies the Australian and New Zealand Standard Industrial Classification (ANZSIC) to categorise industries by a particular type of commodity, economic activity or transaction—ranks the tourism industry in terms of demand-side rather than supply-side activity. Demand, in turn, depends on whether a consumer or purchaser of tourism services is considered a tourist vs. a visitor or other type of traveller, as defined by the World Trade Organisation in 1993 (ABS, 1999):

In the case of tourism what makes an economic (or any other type of) transaction 'tourism' is not the particular type of commodity involved. What identifies a transaction as tourism is the particular type of consumer involved. The supply of any product to a person who is a 'tourist' is a tourism activity while the supply of the same product to a person who is not a 'tourist' is not a tourism activity. The supplier of that product will in the first case be part of the 'tourism industry', while in the second case the supplier will not be part of the 'tourism industry' (ABS, 1999, online).

This approach is not only confusing, it disregards the contribution tourism makes across the economy to GDP, gross value added, profits, employment and wages (Barry & Robins, 2001). In 2000, the Australian Bureau of

Statistics (ABS), as part of a national accounts system, decided to develop a Tourism Satellite Account system to identify economic measures associated with the tourism industry (ABS, 2002). While it is useful to know where and how much tourism contributes to the economy, tourism satellite accounts do not clarify the make-up of the industry. For the purposes of this study, it was deemed preferable to go with a generally accepted definition by the Australian tourism industry (Tourism Training Victoria, 2002), which divides the industry into four major sectors: hospitality, travel, visitor services and gaming (Figure 2.1).



Figure 2.1
Tourism Industry Sectors in Australia
 Source: Tourism Training Victoria

Of the four sectors, hospitality is the largest sector employing approximately 60% of the industry. Visitor services and gaming combined embody approximately one-third and retail travel employs approximately 5% of the industry workforce (Tourism Training Victoria, 2002). The perhaps uncharacteristic inclusion of gaming as a tourism activity has fascinating implications for the rest of the industry. However, a detailed discussion of the gaming sector and its impact on the other three sectors falls outside the scope

of this study. What does impact the study is that the hospitality, travel and visitor services sectors both compete with one another for state funding and complement one another, as tourism destinations often bundle a range of competing attributes (Hollick 2003).

The supply of tourist accommodation is an important indicator of how well the industry is faring. In terms of regional hospitality services, accommodation in serviced apartments and cabins in caravan parks, are considered significant growth areas, while large hotels provide a slightly smaller proportion of total capacity outside the capital cities (ABS, 2001). The latter does, however, not present a complete picture of regional hospitality trends, since ABS statistics do not include accommodation providers with less than fifteen rooms. B&Bs, for example, are a significant growth industry in the region, but micro operators are not included in regional hospitality forecasts and measures.

The Australian tourism industry has grown considerably over the past two decades to the point that it is now recognised as a significant international player in the world tourism market (Foster, 2000). At the same time, the Australian industry structure has remained essentially unchanged, consisting of a minority of large businesses operating alongside a predominance of small and medium size enterprises (SME) and micro operators. Since the demise of the federally-funded Tourism Council of Australia in 2001, there is no longer an industry body that liaises on behalf of small (regional) operators with government bodies. This has resulted in a lobbying vacuum and a lack of voice for SME and micro operators. The latter may have implications for the study, as its context concerns small tourism firms in regional Victoria.

There are other factors that contribute to the atomistic nature of small tourism firms. Tourism operators are not required to have a tourism or business management qualification and, hence, there are no entry barriers for new operators. This often results in new entrants having little affinity with the industry, poor levels of business and industry knowledge, and a high turnover due to a high percentage of business failure (Hollick, 2003). Considered vital to the long-term growth and sustainability of the industry, national and state level efforts to improve quality of product and service delivery include

nationally recognised accreditation and training programs. In 1998, state tourism bodies agreed to create the Australian Tourism Accreditation Authority, a national framework for industry accreditation programs. However, the varying degrees of interest and commitment from states to accreditation have made the establishment of a national framework difficult. Based on principles established by the Tourism Accreditation Board of Victoria, a model was eventually agreed upon which allowed state authorities to retain a role in the approval process (Foster, 2000). However, in Victoria alone, many small operators remain uncommitted to improving standards and professionalism, and there is still relatively little understanding of the importance of industry standards (Tourism Victoria, 2002d). As a result, many operators do not participate in state and regional initiatives such as accreditation, training and marketing programs.

2.2 Regional Tourism

Australia's regions have an abundance of natural, cultural and heritage attractions. The chance to visit regional and rural Australia or the outback is a major influencing factor in deciding to travel to Australia, especially for international visitors interested in nature-based tourism (Blamey & Hatch, 1998). As discussed earlier, domestic tourism accounts for a substantial portion of Australian tourism, with 70% of people travelling within their own state or territory in 2001. New South Wales received most visitors with 35%, followed by Victoria with 25%, and Queensland with 22% (Bureau of Tourism Research, 2002). Competition between states and regions has always been strong and will not likely abate with national and state government bodies investing considerable effort and resources in marketing campaigns to attract visitors to their respective destinations.

The lexes "regional Australia" and "regional tourism" are frequently ill-defined and can be contentious or ambiguous in nature. With the burgeoning interest in regional issues, differentiation between the colloquially used terms "the city" and "the bush"—or the distinction between metropolitan Australia and regional, remote and rural Australia—seems to be governed by the rationale for which these areas are defined. Regional boundaries are open to

modification depending on whether data are compiled for, inter alia, statistical data, census analysis, labour market classification, or funding purposes (Productivity Commission, 1999). In the Tourism Victoria 2002–2006 Strategic Plan regional tourism is defined as

all tourism activity outside Melbourne. Geographically it includes large regional centres, country villages, the coast and coastal resorts, rural countryside and natural areas. Thematically it encompasses rural tourism, nature-based tourism, ecotourism, cultural tourism, food and wine tourism, backpacker tourism, adventure tourism, industrial tourism, educational tourism, events and others (Tourism Victoria, 2002b, 3).

Others (Prosser et al., 2000) describe regional tourism as encompassing "concentrated tourist areas, coastal resorts, towns and other urban settlements and the countryside, hinterland or coastline outside capital cities. It is not reliant on particular activities or experiences but its character is determined by the places where tourism occurs" (Prosser et al., 2000, 4).

In the above topology, regional tourism and rural tourism are interchangeable as if they were synonymous, which is not always the case. While rural tourism can be encompassed in regional tourism, the distinction can be made that rural tourism is more limited in scope; for example, rural tourism only occurs outside urban or concentrated tourist areas (Commonwealth Department of Tourism, 1994). For the purposes of this study, which took place in the state of Victoria where regional tourism boundaries play a significant role, the Tourism Victoria definition of regional tourism was adopted. Victorian product regions and their boundaries are discussed below.

Tourism is destined to become integral to regional economic development with a variety of regional policy documents now earmarking tourism as a substantial revenue and growth sector for regional Australia. The 2002 State of the Regions report, for example, shows particular interest in tourism, since it sees tourism as an important instrument to raise the ranking of regions (National Economics, 2002). Tourism Victoria certainly expects increased tourism yield, economic and social benefits for Victorian regions during the

lifetime of its 2002–2006 Strategic Plan and, like its national counterpart the Australian Tourism Commission, Tourism Victoria is increasingly focused on marketing its regional attributes (Tourism Victoria, 2002c). Regional tourism studies also point to tourism being able to offer regional SME the opportunity to develop new service-industry enterprises, create regional employment, and cater to international and domestic travellers seeking more authentic holiday experiences in natural environments (Barry & Robins, 2001).

By all accounts, the economic outlook for Australia's regional tourism sector is full of opportunity for wealth, job creation, and contribution to regional sustainability. While there is no doubt that tourism is important to regional Australia, these expectations may well be unrealistic. Many small businesses fail; not all communities embrace tourism; and many tourists have a limited view of regional Australia, preferring instead to stay close to the large cities and the coast; and then there are climate challenges (Braithwaite, 2001). Other concerns relate to the skill base of operators, the quality of tourism product, and the employment available to hospitality workers. Over time, the tourism workforce has been characterised by short-term demand, attracting a casual and non-unionist labour force lacking career opportunity and direction (Carroll et al., 1991). Regional tourism firms may produce jobs, but they do not often offer substantive long-term employment, benefits or training.

This is not to say that there are no regional economic growth opportunities at all, but not all regions have the same tourism potential; hence, economic tourism potential varies from one region to another. In addition to limited tourism potential and related economic issues, there are socio-cultural issues to consider as tourists interact with local residents and share their local resources (Prosser et al., 2000). While tourism attractions play a pivotal role, tourism management is far more complex than a currently unregulated industry is able to accomplish. The "See Australia" marketing campaign, which is branded as a so-called societal change initiative, aims to educate regional communities on the value of tourism and to ensure that regional communities develop cohesive tourism strategies and welcome tourism (Perry, 2001). Simply marrying destination potential with socio-cultural goodwill may, however, not be enough for regional tourism to be successful.

There has been much talk on all tiers, but especially among state tourism bodies—for example, Tourism Victoria, New South Wales Tourism Commission, Tourism Tasmania—of the need for cooperative approaches to regional tourism development. Recognising the contribution a viable and innovative regional tourism industry can make to the wellbeing of the state, Victoria is keen to maximise the potential of regional Victorian tourism through cooperation, community building and sustainable development. At the same time, the state body also seeks to minimise the cost of implementing cooperative strategies (Tourism Victoria, 2001a).

2.2.1 Regional Tourism in Victoria

Regional Victoria has been a tourism destination for over a century with communities and organisations producing guidebooks and implementing promotions to encourage visitors to their destinations (Kaylor-Thomson, 1998). Post–World War II, Victoria saw a steady growth in regional tourism with the aid of the Railways Department, which was the forerunner of the Victorian Tourism Commission and Tourism Victoria, as it is known today.

Victoria's regional cooperation policy has developed incrementally over the past twenty years. To increase the level of coordination and cooperation, the Victorian Tourism Commission implemented various forms of tourism structures during the 1980s. The most significant structure was the establishment of regional tourism bodies throughout Victoria, which were provided with cooperative funds to market regional destinations. Although a loose network of regional tourism organisations ensued, the structure ultimately failed due to the lack of a consistent state-wide marketing strategy; lack of regional support from government and industry; and regional funding contributions disappearing into administrative costs (Kaylor-Thomson, 1998). Today, the regional tourism structure in Victoria sees a mix of local and regional tourism associations with varying degrees of maturity and influence. In an attempt to aggregate operators in regional tourism networks for increased regional brand recognition and marketing purposes, the Victorian government has continued its policy of regional cooperation.

2.2.2 Regional Cooperative Marketing

A stronger cooperative policy focus first became visible in November 1993 with the formation of the Country Victoria Tourism Council (CVTC), an umbrella organisation established to perform a coordination and advocacy role for country Victoria. The 1993–1996 Tourism Victoria Strategic Business Plan was also pivotal in establishing current regional Victorian marketing boundaries (Tourism Victoria, 1993). The strategic plan put CVTC in charge of eleven so-called "product regions" which were based on product strengths rather than geographic or administrative boundaries. CVTC's original mandate was "to assist regions raise standards, develop more competitive product and achieve great economic benefit through improved product distribution" (Tourism Victoria, 1993, 82). The timely local government restructure strengthened the state's drive towards the establishment of local and regional tourism associations and industry recognition of CVTC and the regional structure (Kaylor-Thomson, 1998). Over time, the names and boundaries of the product regions have been slightly modified, and two more product regions were added, creating a total of thirteen product regions.

Every product region has a so-called product region Campaign Committee, a structure developed as part of the establishment of product regions and the related Regional Co-operative Marketing Program (RCMP). The objectives of the RCMP are to facilitate the integrated marketing of regional Victoria; develop and implement high quality, consumer driven campaigns; produce high quality collateral; and increase industry standards and participation (Country Victoria Tourism Council, 2001). Management and implementation of the RCMP are funded by Tourism Victoria, overseen by an RCMP advisory committee, and administered by CVTC (Country Victoria Tourism Council, 2001). Campaign Committees, which could be considered representative of regional tourism networks, are incorporated associations with rules of association accountability, are responsible for developing and implementing the marketing plan for their respective product region. Funding of the Campaign Committee marketing plans is conditional on an approved committee structure, with potential board members having to submit a formal application for an appointed term of eighteen months. Committee membership

is on a volunteer basis, which in practice has translated into volunteer industry representatives cooperating with professional public sector tourism managers in the region.

In the past, the prescribed Campaign Committee structure (see Figure 2.2) consisted of a seven-member executive, comprising an elected chair; three convenors from three working or sub-Committees—a Marketing Committee, a Communications Committee and a Product Development Committee; up to four industry representatives and a CVTC representative (Country Victoria Tourism Council, 2000). The working committees were established to “ensure that each product region’s marketing strategies are implemented, communication with industry and stakeholders remains open and effective throughout the program period, and tourism development initiatives are coordinated” (Country Victoria Tourism Council, 2001, 12).

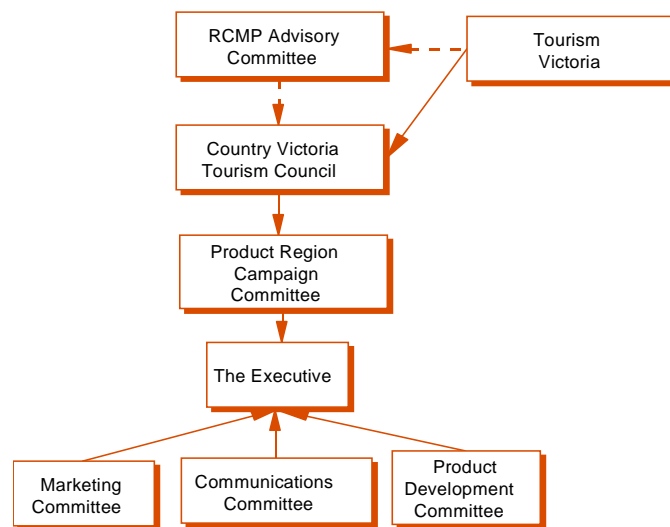


Figure 2.2
Product Region Campaign Committee Structure

In the 2001/2002 RCMP guidelines, the working committee structure became “more flexible”. Although the new structure still had to be in line with RCMP conditions and policies, each committee could now determine its own working committee structure, preferably modelled on the best achievable outcomes defined by its strategic marketing plan. This so-called flexibility was

predominantly due to a redefinition of the main functions of the campaign committees—leadership, cooperative marketing and industry communication—effectively eliminating product development, which lies at the heart of regional regeneration.

The new guidelines further stipulate that a committee executive should have at least two industry representatives, who should be a member of their local or regional tourism association, which in turn should be affiliated with CVTC, and that they should be financial supporters of the RCMP. To promote greater stability, committee members are to be appointed for two years, and, to reduce skill erosion, individuals applying for committee membership will need to demonstrate expertise in (at least one area of) marketing, collateral production, communication or tourism product development.

On the whole, Tourism Victoria regards the cooperative program as highly successful, although it recently took away the management of the RCMP from the Country Victoria Tourism Council and brought it back into its own management fold (Tourism Victoria, 2002a). Tourism Victoria predominantly bases the evaluation of its marketing campaigns—and implicitly the maturity of targeted destinations—on end user behavioural changes, such as increased awareness, improved perception, increased intention to travel, increased visitation and length of stay at a destination (Tourism Victoria, 2000a). The state body has effectively left campaign uptake and supplier relations out of the cooperative campaign analysis mix. Collateral production and timely submission of marketing plans within the RCMP cooperation guidelines appear to be the sole assessment criteria in place for committees. Similarly, its quarterly surveys of tourist accommodation, which measure information on accommodation establishments of 15 rooms or more at the regional and state level, have effectively overlooked the majority of tourism operators, most of which are micro firms with considerably less than 15 rooms.

In its drive towards industry improvement, industry leadership and industry best practice, Tourism Victoria is continuing to support local and regional tourism association membership models, which are supposed to dovetail into the regional cooperative structure. In fact, the 2002–2003 RCMP guidelines

stipulate that by March 2003, tourism association membership, as well as (evidence of an application to achieve) operator accreditation as recognised by the Tourism Accreditation Board of Victoria, will be conditional to participation in regional cooperative marketing campaigns (Tourism Victoria, 2002b). Based on regional policy trends (Multimedia Victoria, 1999) and the success of the RCMP (Tourism Victoria, 1999), state policy makers are also increasingly linking funding to intra- and inter-regional cooperation in the belief that additional cooperative marketing opportunities will benefit the regions (Tourism Victoria, 2002b).

2.2.3 Strategic Marketing & Collateral

In the past, each product region received an equal amount of dollar-for-dollar yearly funding to produce and distribute its collateral. Collateral needs to be produced within strict RCMP guidelines in line with Tourism Victoria's national advertising and marketing campaign "You'll love every piece of Victoria". The Jigsaw campaign, as it is known, has been running since 1993 and is now entering Phase 7, which includes an increased level of intrastate marketing of regional Victoria. Each region is required to contribute to the "family" of Jigsaw brochures through the production of collateral, motivational or informational material produced to support branding and other marketing activity, such as brochures, guides, posters, point-of-sale material and merchandising. To match the dollar-for-dollar funding to produce the mandatory number of 65,000 high-gloss brochures per region, collateral production is heavily reliant on harnessing regional industry dollars through brochure advertising sales. Campaign committees are also encouraged to pursue industry participation in other market communications and activities such as billboard and television campaigns (Country Victoria Tourism Council, 2001).

In the latest RCMP guidelines, a new two-level yearly funding structure based on an aggregated funding pool formerly spread over a number of different state marketing programs has been put forward (Figure 2.3). Upon the submission of a one-year action plan, regions are allocated an equal (and for some regions substantially smaller than in the past) base amount of so-called Level 1 matched funding to produce mandatory collateral, which reflects

regional product strengths and positioning. Campaign committees are also expected to raise industry contributions to deliver additional marketing campaigns specified in their one-year action plan. Level 2 funding is dependent on the committee's ability to raise funds and plan ahead. To receive Level 2 dollar-for-dollar funding, committees must submit a 3-year marketing plan and have banked contributions from industry to match the second allocation (Country Victoria Tourism Council, 2001).

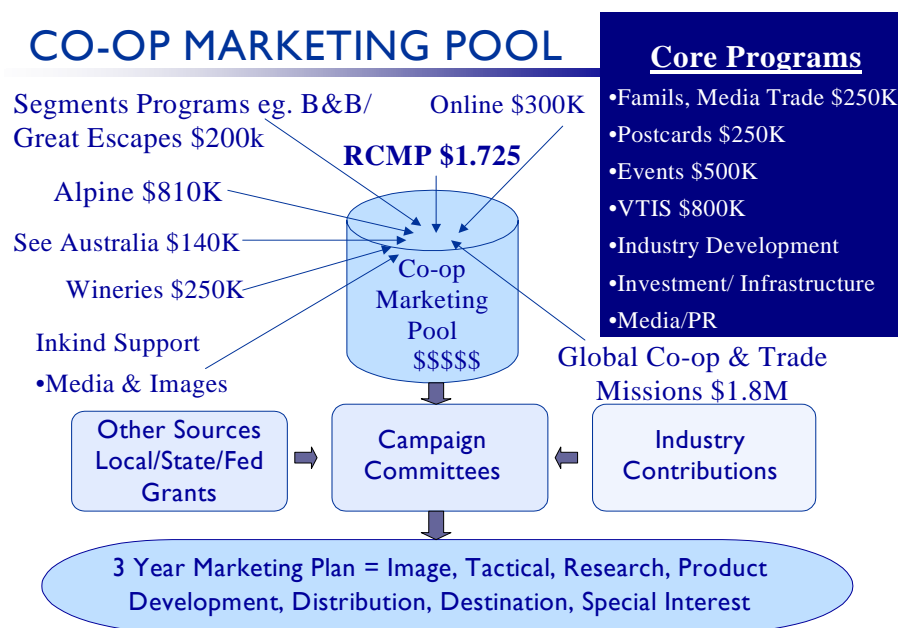


Figure 2.3
Cooperative Marketing Funding Pool
Source: Tourism Victoria

With the current drive towards increased cross-regional cooperation—which on scrutiny more closely resembles a drive towards product region competition for funding than regional cooperation—product regions are expected to buy into cross-regional special interest and themed marketing campaigns where suitable to their regional market segmentation.

2.2.4 Market Segmentation

The majority of Victoria's regional tourism attributes are natural resources, making regional Victoria a key stakeholder in nature-based tourism. However,

other states also use key natural attractions for positioning, and Victoria has been addressing a lack of awareness of its nature-based attributes in its key domestic markets. In 2000, Tourism Victoria released a special nature-based directions and opportunities report (Tourism Victoria, 2000b) to ensure effective regional marketing of its nature-based tourist product to high-yield target markets. More recently, as a result of the latter report and an additional “regional perceptions” study (Tourism Victoria, 2001a), the state body launched an Adventure Tourism Action Plan, which was aimed at developing specific tourism activity nodes across the state and raising consumer awareness (Tourism Victoria, 2002d).

Market segmentation is another way the state focuses on identifying unique market niches and marketing opportunities. High-yield target markets are sampled annually based on the so-called Roy Morgan value segment system, which includes such categories as Basic Needs, A Fairer Deal, Real Conservatism, Conventional Family Life, and Visible Achievers, to name but a few. Value segments delineate individuals’ lifestyle characteristics; level of progressiveness and related product expectations; and the type of advertising they respond to best (Roy Morgan, 1997). A full description of value segments can be found in Appendix A. Collateral within each product region targets specific value segments corresponding to its regional product strengths.

Product regions, like tourism organisations, have varying degrees of maturity and industry participation, which is not necessarily reflected in the strength of its tourism organisations. Tourism Victoria acknowledges that many regions are not tourism-ready in terms of infrastructure and product and service delivery, and its most recent Strategic Plan prioritises the marketing of specific interest destinations, touring routes, and towns and villages with consumer appeal. So-called “tourism-ready” destinations are identified as Level 1 destinations, while less tourism-ready destinations are identified as Level 2 and Level 3 destinations. Over time, destinations may move into a different category; however, the state body is effectively leaving the strategic development of lower level destinations to local government, industry, and the impact of market forces. In the Grampians product region, for example, the Grampians National Park as a whole is classified as a Level 1 destination,

although specific attributes within the product region have been classified at a lower or special interest level, and quite a few other attributes within the product region apparently merit no ranking at all (Tourism Victoria, 2002c).

2.3 The Grampians

The Grampians, one of Tourism Victoria's thirteen product regions and the location focus of this study, are centrally located in western Victoria with a number of highway access points via the Western Highway which connects the major metropolitan areas of Melbourne and Adelaide. The Grampians are considered as one of Australia's iconic tourism attractions, drawing in excess of 1.2 million visitors annually (Tourism Victoria, 2001b). Providing unique mountain ranges, valleys, bush, waterfalls, lakes, flora and fauna, the Grampians have been a nature-based tourist destination for over one hundred years (Victorian Tourism Commission, 1990). The main marketing icon of the Grampians region is the Grampians National Park, covering 167,000 hectares. Managed by Parks Victoria, the park is 95 km long and 45 km across at its widest point. The park has 1000 km of primary and secondary roads and over 160 km of walking tracks and trails (Parks Victoria, 2000). The Grampians National Park is the second largest and second most visited national park in Victoria.

The explorer Sir Thomas Mitchell, in 1836, named the ranges the Grampians because they reminded him of the Grampians in his native country, Scotland. However, to the indigenous inhabitants, the Grampians are known as Gariwerd, a mountain range created by the Great Ancestor Spirit Bunjil (Berndt & Berndt, 1988). In the late 1980s, the then federal Minister for Tourism unsuccessfully tried to reintroduce the name Gariwerd, causing a fierce political debate about traditional land ownership, but, ultimately, the name the Grampians prevailed. The Grampians contain 80% of Victoria's indigenous rock art, with local archaeological evidence indicating that South-East Australian aboriginals (also known as Koories) lived in the area at least 5000 years ago (Victorian Tourism Commission, 1990).

The town of Halls Gap, which lies surrounded by the National Park, is the heart of the Grampians tourist destination. It features a National Park Centre, the Brambuk Living Cultural Centre, which brings to life the rich history and culture of the regional Koorie communities, and a considerable portion of the region's approximately 900 tourism operators. State government plans are underway to refurbish the current Halls Gap Visitor Information Centre into the main product region visitor centre, a development that apparently does not sit well with all tourism operators within the Grampians product region as it may divert the local focus of the Halls Gap Visitor Centre; and may be too distant from the outer areas of the product region.

The current boundaries of the Grampians product region, as defined by Tourism Victoria, cover a geographical area well beyond the National Park borders (see Appendix B). Stretching some 200 km across a diversity of landscapes and nature-based tourism experiences from Halls Gap to the South Australian border in one direction, and a similar distance across and towards the eastern part of the state in the other, this geographically vast product region contains desert, rivers, lakes, wetlands, and several other national parks. The product region embraces seven major shires, with numerous villages, and seven separate local government authorities (Grampians Marketing Inc, 1998). In this study, the shires located closest to Halls Gap will be referred to as "inner" product region shires, while those that are on the periphery of the product region will be referred to as "outer" shires.

Well-endowed with natural attributes and adventure activities for potential exploration and discovery across the product region, the variety of and easy access to rich natural resources plays an integral part in making parts of the Grampians economically-viable tourism destinations. However, destinations do not tend to succeed on the allure of their natural assets alone; infrastructure, product quality and service provision are key contributors to viability. Apart from the economic value derived from recreational use of natural resources, the Grampians are also considered important for the contribution they make to the water supply of nearby farming regions (Read Sturgess and Associates, 1994). Significant as that contribution may be for regional economic survival, it is the nature-based experiences featured in

collateral produced yearly by the Grampians Campaign Committee that are the Grampians key strategic asset. Appendix C outlines the product region's variety of geographically dispersed attributes and their match to four disparate value segments. Multiple value segmentation makes the marketing of the product region highly complex, with collateral needing to bridge everything from down to earth common sense, to tasteful good living, to clever and "in your face" appeal. As the product region name indicates, the main focus of Grampians collateral is the iconic Grampians mountain range; other attributes are featured as value added or secondary destination options.

The Grampians region has anecdotally been classified by a state body regional marketing coordinator as a medium-mature destination and its cooperative campaign as medium-level successful with approximately 10% of the estimated 900 Grampians operators taking part in cooperative marketing offerings. The latest statistics, which provide a summary of visitations to Victoria's tourism product regions, indeed position the product region at present in the middle to lower end of Victoria's total visitation scale, surpassed by so-called "single icon" product regions such as the Great Ocean Road (Tourism Victoria, 2003). The Grampians history and the vast boundaries of the current Grampians product have anecdotally been identified as factors that influence the region's performance and may potentially also influence the scope of ICT innovation and diffusion of ICT within the product region.

2.3.1 *Grampians Product Region Campaign Committee*

My consultancy took place with the Grampians Campaign Committee ("the Committee"), which trades under the name Grampians Marketing Inc. (GMI). At the time of the consultancy initiation, the Committee structure was still as reflected in Figure 2.2, and public sector officials on the Committee outnumbered industry representatives. Towards the end of the consultancy, the Committee changed its sub-Committee structure by disbanding the, by then lame duck, Product Development Committee. After the consultancy ended, the Committee collapsed the Marketing and Communications sub-Committees into one Marketing sub-Committee. By then a considerable turnover of Committee members had also taken place.

2.4 Chapter Conclusion

This chapter has provided an overview of the importance of the Australian tourism industry in general and regional tourism in particular. Given that my work takes place with a regional Victorian tourism network that was established under government auspices, I have sketched a picture of the role of government in tourism on both the federal and state level; and presented a detailed overview of the regional tourism structure and the nature of regional tourism networks in the state of Victoria.

I have discussed product region structures, collateral production and progressive cooperative marketing policies in Victoria. In discussing the tourism cluster setting in the Grampians product region for my study, it has become evident that there are industry, region and network aspects that may be expected to influence ICT innovation and diffusion within the Grampians tourism network.

Since my research focus is on the adoption of ICT and e-commerce within the Grampians tourism network, the next chapter addresses tourism-related technology issues. The chapter will offer an overview of the scale and scope of the connected tourism world, and look at both supply-side and demand-side issues that have arisen with the advent of the Internet.

Chapter Three

Tourism and Technology

*It is the framework which changes with each new technology,
not just the picture within the frame.*

— Marshall McLuhan (1911–1980)

Tourism and technology have become inextricably linked and are changing the way we gather travel and tourism information, and purchase tourism products. In this chapter I look at the impact of the techno-economic paradigm on the tourism industry in general and on small tourism firms in particular. First I review the literature on tourism and technology and discuss supply chain, intermediary and demand-side issues that have arisen with the advent of the Internet. Although reference is made to e-commerce in this chapter, e-commerce itself will be discussed in the next chapter as part of evolving business models. Since the context of this study is ICT and tourism networks, I further explore the potential of tourism network structures in this chapter. I then present an overview of national technological developments vis-à-vis the Australian tourism industry. Next I discuss online developments in Victoria; the thrust of the Victorian Tourism Online project; and its attempt to bring regional tourism operators up to speed with technology. Lastly, I review the Grampians network's own online initiatives.

3.1 The Impact of the Internet

As ICT increasingly penetrates our lives, society and the economy are adapting to the wave of innovation that is associated with this change. The development and use of networked technologies such as the Internet will leave no industry unaffected, but perhaps impacts even more on the tourism industry than on any other. Tourism and technology, being two of the largest, most rapidly growing and most dynamic industries (Werthner & Klein, 1999),

have become inextricably linked, and together they are changing the way society operates (Sheldon, 1997).

3.1.1 Information Flow

The tourism industry has always relied heavily on information. In fact, until a tourist gets to his or her chosen destination, tourism *is* information rather than a physical product. Thus, while tourism services are produced and consumed in a physical world set in a regional or local context, purchase of a tourism product is generally based on information received through direct or intermediary market channels, prior knowledge, word of mouth, and perceptions of trust and service quality (Beirne & Curry, 1999). The nature of the tourism product being information-centric makes it a search product, which is evaluated by perusing product-related information. Being dependent upon effective information flows makes the tourism product a complex one, as it needs to be “distributed and made available to both intermediaries and end consumers and is almost entirely dependent upon representations and descriptions to help consumers make a purchase decision (Laubenheimer, Tecnopolo, & Carlsson, 1999, 279).

The influence of ICT on tourism product perusal and purchase is evident in the proliferation of travel/tourism sites on the web (Bernstein & Awe, 1999). In 1999, travel was the single largest category of online purchases in North America, accounting for US\$4 billion in sales with forecasts for 2003 ranging up to US\$29 billion (Pappas, 2001). In the first quarter of 2002, web traffic tracking statisticians claimed that nearly 43% of all US internet traffic was to travel sites, while e-enabled travel sales increased 87% on the previous year, reaching US\$6.98 billion (Nua Internet Surveys, 2002). Figure 3.1 shows the significant increase in traffic to the top North American online travel destinations between February and March 2002. While this represents North American traffic, consumers now seek to access information on destinations across the globe, including on the Grampians product region, via the Internet.

<p>Traffic to online travel destinations surged 12% to 51.2 million surfers, as compared to 45.9 million in February. Surfers at home and work flocked to the Web to take advantage of early spring airfare promotions and special vacation packages. Nearly 43% of all Web surfers accessed an online travel site in March, as compared to 39% the month prior.</p>			
Brand	Unique Audience (in Thousands) February 2002	Unique Audience (in Thousands) March 2002	Percent Growth
1. Expedia	9,858	11,605	18%
2. Travelocity	8,270	10,220	24%
3. Orbitz.com	5,755	6,551	14%
4. Southwest Airlines	4,441	5,158	16%
5. CheapTickets.com	2,903	4,370	51%
6. American Airlines	3,559	4,248	19%
7. Yahoo! Travel	3,152	4,196	33%
8. Delta	3,502	3,979	14%
9. Priceline	3,306	3,808	15%
10. AOL Travel	3,339	3,592	8%

Figure 3.1
Traffic to Online Travel Destinations (U.S., Combined Home & Work)
Source: NielsenWebRatings, March 2002

In adding the Internet as a new market channel, one of the prime and long-term challenges for tourism destinations, tourism marketing organisations, and operators everywhere will be to match the traditional attributes of service, and supply seamless integration of information and physical services. There is a strong personal verification and trust element involvement in purchasing a tourism product, a role that has traditionally been fulfilled by the seller of the product, such as an airline, a travel agent, or a wholesaler.

3.1.2 Disintermediation and Reintermediation

The travel and tourism sector depends to a large degree on business-to-consumer (B2C) e-commerce activity. The sale of online airline tickets currently constitutes the largest part of e-commerce related travel business. With increasing ICT literacy of prospective customers, consumer expectation

of easy access to tourism product is rising. The Internet has the ability to provide a highly suitable and major new market channel for tourist product, because it can create a direct link between a worldwide supplier community and equally dispersed consumers (Inkpen, 1998). Speed is also crucial in the travel industry, and the Internet can provide an instant confirmation response to an inquiry such as room availability. Consumer expectations are likely to increase pressure on product providers to either offer instantaneous product information satisfaction or lose potential customers (Buhalis & Main, 1998).

The interrelationship between tourism and technology is not a recent phenomenon; it dates back to the early days of computing and the impact of post 1960s mass travel. Computerised Reservation Systems (CRS), initially developed and operated by airline companies to manage their increasing volume of passengers and related operations and logistics, were among the first integrated global information technology applications. In due course, proprietary CRS were made accessible to travel agents and were subsequently expanded to include hotels and car rental companies (Koch, 1995; Werthner & Klein, 1999).

In the 1980s, CRS started to integrate with other systems to form global applicability systems, or so-called Global Distribution Systems (GDS), examples of which are Amadeus, Galileo, Sabre, Worldspan and the Australian ETAS system (Inkpen, 1998). In another systemic upgrade, interconnected GDS technologies that linked to supplier hotels were advanced into HDS or specialist hotel distribution systems, in effect becoming sector-specific distribution systems. Such distribution systems, or sector value chains, have been of the greatest importance to those hotels without their own distribution system and who were formerly reliant on traditional intermediaries (Inkpen, 1998).

Travel agents have traditionally been considered the intermediaries between travel suppliers and consumers, selling the tourism product to consumers for which they derive a sales commission. Apart from their customer service role, a travel agent's product knowledge and expertise is the value added for the customer. Intermediaries typically fulfil three major functions:

First, they adjust the discrepancy of assortment through the processes of sorting, accumulation, allocation and assorting. Second, they minimise distribution costs through routinising and standardising transactions, which makes the exchange more efficient and effective. Finally, intermediaries facilitate the searching process of both buyers and sellers by structuring the information essential to both parties, providing a place for both parties to meet each other and reducing uncertainty (Wynne, Berthon, Pitt, Ewing, & Napoli, 2001, 422).

There are other intermediaries, such as GDS technologies themselves, functioning as the mediating link between airlines, hotels, car rental companies and travel agents. Destination service organisations, such as regional and local tourist information centres, also perform an intermediary (booking) role between consumers and local tourist organisations or tourism SME (Inkpen, 1998).

The emergence of electronic markets and the opportunity for tourism product users to bypass intermediaries in the travel value chain by booking directly on the web has, according to some researchers, rendered travel agents to be the most endangered species in the travel industry (Anckar & Walden, 2002; Schertler & Berger-Koch, 1999). Schertler (1999) asserts that the traditional tourism value chain is changing, with the main catalysts for change being the spread of ICT and the strategic consequences of the Internet. Electronic brokerage or disintermediation, a term first coined by Malone, Yates and Benjamin, “eliminates or bypasses traditional mediators in trade” (cited in Schertler & Berger-Koch, 1999, 27). Since the Internet has the potential to provide customers with benefits such as convenience and reduced product cost, others similarly agree that disintermediation of channels is a straightforward consequence of user access to digital networks (Benjamin & Wigand, 1995). With some GDS access paths still keeping intermediaries such as travel agents in the loop, Inkpen (1998) argues that it has at least levelled the playing field.

Opposing views to this theory, as discussed by Anckar (2002), posit that although the role of the traditional intermediary may become diminished (Bakos, 1998) or altered (Bakos, 1998; Werthner & Klein, 1999), more rather

than fewer intermediaries will be needed in the electronic marketplace (Sarkar, Butler, & Steinfield, 1995). In fact, a recurring pattern of intermediation, disintermediation and reintermediation, or an IDR cycle identified by Chircu (cited in Anckar & Walden, 2002) is more likely to occur once traditional intermediaries adjust their service offerings to the needs and opportunities of electronic sales channels.

Electronic intermediaries, also referred to as cybermediaries (Sarkar et al., 1995), transcend location as they are accessed via the web. Network-based cybermediaries can be infrastructure or service based. Sarkar et al (1995) delineate a wide variety of cybermediary formats, including portals (which will be discussed in the next chapter), directories, search services, virtual malls, virtual resellers, barter networks, intelligent agents, booking and e-commerce transaction systems (Sarkar et al., 1995). Indeed, some of the HDS have broken new ground by turning the tables on GDS and offering consumers and travel agents their own web-direct booking services that also includes GDS access (Inkpen, 1998).

The potential for commercial travel sales is widely recognised and has given rise to new market entrants coming from an information technology rather than from a travel background (Bernstein & Awe, 1999). For example, the new generation and highly successful intermediary Expedia.com—which, unknown to many, is owned by Microsoft—has become a serious contender for the American travel industry (Inkpen, 1998). Expedia's booking facility allows for partial access to the information-rich Worldspan GDS database. Among Expedia's more powerful competitors is Travelocity.com, offering end users access to the incumbent Sabre booking system, which includes air, hotel, car and vacation packages. Another virtual reseller, Priceline.com, provides an efficient buyer-driven auction system for close to 500,000 airline seats that would otherwise fly empty every day (Rayport & Jaworski, 2001).

The Internet provides players with far-reaching business-to-consumer (B2C) and business-to-business (B2B) opportunities to enhance and develop specialised relationships with their customer base. In this time of rapid change towards virtual tourism product offerings, there may still be room for innovation

by new entrants into the online travel market, although earlier cited GDS developments reflect a distinct advantage towards scale players and incumbents with established brand recognition, loyalty programmes and transaction volume (Pappas, 2001). This also puts additional stress and strain on established cooperative marketing relationships in tourism destinations such as the Grampians and may impact the innovation diffusion process. By facilitating Web-based sales and honing customer services through customer profiling, mega travel sites may seemingly provide all a traveller could ever want or need, but whether customers are willing to forfeit their travel agent in favour of Web-based travel services is a hotly debated topic in the travel industry (Bernstein & Awe, 1999).

3.1.3 *The Cyber Customer*

As consumers become more knowledgeable, they have increasing expectations in terms of convenience, value and customisation (Wynne et al., 2001). Requesting more frequent, specialised and shorter trips as a result of today's lifestyle, consumers seek global advice, service quality and market transparency (Bloch & Segev, 1996).

Although the Internet undoubtedly offers convenient access, potential time savings and cost reduction to end users, there appear to a number of barriers that web consumers experience, including such practical issues as dial-up and Internet service provider costs for online entry and web security (Anckar & Walden, 2002). In order to access a GDS, a web shopper still needs an intermediary and, in effect, end users only access web-based CRS offered by independent (e.g., airline, hotel, car) service providers. The fact that consumers do not necessarily want to deal with the problems of contacting multiple suppliers to compare shop and research suggests that web travellers face a wide range of problems (Bloch & Segev, 1996; Burke & Resnick, 2000). Some researchers even go so far as to suggest that web travel consumers potentially experience more disadvantages than advantages (Sheldon, 1997).

Certainly, in order to make travel arrangements, an end user must be web savvy. Lack of knowledge of, or inexperience with, the Internet constitute critical barriers for all but the most sophisticated web users and experienced

travellers (Anckar & Walden, 2002; Bloch & Segev, 1996); not to mention making sense of complex travel rules and restrictions, availability of a desired itinerary and fare or refund conditions. In addition, price comparison and customer profiling can be time-consuming tasks, and cost saving by buying web direct is not applicable to all tourism products (Bloch & Segev, 1996; Burke & Resnick, 2000), especially since web direct purchasing does not (yet) facilitate block purchases and bulk discounts. Ironically, the lack of travel agent expertise, advice and booking privileges has been cited amongst the greatest consumer disadvantages of e-commerce (Sheldon, 1997), indicating that, rather than becoming redundant, the role of travel agents is redefined in terms of value added (Anckar & Walden, 2002).

For now, time-hungry travellers and unskilled web surfers wanting to avoid costly mistakes may wish to turn to travel agents to save time, access better prices, draw on their tacit expertise, and perhaps most valuable of all, receive personal assurances not obtainable via the web. However, as technologies and the web travel market mature, travel customers are likely to attain a higher level of comfort with the web. In other words,

The relationship between the skill level of Internet users and their satisfaction with the medium's capacity to communicate travel related information, indicates that the more consumers use the medium, the more competent they become and the more confidence they place in the information they access (Dellaert, 1999, 96).

Recent research suggests that development of electronic intermediaries in the form of intelligence or software agents (O'Brien, 1999) that assist consumers in making travel reservations on the web "may come to play an important role in the electronic marketplace --especially in the field of mobile commerce -- by locating information corresponding to consumers' interests and reducing the time spent on the task" (Anckar & Walden, 2002, 163). Car-based travellers, for example, who might currently tune into a local radio frequency to obtain tourist information, will be able to access local information and booking services via mobile e-commerce devices.

Programming of such intelligence agents would, however, be a complex task, since this type of cybermediary would need to understand how consumers use technology to gather intelligence; how they make decisions; and how they purchase tourism product. For effective and holistic customer management, cybermediaries would also need to participate in the post-sale relationship. The endeavour would require the deep pockets of transnationals or large operators, realistically excluding the majority of tourism product providers. Most of the accommodation establishments worldwide are family-run small and medium size tourism enterprises belonging to local entrepreneurs (Buhalis & Main, 1998). In Europe alone, 85% of micro and small tourism firms are not listed on GDS serving more than 50,000 travel agents worldwide (Werthner & Klein, 1999), restricting both tourism firms and customers access to one another (Anckar & Walden, 2001). This may not have been an issue for Grampians operators in the past, but with the Australian Tourism Commission and Tourism Victoria increasingly focused on marketing regional attributes (Tourism Victoria, 2002c); and international and domestic travellers apparently seeking more authentic holiday experiences in natural environments (Barry and Robins, 2001); it may be expected that more and more tourists might be seeking web-based information on regional Australian destinations and quaint B&Bs located in the Australian outback.

3.1.4 *Small Tourism Firms and ICT*

In many parts of the world, tourism SME and micro tourism enterprises make a substantial contribution to regional economies, yet ICT research vis-à-vis small tourism firms has been largely ignored in preference of global ICT and related tourism activities (Buhalis & Cooper, 1998; Evans & Peacock, 1999).

Focusing on ICT and tourism SME, Evans and Peacock (1999) note that even standard tourism textbooks—for example, Inkpen (1998)—have given negligible coverage to small tourism firms and ICT. The omission may be partially attributable to incumbent positioning discussed above (Pappas, 2001), and partially to the firms in question. Micro and small tourism enterprises generally consider themselves outside the tourism value chain,

despite the fact that most of their customers are tourists (Evans, Bohrer, & Richards, 2001).

To date, most research into the implications of the Internet for small tourism firms has focused on the barriers to ICT adoption with a propensity towards the adoption of online booking systems (Buhalis & Cooper, 1998; Evans & Peacock, 1999). Tourism SME, much like other SME, tend to be time and resource-poor, with their size being their main disadvantage (Werthner & Klein, 1999). As a result, they are over-dependent on intermediaries for product marketing and distribution and, hence, have limited bargaining power in the distribution channel (Buhalis & Cooper, 1998; Werthner & Klein, 1999). Other barriers may be technology itself, where the lifestyle choice of owner-operators often entails a negative attitude towards ICT (Evans & Peacock, 1999). There is no doubt that tourism SME managers of the future will need to become familiar and comfortable with technology if they want to exploit its potential (Buhalis, 1999). However, since proprietors of tourism SME are often dependent on external ICT expertise, they fear losing control and are therefore resistant to change (Anckar & Walden, 2001).

Small tourism enterprises face enormous difficulty competing with their larger counterparts. To make matters worse, many small tourism firms are located in peripheral regions where the ICT infrastructure, especially broadband, is either inadequate or prohibitively expensive due to limited demand (Anckar & Walden, 2001). A New Zealand study of micro tourism firms identified the education and professional background of owner-operators to be significant barriers (Ateljevic, Milne, Doorne, & Ateljevic, 1999), pointing to a widespread consensus that industry preparedness in terms of training falls well short of the requirements to operate within a now ICT-driven sector (Baines, 1998; Danielle & Mistilis, 1999; Jameson, 2000). Presenting the results of a three-year study on the usage of and plans for ICT training in a fragmented and SME-dominated European tourism sector, Evans et al. (2001) note that small tourism firms may well remain lost in the electronic marketplace, unless they are assisted in the usage of ICT tools and acquire the skills needed to participate in the digital economy (Evans et al., 2001).

Although ICT appears to threaten the very existence of small tourism firms without resources, know-how, and access to distribution channels, a more optimistic view counters that “competent entrepreneurs, regardless of their size or location, will take advantage of the opportunities that the Internet offers to obtain equal footage with larger companies” (Buhalis, 2002, 427). A view that is perhaps inadvertently echoed by Evans et al. (2001) who, in the aforementioned study, found that independent micro-firms were among the most creative users of ICT. The level of ICT usage among small tourism firms surveyed was higher than expected, given the perceived limitations of such firms’ vis-à-vis technology adoption (Evans et al., 2001). The rapid increase of email and Internet usage, especially among small UK-based tourism firms, which were surveyed by Evans et al (1999) two years prior, reflects an aggressive speed of expansion of ICT applications (Evans et al., 2001). A longitudinal study of small hospitality enterprises in Wales (Main, 2002) similarly indicates that, by 2001, ICT diffusion had rapidly and substantially increased.

More disconcerting, however, is the perceived lack of value of ICT by small tourism enterprises and the policy implications in regards to lack of public awareness of ICT support and of business training tools (Werthner, Nachira, Orests & Pollock, 1997). Apart from the necessity to review the limited impact of previous ICT policy programs (Buhalis & Main, 1998; Evans & Peacock, 1999), calls for further research point to a need for greater understanding of non-ICT users and the profiling of small tourism firms.

There is a particular need for empirical research at the destination level to explore in greater detail the local tourism economy and ICT impacts - supply chain links, training and related organisation development needs, as well as the wider market and ‘local-global’ relationships (Evans et al., 2001, 152).

My study, which mainly concerns tourism SME within a regional tourism network, makes a timely contribution to the empirical knowledge needed in the area of regional organisational development and “local-global” relationships.

3.1.5 Internet Marketing

The push towards networked technologies, combined with increased customer expectations, has put extraordinary pressure on the information-centric and service-based tourism industry to extend conventional distribution channels to include the Internet as a major new marketing channel (Bloch & Segev, 1996). Buhalis (1998) claims that understanding the potential of the Internet provides tourism firms of all sizes the opportunity to adopt new marketing models and publish a broad range of marketing content. Despite the information-intense nature of tourism product, small firms are not necessarily up to the task of marketing themselves online.

In the hospitality industry, marketing and advertising products, as well as gathering market intelligence, has predominantly been the domain of larger companies and chains (Main, 1999). Profiling small hotels in the U.K., Morrison (1998) concluded that small hotels were facing major challenges as they had limited marketing skills and required substantial marketing support. One potential solution to this problem could be that small hospitality firms adopt affiliation and cooperative practices (Morrison, 1998).

A number of studies have shown cooperative marketing can add value to a destination (Palmer & Bejou, 1995; Palmer & McCole, 2000; Williams & Palmer, 1999). Traditionally, such cooperation has been restricted to the production of joint marketing brochures and shared stands at trade shows. The advent of the Internet offers expanded opportunities for cooperative marketing and, to date, the greatest interest in using ICT networks in the tourism sector has been to develop joint online marketing initiatives. However, notable research into tourism-specific cooperative use of the Internet as a marketing tool remains in its infancy (Beckendorff & Black, 2000). Data on consumers' search routes and decision-making processes in regard to finding destinations online is equally scarce.

In many ways, tourism has always been a networked industry, with convention bureaus and regional destination marketing organisations (DMO) representing, planning and marketing their region, tourism product and community (Gretzel, Yuan & Fesenmaier, 2000). In the past, the marketing

success of DMO relied heavily on the support and involvement of their partners, such as hotels, travel agents, the railways and other government agencies. Today, ICT has enabled DMO to better cope with increased information flows and getting the marketing message out to the public (Gretzel et al., 2000).

So-called destination marketing systems (DMS), or management information systems, are now the norm for many of the larger DMO and other tourism organisations such as hotel groups (Main, 1999). For smaller DMO, which are frequently the focal point or entry point for access to a destination, implementing marketing and advertising database systems can pose greater difficulties as they often “struggle with limited financial and human resources, lack of technological expertise and time constraints” (Gretzel et al., 2000, 146). Connectivity for DMO also involves the re-evaluation of their partnerships and networks. For some, linking their local and regional information networks has already added significant value to the destination value chain (Main, 1999).

As individual enterprises with limited marketing budgets, most small firms fail to focus on marketing planning and market intelligence. Preoccupied with the operational running of their business, smaller operators have tended to approach their markets “less formally and more intuitively from their detailed, close contact with their guests” (Main, 1999, 349). Since most tourism SME have rather limited means of marketing themselves, they are predominantly dependent on intermediaries such as DMO for product marketing and distribution (Buhalis & Cooper, 1998; Werthner & Klein, 1999).

Nonetheless, the individual SME drive to use ICT as a marketing and branding enabler is increasing. In a survey study conducted among small tourism firms in England, respondents from both the macro (destination) level and micro (tourism SME) level indicated that they could see the potential benefits of using web technologies for marketing purposes (Main, 1999). While connectivity has the potential to increase small tourism firms’ visibility in the market place, a micro tourism site is easily overshadowed by the plethora of mega sites. SME aggregation for online marketing purposes is a potential

solution to this problem. In terms of the Grampians, micro operators and tourism SME interested in augmenting their online profile may hence be better off pooling their limited marketing dollars in cooperative online marketing campaigns (Braun, 2002). For small tourism firms, it would entail radical new ways of thinking towards networking and cooperation. As Gretzel et al. (2000) have pointed out, success in the new economy is more about change in approach than about technology itself.

3.2 Tourism Networks

As discussed earlier, due to their nature and scale, small tourism firms lack the advantages of larger tourism enterprises such as resources, know-how, and access to global distribution and other network support systems. As a result, few studies on tourism and ICT provide insight into small firm awareness of or participation in ICT-based networks.

To date, travel industry networks that pursue (web-enabled) global distribution, aggregate selling and sourcing capabilities have been largely driven by the airline industry seeking to extend its global reach through strategically-aligned partnerships and cost-saving synergies in services such as baggage handling, catering, engineering and maintenance (Pappas, 2001). However, as a result of the networked economy, organisational changes can be expected throughout the tourism industry.

Almost a decade ago, in addressing tourism and technology, Poon (1993) stressed that to avoid isolation, achieve economies of scale, and maximise destination benefits, there would be no place in the future for the stand-alone tourism SME; and that networking would allow small tourism firms to pool their resources, reduce operating costs, increase know-how, and formulate strategic marketing plans (Poon, 1993). Upon closer examination of cross-trading within local destinations, Buhalis and Cooper (1998) suggest that small tourism enterprises form a natural amalgam, because the fortunes of the destination and the firms are closely intertwined. The research indicates that tourism SME tend to cooperate rather than compete by formulating value-added networks of product and service delivery (e.g., by referring customers

to each other) that enhance the tourist satisfaction (Buhalis & Cooper, 1998). While current Australian research concurs that there is a cumulative impact on how consumers experience the wider destination, it also argued that one poor experience can negatively impact on the entire chain of experiences, and that the management of a complex of market segments requires a high level of skill (Hollick, 2003).

An action research project undertaken with small tourism firms in North London showed that the greatest interest in networking came from those businesses that had the strongest links to the local economy (Evans, 1999). The development of a shared destination website proved to be attractive to local tourism operators in terms of joint marketing and securing new business. However, the project also highlighted the firms' relatively underdeveloped knowledge of ICT itself and a varying degree of reluctance within the sector in terms of joining a network. Nonetheless, Evans (1999) argues that, to counteract GDS isolation, local destination networks should integrate ICT-based networking and cooperative marketing strategies. Besides, as Anckar (2001) posits, a network or information technology infrastructure is essential to bring small tourism firms and cyber customers together; as well as to increase the willingness of cyber customers to purchase tourism products from smaller suppliers.

Although based on economic network organisation, a conceptual framework proposed by Tremblay (1998) merits consideration in terms of future ICT-based network development. Tremblay divides future tourism network formation into three categories, namely horizontal, vertical and local destination networks. Horizontal networks (Figure 3.1) hold similar technological capabilities; for example, hotels accessing the same GDS but servicing various markets in different destinations.

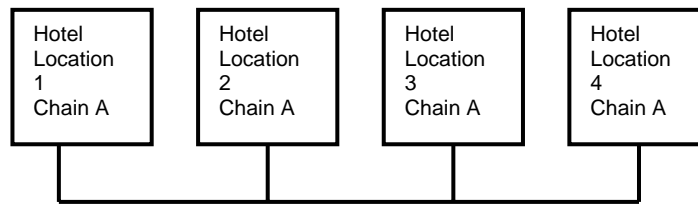


Figure 3.2
Horizontal Tourism Network or Chain
 Adapted from Tremblay (1998)

Travel agents have also been observed to form horizontal type alliances, especially when they serve upmarket and business travellers, while small hotels are increasingly forming horizontal networks to provide access to important strategic resources and marketing channels (Morrison, 1994).

Vertical networks (Figure 3.2), also referred to by Tremblay (1998) as lateral or diagonal networks, bring together firms or tourism business groups with dissimilar competencies in a quasi-integration model to build a cross-functional network of services, share marketing know-how, and ensure consistent product quality associated with specific customer groups.

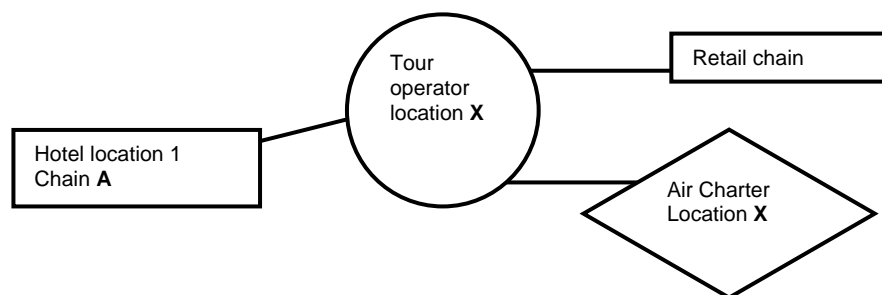


Figure 3.3
Vertical Tourism Network
 Adapted from Tremblay (1998)

The third type of network, the local destination network (Figure 3.3), ensures the coordination of complementary assets at the destination end of the service chain. Firms at the destination share public infrastructures and attractions; cooperatively manage their resources; and innovate while reducing the threat of negative externalities (Tremblay, 1998). Cooperative marketing

organisations play a pivotal role in this type of network, as the level of cooperation between firms at the local destination, while simultaneously competing to increase individual market share, impacts on the global market share (Palmer & Bejou, 1995). Tourism businesses can participate in one or various overlapping networks, depending on potential measurable advantages such as lowering transaction costs and exploiting economies of scale.

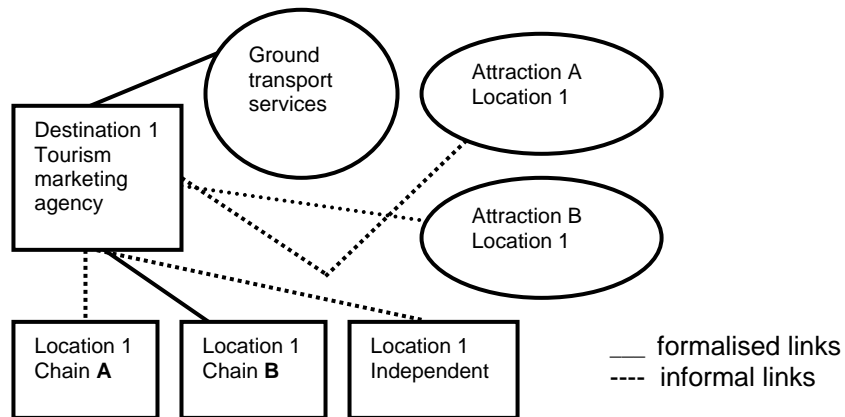


Figure 3.4
Local Value Chain Network
Adapted from Tremblay (1998)

Thus, in shaping the desired menu of technological implementation, augmentation of product ranges, and available complementary inputs, Tremblay (1998) proposes that tourism firms coordinate their activities in a web of cooperative and competitive linkages. Since joint venture networks have the potential to be a pro-active investment in trust building; and could reduce the risk of opportunistic competitive behaviour, Tremblay (1998) considers his framework a viable alternative to public sector governance. This study deals with a network and the above assessment of tourism networks suggests that networks should integrate ICT-based networking and cooperative marketing strategies to leverage complementarities and bring small tourism firms and cyber customers together.

3.2.1 SME Networks

Interesting network models notwithstanding, SME participation in networks is far from guaranteed and my study involves SME in a regional network

structure. Barriers to entering networks have been put down to cultural factors on the one hand and lack of resources—time, staff, opportunity—on the other (Evans, 1999). The latter author particularly singles out aversion to joining groups, attending training sessions and meetings, which “may be antithetic to the stress that owner-managers place on autonomy and independence—the main reason they went into business on their own in the first place” (Evans, 380). Small firms tend to limit their external contacts to compulsory contacts (e.g., local government and tax agencies) and direct support actors and agencies (e.g., customers, accountants and banks). As illustrated in Figure 3.4, voluntary membership of trade organisations and networks is a low priority for SME.

Continuum of SME Network Relationships						
Compulsory -----			----- Voluntary			
Sales to customers	Purchase of resources	Government: Central (tax) Local (rates, planning)	Banks Accountants Solicitors	Marketing/ Research Strategies	Advice Consultants Agencies Education	Membership of Trade Orgs and Networks

Figure 3.5
Continuum of SME Network Relationships
 Adapted from Evans (1999)

3.3 Technology and Tourism In Australia

Large Australian tourism enterprises have been quick to embrace ICT-based technologies such as global reservation systems. It was a natural part of their business technology strategies, with subsequent changes facilitated by their critical mass of infrastructure and personnel (CRC Tourism, 1999). For large travel organisations, such as Australia’s national airline, Qantas, introducing web-based travel services also reduced their sales and distribution cost (Pappas, 2001). In 2000, Qantas asserted that seventy percent of its airline ticket sales took the form of e-tickets, but that figure includes both phone reservations and web-based bookings (NOIE, 2000). Australian web monitors

claim that in 2001 online ticketing moved to the number one category for online consumer retail transactions (AC Nielsen.Consult, 2001).

Large domestic players with economies of scale are clearly in a position to dominate the online market; but, under the right circumstances, the role of networked regional tourism and small tourism firms could be significant. However, to date, the uptake of technology has not been a priority for many small tourism firms. Recent tourism research on ICT uptake by small Australian tourism firms in the Canberra region indicates that non-users have strong negative perceptions about the effectiveness and adoption of the Internet. Users believed more strongly than non-users that the Internet was important for the Australian tourism industry and would be important in the future (Applebee, Ritchie, Demoor & Cressy, 2002). These findings echo earlier cited European studies, for example (Buhalis & Main, 1998; Evans et al., 2001, 152; Werthner et al., 1997). Australian tourism SME also perceived ICT (and possibly related ICT policies) to have no value; and a greater understanding of non-ICT users at the destination level was needed (Applebee et al., 2002). While studies on the adoption of ICT are important, Tremblay (2002) argues that too few attempts have been made to analyse the drivers leading to ICT changes in the tourism landscape— for example, strategic, environmental, and marketing-based drivers—which would considerably broaden the research platform. Interestingly, Tremblay (2002) omits regional network drivers and barriers in his research list.

3.3.1 *National Online Tourism Developments*

My study examines a network seeking an online presence and this section looks at the context of online developments in Australia. Many countries and destinations are finding that policies for ICT and online technology adoption are needed to improve the effectiveness of the tourism sector (Sheldon, 2000). In Australia—where tourism is considered a key economic driver (National Economics, 2002), and where there is renewed interest in regional economies, ICT and small business (DOTAR, 2002)—it is not surprising that government has expressed great interest in the potential of online technologies to develop, market and distribute the Australian tourism product.

In fact, there is such a strong government involvement in online tourism that "commercial" operations are effectively excluded by statutory provisions and by political lobbying from influential industry players (Sharma & Carson, 2000, 148).

Politics notwithstanding, the development of online tourism has occurred on a variety of levels, by a range of players (such as state governments, airlines, accommodation establishments and attractions), and by many geographic regions (Danielle & Mistilis, 1999). The broad characteristics of the two-tier structure of the Australian tourism industry—with one tier made up of a small number of large (mostly urban-based) global players and the other of a large group of (mostly regional and rural-based) tourism SME—have had a further impact on online developments.

It may not be in the interest of some of the bigger players in the Australian tourism industry to market the Australian product generally. By not doing so, they reduce competition for their own products but also contribute to low international awareness of Australian product (Sharma, Carson, & Delacy, 2000, 148).

As a result of this uncooperative attitude and local impatience with national online policy progress, a multiplicity of conflicting websites have been developed, displaying information at varying levels of quality, content and format (Danielle, Mistilis, & Ward, 2000).

In 1998, in its aim to identify the scope for technological tourism innovation, a federal government action plan, *Tourism: A Ticket to the 21st Century* (Office of National Tourism, 1998), called for research and industry consultation to examine established and emerging online initiatives, and the impact of and impediments to industry adoption of online technologies (Sharma & Carson, 2000). The main output of this process was a national online scoping study, aptly named *Meeting the Challenge* (CRC Tourism, 1999). The study identified a low-level industry awareness of the benefits of online technology, regional and rural infrastructure needs, and a lack of skills. As only a dismal four percent of tourism SME had an Internet presence at the time of the study, it was seen as imperative that tourism SME invest in skills and alliances to

exploit new technologies and emerging markets to avoid potential loss of competitive advantage.

To forge closer cooperation between key players, five key initiatives were recommended that were to form the foundation for Australia's national online tourism policy, *tourism dotcom*, (Department of Industry Science and Resources, 2000). The initiatives were to enhance the national data infrastructure for tourism; to develop a national online tourism resource centre; to develop regional tourism initiatives; to empower intermediaries; and to develop an Indigenous tourism online strategy (Sharma & Carson, 2000). The policy also called for a "more coordinated approach to the development of Australia's online industry" (Department of Industry Science and Resources, 2000, 23), which was predominantly aimed at coordinating the various state and territory marketing efforts rather than at advancing the online status of the industry itself.

To realise the formation of a national online tourism resource centre, the Australian Tourism Data Warehouse (ATDW) project was initiated. The ATDW was a strategic alliance and cooperative marketing agreement between the Commonwealth and state and territory tourism marketing arms to better market Australia overseas (Danielle et al., 2000). With states maintaining their individual database systems, the main aims of the national DMO were to effectively advance the degree of compatibility among existing systems, develop product classification standards, and build a comprehensive national database with standardised destination and product information. Once completed, the ATDW business plan envisaged distribution to third party domestic and foreign GDS, online retailers such as Expedia, travel portals such as Travelocity, and consumer portals such as Yahoo (Sharma & Carson, 2000). Two other Commonwealth industry initiatives were proposed, a Tourism Business Information Facility (TBIF) to make business intelligence available online, and a Tourism Online Resource Centre on the use of ICT applications (Department of Industry Science and Resources, 2000).

Owing to Australia's political structure—with its seven states and territories, each with its own marketing arm—the formation of a national online tourism

resource centre, or a national DMS, proved to be a complex endeavour (Danielle et al., 2000). State Government tourism bodies, such as Tourism Queensland and Tourism Victoria, were early adopters of DMS and many types of (incompatible) destination marketing systems had already been proposed or had since been developed. With varying degrees of system compatibility and willingness by states to contribute their tourism data to the national database—some states chose to upload all their data while other states chose to be more selective—the ATDW faced considerable internal distribution issues. It also faced external distribution issues such as the high cost of partnering with e-tailors such as Travelocity.

The system ultimately succeeded in being implemented, partially with the assistance from other funding bodies (see 4.4.3). However, the lack of a booking engine on the ATDW to facilitate increasingly desirable one-stop-shopping by consumers, who can access the ATDW via <www.australia.com>, has been a concern, especially since most state-level systems do provide an online booking facility and, hence, have the ability to outperform the national DMO (Danielle et al., 2000). And then there is the issue of tourism SME listing on the national site. State and territory tourism bodies handle all ATDW listings; a listing on the ATDW is generally conditional on participation in the state marketing program. A recently released tourism discussion paper (Department of Industry Science and Resources, 2002) illustrates the considerable gap between policy rhetoric and grass roots reality in terms of data flow, distribution and access.

The Australian Tourism Data Warehouse is intended to position Australia as a major competitor...by enabling those businesses which utilise online technologies to access the broader travel market...in a nationally agreed format and electronically accessible by operators, wholesalers, retailers and distributors for inclusion in their websites (Department of Industry Science and Resources, 2002, 41).

In the same vein, the discussion paper pays lip service to online network building and knowledge coordination. “It is important that effective online linkages and relationships are developed between tourism operators, businesses and tourist organisations to ensure information is easily accessible and comprehensible” (Department of Industry Science and Resources, 2002,

40). It seems that a significant online plan for Australia's tourism industry is being crafted without a closer look at the industry's embedded relationships and networking issues.

3.3.2 *Tourism and Technology in Victoria*

As indicated above, several of the state tourism marketing commissions were early adopters of DMO and gained a reputation for their ICT policies and foresight. Tourism Victoria was one such early adopter. To support Victoria's industry move online and position it at the forefront of marketing in the new millennium, in 1999, Tourism Victoria announced to the Victorian tourism industry that it intended to undertake the Victoria Tourism Online (VTO) project (Tourism Victoria, 1999). Tourism Victoria was the recipient of \$7.4 million in state government funding for the development of a web presence that would encompass online marketing tools, a comprehensive database and several booking engines. The VTO project aimed to secure participation by most of the 5,500 tourism operators across the state, or the effective engagement of at least 80% of relevant industry operators in order to build a comprehensive database and turn VTO into an effective DMO (Morrison & King, 2002).

3.3.3 *Online Tourism Development*

Thus, driven by a web-focused management team, VTO aimed to become *the* data distribution system and booking facility for all Victorian tourism operators by expanding its existing, somewhat run-down, low content website into a definitive state portal. The ambitious and very costly project aimed at displaying all of Victoria's tourism product and information, by including links to the state's visitor information centres, regional specialist sites and all Victorian tourism operators.

With the intention to roll out the state mega site by June 2000, Tourism Victoria decided in late 1999 to gauge online industry developments and test potential user participation via a supplier survey (William Angliss Institute of TAFE, 1999). Although the survey results are now several years old, they are the only measure to date of the technology status of tourism enterprises in

Victoria. The survey—sent to 5750 operators of which approximately one quarter responded—provided Tourism Victoria with an overview of the industry make-up, its connectivity status and marketing spending habits.

As may be expected, the Victorian tourism industry is dominated by small firms, 84% of which are operator-owned micro businesses with five or fewer full-time staff. Nearly all enterprises (87%) surveyed indicated that they had a fax machine; a high percentage of those (80%) had a computer for business purposes, although only a minority (37%) used the computer for reservations and bookings. About half of the enterprises had a website, with another third planning to have one in another year or two. Nearly all websites were used for marketing and promotion, but enterprises were concerned by personal lack of skills and Internet knowledge. The best customer response time to booking inquiries was by telephone, while the worst was by email. Figure 3.5 provides an overview of the technology use by Victorian tourism firms in 1999.

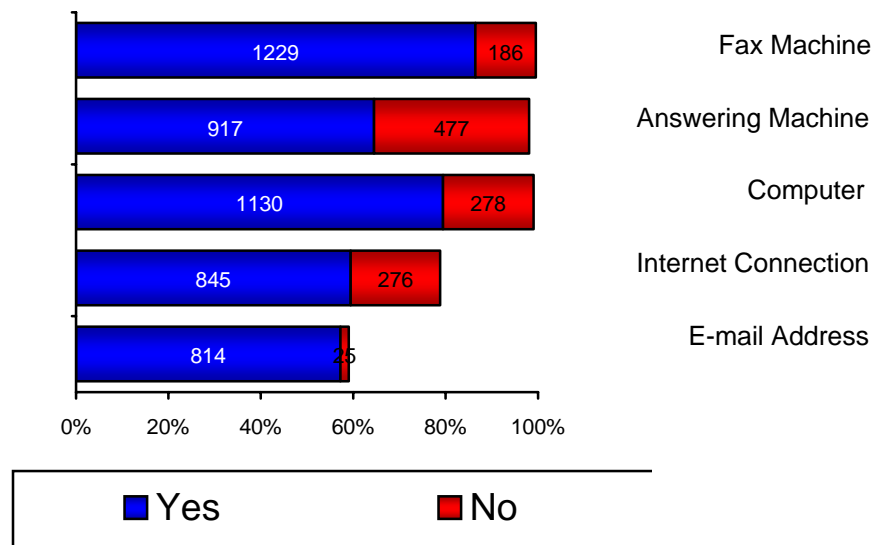


Figure 3.6
Technology Use by Victorian Tourism Firms
Source: William Angliss Institute of TAFE

Thirty percent of enterprises spent more than \$5000 on marketing as depicted in the left pie chart of Figure 3.6, but almost half of the tourism enterprises spent less than \$150 per annum on online distribution, and shown in the right pie chart.

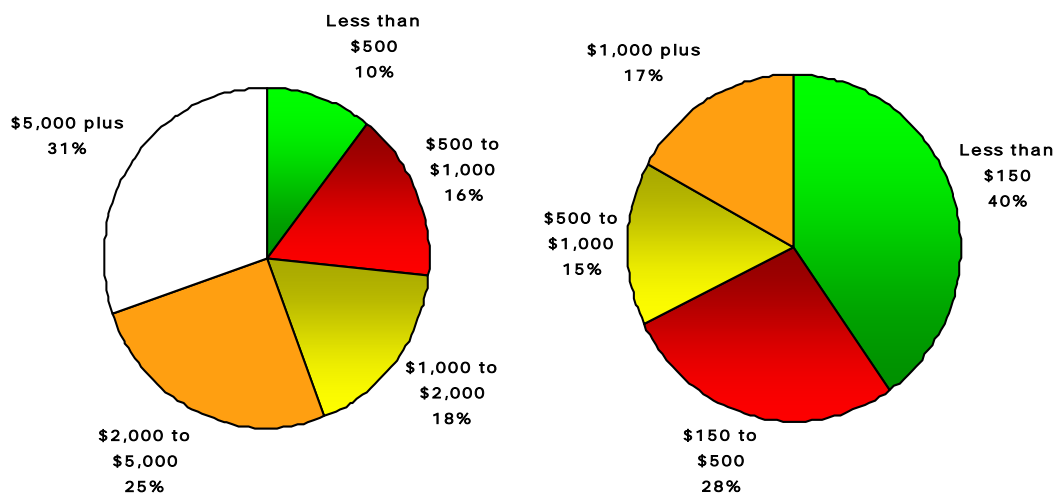


Figure 3.7
Tourism Marketing and Online Marketing Expenditure
 Source: William Angliss Institute of TAFE

After repeated delays, VTO was finally launched in December 2000. During its first six months of existence, a disappointing 13% of the targeted operators registered in the scheme. Recent research, undertaken to investigate and scope critical issues and barriers associated with the relatively low level of adoption of VTO registration, identified “typical” micro tourism owner-operator skill base and attitude characteristics, including an aversion to membership of industry associations; participation in regional marketing initiatives; and direct approaches by government. Repeated delays in launching the state site, an inadequate infrastructure, a complicated sign-up process, an ill-conceived sign-up communication strategy, and lack of (technical) support were also identified as hampering participation (Morrison & King, 2002). In their study, the latter researchers express the need for deeper knowledge and understanding of contextual factors to inform Victorian tourism policy and contribute to the design of effective communication and operator persuasion. My study fills a timely need in this respect.

Although VTO had designed a superior database, the project failed to deliver a user-friendly industry interface and a cohesive marketing plan. It also failed to take regionally-established websites into consideration and, despite its own

market research, set the base online participation price at \$330, double what the average operator indicated s/he was spending on online marketing per year. To be listed on the state site, operators need to be part of the (costly) Jigsaw campaign, and for an additional fee operators can participate in upstream data distribution to the ATDW. Since all operators participating in the Jigsaw campaign will also need to be accredited from March 2003 (see 2.2.1), Victoria's predominantly micro tourism firms with small marketing budgets and low interest in the currently non-value-adding benefits of accreditation will effectively be excluded from a state, and hence national, online presence.

There has been a change of management since Tourism Victoria's informal loss of early adopter advantage. With a focus on regional development and cooperation, the 2002–2006 Tourism Victoria Strategic Plan (Tourism Victoria, 2002) treats online as "just another distribution channel", although its influence permeates various sections of the strategic plan. The online distribution section calls for maximisation of the opportunities presented by the Internet to market Victoria nationally and internationally, as well as the development of strategies to "better integrate regional tourism websites with www.visitvictoria.com" (Tourism Victoria, 2002, 100).

For some regions, this new relationship strategy may be offering too little too late, as individual destinations, product region Campaign Committees such as the Grampians Committee, and local tourism associations across the state started undertaking independent web development well before or during the painful birth of VTO.

3.3.4 *Web Developments in The Grampians*

By mid 1999, when the Grampians Campaign Committee decided that a web presence was needed, a domain-savvy local operator had already registered what would normally be considered the most commercially viable domain name for the Grampians product region, namely <www.grampians.com>. Although it took the local operator another two years to author a website, it left the Committee with the less competitive option of registering its domain name as <www.Grampians.org>, denoting it as a non-profit organisation.

The authoring of the original website had been outsourced to the web-division of the marketing group in charge of all media campaigns for the Committee; and the Grampians site was launched in October 1999. Once the site was up, the Committee, by way of its marketing arm, offered operators that were part of the Jigsaw campaign the opportunity to have a presence on the Grampians website. The Grampians Jigsaw campaign is supported by almost 100 operators, which constitutes just below 10% of the approximately 900 tourism firms known to operate in the product region. About 25% of operators took up the offer; many of the smaller ones declined.

In December 1999, the Grampians website management team reported close to 13,000 hits, most of which came from within Australia. By December 2000, website hits had dramatically increased to 127,220, including both domestic and international hits. Website hits continued to rise in 2001 to 245,035 hits (see Appendix D). While there was a statistical tracking system in place to determine the number of hits and the countries visitors came from, there was no routing verification of how visitors found the site; for example, whether they came to the Grampians website via the ATDW site, the VTO site, or via a search engine. Nor did website hits necessarily translate into identifiable business, despite the annual percentage rate of international visitors to Victoria being up 2.6% in 2001. Visitor numbers are forecasted to increase to 4.1% by 2010 (Tourism Forecasting Council, 2001).

In October 2000, in an attempt to increase the region's general visitor number and augment the overnight stay of international visitors, the Committee decided to upgrade its basic Grampians website into a regional portal or gateway with booking and e-commerce capability. Unable to fund such an upgrade from its own coffers, the Committee resolved to submit a funding proposal to the federal government's Regional Online Tourism Program (ROTP), which is part of the abovementioned *Tourism Dotcom* strategy. Acknowledging the initial skills and investment barrier that small scale regional and rural tourism businesses are up against, the broad objective of the ROTP program is to "support, through grants, the development of geographically based regional tourism web sites which promote a range of tourism products and service" (Department of Industry Science and Resources, 2000, 15).

Preference is given to consortium projects that include e-commerce and whose applicants can provide matched funding, effectively including established regional tourism organisations, in a position to raise (industry) funds, and excluding individual tourism firms.

Entitled *E-Marketing the Grampians to the World*, the Grampians submission put forward a vision that would allow full upstream and downstream data integration with VTO and the ADTW to provide cyber visitors with a seamless source of accurate, consistent and current information. The portal project called for an online booking system; a highly sophisticated online database, with extensive depth of regional information and motivational content; an evolving e-marketing system; a web presence for regional tourism operators; as well as an online communication system for product region stakeholders (Grampians Marketing Inc, 2000). The Committee received ROTP funding for the website upgrade in May 2001 and the Grampians portal <www.visitgrampians.com.au> was launched in March 2002. The Grampians portal upgrade process will be discussed at length in future chapters, as it is integral to my research project aims to track the nature of the change process when a collaborative network is the faced with the adoption of e-commerce.

3.4 Chapter Conclusion

In this chapter I have examined general supply-side and demand-side tourism issues that have arisen with the advent of the Internet; and reviewed the literature on ICT and small tourism firms. I also explored ICT in terms of tourism and SME networks; and discussed what the adoption of ICT may mean for tourism networks, particularly where SME and networks are seeking to connect with individual tourists through state, national and global marketing systems. These elements are especially relevant for the predominantly SME-based cooperative marketing network that is the focus of my study.

I have presented an overview of tourism and technology developments in Australia; and in the State of Victoria. I have examined how the thrust of the Victorian Online Tourism project has impacted on ICT developments in the Grampians product region; and have described the Grampians network's own

online initiative to increase visitor numbers to the product region and augment the overnight stay of international visitors.

In the next chapter, I will discuss how the diffusion of an innovation such as the Internet is impacting on our business models. To place my research in both a diffusion of innovation and regional context, I will review innovation theory, regional innovation models and related trends. I also discuss elements of electronic business models, including e-commerce and portals, and related online marketing and value creation issues.

Chapter Four

Evolving Business Models

Change is inevitable. In a progressive country, change is constant.

— Benjamin Disraeli (1804–1881)

This thesis concerns the adoption of ICT by a tourism network. It is proposed by some (Stiroh 1999; Tapscott, Ticoll & Lowy 2000; Tapscott 1996) that ICT will change the basic nature of the business models that govern the conduct and performance of organisations through its pervasive impact on costs, scope of market contact, and organisational or community relationships. This chapter assesses the nature and scope of evolving business models. In reviewing the ways and extent to which Internet technology has affected aspects of our business operations, global, national and regional issues are also included in this chapter. I open the chapter with brief discourses on the new economy and globalisation and their impact on regional economies. Next, I turn my attention to innovation. In discussing the nature and sources of innovation, I present established and emerging innovation models and views, followed by a discussion of Rogers' (1995) work on the diffusion of innovations, which includes his approach to ICT-related diffusion. The latter discussion also clarifies the need for this study. The diffusion discourse is followed by a closer look at regional innovation strategies, related clustering, community building, social networking and learning trends; as well as the role of government and regional institutions within this context.

I then turn my focus to the actual business models that are emerging from the techno-economy. I explain e-commerce and the concept of portals. As in the previous chapter, I look at both supply-side and demand-side issues in relation to e-commerce, marketing, value creation and customer interaction. I conclude the chapter by discussing the central concept that permeates and underpins today's business models and typifies the nature of our techno-economy, namely change. I unite change with six other main concepts

discussed in this and the previous two chapters into a loose framework, described as the 7C framework, which is used to analyse the mainly qualitative data in the study.

4.1 The New Economy

With the rise of globalisation, technological innovation and the diffusion of information via the Internet, countries, regions, institutions, companies and communities everywhere are all scrambling to reinvent their existence in the "Internet economy", alternatively referred to in the literature as the "digital economy", the "learning economy", the "knowledge economy", and the "new economy" (Beer & Nohria, 2000; Hudson, 1999; Lundvall & Johnson, 1994; Rayport & Jaworski, 2001; Tapscott, 1996). Proponents of the new economy view today's economy as being enabled and driven by globalisation and computerisation, which in turn enable world markets and the formation of new enterprise models (Stiroh, 1999). The notion that the information age had led to network economies and increasing returns has received considerable attention. As Tapscott (1996) explained in his work on the digital economy, "the new economy is a networked economy, integrating molecules into clusters that network with others for the creation of wealth" (Tapscott, 1996, 54).

Not everyone agrees that we have a new economy. American economist Milton Friedman (2001) argues that advances in productivity have been ongoing since 1760, the beginning of the industrial revolution. Thus, according to Friedman, there is no technology-driven new economy at all, but rather a two-century-old economy for which new valuations systems have been developed (Ullmann, 2001). Porter (2001) is also of the mind that the new economy is an old economy that has access to new technologies. The role of ICT is to support and leverage existing sources of advantage. Whether the new economy represents a paradigm shift or just an improvement in operational efficiencies is still unresolved.

This is not to say that globalisation and technology are not important; or that globalisation and technological innovation are the only new economy drivers.

With economic agents operating in global networks of interaction, we can indeed now speak of a global economy (Castells, 2000), but what may be different in the new economy is the “extreme rate of change in certain areas related to the production and use of ICT and the breadth of the impact across regions as well as social groups” (Lundvall & Archibugi, 2001, 3). In fact, much of the “new growth” literature focuses on non-traditional forms of capital growth such as information, knowledge and research as the true forces of the new economy paradigm (Bartlett & Ghoshal, 2000; Cooke & Morgan, 1998; Evans & Wurster, 2000). It remains to be seen, however, how any of these factors are changing the global economy and whether, indeed, there is measurable evidence of faster productivity growth (Stiroh, 1999). Critique notwithstanding, many economy observers continue to look to globalisation, innovation, ICT technologies and biotechnology for the next phase of new economy expansion (Gillespie & Nakatomi, 2002).

4.1.1 Globalisation

Globalisation is a broad term encompassing an array of issues and developments. Globalisation issues can range from changes in world trade and monetary policies; to the growth of trans-national networks and consumer markets; to changing corporate strategies; to the scale, scope, capacities and impact of ICT such as satellite and broadband communications systems and the Internet (Dodgson, 1998; Nyholm, Normann, Frelle-Petersen, Riis, & Torstensen, 2001). Much of the complex globalisation debate focuses on the demise of the nation-state and the development of global markets, with the growing influence of new communication technologies as the critical factor in shaping modernity and the distribution of economic advantage (Giddens, 1990).

Globalisation is relevant to my work in that the diffusion of ICT and the Internet directly impacts on interactions between local and global forces. Giddens (1990) conceives globalisation as the stretching process between local involvement and interaction across distance whereby the “local transformation is as much part of globalisation as the lateral extension of social connections across time and space” (Giddens, 1990, 64). Applying his so-called

“glocalisation” framework, Robertson (1995) places spatial issues on an equal footing with temporal ones by examining local and global forces in a concrete locality (Robertson, 1995). In Castells’ (2000, 102) notion of a “regionalized, global economy” government intervention, regional (government) structures and networks play a significant role in the positioning of a region in the global economy.

4.1.2 Innovation

Innovation has also been defined in many ways with innovation research being undertaken by a wide range of academic disciplines (Marceau & Dodgson, 1998). The Australian Oxford Dictionary description of the word “innovate” is to bring in something new; to make changes in something established. The definition of innovation adopted for this study pertains to economic business innovation and change; and supports the Freeman and Soete (1997) view that innovation concerns a wide range of issues including organisational processes, activities, knowledge and capabilities. Mainstream Australian innovation researchers by and large support the view that new economy business innovation and related economic power revolves around information, learning, knowledge, productivity efficiencies, and competitive advantage (Dodgson, 2000; Marceau & Dodgson, 1998).

In broadly considering the sources and nature of technological innovation over the past half century, Rothwell (1992) outlines progressive generations of innovation. The first-generation (1950s to mid-1960s) innovation process was perceived as a linear science-push approach, from scientific discovery, through technological development in firms, to the marketplace. The second-generation (mid 1960s to early 1970s) was perceived as a sequential technology-pull process or a shift to demand-side factors, whereby the market was the source of ideas, leading to company R&D. The third-generation (early 1970s to mid 1980s) saw the emergence of a coupled, interdependent pull-push model, a sequential although not necessarily continuous process, with a confluence of technological capabilities and market feedback loops. The salient features of the fourth- generation (early 1980s to early 1990s) innovation process are integration and parallel development, bringing

suppliers into firms' development processes, with an emphasis on integrating simultaneous rather than sequential developments. The major aspects of the (early 1990s onwards) fifth-generation model are fully coupled and integrated parallel development, with strong horizontal and vertical inter-firm linkages and the use of a sophisticated electronic toolkit, collaborative research and marketing arrangements (Rothwell, 1992). Also referred to as a systems integration and networking (SIN) model, in the fifth generation model emphasis is increasingly on the integration of strategy and innovation with corporate flexibility towards continuous innovation and change (Dodgson, 2000).

The emerging pattern of the innovation process is one of a complex network of interaction, according to Freeman (1991), as it includes not just cost benefits, but strategic behaviour, appropriation of knowledge, technological complementarity and sociological compatibility. Others concur that networking and collaboration for innovation purposes is complex, as emphasis is placed on collaboration rather than competition between innovation firms (Marceau & Dodgson, 1998). Drucker (1998) ascribes the main sources of innovation opportunities inside a company to unexpected occurrences, incongruities, process needs or industry and market changes. Outside a company, opportunities arise from demographic changes, changes in perception, or new knowledge (Drucker, 1998). For Dodgson (2000), technological collaboration for the production and diffusion of technology involves a "shared commitment of resources and risk by a number of partners to agreed complementary aims" (Dodgson, 2000, 165).

Intuitively, we tend to view innovation as something that only takes place in large companies and in high technology industries. As a result, "market-oriented innovation activities in low-tech manufacturing and in service sectors are underestimated" (Nyholm et al., 2001, 256). While high technology products are generally considered to be the cutting edge of innovation in the market place, some observers argue that "process innovation plays just as important a strategic role" (Tidd, Besant, & Pavitt, 2001, 4). Process innovation involves the deployment of both product and knowledge or an ability to learn and change as an ongoing response to innovation.

A series of innovative business and communication trends are emerging in service sectors, especially in sectors that are information and knowledge intensive, such as the tourism industry. Figure 4.1 shows that in the new economy, (service sector) innovation includes organisational, product, service, branding and marketing changes. Increased specialisation, cooperation, networking, competition and changing relationships with suppliers, customers and learning institutions can also be considered innovation components of the new economy (Nyholm et al., 2001). The adoption and diffusion of ICT and the Internet are integral components in these innovation changes, as connectivity has increased our ability to connect and communicate with others, regardless of whether they are located locally, regionally, nationally or across the globe.

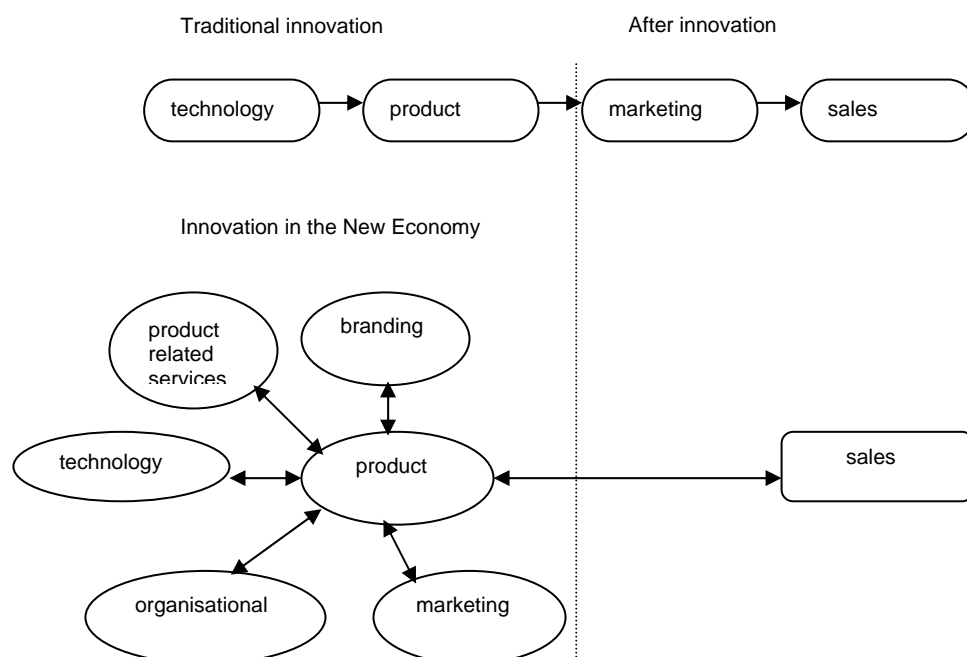


Figure 4.1
Business Innovation Trends
 Adapted from Nyholm et al. (2001)

Firms may be aware of an innovation for some time without necessarily having developed a favourable attitude towards adopting the innovation (Rogers, 1995).

4.2 Diffusion of Innovations

We speak of the diffusion of innovations when an innovation is being adopted by increasing numbers of individuals (Spencer, 2001). Innovations are only able to make an impact if they are absorbed and embedded in society. The diffusion of innovations research field has been covered by various scholars, but Rogers' (1962) work – which analysed the process of diffusion, and mapped the impact of a combination of social, economic, and technical forces on that process – has made a seminal impact and still stands as the dominant model in the field.

Rogers (1995) describes the characteristics of an innovation, or the elements that impact on the adoption and diffusion of same, as closely linked to the degree of difficulty, need, experimentation, visibility, and relative advantage perceived by potential users in adopting the innovation; and the social system(s) and communication channels adopters are linked to. Cost and time also play a role in the adoption process, in terms of available resources for the former, and the relative earliness/lateness with which an innovation is adopted in comparison to other members of a (social) system for the latter. Thus, Rogers (1995) classifies adopters as innovators, early adopters, early majority, late majority and laggards. Late adopters often seek out early adopters for their advice. These now widely used adopter categories are valuable to identify the different groups of adopters within a social system and to determine the speed of adoption.

When the diffusion of an innovation is a planned, or centralised, change process, it often involves a change agent. Generally the mission of a change agent is a social marketing one to create intent in the client to change and to help translate that intent into action (Burnes, 1996). Clients are usually opinion leaders, who are typically most cosmopolite within their social system and who have a propensity to influence the broader population. There is often a need for “change aides” as well, individuals who are closer to the localite audience than the official change agent (Kautz & Larsen, 2000). When the diffusion of an innovation is unplanned, or decentralised, the adoption is considered an

emergent change process, whereby the decision-making processes of the adopter play a significant role.

Rogers (1995) defines the essence of innovation diffusion as “the process by which an innovation is communicated through certain channels over time among the members of a social system”, indicating the ways and means by which messages get from one individual to another (Rogers, 1995, 5). Adopters fit into a variety of categories, including those who spontaneously adopt the innovation; those who model their adoption on peers in horizontal networks or collective groups such as an industry association; and those who reinvent and modify the innovation to suit their needs or rely on local non-experts (Rogers, 1995).

Since the process of adoption is an information seeking and information processing activity, the adopter’s information channels or interpersonal networks play an important role in the adoption process. Mass media are said to be more important in the knowledge-seeking phase, while interpersonal channels are deemed more important at the persuasion stage (Kautz & Larsen, 2000). Obviously, mass media may have a direct impact on an adopter, while the flow of information via different communication channels may be quite complex. While interpersonal diffusion networks are often homogeneous in nature, heterogeneous networks are believed to positively influence adoption. As Granovetter (1973) demonstrated in his seminal work on the strength of weak ties, interpersonal heterogeneous network links are important in obtaining new information. Network ties are defined as either strong or weak, depending on the level of interactivity, emotional intensity, and reciprocity that takes place between actors. While homogeneous links spread an innovation horizontally, heterogeneous links reportedly speed up vertical diffusion. As such, network culture—defined by Schein (1992) as the norms and values held by network actors and communicated through interpersonal communication processes—appears to feature predominantly in anthropological diffusion studies. Rogers (1995) only touches on culture in broad “failure to acknowledge” terms; for example, “planners and officials in charge of development programs failed to account fully for the cultural values of the expected adopters of innovation” (Rogers, 1995, 47).

A careful perusal of Rogers' (1995) in-depth comparison of the major diffusion research traditions, which includes a cross-section of disciplines, reveals a predominant use of quantitative research methodologies. Quantitative studies tend to measure the rate of adoption and/or the speed of diffusion, typically producing curvilinear results with some variety in slope; for example, a rise, plateau or discontinuation, depending on the phase of adoption. Network diffusion studies, which include geography and interfirm networking studies, have in the main sought to measure opinion leadership; network proximity, cohesion, competition, network links and such, through sociometric and survey methods, informants' ratings, self-designating and observation techniques (Abrahamson & Rosenkopf, 1997; Saxenian, 1994; Von Hippel, 1988). While such studies generate important data, they do not adequately capture the change *process* that leads to an innovation being adopted or rejected. As Rogers (1995) himself acknowledges:

There have been relatively few studies of how the social or communication structure affects the diffusion and adoption of innovations in a system. It is a rather tricky business to untangle the effects of a system's structure on diffusion, independent from the effects of the characteristics of individuals that make up the system (Rogers, 1995, 25).

There also are diffusion studies based on social learning theory; for example, individual learning through observational modelling, or mimicking other adopters' behaviour (Bandura, 1977). Such studies predominantly measure *what* individuals learn through network linkages from adopters of an innovation, which may then be linked to the pace of adoption (Hamblin, Jacobson, & Miller, 1979; Kapur, 1995). Observing such detailed learning allows researchers to determine "what resources of time, money, effort, skills and mastery of technical jargon are necessary for the individual to adopt an innovation" (Rogers, 1995, 331). Social learning studies may also measure adopters' satisfaction level with an innovation, or whether the innovation solved adopters' perceived need. However, informational content and interactive learning processes would need to be more fully incorporated into social learning theory to attain outcomes that pertain to the adoption *process*.

4.2.1 ICT Adoption

Past diffusion research has generally investigated single innovations, such as the television. However, Rogers (1995) also discusses the concept of "technology clusters", one or more interrelated elements of technology that are adopted in context, with one innovation influencing an individual's perception of the next innovation. Interestingly, in his later work on the diffusion of new technologies, Rogers' does not identify ICT as a technology cluster; instead, he focuses on the exceedingly rapid rate of new technology adoption in the 1990s (Rogers, 1997).

ICT encompasses a series of separate yet interrelated components; for example, electronic mail (email), the Internet, the web, and e-commerce, which can be adopted in a variety of social and business settings. Hence, it is suggested that ICT cannot be considered as a single technological innovation, but rather as a series of (process) innovations, potentially resulting in variable diffusion patterns (Walczuch, Van Braven, & Lundgren, 2000). Rogers does discuss the adoption of interactive media such as email, cellular telephones and teleconferencing in terms of critical mass; for example, each adopter increases the utility of adoption for all adopters; and interactivity—the reciprocal interdependence, or the "it takes two to tango" quality of interactive innovations—increases the benefits for previous as well as future adopters (Rogers, 1995, 325).

With ICT inextricably linked to competitive advantage (OECD, 2001), and ICT adoption statistics having gone through the global roof (Nua Internet Surveys, 2002), a widespread pro-innovation bias towards ICT adoption appears to prevail. As a result, a so-called adoption bandwagon effect occurs "due to a combination of competitive and institutional pressures" (Tidd et al., 2001, 189). A pro-innovation bias, or a predisposed attitude by diffusion researchers, can be dangerous, according to Rogers (1995, 100) as it can lead to researchers believing that an innovation should be adopted by all members of a social system, resulting in "failure to learn very important aspects of diffusion". My work with a regional tourism network seeking to adopt e-commerce for network innovation purposes had, by its very nature, a pro-innovation stance.

4.3 Network Innovation

In geographic terms, systems of innovation can operate on an international, national, regional and local level. In the Keynesian tradition, regional innovation policy used to be incentive and firm-centred rather than market based, whereby income, redistribution and welfare policies stimulated the less favoured regions (Amin, 1999). In recent times, regional development policy has undergone a paradigm shift from an exogenous intervention focus to an endogenous, relational network, one (Storper, 1997). This represents an important acknowledgment that innovation and growth only become embedded in a community or regional economy if the system embraces and supports the change. This has led to regional policies that are embedded in the specific skills, needs and attitudes of individual communities.

4.3.1 Regional Innovation

Networking, community building and learning are portrayed as pivotal linkages for regional growth, whereby policy makers concerned with the performance of regional economies are seeking to foster a networked community culture (APEC, 2001; Asheim, 2001; Chisholm, 1998; Martinez-Fernandez, 1999). Network formation is not a novel or emerging concept, but rather a recycled notion caught up in a new policy wave.

4.3.1.1 History of Networks

Network formations and innovation based on interfirm collaboration have existed for over 40 years. Theoretical discussions on interfirm organisation can be found as far back as 1960 (Philips, 1960) although it would take another twenty years until Miles and Snow (1992) identified a significant movement towards the network form. Since then, myriad network structures and traits have been discussed in the literature, including firm or actor interdependence, activities along the value chain, strategic alliances; collective learning, social capital and trust, to mention but a few (Miles & Snow, 1992).

In the early 1980s, rapid technological changes and international competition forced industries and companies to move away from vertical integration, down-size to their core competencies, de-layer management hierarchies and start outsourcing a variety of activities. Depending on organisational needs, network structures started to take various forms ranging from internal networks and dynamic loose coupling arrangements to long-term stable supplier-producer-distributor relationships. These types of network organisations differed from previous forms of organisation, such as the functional, divisional and matrix forms, in that they relied on market mechanisms and pro-active participants, whose collective assets are used to manage the resource flow and improve the final product (Miles & Snow, 1992).

Drucker (1988) referred to this new organisational structure as an information-based organisation or a networked organisation. Davidow and Malone (1992) preferred to call networked organisations “virtual corporations”, referring to the loosening of well-defined hierarchical company structures into a more flexible and shared approach towards the delivery of products and services to match customer desires (Davidow & Malone, 1992). Nagel and Dove (1991) took the virtual corporation concept to mean the synthesizing into a single business entity of organisational resources from different companies. Not all observers concur with the notion of virtual organisations. Teece (2000), for example, identified a number of factors that either enable or disable the development of virtual forms.

Indicative of the learning curve for businesses in the evolution from an industrial society to a knowledge society, Senge (1992) first coined the term “learning organisation”. An advocate of the networked organisation concept, Senge (1992) advanced the practice of shared vision, team approach and continuous enlightenment through lifelong learning. Nonaka and Takeuchi (1995) progressed the shared vision and lifelong learning into the knowledge-creating company, whereby knowledge is the basis of the network strength (Nonaka & Takeuchi, 1995).

Of course, not all network alliances are successful or beneficial. Within the texture of interdependence, modifications in a business network can be caused by both exogenous factors, such as a transformation in the economic and technological climate, and endogenous ones, such as competition, issues of power, or lack of trust between partners (Håkansson & Snehota, 1995). Alliances with outsiders can also prevent firms from pursuing major strategic innovations (Chesbrough & Teece, 1996). Huxham and Vangen (2000) identified either problematic or beneficial attributes of collaborative practices and learning networks as "common aims, communication, commitment and determination, compromise, appropriate working processes, accountability, democracy and equality, resources, and trust and power" (Huxham & Vangen, 2000, 1162).

Connectivity and the Internet have significantly supported the externalities that both create and sustain networked firms (Kisielnicki, 1998). Today's networked companies coordinate much of their business through the marketplace in order to harness market forces and to create value in the new economy (Chesbrough & Teece, 1996). Connectivity has boosted conventional reasons for interfirm networking and clustering—for example, creating critical mass—as it facilitates the knowledge-based infrastructure network imperative for today's competitive advantage (Porter, 1998). The technology-enabled landscape provides the capacity for firms to collaborate with former competitors and potentially achieve "competitive co-evolution, enhanced by digital platform features" (Ordanini & Pol, 2001, 282).

4.3.2 Clustering

Whilst ICT has developed new communication channels and in some senses has led to the death of distance (Cairncross 2000), geography is still important. The literature is saturated with views on geographic proximity, or clustering of industries and companies, to create innovation and competitive advantage, (e.g., Asheim, 2001; Brusco, 1990; Krugman, 1995; Porter, 1990). In the context of emerging technologies and related knowledge-economy business models, linking stakeholders in dynamic clusters is believed to enhance competition and regional innovation (OECD, 1999). In the context of

this study, the impact of clustering supported by social capital and new technology in the form of ICT is potentially critical to the diffusion of innovations within a geographic community.

The geographic scope of a cluster can vary from a single city, state or region to a network of companies across state borders or even country borders. They can be formal or informal, in the public or private sector; horizontal or vertical; physical as well as virtual. In a horizontal network, companies within the same industry sector might share an industrial or technological base, operate within a common market and use a common purchasing and/or distribution channel. Vertical networks include horizontal cluster participants as well as suppliers, users and related services (Boekholt, 1997). Porter discusses competitive advantage as being "created and sustained through a highly localized process" (Porter, 1990, 19) and ascribes enduring competitive advantage in a global economy to local knowledge, relationships and motivation that cannot be duplicated by global partnering (Porter, 1998).

Inspired by the prosperity of regions such as the "Third Italy", which is characterised by strong local SME clustering and economic interdependencies, policy makers in different parts of the world have been seeking to duplicate successful clustering experiences to unlock the wealth of their own regions (Asheim, 2001). European politicians address the tension between competitiveness and cohesion within regions by using novel trans-sectoral and proactive approaches to create bridges between firms, and between institutions and industry (The European Spatial Development Perspective, 1999). Recognising that economic growth is accomplished by designing regional-level intervention—that allows actors within regions to shape their own development prospects and stimulate learning—European spatial policy initiatives also include the decentralisation of power through multi-level governance; and the building of epistemic communities based on embedded competencies and social structures (Henderson & Morgan, 2001; Maskell & Malmberg, 1999).

4.3.2.1 Australian Clusters

In Australia, the federal government has also shown renewed interest in, and support for, industry clustering, although the philosophical debate whether clustering should be government- or industry-led varies from state to state. The state of Victoria has opted for an industry-based cluster policy that focuses on attracting major national and foreign companies into the state (Enright & Roberts, 2001). Victoria's policy concentrates especially on emerging technologies and market opportunities for the growth of the ICT industry (Multimedia Victoria, 2002a).

Even with the renewed interest in clustering, research on clusters in Australia has remained limited. Enright and Roberts (2001), contrasting globalisation and localisation, conclude that in the new economy clusters are regionally driven with local communities seeking to maintain the social, environmental and economic agendas in a global economic climate (Enright & Roberts, 2001). Having identified some seventy regional cluster initiatives, Brown (2000) believes that Australian clusters have insufficient focus and lack critical mass (Brown, 2000). A cluster development and cross-industry collaboration study in New South Wales revealed much initial scepticism and lack of trust among industries and firms (Martinez-Fernandez, 1999).

The limited cluster literature concurs that Australia's small firms do not have a natural propensity towards collaboration. A similarly limited amount of small business network studies undertaken in Australia have predominantly addressed scope and scale-related marketing and sales issues, which generally fostered service-related peripheral involvement of businesses without affecting their core competencies and without achieving network integration (Buttery, Fulop & Buttery, 1999; Dean & Holmes, 1997; Nesheim & Reve, 1996).

There are, nonetheless, some recent reports on successful collaboration in the agricultural sector (Insights, June 2002). In the Birchip Cropping Group (a farmer-driven agricultural research cluster), value is created through social cohesion, the exchange of information, farmer learning and, perhaps above all, a shared vision, drive and passion (Lowe & Berrisford, 2002). Other

positive cluster accounts come from the tourism industry. Natural resources have long provided small tourism firms with a clustering incentive around geographic icons such as a natural health spa or a national park. Natural assets in Far North Queensland, home of the Great Barrier Reef, have driven the Queensland tourism industry to concentrate on certain locations, demonstrating that the tourism industry has the potential to achieve positive economic outcomes through clustering (Roberts, 2000). On the virtual tourism cluster front, a collaborative e-commerce gateway was successfully adopted as an additional destination sales channel and supply chain booking service in Daylesford, Victoria (Multimedia Victoria, 2002b).

Despite an obvious research gap on whether, when and why small Australian firms are prone to taking a single-minded competitive approach rather than a complimentary collaborative one, policy makers appear to support clustering and knowledge transfer towards regional capacity building (DOTAR, 2002).

4.3.3 Learning Regions

It is believed that, like firms, regions can reduce uncertainty, foster innovative milieux, and augment creative capacity for firms by way of information and knowledge diffusion throughout the local network (Amin, 1999; Cooke & Morgan, 1998; Marceau & Dodgson, 1998; Storper, 1997).

Regions are being turned into so-called learning regions, in which socially a variety of regional agents and institutions are intended to take part in interactive learning cycles (Amin & Thrift, 1995; Lundvall & Johnson, 1994). By formulating networks and entering into interactive learning processes, it is believed that regions can create competitive advantage (Florida, 1995; Henderson, 2000; Morgan, 1997). In Australia the focus has been on developing learning towns rather than learning regions. The state of Victoria has set up regional learning communities to encourage industry, education, and communities to come together for integrated economic, social and environmental development through lifelong learning (Candy 1998).

Despite this popularly adopted regional development through collaborative learning agenda by academics and international policy makers (APEC, 2001;

Garlick, 2000; ECD, 1999), there are limitations to consider vis-à-vis the dependency on learning for regional innovation (MacKinnon, Cumbers & Chapman, 2002). As Freeman (1994) has pointed out, those (nations) that are adept at matching institutional innovation with the emerging techno-economic paradigm are likely to forge ahead; those that suffer from institutional “drag” or inertia may fall behind (Freeman, 1994). Labelled as a “sympathetic critique” of the learning economy in general and learning regions in particular, Hudson (1999) argues that capitalist societies have always used learning and best practice as part of innovation and that the contemporary focus on knowledge sharing and learning is simply “a new twist on an old theme that ‘knowledge is power’ ” (Hudson, 1999, 59). However, it may be said that in our connected society there is unprecedented emphasis on learning and the creation, distribution and exchange of information and knowledge (Asheim, 2001).

Measuring the success factors of learning for regional development is still in its infancy, with little practical evidence available as to its merit (Maskell, 1997). To add complexity to the learning region debate, the concept of what constitutes a region can be indistinct, especially if such a region is artificially constructed, as is the case with the tourism product regions in Victoria (see 2.2.2). In addition, although regional learning is presumably anchored in endogenous capacities, social, and institutional relationships within a region, we cannot disregard innovation and knowledge creation via exogenous influences such as extra-regional and global Internet networks (MacKinnon et al., 2002).

4.3.4 Learning Institutions

There is an increasing amount of evidence that universities and other learning institutions are critical aspects of innovation creation, diffusion and exploitation (Garlick 2000). Knowledge creation and learning has traditionally been the domain of universities and learning institutions. With the new economy inextricably linked to learning and knowledge creation; and regional learning being associated with, inter alia, institutional relationships within the region; it is important to gain some insight into the changing role of universities.

The topic of cooperation between universities and the business world is not new, but the relationship between regional development strategies and educational processes is less well-established (Johnson & Tilley, 1999). Alternately referred to in the literature as “technology transfer”, “knowledge exploitation” or “industry-science relations”, in the past, most university-industry interaction appears to have been a one-way rather than a bi-lateral knowledge transfer process (Brulin, 2001). However, after decades of intense debate and criticism, external relationships are back on the institutional agenda and Australian university charters, like those of other universities around the world, are reflecting a renewed commitment to improve university-industry collaboration within their regions.

Collaboration between universities and practitioners is, in some ways, a relatively new and intricate process, for which new practices need to be developed. There appears to be growing consent that the way forward for academia is to change the forms of knowledge creation rather than to find appropriate theoretical frameworks (Toulmin & Gustavsen, 1996). This is not to say that all forms of knowledge creation currently in use are defective, or that institutional research agendas need a total overhaul. However, research programs that aspire to move away from linear processes of knowledge transfer need to be amenable to utilising bi-directional or joint knowledge creation processes that can deliver “knowledge as a base for action and as a platform for further inquiries” (Brulin, 2001, 441).

Gibbons et al. (1994) refer to knowledge creation in a conventional university setting as Mode 1 knowledge creation, whereby a new knowledge generation is predominantly pursued in a closed network of peers. Mode 2 knowledge production, to the contrary, is a collaborative production of (often more practically relevant) new knowledge, co-created by academics and practitioners in the field (Gibbons et al., 1994). While both modes continue to exist, today’s economy requires accelerated knowledge production, and Mode 1 knowledge production is perceived by some as too slow and too inward looking (Groen & Van der Sijde, 2002). When researchers support interactive development processes and organisational linkages, powerful and efficient results can ensue (Gustavsen, 1998).

4.3.5 Learning Environments and Social Capital

Turning ourselves into collective communities of learning is not an easy task (Brown & Duguid, 2000). Collective learning and knowledge creation are spiralling processes of interaction fusing explicit and tacit knowledge (Nonaka & Konno, 1998). Interaction creates new knowledge when actors bring their knowledge to a shared space, referred to by Nonaka and Konno (1998) as *ba*. This space can be physical, mental, virtual, or a combination thereof. The socialisation, externalisation, combination and internalisation (SECI) cycle, which represents the four characteristics of *ba* space as described in the SECI model, provides the knowledge creation platform. Regardless of the environment, “to participate in *ba* means to get involved and transcend one’s own limited perspective or boundary” (Nonaka & Konno, 47). The networked economy may be viewed as a large-scale *ba* or relational space, in which the synergy of cooperative behaviour facilitates actions. Based on connectivity and new relationships founded on social capital and the sharing of embedded knowledge, a variety of business, learning and social network structures can evolve (Braun & Billard, 2002).

The utility of, and hence the literature on, social capital has flourished in the new economy. Social capital can be roughly understood to mean “the goodwill that is engendered by the fabric of social relations” (Adler & Kwon, 2002, 17). Typically, firms and individual actors are embedded in a variety of formal and informal professional, social and intellectual exchange networks (Granovetter, 1973). The extent and importance of these networks usually relate to firms’ and actors’ horizontal and vertical relationships, network culture and strategic complementarity. Providing a comprehensive review of social capital literature across a variety of disciplines, Adler and Kwon (2002) list trust; reciprocity; social norms and obligations; participation in relationships; and proactivity among the elements contained in social capital (Adler & Kwon, 2002). Freeman (1991) similarly refers to factors such as trust, ethics and confidence in the cooperativeness of others for effective network innovation (Freeman, 1991).

The knowledge and social capital a person accumulates through networking is highly personal, tacit knowledge, and considered a valuable asset (Nonaka & Takeuchi, 1995). In terms of social capital transaction, external network relations accentuate “bridging” forms of social capital, whereas internal network ties focus on “bonding” forms of social capital (Putnam, 2000). Trust and reciprocity to resolve problems within network operations and work towards collective action very much depends on the individuals within the network. Thus, the analysis of network structures requires attention to the quality of constituent ties (Adler & Kwon, 2002).

Trust and social capital are attributes not only of organisations but also of communities, industry networks or even entire geographic regions, which can help expedite economic development and facilitate large-scale economic activities (Fukuyama, 1995). Trust between partners is said to reduce fear of opportunistic behaviour and improve collective learning (Gulati, 1995).

4.3.6 Learning Networks

Adopting the view that knowledge is embedded in humans, rather than systems, large companies have been encouraging intellectual exchanges and knowledge flows to preserve, renew and augment their knowledge platforms (Davenport & Prusak, 1998; Zack, 1999). As a result, a new form of social capital building has emerged through a spontaneous knowledge exchange trend known as “communities of practice” (Wenger, Snyder & William, 2000). Most communities of practice are informal groups of people, who regularly share their expertise and experiences through face-to-face meetings, email, knowledge sharing networks, teleconferencing, or video- and desktop conferencing. Showing great promise in driving organisational learning and innovation, this form of knowledge management is being adopted in both the public and private sector, as it is considered the key to survival in the knowledge economy (Wenger et al., 2000, 142).

Exact emulation of a community of practice may not be feasible or even desirable for small companies. Company members join a community of interest for networking or learning purposes in their field, trusting other company members in the exchange of explicit and tacit company knowledge

for the “public good” aspect and building of company assets. Given the frequent atomistic nature of small firms, SME are more likely to compete in a knowledge exchange milieu. SME networks hence require different learning contexts that may approximate desired community of practice results (Braun, 2002). Von Krogh et al. (2000) emphasise the need for an enabling context for learning and knowledge sharing, based on the *ba* concept, where participants set and change their own boundaries of learning (Von Krogh, Ichijo, & Nonaka, 2000). In North America, the formation of interfirm learning networks is closely linked to Mode 2 learning; network development academics and practitioners often use action research methodologies since Mode 2 learning and action research support reflexive learning processes and promote change (Chisholm, 1998). In Scandinavia, action research is consistently used to optimise regional learning and network organisation (Gustavsen, 1998; Hanssen-Bauer, 1998). In University-led SME learning networks in Sweden, action research methods have successfully assisted small companies to form closer relationships and beneficial learning partnerships. However, positive outcomes only ensued when SME learning styles and needs were met; trust between firms was built; and committed interest to the learning network was present (Tell, 2001).

4.4 Changing Business Structures

In order to compete in the networked economy, it is believed that companies across the board must be prepared to adopt technology-mediated channels; formulate technology convergent strategies; and organise their resources around knowledge and new relationships (Rayport & Jaworski, 2001).

However, new ways of doing business to achieve success in the techno-economic innovation paradigm bring to the fore complex strategic planning issues. Labelling the Internet’s lexicon as destructive, Porter (2001) posits that terms like “e-business” and “e-strategy” are problematic since they encourage the view that the Internet operates in isolation. Porter (2001) reasons that Internet technology should be integrated throughout a company, as it provides better opportunities for companies to improve performance and establish strategic positioning; but he also argues that, strategically, the Internet should

only be viewed as a complementary channel to support business as usual. Critics of Porter suggest that he has failed to recognise the revolutionary nature of the Internet (Tapscott et al., 2000; Ticoll, Shuman, & Twombly, 2001). Either way, the view that network externalities such as email and the web are necessary to transform business capability from a parochial to a global level, is leading the drive to set up e-commerce portals and other enterprise resource and procurement networks (Murray & Trefts, 2000).

4.4.1 E-Commerce

For companies, part of the new economy innovation process entails the reengineering of internal and external processes and the conducting of commerce through technology-enabled means such as intranets (internal company communications network); extranets (a partial extension of an intranet accessible to authorised outsiders); and the Internet (Rayport & Jaworski 2001). While still in its infancy, e-commerce—defined in this study as connectivity, electronic data exchange and transaction capability via the Internet (The Allen Consulting Group, 2002)—has taken off on a global scale. Business-to-Consumer (B2C) and Business-to-Business (B2B) e-commerce conducted via the Internet is having a significant impact on global and national economies, estimated to be in the hundred of billions of US dollars globally (NOIE, 2002). There are various other forms of electronic demand-supply interaction that are rapidly gaining recognition, such as Government-to-Business (G2B); Business-to-Government (B2G); and Consumer-to-Consumer (C2C). In the context of this study the uptake of B2C (operator-to-customer interaction and transaction) and B2B (operator-to-operator clustering and interaction) is potentially critical to create competitive advantage for a geographically dispersed tourism network.

E-commerce is already stimulating a structural change in the Australian economy, according to a recent federal government report on the state of e-commerce in Australia (NOIE, 2000). Examining the regional and local potential of e-commerce, the report concluded that especially country regions with industry sectors offering products and services rather than commodity export activities could expect a lift from the effects of e-commerce, since

connectivity would reduce distance and make goods and services more accessible. Internet-based commerce in Australia is predicted to grow from US\$5 billion in 2001 to US\$78 billion in 2005. Growth is expected to predominantly come from B2B activities with larger companies extending e-business operations, government scaling-up e-procurement activity, and increasing SME e-business participation (New South Wales Business Investment Division, 2002).

Considering volume and revenue statistics alone, however, is likely to create an uneven picture of the spread and significance of the Australian e-commerce economy. Australian companies use the Internet for a variety of purposes, with survey studies indicating that 95% of Australian enterprises use the Internet for communication; two-third for research and promotion; and about half for purchasing (The Allen Consulting Group, 2001).

On average, Australian enterprises have taken a mixed business model or "clicks and mortar" approach; for example, few businesses in Australia are pure dot com companies but, rather, use the Internet as a complementary market channel. The Australian e-commerce economy is, hence, predominantly made up of firms that have adopted hybrid rather than pure play e-commerce models, and may be typified as companies that use rather than develop the technology. While the latter may initially result in fewer or slower gains in terms of demand for Internet goods and services, the Australian economy is assumed to be "less vulnerable to many of the underlying risks and volatility that is involved in many of the high technology businesses" (The Allen Consulting Group, 2001, 9). Although B2C transactions appear to have fallen out of favour with Internet investors and analysts after the demise of many dot com companies, the Allen research group stresses that it is important not to overlook B2C impact on the Australian economy, especially in terms of B2C uptake by Australian SME, which make up 96% of all business enterprises in the private non-agricultural sector (ABS, 2000).

Adoption of e-commerce and networked technologies by SME is directly related to the size and nature of SME and largely depends on their perception

of affordability and opportunity for their business (OECD, 1998). Although over sixty percent of Australian SME, many of which are regionally based, now have Internet connectivity (The Allen Consulting Group, 2001), Australian research into the adoption of networked technologies has also indicated that SME generally approach the Internet with caution and still hesitate to invest their time and money in a rapidly changing economy (NOIE, 2000). The latter study cites competitor use of the Internet, alienating intermediaries, uncontrolled growth, lack of technology skills and lack of a strategic sense of how to move forward as significant barriers. SME also perceive ICT innovation policies as pertaining to large firms and are, hence, suspicious of e-commerce regulations. Unreliable service and lack of bandwidth in regional and rural areas have also added to e-commerce uptake barriers for SME (Opticon Australia, 2001). The tourism network in this study is predominantly made up of SME and these factors are potentially critical vis-à-vis the uptake of ICT and e-commerce within the network. On the demand-side, in contrast, acceptance of the Internet and online product buying has been gaining momentum (NOIE, 2000), along with online shopping malls and e-commerce business exchanges, known as portals (Wilson, 2000a).

4.4.2 Portals

The terms gateway, hub and portal can be confusing because they are often used interchangeably. Powell (2000) distinguishes a hub from a portal as follows: hubs are based around one or more Internet resource catalogues, providing access to high-quality Internet resources; portals provide access to a wide range of heterogeneous network services, which can be structured or unstructured, located either local or remote (Powell, 2000). Portals tend to rely on technologies that broker access to remote web sites on the user's behalf, so users do not need to leave the portal interface (Clark, 2002). In view of the latter, Brophy (2001) considers portals “sticky” websites. To the contrary, in gateways, users are only temporary visitors, following signposts to other sites, possibly returning to the gateway on a recurring basis to find additional links or resources (Brophy, 2001).

Portals can take a variety of forms. They can cater to a geographic community or dispersed community-of-interest; have a subject learning or academic purpose; an information management or business transaction focus; or serve a combination of purposes (Clark, 2002). The first web portals were online services with a restricted infrastructure where subscribers could communicate with one another either via email or by participating in an online forum. Online services also connected subscribers to a number of third-party information providers, giving them access to such information as stock quotes, news and magazine articles. Three of the largest online services, America Online (AOL), CompuServe, and Microsoft Network (MSN), eventually expanded their services to include Internet access (Meisel & Sullivan, 2000). Today's online services are no longer mere gateways to information and web access. Like traditional search engine hubs such as Yahoo, Excite, and AltaVista—once mere jump-off points to search web content—they have transformed themselves into web portals (Boye, 1999).

General public portals have always have had strong collections of links to business sites, but more recently have started to develop specialised business-to-business (B2B) services, such as site hosting and domain registration, to reduce their dependence on advertising and capture a larger part of the Internet B2B market (Kemp, 2001). A business portal is distinguished from a general public portal by its concentration on business customers and its efforts to bring B2B information and procurement under a unified umbrella (Meisel & Sullivan, 2000).

The evolution of B2B e-marketplaces reflects the Internet's steady maturation. As a business entry point, e-marketplaces can perform a number of functionalities, ranging from advanced personalisation, to supply chain management, electronic data interchange, workplace integration, and customer relations management. Classified into Vertical Enterprise Portals, also called VEPs or Vortals, which narrowly focus on a particular industry (e.g., Tucows.com, Vertical.net), and Horizontal Enterprise Portals, also known as HEPS or MegaPortals, which aim to aggregate the collective buying power of companies on a wide variety of purchases (e.g., AOL.com). Procurement or transaction portals are among the most visited places on the

Internet (Apicella, 2000). Berners-Lee (1999), the architect of the World Wide Web, argues “portals represent the self-reinforcing growth of monopolies, especially those that integrate vertically. In its greater context, the battle of the portals is a battle for brand names on the Web” (Berners-Lee, 1999, 143). In the context of this study the establishment of an ICT-enabled portal platform is potentially critical to brand recognition for the product region.

4.4.3 Australian Portals

The Australian motivation to create portals initially came from researchers, who saw the potential of subject-focused gateways to information and were frustrated with the challenges of finding information on the Internet. The first major portal for a defined user group in Australia was EDNA, an education portal for primary schools and high schools throughout Australia (Missingham, 2000).

It did not take long for big business to enter the wide-open Australian portal market. Formed in 1997 as a joint venture between the Australian-owned Nine Network and Microsoft, Ninemsn became the most visited website in 2001, followed by Yahoo Australia, Telstra, and the White Pages/Yellow Pages telephone listing sites (Sheriff, 2001). Portals and search engines reach 86% of the Australian online population with the finance, insurance and investment arenas enjoying particularly strong interest from the Australian public (Nielsen NetRatings, 2002). These recent figures show that the pulling power of general public portals is now beyond doubt.

B2B portals also continue to gain momentum. B2B marketplaces tend to create value in generating lower prices for buyers and streamlining buyer and supply chain operations. Many B2B transactions involve large corporate industries and business-to-government (B2G) transactions; for example, the Tasmanian Logistics Online project processes 11,000 consignment transactions per month on behalf of the Tasmanian transport sector (Henderson, 2002). In contrast, there are still relatively few Australian B2B marketplaces for small firms, since value creation through online clustering does not yet appear to be a core objective for Australian largely service sector-based SME.

The Commonwealth Government is actively encouraging online SME clustering through its Information Technology Online (ITOL) program. ITOL was designed to accelerate the national adoption of B2B e-commerce solutions and be “a catalyst for SME industry groups to come together to solve common business problems on an industry-wide basis, rather than working individually and developing multiple solutions and, in some cases, duplicating outcomes” (NOIE, 1999, online). ITOL provides seed funding for a broad range of activities, including portal and industry network development.

The Australian Tourism Data Warehouse (ATDW) project, discussed in the previous chapter (see 3.2.1), was the beneficiary of an ITOL grant to compile information from the different state/territory tourism databases in a nationally agreed format, although the project was backed by a consortium of major industry players rather than small tourism firms. A recent analysis of ITOL-funded projects lists the ATDW as a positive “example of a project with broad industry support from major industry stakeholders...allowing a better cross-flow of information throughout the industry” (McGrath & More, 2002, 36). Where actual collaboration with small firms occurred, the ITOL analysis revealed that the majority of funded SME projects tended to be temporal exchange relationships within networks ceasing to exist once funding dried up (More & McGrath, 2003). The study showed that the forging of collaborative (SME) networks was highly complex.

Although most survey respondents identified ‘operational problems’ alongside ‘technology’ problems as having most influenced the outcome of their ITOL project, the in depth interviews revealed ‘change management’ and ‘relationship’ issues as more crucial determinants to the success of e-commerce collaboration (McGrath & More, 2002, 33).

Joining the e-commerce market as a sole trader, let alone becoming an interfirm network or B2B cluster stakeholder is likely to entail an enormous conceptual leap into the future for many SME managers. Ghoshal et al (2000) describe the process of adopting e-commerce and moving up the value chain as a steep learning curve (Goshal, Bartlett, & Moran, 1999). Earl (2000) posits

that becoming an e-business is an evolutionary process entailing six phases: (1) external and (2) internal communications phases; (3) e-commerce strategy phase; (4) e-business processes phase; (5) e-enterprise operational phase; and, finally, (6) adoption of a dynamic e-business model or transformation phase. Once the e-business transformation steps are completed and the business has successfully negotiated the journey of becoming an e-business, e-business has become the norm and the “e” can be dropped out of e-business (Earl, 2000). The latter framework applies to large companies, but may be useful to consider in e-business adoption processes for small firms and networks, such as the tourism cluster in this study. Earl’s model also stresses the need for continuous learning and change to help identify evolving e-business issues such as the integration of new technologies and online value creation.

4.4.4 E-Business Value Creation

Networking and value creation in virtual markets, characterised by a high level of connectivity and a focus on transactions, appear to be the order of the day. There is an ever-growing body of literature on value creation in today’s economy, ranging from resource and capability bundling to capturing customer loyalty through virtual community building (e.g., Amit & Zott, 2001; Evans & Wurster, 2000; Hagel & Armstrong, 1997).

Value creation, as such, is not a new concept and does not necessarily require a novel e-business approach. Much can be learned from traditional network views—for example, Freeman (1979) and Granovetter (1973)—who identified size, density, centrality, access and the heterogeneity of network ties as the main value creators for participants within a network. Amit and Zott (2001) cite seminal entrepreneurship and strategic management sources such as Schumpeter, Penrose and Porter, whose value creation views continue to be applicable to new economy business models (Amit & Zott, 2001). With the advent of connectivity, optimisation of information, knowledge and transaction flows; community building and learning have been added as prime drivers of value creation (Dyer & Nobeoka, 2000; Gulati, Nohria, & Zaheer, 2000; Shapiro & Varian, 1999). Value creation in the new economy impacts on both

companies and consumers and needs to be a combination of offline and online community building.

4.4.5 Digital Marketing

In line with new generation innovation models, the digital marketplace is not only redefining relationships between firms but also between firms and their customers. As a result, consumer interaction and marketing in the cyber age requires dynamic and innovative strategies (Rayport & Jaworski, 2001).

All markets are complex, no matter what mechanisms are used by the buyer. Digital technology is based on interactivity whereby the cyber consumer is no longer a passive spectator. Interactivity allows for availability of information on demand, reciprocity in the exchange of information, customisation of content and real-time feedback (Häubl & Trifts, 2000). A primary result of interactivity is that firms have to move from addressing mass markets to addressing segments of one (Wind & Mahajan, 2001). A related consequence is that firms need to recognise that marketing has become customer-centric and that building strong relationships through effective customer management is key. A unique bi-product of digital marketing is the ability to either personalise online communication or aggregate public opinion in virtual communities of consumers (Rayport & Jaworski, 2001). These communication forms allow for greater contact with, and better knowledge of, customer needs. With customer-to-customer (C2C) communities proliferating and allowing for a certain amount of interactive branding, building profitable relationships with one's customers appears contingent on creating "whole customer experiences". The latter demands a shift away from a one-off purchase mentality to lifetime service and intangibles based on time-consuming and invasive data-mining processes (Hutt, LeBrun, & Mannhardt, 2001).

Keeping up with rapidly changing marketing trends is a challenge for all firms but is particularly confronting for resource- and time-poor SME. Whereas SME were once able to intuitively grasp their market, emergent digital technologies are increasingly altering market segmentation and market predictability, making small firms more vulnerable to market changes. Since SME are relatively new to the virtual world and often have neither the expertise for

continuous digital brand building nor the resources for compiling a complete picture of customer tastes and circumstances, they are in danger of being isolated and out of touch with changing market dynamics (Gaulden & Jackson, 2001). Since the study's regional marketing cooperative represents SME in the (digital) marketplace, its marketing expertise is potentially critical to product region brand recognition and competitive advantage for the network.

4.4.6 Virtual Communities

With the proliferation of Internet users, online communities have sprung up everywhere to cater to business, consumer, and social interests. These types of virtual community clusters can be seen as social aggregations that spontaneously emerge online (Rheingold, 1993). The notion of community goes to the heart of the Internet, which was formed in 1969 for the exchange of (non-commercial) information by a community of American scientists (Armstrong & Hagel, 1996).

From an economic perspective, online communities can be measured in terms of financial and service delivery efficiency and effectiveness. The conventional methods of cost measures, service quality, customer scorecards, customer satisfaction, time to market, and just-in-time delivery, can be applied to suit the type of development and operational models of virtual communities (Bressler & Grantham, 2000). Reiterating the Armstrong and Hagel (1996) view that virtual communities are important from both a vendor and member perspective, Bressler and Grantham (2000) argue that communities have become a powerful economic force in the world of e-commerce; and that creating or belonging to a virtual community will increase consumption knowledge.

Empirical research indicates that community-centric features on websites create substantial value for both content and retail sites. The more a person uses the community features of a site, the more that person tends to visit the site and make purchases there, providing direct evidence that online communities impact on website value drivers such as return visits, conversion and retention rates (Regan, 2002). By capturing customer "mind-share" and developing brand awareness and reputation, e-business operators are able to

lock-in or retain customers and accumulate valuable customer behaviour information in the process (Amit & Zott, 2001). The latter substantiates the Evans and Wurster (2000) proposition that catering to electronic communities will lead to ever finer market segmentation, although such micro-segmentation may ultimately prove disadvantageous vis-à-vis future navigational positioning which favours upstream reach and product richness.

Commercial B2C and B2B communities are relatively new to the virtual world. Considered virtual communities of transaction rather than virtual communities of common interest, online business communication has primarily focused on transaction information and product procurement (Wilson, 2000b). With a few exceptions—for example, Amazon.com, which features extensive customer interaction—many B2C and B2B portals still lack information exchange or interaction between stakeholders. However, there has been a rise of interest in enterprise portals that do sport vertical B2B systems—for example, information taxonomy, content aggregation, publishing and industry links—as well as horizontal personalisation and virtual community functionalities (Harpur, 2000). By satisfying both relational and transactional needs, and fostering relationships and networks of interaction within e-marketplaces, portals have the potential to become highly competitive clusters of economic value and change the position of small business in the global marketplace. In the context of this study, understanding the importance of supplier-customer and customer-to-customer interaction in the virtual marketplace may be critical to competitive advantage for the product region.

4.5 Change and the 7C Framework

This chapter has discussed a number of critical concepts underpinning technological and regional innovation. New economy innovation highlights the importance of network connectivity and clustering; collaborative learning; cooperative relationships through the coordination of complementarities; and community building. While the ability to connect and communicate with others in both the physical and virtual world is pivotal, the central concept that permeates and underpins today's business models and typifies the nature of our techno-economy is change.

Change has no particular arrival point and is driven by a number of factors; for example, new technologies, new markets, political pressures, customer preferences and social expectations. No one is exempt from change. Like the change of seasons, every person undergoes lifecycle changes throughout their lifetime (Clarke, 1994). Change can occur involuntarily or it can be induced through learning.

As discussed above, companies, networks and regions are encouraged to be open to change to stay fluid in their innovation and strategic planning processes (Earl, 2000; Senge et al., 1999). Until recently, corporate change was predominantly based on either increasing economic value for shareholders or on developing “an open, trusting corporate culture” (Beer & Nohria, 2000, 133). However, in a fast changing economy where marketplace opportunities present themselves in rapid succession, the focus has shifted from either a “hard” or “soft” philosophy to an integrated change theory. In order to compete in the networked economy, it is argued that companies across the board must be prepared to strive for internal and external value through lifelong learning (Senge, 1992). Thus learning and change are closely intertwined.

Learning can take place for a number of different reasons and in a number of different ways. For individuals, learning is an issue of engaging in and contributing to one’s established networks and communities of practice. For communities, learning involves redefining their practices and ensuring new generation of knowledge and community involvement. For an organisation, learning is sustaining its communities of practice to “know what it knows” and thus becoming “effective and valuable as an organisation” (Wenger, 1998, 8). Categorised sequentially, organisational lifelong learning cycles include an analysis of the changing environment in terms of adequacy of the system in place; the development of a strategy to fit the changed environment; the implementation of a new structure to accommodate the change; and the strategic reflection and openness to remain flexible towards future change (Clarke, 1994). Network learning has been discussed in this chapter in terms of Mode 2 network development, with change being contingent on the network

structure, cohesiveness of and commitment to learning by network actors (Chisholm, 1998; Gustavsen, 1998).

Given that networks and change are pivotal in new business models; that the concept of change is central to the diffusion of innovations; and that few studies that have untangled network structures vis-à-vis the diffusion and adoption of innovations, this study focuses on the change process in a regional tourism network seeking to adopt e-commerce technologies.

To provide a loose framework for my study and help untangle the effects of the embedded network structure on the diffusion process, a set of recurring themes identified in this and previous chapters are proposed for the analysis of the study in Chapter Seven. Apart from (1) change, the recurring themes that have emerged are (2) connectivity, (3) clustering, (4) communication, (5) collaboration, (6) community, and (7) cooperation. I make a distinction between collaboration and cooperation, as I intend to analyse the former from a collaborative culture perspective and the latter from a cooperative (marketing) structure viewpoint. Since all concepts start with the letter “c”, I refer to these concepts as the 7C framework. My 7C framework should not be confused with the 7C construct outlined by Rayport and Jaworski (2001) for the purposes of web interface design, which includes context, commerce, connection, content, community, customisation and communication for optimised product fit, marketing appeal and web interaction.

In determining the ICT and e-commerce adoption and diffusion process in the Grampians, the 7C framework will be adopted to aid the analysis of perceived, barriers, drivers, and pathways for network innovation and change. The C-factors denoted for this study will be explored in terms of the role each factor may have in the change process when a regional cooperative network is faced with the adoption of e-commerce; whether certain C-factors may be more important than others for the diffusion of innovations in a regional network; and whether all C-factors are indeed necessary to achieve change.

4.6 Chapter Conclusion

In this chapter, I have presented an overview of evolving business and social network models linked to business innovation in the new economy. I also touched on prevalent regional innovation strategies, related clustering, community building, social networking, learning and change trends; and the role of government and regional institutions within these contexts. The main concepts discussed in this and the previous two chapters have been aggregated into a loose framework that will be used to analyse the study.

In the next chapter, I outline my selection of an action-oriented research methodology for the study and discuss the action research mix I adopted as the basis of my study. I touch on issues that required consideration vis-à-vis my dual role of consultant and a researcher. I also discuss the portal development approach I adopted for the consultancy/research process. The chapter concludes with some potential limitations of the study.

Chapter Five

Methodology

If you want to truly understand something, try to change it.

— Kurt Lewin (1890–1947)

In Chapters Two to Four, I reviewed industry, technological, economic, organisational, cultural and social issues vis-à-vis tourism, networks, regional innovation and change. In this chapter, I consider my selection of an action-oriented research methodology. After establishing the parameters for the study and discussing my choice to adopt an action research methodology, I provide a brief history of action research in general, and of the action research streams that I consider relevant to my work in particular. I look at various intervention approaches and settings; action research cycles; reflexivity; and learning. In discussing the action research mix I adopt as the basis of my study, I touch on issues such as client-centred intervention, collaboration, a domain-oriented scope, and my own positioning within the research frame. In the last part of the chapter I present an overarching portal development approach as starting conditions for the consultancy/research process. The chapter concludes with a brief review of potential pitfalls for and limitations of the study.

5.1 Establishing the Parameters

To date, few studies have focused on the change process vis-à-vis the diffusion of innovations within regional networks. Given that I was situated in a regional university, which has a strategic focus on regional innovation and competitiveness through university-industry interaction, it was fitting to focus on the change process that an established regional network might be confronted when seeking to adopt e-commerce solutions. I was particularly interested in examining whether and how the change process might differ in the face of incremental change (adding some e-commerce solutions to the

network) or radical change (changing the overall business model). The challenge was to find an established regional network in the early development stages of adopting web-based solutions.

5.1.1 *The Research Community Selection*

When the study was initially formulated, I identified nature-based tourism operators in Western Victoria for potential participation in an e-commerce portal. Using my expertise in web-based design, I intended to build on a prior study I had undertaken on online environmental information aggregation for community use (Braun, 1997), by extending the concept of community to create an online e-business clustering environment for a network of small firms.

My timely participation in a Grampians Tourism Region Research Needs Forum on 21 September 2000, conducted by the University for the Grampians Product Region Campaign Committee (“the Committee”) and other regional tourism industry actors, presented an unexpected opportunity. Upon making a presentation of my proposed study to the attendees, it became apparent that the Committee was seeking to advance the Grampians tourism region into the arena of e-commerce. I had stumbled across my regional network in the early stages of e-commerce adoption!

As part of its 2000–2001 strategic marketing plan, the Grampians Campaign Committee Action Plan outlined further development of the Grampians website.

The emerging importance of the World Wide Web as a source of tourist based information was directly witnessed by Grampians Marketing Inc. during the 1999/2000 year.

The capacity to profile the Jigsaw advertisers, to measure and evaluate the effectiveness of specific marketing activities, to integrate the Jigsaw brochure and other marketing activities with the web site and importantly, the ability to communicate directly with the consumer all highlight the importance of the regional web site.

The intention is to advance the site to the next level with the addition of ‘database’ functionality, increased interactivity and refreshing several elements of the site (Grampians Marketing Inc., 2000, 18).

Given the Committee's responsibility to develop and implement a cooperative marketing plan for the Grampians product region (see 2.2.3), and considering the parameters of the Committee's e-commerce initiative, it became clear that creating two separate tourism portals would constitute a duplication of efforts. There was bilateral consensus that a win-win consultancy/research opportunity had emerged and that we should collaborate for the purposes of developing a regional tourism portal.

My next challenge was to develop a methodology that would be collaborative in nature, flexible enough to meet the emerging issues of technology-related change, and congruent with my own worldview. Like other contemporary action researchers (Reason & Bradbury, 2001), I was interested in making my work relevant to practice, policy and social change in order to contribute to the wellbeing of the wider ecology of the planet at large. Thinking globally and working locally, I was particularly interested in contributing to the sustainability of my own region through interactive learning processes.

5.2 Identifying a Methodology

It may be argued that all research is participatory, as it wittingly or unwittingly involves people, a set of circumstances and a series of decisions. Typically, research may be divided into four conceptual components: the subject or people to be researched; the purpose of the research such as the problem to be resolved; the researcher(s) undertaking the research project; and the benefit or beneficiaries of the research. All four components may involve people or actors, and each of the above-mentioned elements may, either deliberately or inadvertently, influence the research environment and affect its findings (Wadsworth, 1998).

When all four components do involve people, it is considered a phenomenological or participatory view of research, which is far removed from the social science research paradigm commonly identified as positivist (Hussey & Hussey, 1997). First described as positivism in the 1830s by Auguste Comte, the positivist school of philosophical thought views the world as a single reality existing independently from the researcher (Burrell &

Morgan, 1979). The phenomenological or interpretivist philosophy was developed as a reaction to positivism as researchers came to believe that it was impossible to treat people as being separate from their social contexts (Silverman, 1997). The concept of attaching a new worldview as an overarching framework for one's research was revolutionised by Kuhn (1962) with his notion that from time to time established frameworks of thinking, identified as paradigms, need to make a revolutionary shift into new paradigms to improve the use of available knowledge (Reason & Bradbury, 2001).

5.2.1 *Extended Epistemology*

Extending Kuhn's argument and looking to rectify the matter of a paradigm misfit in the development of a focus of inquiry, Lincoln and Guba (1985) contributed much to the adoption of qualitative research methods. In 1994, Guba and Lincoln defined the basic anatomy of an inquiry paradigm as ontological, epistemological and methodological. Heron and Reason (1997) expressed the need for a fourth fundamental question: the axiological question on what is intrinsically valuable to the human condition. In viewing cyclical (action/reflection) research as a fundamental discipline that leads toward critical subjectivity and personal knowing, Heron and Reason also outlined a need for an extended epistemology which goes beyond the primarily theoretical knowledge of academia by adding experiential knowing to presentational knowing, propositional knowing and practical knowing (Heron, 1996; Heron & Reason, 1997; Reason, 1996).

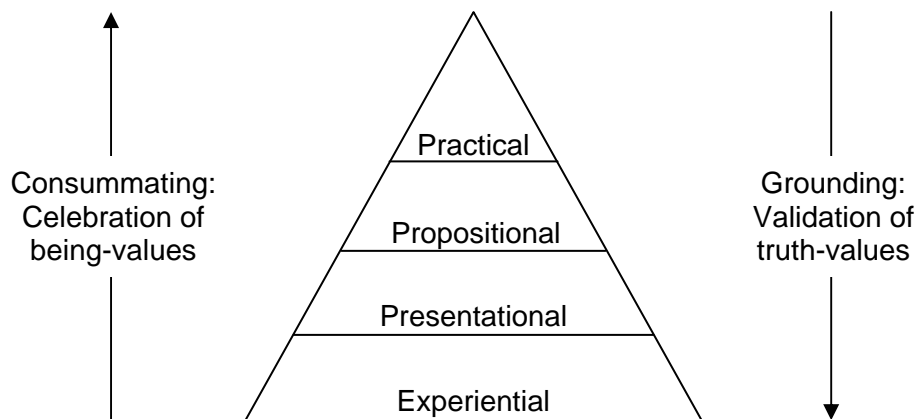


Figure 5.1
The Pyramid of Fourfold Knowing
 Adapted from Heron (1996)

In Figure 5.1, it is suggested that knowing rests on systemic logic divided into four types of knowing, which together form a circuit of knowing or a holistic knowledge model. Experiential knowing (actual, lived) at the base of the pyramid upholds presentational knowing (intuitive grasp of imaginal patterns), which supports propositional (cognitive) or conceptual knowing, which in turn upholds practical knowing (know how) or exercise of skill (Heron, 1996).

Given my earlier specified methodology requirements, it was clear that a qualitative course of inquiry that pays heed to knowledge generation was imperative. I was particularly interested in exploring an action research process since action research aspires to both take action and create knowledge or theory about that action (Coughlan & Coughlan, 2002). Its main objective is

to produce practical knowledge that is useful to people in the everyday conduct of their lives... Thus action research is about working towards practical outcomes, and also about creating new forms of understanding, since action without reflection and understanding is blind, just as theory without action is meaningless" (Reason & Bradbury, 2001, 2).

Van Beinum (1993) describes action research as "the study of operating systems in action" (Van Beinum, 1993, 190). Action research can simply be

considered as part of “the tool kit of the social sciences” (Whyte, Greenwood, & Lazes, 1991, 19), in which every possible method can be used. Apart from its practicality, action research is generally appropriate “when a research question relates to describing an unfolding series of actions over time in a given group, community or organisation” (Coughlan & Coughlan, 2002, 227).

Action research is a generic term that covers a wide variety of action-oriented research models (Reason & Bradbury, 2001), which, as a prospective action researcher, left me with a range of choices to address and integrate my research objectives on the one hand, and my consultancy role on the other.

5.2.2 Foundations of Action Research

The origin of traditional action research is commonly attributed to Kurt Lewin, who in the mid 1940s made action research an acceptable method of inquiry through his applied socio-technical experiments and theory. Lewin described action research as “proceeding in a spiral of steps, each of which is composed of planning, action and the evaluation of the result of action” (cited in Kemmis & McTaggart, 1988, 8). Depending on the application and setting, some action researchers have grounded epistemological elements of action research as far back as Aristotle’s work on praxis. Others prefer to trace the evolution of action research to the more recent Marxist era and its dictum to not just understand the world, but to change it (Reason & Bradbury, 2001).

While Lewin’s work set the stage for knowledge creation in real life situations, his renowned three-step change model—unfreezing or dismantling a former structure, changing the structure, and refreezing or locking in the new structure—is no longer congruent with present-day action research philosophy. Contemporary action researchers tend to argue in favour of ongoing dialogue and modelling action research as a change process that “has an open starting point and often no absolute final goal” (cited in Greenwood & Levin, 1998, 18).

Evolving through a series of experimental, scientific, and educational movements, a number of contemporary action-oriented models and methods have emerged over the last decades, including, but not limited to, action

science (Argyris, Putnam, & Smith, 1987; Schön, 1983); participatory action research (Whyte, 1991); cooperative inquiry (Heron, 1996; Heron & Reason, 1997); clinical inquiry (Schein, 2001); democratic dialogue (Gustavsen, 2001); and educational action research (Carr & Kemmis, 1986; Kemmis, 2001; Kemmis & McTaggart, 1988). Many of these traditions have influenced each other through overlapping values and dimensions, although there are distinct differences in the theoretical groundings they draw on and, hence, in the knowledge creation and practical solutions they produce (Finsrud, 1999). In reviewing the various action research models, it became apparent that no single approach would meet both my worldview and impending research/consultancy needs. I hence resolved to draw on features from several frameworks, the main foci of which are briefly outlined below.

5.2.3 Action Research Models

Drawing on the organisational development work of Schein (1987), clinical inquiry positions itself conceptually and operationally between traditional research and action research as it involves the gathering of data created by and for the client seeking help (Schein, 2001). The emphasis on the helping relationship established between the client and the researcher are, in Schein's view, pivotal factors "as to whether or not help will occur in the relationship between consultant and client" (cited in Coghlan, 2002, 118). Drawing on the works of Schein, Rogers, Batten and Heron, Coghlan (2002) discusses the importance of grounding consultant intervention in an exemplified value system.

The practice of democratic dialogue as a form of action research, developed by Gustavson (1985, 1992), Engelstad (1993) and others as part of the Scandinavian action research philosophy, recognises pluralistic interests. Gustavsen (2001) draws on Habermas' theory of communicative action and his advocacy of equal access to speech and equality of opportunity within discourse as a theoretical model for democratic dialogue. Democratic dialogue refers to a mediating discourse rather than a pure theoretical or pure practical discourse. It is focused on how to communicate about change rather than on what kind of outcomes to strive for. As such, democratic dialogue identifies

poles of discourses; that is, a discourse on theory, a discourse on practical action and a discourse on how to link them (Gustavsen, 2001). Emphasising the importance of good communication, democratic dialogue is the point of departure whereby the role of discourse is to bring process to the foreground (Pålshaugen, 2001).

Reason (1996) postulates that the participatory, experiential, political and action-oriented nature of human inquiry addresses the very power relationships in knowledge contribution. When a person reflects upon theory in the light of praxis, tacit knowledge results. A similar construct can be applied in network or organisational settings. Bartunek and Moch (1987) describe the process as first-order, second-order and third-order change. In first-order change, organisational strategies may change, but the organisational worldview or “shared schemata” that drives the strategies remains unchanged. In second-order change, some modification of the organisational worldview is attained. In third-order change, actors become aware of their underlying schemata, consciously question it, and collaborate to reach new understandings (Bartunek & Moch, 1987).

Argyris & Schön (1978, 1996), drawing on the work of Bateson (1972), introduced a similar, and much wider recognised, concept of single-loop learning vs. double-loop learning. Single-loop learning, or Mode 1 learning, refers to a setting where people or organisations may solve a specific issue, but do not—or only slightly change—the behaviour that gave rise to the problematic situation in the first place. Double-loop learning, or Mode 2 learning, in contrast, responds to the issue at hand by examining Mode 1 learning in alternative or larger frames of reference and altering the behavioural context in which it occurred (Greenwood & Levin, 1998). Triple-loop learning or Mode 3 learning requires the questioning and reframing of assumptions or choices made during Mode 2 learning (Torbert, 2001). Action science, in particular, is concerned with producing knowledge in the service of social practice (Argyris et al., 1987) and narrowing the gap between theory and professional practice (Schön, 1983). In other words, its aims are to make “action science theories become explicit parts of a practitioner’s ‘repertoire’

that can be used as templates for reflecting on new experience” (Friedman, 2001, 168).

Levin and Greenwood (2001) draw on the pragmatic philosophical traditions of James, Peirce and Dewey for knowledge generation through context-bound action, as the authors argue that these traditions

offer a challenging and fruitful foundation for ontological and epistemological questions inherent in social research that aims to be relevant to social action. Pragmatism unites theory and praxis in an integrated knowledge construction process. Experience emerges in a continual interaction between the person and the environment and, accordingly, the process constitutes both the subjects and the objects (Levin & Greenwood, 2001, 104).

Flood (2001) draws on the systems thinking work of Dewey and Emery and the more recent organisational learning and change work of Senge for integrated and holistic approaches underpinned by knowledge creation and lifelong learning. In an organisational context, systems thinking can “help us continually to see our connectedness to the world and...the interdependencies between our actions and our realities (Flood, 2001, 28).

5.2.4 Action Research Intervention

Given that action research knowledge is a living, evolving process, it seems logical that it does not have a prescribed intervention methodology. Action research makes use of all types of data gathering tools, considered interventions in themselves, including traditional data gathering tools such as surveys and interviews (Coughlan & Coughlan, 2002). As a result, action researchers may appear to be methodologically eclectic. This does not, however, imply that action research practices are less rigorous than traditional research methods, or that its practical outcomes are less valid. In discussing quality and validity in action research, Bradbury and Reason (2001) draw attention to matters that must be addressed by an action researcher in order to achieve credible outcomes.

Issues of interdependence, politics, power and empowerment must be addressed at both micro- and macro-levels, that is, in inquiring relationships in face-to-face and small-group interaction, about how the research is situated in its wider

political context. In particular, we must pay attention to the congruence between qualities of participation which we espouse and the actual work we accomplish, especially as our work involves us in networks of power dynamics which both limit and enable our work (Bradbury & Reason, 2001, 448).

As action researchers we therefore need to “not only concern ourselves with the quality of methodological appropriateness and relational praxis, actions and outcomes; we must address significance of purpose and extend our ways of knowing in terms of enduring consequences” (Reason & Bradbury, 2001, 2). When the intentional awareness and understanding between purpose, strategy and practice is grounded in the experience; and not only enhances the effectiveness of an intervention but is also congruent with espoused theory, quality and validity are achieved (Friedman, 2001).

5.2.5 Intervention Setting

The action research focus on researcher-practitioner interaction, and a commitment to undertake action, implies that the research is generally conducted in the setting where the intervention takes place (Small, 1995). Historically, most action research interventions have taken place in a single organisation or even a section of a single organisation (Finsrud, 1999). Thus, in the past, action research has predominantly focused on a single case or unit, although such a unit may be an entire population; for example, a community, rather than a sample thereof (Small, 1995). Consequently, the interfirm or network level has, until recently, received less attention.

Typically, the interventions performed by action researchers are increasingly complex in nature and can no longer be addressed on a singular unit level. As a result, there has been a steadily growing interest in including interorganisational relationships in the unit of analysis (Van Beinum, 1993). The systems thinking approach and socioecological perspective developed by Emery and Trist (1965) (Emery & Trist, 1965) recognises interdependencies between an organisation and its environment, creating a much larger field of inquiry. In adopting this perspective, change within an organisation

cannot be fully understood, facilitated, and sustained without considering the external relations of the organisation, that is, with putting the change efforts into a larger context. Thus the unit of analysis becomes the organisation in and with its environments (Finsrud, 1999, 241).

Regional development is a good example of a multi-faceted arena of intervention. The environmental conditions of today and the speed of change make regional innovation and change interventions particularly complex for both organisations and action researchers (Elden & Chisholm, 1993). Action researchers engaged in regional development intervention tend to echo Emery and Trist's (1965) socioecological and sociotechnical view vis-à-vis the need to move from an intra-organisational to an interorganisational level to cope with the meta-problems to be dealt with.

Technological change, constantly expanding knowledge, globalization, and changing beliefs and values combine with other aspects of the environment to cause the turbulence faced by organizations...These conditions often create "messes" – sets of interconnected problems that single organizations find impossible to deal with alone. The complexity of these problems typically defies simple solutions by individual organizations (Chisholm, 1998, 227).

Reduction of turbulence, according to Trist (cited in Finsrud, 1999) requires collaboration by people or groups of organisations within the interorganisational network or domain. Development of a domain is hence suggested as a central intervention strategy. These domains, which comprise the actors that are linked through a common issue or interest, are "cognitive as well as organisational structures and have boundaries, direction and identities" (Finsrud, 1999, 244). A component of the intervention strategy may be conducting a search conference to bring stakeholders together towards a shared appreciation of their domain development, which in turn may lead to diffusion of change across the domain. "Bringing stakeholders together in a participative and voluntary manner, search conferences enable shared appreciation to evolve and emergent domains to develop more coherently" (Finsrud, 1999, 244).

The issue of linking diffusion of change within a single unit to stretch across the domain—for example, an industry sector or a region—has been central in Scandinavian action research towards work life reform (Qvale, 1994). American action research projects undertaken towards the development of networks for regional development (Chisholm, 1998) are similarly grounded in a socioecological perspective. In network development through action research, the content or design element of the development process is believed to be of minor importance. Instead, a network “should work on as broad a range of topics as possible, to maximize the scope and variety of the experience available within the network” (Engelstad & Gustavsen, 1993, 230).

5.2.6 Action Research Cycles

Generally, an action research intervention consists of cycles of action and reflection. Grounded in practice, cycles should be designed towards development of understanding and practice as the cycling evolves (Bradbury & Reason, 2001). The original Lewinian action-reflection cycle comprised a pre-step to establish context and purpose, followed by three core activities: planning, action, and fact-finding. Contemporary action research cycles vary in approach and cycling structure according to the type of inquiry being undertaken; for example, cycles can range from a simple *look, think, act* perspective to complex organisational development frameworks of planning, action, feedback loops and further action (Coghlan & Brannick, 2001).

In clinical inquiry, the inquiry cycle depends on the research agenda and the level of involvement of the client. If the proposed cycles, or parts thereof, are not considered helpful for data gathering or deeper learning, Schein (2001) advocates that they should be abandoned. Embedded in experiential learning, action-oriented cycling has to be subject to critical reflection, considered to be a core tenet of all action research (Bradbury & Reason, 2001).

5.2.7 Reflexivity

Reflexivity is an essential part of action research. Not many researchers acknowledge the reflection process as a separate cycle, but Coghlan (2001) suggests that two action research cycles are operating in parallel: one being

the planning, action and evaluation cycle; the other being the reflection upon the action research cycle. The dynamic of the latter cycle should incorporate the learning of the former or, simply put, the reflection cycle should produce learning about the learning, also referred to as meta-learning (Coghlan & Brannick, 2001). Based on Mezirow, the authors highlight three highly useful forms of reflection, namely content, process and premise.

Content reflection is where you think about the issues, what is happening, etc. *Process* reflection is where you think about strategies, procedures and how things are being done. *Premise* reflection is where you critique underlying assumptions and perspectives...

When content, process and premise reflections are applied to the action research cycle, they form the meta cycle of inquiry (Coghlan & Brannick, 2001, 20).

Thus reflexivity as a learning pathway is a process of identifying the construction of knowledge that has taken place throughout the action research intervention. At the very least, reflexivity is a way of recognising the limitations of the dualisms, frameworks and other methodological tools applied to the action research process. At the very best, it answers the research questions and validates the research findings (Shacklock & Smyth, 1998).

Building on the single-loop and double-loop learning concept of Argyris and Schön (1978), Gibbons et al. (1994) introduced a new mode of knowledge production based on reflexivity that continues to challenge our society. This new mode does not only affect the way knowledge is produced, but also how it is produced, the context in which it is produced, as well as how performance norms and the value systems in which it is embedded are controlled and managed (Booth, 1998).

Also citing Mezirow, Gozdz (2000) refers to reflexive learning as a political process, requiring “a shift of consciousness on an individual level to change socially normative behaviour of collectives” (Gozdz, 2000, 1274). As an emergent modality, mode 2 knowledge creation is well suited to reflexive action research approaches in general and network-oriented contexts in particular.

5.3 Refining my Action Research Niche

Considering my dual research and consultancy objectives, I intended to combine the strength of client-centered clinical inquiry; with democratic dialogue and socioecological domain thinking, while also drawing on the inherent collaborative, cyclical and reflexive learning process of each of these practices. In considering this grouping, my methodology would necessarily need to include:

- a client-centred intervention
- a collaborative approach
- a cyclical and action-oriented design
- a domain-oriented scope
- reflexive learnings

5.3.1 A Client-Centred Intervention

In clinical inquiry, the research process involves the gathering of data in clinical settings that have been defined by the people seeking help (Schein, 2001). As was my case, the researcher in these settings is approached to help because of his or her expertise or specific helping skills. The emphasis on helping determines whether or not help will occur in the relationship between the consultant and the client.

In a typology of consultancy interventions, Schein (1997) differentiates between pure, exploratory diagnostic, and confrontive types of consultant inquiry. Coghlan (2002) describes these examples as moment-to-moment interventions.

Pure inquiry aims at eliciting the story and the consultants listen carefully and neutrally. This form of inquiry is most important in its aim to create the climate of process consultation to promote open-ended inquiry. Through *exploratory diagnostic inquiry* the consultant begins to manage the process of how content is elaborated and analysed by exploring reasoning, emotional responses and actions. In *confrontive* inquiry the consultant shares his/her own ideas and reactions about the process and content of the story in order to enable the client to think about the situation from a different perspective (Coghlan, 2002, 118).

Heron's (1990) typology of helping interventions is even more comprehensive, as it includes *prescriptive*, as in directing the behaviour of others; *informative* as in imparting knowledge and information; *confronting*, as in challenging limiting behaviour; *cathartic*, as in enabling a discharge of emotion; *catalytic*, as in enabling self-directed action; and *supportive*, as in affirming the worth of the client. In defining which of these categories to use for intervention, Heron (1990) stresses the importance of the practitioner choosing the appropriate category; being skilled in the chosen category; and ensuring that both the catalytic and supportive categories underpin all intervention, so that the intervention is grounded in respect for the client, and precedence is given to the needs of the client over the needs of the practitioner or action researcher (Heron, 1990).

5.3.2 A Collaborative Approach

There are distinct challenges in the pursuit of introducing ICT-related changes into an organisation. Schein (1992) essentially ascribes the difficulties in introducing and exploiting ICT-related change in an organisation to cultural issues. McDonagh and Coghlan (2001) argue that clinical inquiry is particularly suited to ICT-related organisational change as it enables inquiry into and integration of the technical, economic, organisational, human and cultural aspects of the intervention. The authors advocate an inclusive approach to change based on principles of partnership and participation (McDonagh & Coghlan, 2001).

All action-oriented interventions value some form of participation, although there are varying degrees of collaboration depending on the method of invention. Participatory or cooperative inquiry, for example, involves a fully reciprocal relationship between the persons involved in an intervention (Heron & Reason, 1997). In clinical inquiry, the level of collaboration between client and researcher depends on the degree to which the client and researcher, respectively, become personally involved in the inquiry process (Schein, 2001). While the participants collaboratively examine their experience through critical reflection, not everyone has the same practical involvement. Some actors may be initiators; others facilitators; yet others may be onlookers

(Coghlan & Brannick, 2001). At the one extreme, client-researcher interaction can be nil; at the other extreme, the helping relationship is potentially a deep and rich research opportunity. In between variants are more or less restricted in scope.

In the Scandinavian action research tradition, collaboration is viewed in terms of participation in democratic dialogue, whereby the actors have a practical interest in achieving certain goals. Such dialogue may not extend beyond some commonality of direction rather than the diffusion of an unequivocal vision, although the intent of the dialogue is the building of critical mass to lead towards change (Gustavsen, 1996). Depending on the level of interaction, the discipline of dialogue is, at the very least, a construct to facilitate communication between researcher and client to provide some insights into organisational structures and, at the very best, a pathway to collective thinking and mutual learning.

5.3.3 A Cyclical and Action-Oriented Design

In their text on research inside one's own organisation, Coghlan and Brannick (2001) adapted the traditional Lewinian action research cycle to include a diagnostic phase, a planning phase, an action phase, and an evaluation phase (Figure 5.2). Although my intervention with the Committee would be conducted as an outside consultant, adopting a similar model was deemed appropriate as diagnostic, planning and action-based cycles would attend to, and ideally enable, fluid integration of the technical, economic, organisational, human and cultural aspects of my ICT-centred intervention.

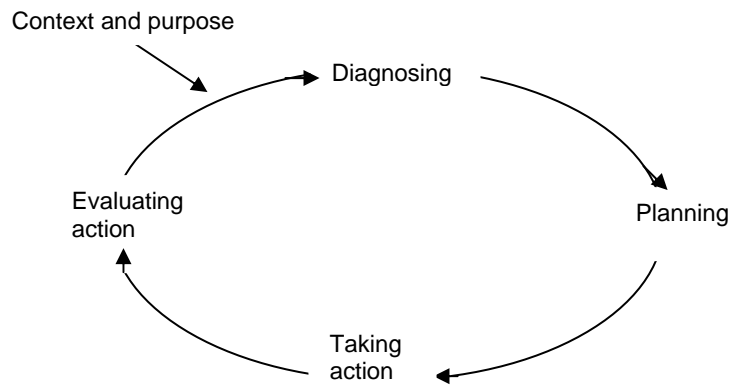


Figure 5.2
Action Research Cycle
 Adapted from Coghlan and Brannick (2001)

In adopting the Coghlan and Brannick cycle model, it would still be necessary to pay heed to my position as an outsider; that is, consideration had to be given to the fact that the cycling process would strongly depend on the agenda and the level of involvement of the client. Hence, it was deemed prudent to take what Levin (2001) calls a pragmatist approach to the cycling process, allowing the emergent experience of interaction between the actors to determine the helpfulness of data gathering on a per cycle basis, rather than adopt a set series of cycles (in Levin & Greenwood, 2001).

5.3.4 A Domain-Oriented Scope

In the epoch of “new regionalism”, with its focus on tripartite collaboration and network building towards regional competitive advantage, I would need to pay special heed to the complex interrelations between (public and private) organisations. Since the Committee was a regional body representing an entire tourism product region under government auspices, the adoption of e-commerce would unquestionably have wider domain impact; I, therefore, I had to consider the fact that my intervention might have implications for an entire industry sector and an entire region. Linking the diffusion of change within a single unit to stretch across a domain, as suggested by Finsrud (1999) and Qvale (1994), was, hence, of particular interest to me. To sketch an adequate picture of the domain, based on an open system approach grounded in the

Emery and Trist perspective (cited in Finsrud 1999), interaction with a wider set of actors would be important. Hence, project actors would necessarily need to include representatives from local industry, regional organisations and state level public agencies, resulting in the regional dimension being the relevant overall field of inquiry.

Apart from developing a search conference intervention strategy for interorganisational domain building, Trist (cited in Finsrud 1999) also advocates the development of suitable referent organisations. Referent organisations are organisations at the domain level that provide leadership to the domain in terms of convening the extended social field and regulation of base values; the development of a desirable future; and infrastructure support through sharing information and resources (Finsrud, 1999). By including domain actors in the process, the intervention would at least identify or at best help build referent organisations within the domain.

5.3.5 *Reflexive Learning*

Reflexive knowledge production is not without its pitfalls. Giddens (1976) simply describes reflexivity as self-awareness. Coughlan and Coughlan (2002) describe reflection as “the process of stepping back from experience to process what the experience means with a view to planning further action” (Coughlan & Coughlan, 2002, 235). Thus the inquiry-reflection process should be both outward (organisation) and inward (researcher) focused. In an outward inquiry-reflection process, projects are guided by a reflexive concern for practical outcomes and organisational improvement or change (Coughlan & Coughlan, 2002).

Among the reflexivity tools adopted by action researchers for inward reflection is keeping a journal. Journaling helps to capture events, thoughts, feelings and experiences that might otherwise dissipate with time (Railin, 2000). I therefore adopted journaling to help me reflect on my own reasoning and behaviour during the consultancy process. Although journaling provides a solid construct for researchers for reflexivity purposes, automatic inferences can lead to undesirable results. Describing the two vital elements of reflection as the ability to critique one’s own thought processes and attend to one’s

feelings, Coghlan (2001) advocates a second construct to become aware of undesirable inferences, over-generalisation and all-or-nothing type thinking. The latter author, hence, suggests action researchers pay heed to the notion of cognitive distortion, often caused by emotional reasoning, for example when acting under pressure one might jump to conclusions.

5.3.6 Positioning Myself in the Research Frame

Central to the consultancy/research intervention process that I was about to undertake would be the engagement with the Committee as a whole and with each of its members. I was aware that I would be positioned differently from the Committee members. We each belonged to different institutions, and I had to accept a guest status as an outside consultant. While we had common interests, each of us had our own objectives that could result in differing conceptualisation of problems and solutions (Brøgger, 2002). I also needed to recognise that, as Schein (1997) has suggested, we would jointly own the inquiry process, but ultimately the client would own the problem and the (e-commerce) solution (Schein, 1997).

As a cross-continental transplant only recently relocated to a regional university, I was bringing strong bridging social capital, but weak bonding ties, to the focal group (Woolcock, 2001). Combined with my nominal knowledge of the industry make-up, institutional, and stakeholder positions in the research domain—including the position of my own institution and its university-industry collaboration profile in the region—I was uncertain what level of interaction, social inclusion or exclusion and engagement to expect from the actors.

Although I had aspirations towards a third-order change (Bartunek & Moch, 1987), I had to accept the fact that I might not be in a position to direct the learning process (Schein, 2001); and that actors would have varying degrees of engagement or interest in the process from which action might or might not flow. The challenge, therefore, would be to combine participation and observation in order to understand, participate in, and record actors' deliberative processes and aim for at least a second-order change outcome.

While my consultancy role was to provide expertise in regards to the design of a regional portal, I had no intention of imposing e-commerce solutions that did not reflect actors' interests and needs. Consultancy outcomes would not only be invalid, ill fitting and unmanageable, but portal stakeholders would likely have an ongoing struggle if an unsuitable model were implemented. Instead, I intended to draw on the Scandinavian democratic dialogue model outline above, and the organisational knowledge work of Nonaka and Konno (1998) discussed in the previous chapter, by creating a collective *ba* space to provide actors the opportunity to interact and express their objectives, issues and needs.

As Gustavsen (1992) points out, “democratic dialogue...must be converted into a set of more specific means, or measures, to become operational in actual workplace change (Gustavson, 1992, 4). Therefore, I intended to involve as many actors as possible in a dynamic learning and change process to enable them to collectively manage the rapidly changing dynamics of the information society; adapt to and adopt techno-economic organisational changes; as well as be equipped to take future action when required. By creating both face-to-face *ba* and a *cyber ba* spaces, I aimed to provide multiple opportunities for interaction as well as facilitate a hands-on technological learning.

As my work was two-fold in nature, assisting the Committee and pursuing academic research, I would be undertaking what Schein (2001) refers to as “first person” and “second person” research/practice. Stemming from a concern to perform more effectively as a consultant/action researcher, first person research is concerned with the notion of how, in the midst of real-time action, we can intentionally engage in self-observation. Second person research involves the core skills in speaking-and-listening or interaction with others in the intervention process (Schein, 2001). This is where the consultant needs to have both the appropriate skills and approach to helping the client (Heron, 1990). As a former journalist, I felt confident that I had the diagnostic skills to help bring the clients' issues to the fore. As an ICT professional, I was comfortable with adopting Heron's (1990) *informative* and *supportive* approach towards helping the client attain an effective intervention.

5.4 The Research Design

In the words of Van Beinum (1999), designing action research could be seen as something of a misnomer—by definition, action research is an emerging process and designing such a process may seem like an oxymoron. The notion of design must be seen as no more than the starting conditions for a process that is, in fact, self-designing. Hence, “action research is *designing*” (Van Beinum, 1999, 8).

Cognisant that I would be dealing with an emergent process, whereby I might need to reconsider, change, or even abandon actions at any given point during the intervention (Schein, 2001), I nonetheless felt responsible for the framing of a general course of action. In order to create an effective and actor-generated portal model, I chose to design a phase-based consultancy process that would be inclusive and reflexive in nature. I envisioned that within the overarching design, macro and micro opportunities would emerge to incorporate the cycle steps discussed in section 5.3.2.

5.4.1 Phase I: The Reconnaissance Phase

As a new entrant into the domain, it was essential to identify ICT, e-commerce and thematic regional milieu concerns within each of the Grampians shires prior to initiating the portal design. To gain a better understanding of tourism and ICT issues in the region, I would request that each Committee member keep a record of e-commerce related inquiries within their respective shires. I also planned to visit individual Committee members for a one-on-one reconnaissance conversation.

Although the conversations with Committee members were to be audio-taped for research and record-keeping purposes, the conversational tone would deliberately be kept informal to foster an atmosphere of collaboration and trust. Actors would be provided with a conversation guide to make them aware of the topics I intended to raise. Conversation themes would include perceived operator adoption of, and interest in, ICT and e-commerce in the respective sub-region; and perceived degree of interest and willingness to collaborate in a virtual strategic alliance (see Appendix E). Upon completion of the audio

transcript, actors would receive a transcript copy to make comments, alterations and/or changes as they saw fit for use in Phase II. No audiotape transcripts or records would be made available to the group without prior consent of actors.

5.4.2 Phase II: The Forum

Utilising key issues that had emerged from the Phase I conversations as the point of departure, I planned to undertake a one-day search conference or “forum” with the Committee members to collaborate towards a collaborative portal model (Emery, 1981; Trist, 1985). In the spirit of the domain-oriented approach, Committee members would be encouraged to invite key regional stakeholders to participate in the forum. The forum would, ideally, bring together Committee members in a face-to-face *ba* space to collaborate towards a cooperative e-commerce model and techno-economic vision for the Grampians product region.

To achieve the objective of the one-day forum—which was at least to bring actors together in a democratic dialogue structure; and at best to extrapolate a pluralistically designed vision—rotating plenary and breakout sessions would be incorporated, and ground rules would be set so that every participant could speak freely and no ideas would be criticised (Engelstad, 1993). While I anticipated being the primary initiator and facilitator for the forum in terms of structuring the day’s proceedings, I also intended to invite other facilitators to make effective use of time, facilitate breakout sessions and enable fluidity in the overall process.

5.4.3 Phase III: Definition of the Portal Model

Having established an initial vision for the cooperative e-commerce portal during the forum day, during Phase III of the intervention process the provisional portal model would be built, reviewed, and refined. Phase III would also include the generation of action plans for the implementation of the portal.

Multi-modal communication tools, including web-based communication, email, telephone and face-to-face interaction, would be deployed for the portal

review and feedback cycles. The choice of communication manner would depend on what would be most convenient for actors at any given time during Phase III. The frequency of communication would depend on how swiftly actors were able to adopt a regional portal model.

It was anticipated that through continuous interaction, participation and reciprocation, strategic alliance directions would be defined, capital needs and resources would be determined, a virtual cooperative management system would be ascertained; potential cooperative membership benefits would be outlined and, ultimately, an integrated cooperative portal model would be adopted. However, being an emergent process, the possibility would exist that no cooperative portal model would ensue or that a different regional model would be adopted. Alternatively, a core model might be formulated and cooperative elements might be incorporated over time.

5.5 Limitations of the Action Research Design

Action research has been described as demanding, much more difficult to undertake, and much more complex to report on than conventional research (Dick, 1992–1993). It takes a certain willingness and diligence on the part of an action researcher to combine professional responsibilities with involvement in a collaborative relationships (Levin, 1999). In action research, “the researcher’s skills in gathering and analysing data are the primary bases for the quality of the outcome” (Schein, 2001, 228). Heron (cited in Coghlan, 2002) takes the skill factor a step further and warns against degenerate interventions that, although grounded in good intentions, are mismanaged or misguided because of a lack of awareness and insight.

While I had extensive consultancy experience, I was a novice at action research and, to a lesser degree, at reflexive learning. As such, my intervention with the Committee would be experimental in nature, and I might learn that I did not possess the professional skills required for a successful intervention. There was the potential that I would be prone to misinterpreting the client system, because the mode of understanding I was applying to the process might differ from the client’s (Bartunek & Moch, 1987). This in turn

might lead to my experiencing difficulty monitoring the change processes I intended to examine, especially if the client were to limit access or were to decide to abandon the process altogether.

There were other factors that might impede the intervention. As a facilitator of ICT adoption and a potential change agent of the process, my personal pro-innovation stance would need to be taken into consideration in recording the organisation's socio-technological change processes (Rogers, 1995). Another possible dilemma that might arise was my potential partiality towards the adoption of a particular portal design.

Clearly, these potential pitfalls needed to be taken into consideration. Having committed the process of consultant/action researcher, I had to be prepared to "go with the flow" and wait and see what might emerge in the course of events. Ultimately, my aim was to be able to make sense of what happened, what it meant and what could be learned from the learning. In other words, my goal was to generate objective knowledge that would be useful for both the client and for my own meta-learning (Coghlan & Brannick, 2001).

5.6 Chapter Conclusion

In this chapter I have outlined my selection of an action-oriented research methodology. In formulating my action research niche, I have touched on issues such as client-centred intervention, collaboration, a domain-oriented scope, and my own positioning within the research frame. In the last part of the chapter, I have presented my intended portal development approach as starting conditions for the consultancy/research process. In the next chapter, I will detail what actually happened during the intervention.

Chapter Six

The Intervention

He who rejects change is the architect of decay.

— Harold Wilson (1916–1995)

In the previous chapter, I outlined both the action research methodology I adopted for the consultancy and the portal development process I had intended to undertake with Grampians Campaign Committee actors. In this chapter, I discuss what actually happened. In detailing the intervention as it progressed, I take the reader from the point of consultancy negotiation; to the practical realities of the consultancy; and through the various phases I had proposed as part of the portal development process. A chronology of activities is provided as well as an overview of actors' position in the network and perceived drivers, issues or barriers encountered within the network. I describe where and how I needed to readjust the intervention process and my own perspective towards intended outcomes. After each phase or cycle where action occurred, a brief reflection is offered on what I learnt from the interaction and how I learnt to redirect the process.

6.1 Negotiating the Consultancy

Since not all Committee members were present at the Research Needs Forum in September 2000, it was suggested that I make a presentation to the Committee Executive at the next monthly meeting to receive endorsement for the intended research/consultancy from the Committee Executive. Several weeks later, I received a phone call from Omar (pseudonyms have been allocated to all actors), the Executive Chair, that the next Committee meeting was scheduled for October 24, 2000 and that I had been placed on the agenda.

At the meeting, I was given twenty minutes to make my presentation. I used the time to talk about the status of regional connectivity and the complexities for individual operators of dealing with technology, cost, content and website maintenance issues. I also discussed the potential advantages of a portal and introduced a cooperative portal model as part of my declared vision for the region. The model I proposed will be discussed below as part of the portal design process. I explained that I had no intention of imposing or prescribing “my model” as the only way forward; and outlined a collaborative action research process on how Committee members could become pro-active in the process of building a cooperative portal model.

The actions I proposed to Committee members were:

- to make time to meet with me in their respective shires for a reconnaissance conversation;
- to collect regional stakeholder e-commerce inquiries in their respective shires for an period of approximately three months prior to the design phase of the portal;
- to participate in a one-day forum to collectively formulate an initial e-commerce model for the product region;
- to take part in follow-up communication to finalise the portal model.

There were no questions as a result of my presentation and a decision on collaboration was moved to the bottom of the meeting agenda. Only after the meeting had already adjourned did Omar inform me, in what appeared to me an offhand manner, that my proposal to collaborate with the Committee had been endorsed by the Executive. Although I did not realise it at the time, this seemingly aloof manner was to be indicative of the majority of communications I was to have with Committee members during the course of the intervention. Although the Executive meeting minutes stated that a letter of support for the collaboration would be forthcoming, this was never followed up, creating a sense of lack of commitment to the project by the Committee.

6.2 The Practical Reality of the Consultancy

Igor, the Chair of the Marketing sub-Committee, informed me at the Research Needs Forum that the Grampians marketing arm was in the early stages of preparing a Regional Online Tourism Program (ROTP) grant submission on behalf of the Committee (see 3.3.2). Igor suggested that I get in touch with Otto—the director of the commercial marketing group to which the Committee outsourced all its marketing campaigns—to collaboratively formulate a proposal for the upgrade of the Grampians regional website.

After meeting with Otto I found myself largely in charge of writing the ROTP funding submission. Thus, in practical terms, the intervention effectively started immediately after the Tourism Needs Forum and prior to my collaboration proposal being accepted by the Executive. The intervention time line and activities are detailed in Table 6.1.

6.3 The Grampians Portal Vision

Being confronted with writing the ROTP funding submission prior to any portal development sessions with Committee members, I became acutely aware that writing the funding submission was severely impacting on my planned collaborative processes with the Committee. I was faced with the dilemma of either deferring the writing of the funding proposal and elicit a shared portal vision through the search processes I had planned, or write a portal vision for the funding proposal and submit it for review by the Committee. Given the constraints of a tight funding submission deadline, I opted for the latter.

Table 6.1. Project Activities Chart

Project Start Date: October 2000				Project Completion Date: December 2001				ROTP (funding body) final reporting date: March 2002				Activities	Comments
#	Sept-Dec 2000		March-June 2001		July-Sept 2001		Oct-Dec 2001		Jan-March 2002				
1		■										Attendance Tourism Needs Forum	Project commenced
2			■									Presentation to GMI Committee	Project defined and agreed to by the exec committee
3		■	■									Preparation (w/marketing group) of ROTP funding submission for website upgrade	ROTP funding submission prepared and submitted
4				■	■	■	■		■	■		Email/phone contact with actors	Blanket emails re project and/or individual meeting arrangements or requests
5				■	■	■	■	■				Phase I – reconnaissance conversations with individual actors	Majority of conversations completed and transcribed
6						■						Funding Received by ROTP	Design work on the website upgrade begins
7		■	■		■	■	■	■	■	■		Project meetings with the marketing agency	Average of one meeting a week
8							■	■				Presentations/discussions re portal design with Executive	Minimal time allotted in meetings – few comments or questions
9								■				Phase II Forum – one day marketing planning day	Facilitated by marketing agency – minimal time allotted to ICT issues
10									■	■		Phase III – portal revision postings, due within 14 days	In-house marketing agency system used – limited actor feedback
11							■			■		Periodical funding reports submitted to marketing agency	Final Funding Report completed in March 2002

Entitled “*E-Marketing the Grampians to the World*”, the Grampians portal project was described as a proposal to advance the Grampians tourism region into a new world of Internet marketing, to develop e-commerce capability and to create an unprecedented depth of regional tourism information for consumers.

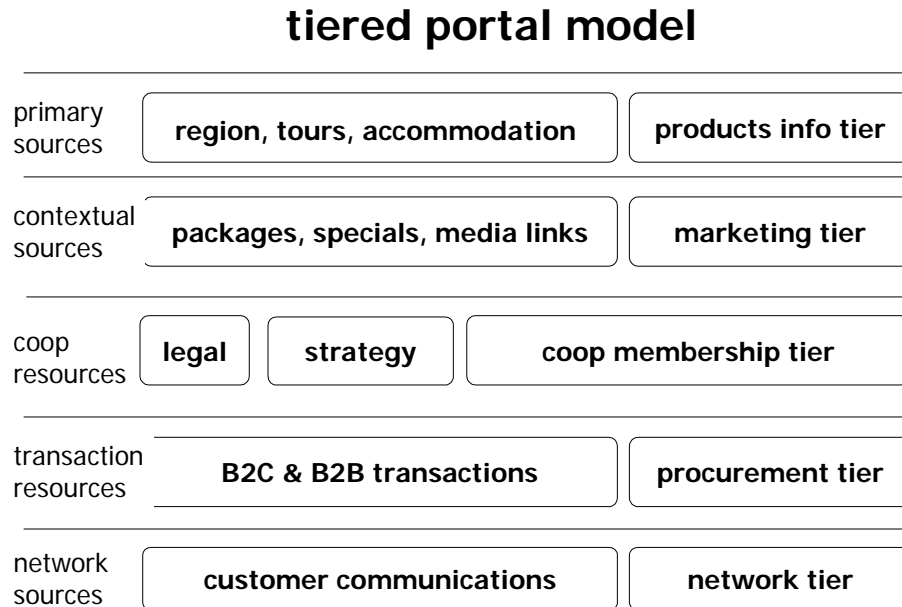
The vision is to integrate the state, regional and local tourism authorities online developments into a seamless linkage of cohesive websites, all with a source of accurate, consistent and up to date information for the cyber visitor.

The ‘official’ Grampians regional site will act as the primary vehicle for pro-active and innovative e-marketing and e-commerce activities designed to increase the number of visitors to the region with direct and accountable business results for the local industry.

This multi-tiered hub will be designed to become the primary network structure for regional stakeholders in which inter-firm communication and regional online networking will be integral to building regional competitive advantage (Grampians Marketing Inc, 2000, 5).

To realise this vision and provide a comprehensive website for both consumers and regional stakeholders, the portal design needed to fulfil the information, communication and procurement needs of both demand-side and supply-side users. In applying Rayport and Jaworski’s (2001) 7C web design construct, communications with and between industry and end users would require a user-friendly web communication interface, while informational and promotional elements would need consideration in terms of optimised product fit and marketing appeal. Database and e-commerce technologies would need to be incorporated for multi-faceted B2C capability and consumer access to information on accommodation, tours, travel packages and procurement. To allow upstream and downstream data flow between peak tourism sites, industry standards and protocols would need to be adopted. A proprietary B2B industry tier was required to facilitate virtual clustering of Grampians industry stakeholders; B2B transactions; bilateral committee-industry communication; and best practice exchange. To support a multiple functionality website, a tiered portal model was introduced. Figure 6.1 shows the proposed tiered portal model, which separates customer information and communication, marketing and transaction needs from stakeholder needs. Portal customers

would be able to access all but the cooperative stakeholder tier. Portal stakeholders would have access to all tiers.



**Figure 6.1
Tiered Portal Model**

Upon entering the consultancy, I had considered myself a conduit for, rather than the supplier of, a vision for the portal, but neither the Committee nor the marketing group in charge of web development for the product region requested any changes to the model. In fact, the marketing group eagerly adopted the proposed model. At the time I was working with Otto on the funding submission, a total of four campaign committees from four competing product regions were outsourcing their marketing and web needs to Otto’s marketing group. Professing to seek “economies of scale” benefits for his clientele, Otto duplicated the ROTP funding submission on behalf of two other product regions, proposing similar portal upgrades for two other product region websites. All three projects received funding and developed portal models based on the proposed tiered portal design. I did not work directly with the other two campaign committees and discussion of other product region portal developments hence falls outside of the scope of this study.

Although the intended collaborative portal design plans had effectively been pre-empted by the funding submission and the intended course of action had changed, funding was not yet in place and there was still time to collaborate with actors towards eliciting a portal vision. Thus, it was deemed appropriate to proceed with the reconnaissance phase as planned; and learn what product region stakeholders' ICT expectations and needs were in hopes of retroactively incorporating stakeholder requirements into the portal model.

6.4 The Reconnaissance Phase

As a new entrant into the domain, I needed to gain an understanding of the nature of the cultural and structural forces within the domain; and the internal and external political, economic and social forces driving the Committee's ICT adoption and diffusion process. I also wanted to grasp local milieu concerns within each of the seven Grampians shires, to be able to identify issues for dialogue and potential action in the forum phase. Early on, Odette, the Committee's administrative officer, had made me aware that all communication with Committee members required prior approval from Omar. To set the reconnaissance phase in motion, I emailed Omar a draft of a letter on my intended visit I wished to distribute among Committee members. When at length I had received no response, I resorted to emailing a request to Odette to kindly distribute my letter to Committee members. With behind-the-scenes clearance likely to have occurred, distribution of the letter eventuated just prior to Christmas 2000.

Given that there is a traditional summer hiatus in Australia at the beginning of the calendar year, it took until late February 2001 before I was able to conduct one-on-one reconnaissance conversations with Committee members and other domain actors. Between early March and mid April 2001 two series of conversations took place with 15 Committee members and four key domain stakeholders, included because of their direct affiliation with the Committee or pivotal tourism/technology role. The series were scheduled based on availability and geographic driving proximity. I travelled throughout the Grampians region to visit actors in their respective shire offices, businesses or homes. Four of the 19 actors involved in these dialogues met with me at or in

the vicinity of the University; and I met with one domain actor in Melbourne at a later date. All conversations were audio taped and lasted about one hour. After transcribing the audio recording, each actor received a copy of his or her transcript to make comments or changes as s/he saw fit for use in the one-day forum. One domain stakeholder made some minor changes to the transcript, two Committee members sent thank you emails, and one Committee member, Lillian, the tourism manager (a public service position) of several inner Grampians shire, queried whether the transcript would be in the public domain for other actors to read. Despite my repeated assurance that any information I received from actors during the intervention would remain confidential, I considered Lillian's response indicative of a lack of trust in either me personally or in my suggested intervention processes.

Since the marketing group had regular contact with Grampians tourism operators, during our reconnaissance conversation Otto and I agreed that it would be useful for both web development and research purposes for the marketing group to survey and build an "operator ICT and e-commerce profile". The comprehensive questionnaire that I initially designed for the marketing group was rejected by the agency as being too time consuming and I subsequently reduced it to a one-page telephone survey (see Appendix F).

To illustrate the diversity and positions of actors within the domain, the key concerns of actors with whom I had a reconnaissance conversation are outlined in Table 6.2. The table is split into four clusters: local government actors; state government actors; industry actors; and other domain actors who performed a role for, or had an affiliation with, the Committee. The table identifies actors by their pseudonym; gender; time involved with the Committee; membership of the Committee Executive; sub-Committee(s) and usual domain roles; and key issues identified during the conversation.

Table 6.2. Reconnaissance Conversations with Actors

LOCAL GOVERNMENT ACTORS—REPRESENT SHIRE INTERESTS ON THE COMMITTEE					
Actor	M/F	Executive	Domain and sub-Committee (sC) roles Communication(CsC); Marketing (MsC); Product Devlpmnt (PsC)	Time Involved	Issues
Leo	M	√	Outer shire councillor	> 2 yrs	Lack of sense of belonging; lack of ICT infrastructure & skills; operator web confusion; campaign cost; shire duplication
Lucas	M	—	Inner shire events manager; Member CsC	< 2yrs	Unfair representation in product region; collateral too costly and targeting wrong market; tourism not approached as a business
Lauren	F	—	Outer shire tourism manager; Member CsC	> 2 yrs	Lack of sense of belonging; lack of ICT infrastructure & skills; operator web confusion; campaign cost; shire duplication
Lillian	F	√	Three Inner shire tourism manager; Chair CsC; Chair Tourism Managers Forum	> 5 yrs	Campaign membership; web participation & pricing; value creation for operators; industry communication; lack of inter-Committee communication; lack of team building
Lloyd	M	—	Outer shire economic development/tourism manager; member MsC	< 2 yrs	Committee member ratio govt vs. industry representatives; no sense of belonging for operators; same marketing agency for competing regions; volunteer basis and lack of responsibility of Committee; lack of ICT and marketing skills
Loretta	F	—	Outer shire economic development manager; member PsC	< 1 yr	Treated as an outsider; inequitable sub-region representation; unsupported in product development; cost for and confusion of operators re campaigns and web
Linette	F	—	Inner shire tourism manager; member MsC	> 1 yr	Operator opposition to being branded as Grampians; lack of ICT knowledge and need for education; lack of communication from, and operator access to, Committee; lack of Committee marketing itself; lack of communication between exec & sub-Committees
Lisa	F	—	Outer shire tourism manager; member PsC	> 1yr	Industry immaturity; prohibitive campaign cost; scare factor of venturing online; operator unawareness of Committee, lack of industry skills and accreditation; volunteer status of Committee and lack of commitment; ineffective product development; no coordination of efforts

Table 6.2 (continued). Reconnaissance Conversations with Actors

INDUSTRY ACTORS—REPRESENT TOURISM INDUSTRY INTERESTS ON THE COMMITTEE					
Actor	M/F	Executive Committee	Domain and sub-Committee (sC) roles	Time Involved	Issues
			Communication(CsM); Marketing (MsC); Product Devlpmnt (PsC)		
Ian	M	√	Inner shire operator; Chair PsC – reports to Exec	> 3 yrs	Stifling top down regulations; cross-regional disinterest; regional awareness and marketing of the Committee itself
Igor	M	√	Inner shire operator; Chair MsC – manages marketing budget; liaises w/marketing agency	> 5 yrs	Low-level operator ICT & marketing skills; operator apathy; lack of cross-tier integration; lack of time
Isabel	F	—	Inner shire industry rep; Member MsC	> 2 yrs	Lack of industry input into marketing; issues being decided outside marketing meetings; no value for industry; lack of communication from Exec
Irene	F	—	Inner shire industry rep; Member MsC	< 2 yrs	Wrong value segmentation and branding for region; non-coordination of web offerings; Committee member ratio govt vs. industry; lack of awareness raising of Committee role; political culture of Committee
Irma	F	√	Outer shire industry rep; member MsC	< 2 yrs	Non-unified, non-research chaotic approach to marketing; Halls Gap focused; impermeable relationship between marketing Chair and ad agency; non-functioning State website

Table 6.2 (continued). Reconnaissance Conversations with Actors

STATE GOVERNMENT ACTORS—REPRESENT STATE INTERESTS ON THE COMMITTEE					
Actor	M/F	Executive Committee	Domain and sub-Committee (sC) roles Communication(CsM); Marketing (MsC); Product Dvlpmnt (PsC)	Time Involved	Issues
Sarah	F	√	Visitor Park manager ; member CsM	> 2 yrs	Appropriate signage; safety; not being seen as the “boogie man” in pressing regulations forward
Sam	M	√	Manager RCMP	< 1 yr	Committee skill base; uncoordinated marketing campaigns; parochialism; collateral distribution; need to endorse state website
Steve	M	—	Ex-state tourism body employee (VTO)	—	Incompatibility of State & Regional database structures; State ultimate data collector, regions displays of data; system technology-driven rather than customer-driven; too expensive

OTHER ACTORS—HAVE AN AFFILIATION WITH OR PROVIDE SERVICES TO THE COMMITTEE					
Actor	M/F	Executive Committee	Domain and sub- Committee sC) roles Communication(CsC); Marketing (MsC); Product Dvlpmnt (PsC)	Time Involved	Issues
Otto	M	upon invitation	Marketing group director; project manager campaigns & signs up stakeholders; reports to MsC & Exec	> 3 yrs	Committee skills level; lack of time; lack of marketing knowledge; lack of ICT knowledge; lack of 3-tier coordination; industry apathy; fear of knowledge sharing
Omar	M	√	Executive Committee Chair; Director of a regional devlpt assoc. across several shires	> 2 yrs	Plays reluctant Chair; Committee funding structure; skills level of members; time issues to get things done; issues were certain actors
Odette	F	√	Committee Administrator; minutes at meetings	> 2 yrs	Volunteer status of Committee; lack of swift answers; work overload; prevailing culture of leaning on administrator; exec minutes not distributed to all
Opal	F	—	-- No Sc role – ICT role with some tourism operators	< 2 yrs	Lack of SME ICT and marketing skills; cost concerns to implement ICT; lack of training; lack of coordination between portals

6.4.1 The Halls Gap Regional Tourism Forum

In the course of the reconnaissance conversations I learnt that a combined Tourism Victoria/Committee regional forum was in the planning for April 11th in Halls Gap. I discussed my attendance with Omar, who suggested that I contact the Committee administrator to add my name to the list of invitees. I telephoned rather than emailed Odette with this request, which proved to be bad protocol on my part. In an ensuing email Odette clarified what volunteer Committee membership entailed; and requested that I put all future queries in writing, to be attended to at the appropriate time, since she was only employed to

provide secretarial services one (1) day a month. This contract involves providing administrative work such as attending meetings one (1) day a month to take minutes, distribution of minutes, agendum, etc. associated with monthly meetings. Any additional services provide are a gratis service provided by my [name of employer] to assist tourism within our region.

Secondly, might I point out that all members of Grampians Marketing Inc. and its sub-Committees are volunteers, and as a consequence they all have other (either employers or businesses) commitments that will always take priority over their work for GMI, as my work for [shire name] will always take priority over my work for Grampians Marketing Inc. (P26, 634-677).

The regional forum comprised an afternoon and an evening session. The afternoon session, aimed at product region operators, featured an update on the Grampians Cooperative Marketing Program; an overview of the Tourism Victoria Strategic Plan 2002-2006 for industry consultation and feedback purposes; and a general discussion on future directions for tourism in the region. The evening "workshop", aimed at shire officials from all seven Grampians shires, featured speeches on the value of cooperative tourism by Tourism Victoria officials, followed by an open discussion on closer collaboration among shires. Forum observations are included in the next chapter, but it is worth noting here that the structure of, and the interactions at, the regional tourism forum left me feeling that people were being talked *at* rather than being engaged *in* meaningful dialogue.

In May 2001 word was received from the funding body that the Grampians ROTP submission had been successful. I was invited by Otto to immediately start design and mapping work on the tiered portal, as funding guidelines stipulated that the project be finished by the end of the year.

6.4.2 Phase I Reflection—Lack of Engagement

Reflecting on Phase I, I became acutely aware of the low level of engagement by actors. While a number of issues and concerns had arisen during the reconnaissance conversations, few actors appeared willing to single out items for future discussion in an open forum. The proposed shire-based information gathering process on ICT and e-commerce needs of tourism operators across the product region did not fare much better. Committee members apparently did not receive a single ICT or e-commerce inquiry; and, despite its brevity, the marketing group administered the questionnaire to only a handful of operators, after which they abandoned the survey process altogether. The regional tourism forum further strengthened my feeling that lack of engagement might be an issue across the domain.

6.5 The Forum Phase

Given the time limit imposed by the funding body for portal completion, it became a matter of urgency to organise the one-day forum and work with domain actors on a cooperative portal vision.

One of my main concerns was to secure a suitable facilitator for the forum. During the reconnaissance conversations, one actor had suggested that I should not be the facilitator of such a forum, as I would not be perceived as having enough clout, especially with the male members of the Committee. I discussed this issue with my supervisors and several potential academics and practitioners were suggested, one of which was a male management and planning academic/consultant, who was familiar with collaborative methodologies and had a background in hospitality. I met with the man in question and felt that he was the right person to put forward to the Committee.

Having already broached the forum subject with actors during the reconnaissance conversations, I proceeded to discuss the actual organisation of the forum with Otto, since he appeared to be in position to engage Committee members. I put forward the designated facilitator and also proposed the wider inclusion of domain stakeholders in the forum. Otto emphasised that actors were always strapped for time and suggested that we combine the one-day forum with a Committee planning day that needed to take place anyway to formalise the Committee's three-year marketing plan as per the new RCMP guidelines. Otto also expressed concern that the facilitator might be a competing marketing consultant, but promised to table the forum day for Committee consideration at the June Committee meeting.

When weeks later I had still not received any confirmation of a planning day-cum- forum, I requested a copy of the June meeting minutes from Odette in hopes of obtaining word on the Committee's endorsement of the forum. I received a curt response stating that the Executive Chair had declined my request. At a subsequent web design meeting, Otto informed me that the Committee had rejected the idea of an outside facilitator and that he himself would be facilitating the planning day-cum-forum sometime in the future. Otto extended an invitation to come along as a member of the design team to the July Committee meeting and make a presentation to the Executive on the status of the web upgrade. At the latter meeting Omar curtailed my presentation time. Only one question was posed pertaining to an old print collateral grievance regarding inadequate sub-regional maps.

6.5.1 *The Forum Day*

Although I had reasonably frequent contact with the marketing group, I was not routinely informed by Otto or members of his staff about forthcoming Committee events that might be of interest to my work. Since I had discussed my one-forum plans with Committee members in general, and with Otto in particular, I had expected to be informed in a timely manner when the planning day-cum-forum was scheduled to take place. However, as had occurred with the regional tourism forum, I discovered the date of the planning day by happenstance. As I noted in my journal on September 7, 2001, "it's 5

pm Friday afternoon and if I by chance hadn't rung [the marketing group] to find out what was happening I wouldn't have known about this planning meeting" (P26, 2763-2765).

The planning day/forum took place on September 12, 2001 and the previous day's terrorist attack dominated much of the small talk. Apart from helping Otto to formulate the forum agenda on the way to the forum, I was neither aware of nor had been included in any prior planning for the forum. Otto did allocate some time on the agenda for a portal discussion and I had prepared some dialogue questions to aid the portal model formulation process. The forum was attended by a reduced number of Committee members due to several recent resignations. One industry representative attended on behalf of a tourism manager from an outer shire. Another industry representative attended as an observer and potential future Committee member. No other domain stakeholders had been invited.

The formulation of the three-year marketing plan dominated the day. The marketing group team made a presentation on the new "Grampians Rocks" advertising campaign. Old and new markets were discussed and percentages of the marketing budget were allocated to the various cross-media campaigns in current and future domestic markets. The web was not specifically discussed as an important new (international) market channel and no funds were allocated to future web-related marketing incentives, although a mention was made that the portal address would be featured on all future collateral.

At the end of the day I was provided a brief opportunity to discuss web developments, but by then Committee members were either rushing off or too tired to start a dialogue on the portal model, let alone hash out a future collaborative e-business vision. I opted to use the time to distribute copies of the portal design feedback plan (see 6.6), stressing the importance of actor participation in the portal evaluation process, not the least to satisfy the funding body requirement for stakeholder feedback on the project.

6.5.2 Phase II Reflection

Prior to the planning day, I attended an action research forum in Washington D.C. under the auspices of the Academy of Management. My work had been selected as one of four project foci of the 2001 Practitioners Series. The Practitioners Series, comprising both action research academics and practitioners, is conducted as a search conference with rotating plenary and breakout sessions.

In mapping and reflecting on project concerns with my group members (see Appendix G), it became apparent that my objective of collaborating with Committee members was severely hindered by lack of access to, and lack of communication with, the Committee. Apart from the reconnaissance conversations, actors had been unresponsive to any collaborative exploration, action, or reflection I had proposed to date. The latter appeared to be underpinned by a prevailing Committee culture of not wishing outsiders to meddle in its business; lack of time and commitment due to its volunteer status; and weak ties between the Committee and the university, compounded by a lack of bonding capital between the Committee and myself.

Committee members appeared responsive to my bridging social capital in the form of web expertise, but only when it was presented under the banner of marketing group work. I was tolerated at meetings in my role as a member of the marketing team. Having worked with the marketing group for several years, the Committee seemed to have established a close and trusted working relationship with its director Otto. As I noted in my journal after another fruitless attempt to get a response to a proposed action, "I think Omar has conveniently forgotten that there is also an academic arrangement whereby the Committee has agreed to cooperate with my research" (P26, 2042–2044).

Rather than continuing to be frustrated by the situation, it was necessary to acknowledge that, on my own and without an established track record, I would not likely be able to establish a change leadership position with the Committee during the limited intervention time. As the project activities chart clearly shows (see Table 6.1), sustained dialogue occurred only with the marketing group. Although the communication flow between us was far from perfect, the

marketing group and I had established a good working relationship; and they had supported my portal design. It would hence be constructive to shift my collaboration focus to the marketing group; and endeavour to affect change processes vis-à-vis ICT adoption and diffusion via what appeared to be my most receptive channel and most direct conduit to the Committee.

6.6 The Portal Evaluation Phase

Having established a portal design that in principle had been adopted, or at least had not been rejected by the Committee, the last phase of the intervention involved the portal design evaluation and formulation of the final portal model. The latter was necessary to satisfy the ROTP evaluation guidelines, but if designed as a reflexive exercise for Committee members, this last phase of the project had the potential to inspire a sense of stakeholder ownership in the portal.

I had recently undergone training on a computer program called Zing, designed to facilitate electronic focus groups. Prior to the September 2001 planning day I had suggested to Otto that it might be useful to review the completed web design by using the Zing program. A Zing session of no more than two hours could be conducted on site and be scheduled around a Committee meeting to take advantage of actors already being assembled in one place. If desired, the session could include a wider range of domain actors and responses could be tabulated anonymously.

Otto was happy for portal evaluation to take place. He was mindful of the funding body evaluation requirements; and it was in his interest to assemble a record of comments during the web construction phase, since actors had a tendency to request changes when it was too late. Otto, however, questioned the capacity of actors to contribute to a computer-based evaluation session and believed that offering up two extra hours would also be a challenge for actors.

6.6.1 Evaluation Design

It was resolved that an online feedback method would be the most time-efficient way for actors to undertake evaluation of the portal. As the portal was still offline, it was not possible to use the B2B communication tier – designed for just this type of interaction—for evaluation purposes. Instead we settled on the use of a web-based communication system that the marketing group had recently implemented for internal job tracking purposes. The system had the ability for password-protected client login to post and peer review portal comments. Automated email functionality would be added so actors would continually be informed of new communications being posted and hence be encouraged to become pro-active in the evaluation process.

It was agreed that the marketing group would get the web-based system ready for evaluation purposes and that I would design a short portal review survey (see Appendix H) accompanied by a brief to introduce the evaluation process and clarify login procedures. Both documents were presented to actors on the aforementioned planning day. The survey was made available online and also emailed to actors. The brief once again contained an invitation to include wider domain actors in the evaluation process.

It took until mid November 2001 for the internal communications system to become functional and when it finally did come online, two months had elapsed since actors had received the portal evaluation instructions. The planned evaluation process was not reintroduced, but a marketing group staff member circulated a reminder email to inform actors that the evaluation system was now up and running.

6.6.2 Evaluation Process

Despite the fact that the evaluation goals and processes had not been reintroduced, Lucas, an inner shire government official, apparently forwarded the names of two tourism operators to the marketing group for inclusion in the evaluation process. No other actors put operator names or other domain actors forward. The contacts were, however, not followed up and consequently no "outsiders" took part in the evaluation process. As it was,

several Committee members had resigned by the time the evaluation phase took place, resulting in only a handful of actors complying with the request to share their thoughts on the portal.

Prior to embarking on the evaluation phase, the marketing team had assured me that the portal would be ready for review. However, the marketing team's professed inexperience in negotiating database construction resulted in a significant delay in the development of the portal accommodation database, which created significant information gaps on the site; and ultimately delayed the launch of the portal until March 2002. Since the database underpinned much of the functionality of the portal, its absence during the evaluation process made it difficult for actors to provide significant feedback. As a result, issues raised during the feedback cycle were predominantly content-related, including such concerns as lack of data and functionality; the site not being as dynamic as had been anticipated; and the site being far from ready to be launched. Other issues that were raised concerned insufficient or incorrect details being displayed on sub-regions; and, replicating a longstanding print collateral grievance, that the (interactive) map needed to reflect the entire region.

After the first flurry of emails and subsequent alterations made to portal content, feedback reduced to a trickle and the communication system, although continuing to be functional, ceased to be used. Otto had been keen to use the interactive communication system as an ongoing communications channel; and as a record of requested changes during collateral production, but those Committee members who had reason to interact with the marketing group apparently did so via other communication channels.

6.6.3 Consultancy Closure

Although the portal launch was delayed until March 2002, my role as web consultant was effectively finished after the evaluation process ended. There was no further need for interaction with Committee members; and apart from completing the final reports for the ROTP funding body in March 2002 I received no further portal-related queries from the marketing group.

Six months after the launch of the portal I contacted the marketing group to gauge the uptake of the portal by domain stakeholders. I was informed that visitor hits had dramatically increased (see Appendix C); that three or four operators had developed a portal presence above and beyond the free line-listing (name, address, phone number) supplied to operators as part of the Jigsaw campaign; but that participation in the upgraded Grampians product region website by domain operators was no greater than prior to the upgrade.

6.6.4 Phase III Reflection

Once I had become aware of the conduit role the marketing group played in the Committee's decision-making processes, I repositioned myself and shifted focus from the Committee to the marketing group. As soon as I was able to abandon a need for control and conform to marketing group activities rather than aim to direct my own actions, I started to perceive the intervention process as less frustrating and more productive.

While the marketing group became my closest ally, in hindsight it is clear that it also firmly controlled the intervention, yet engineered it in such a way that full advantage was taken of my expertise. Since the marketing group was interested in incorporating web and e-commerce knowledge in its own work, it was open to my intervention in terms of portal design, but did not release control over the process at any time. Otto did not seem to tolerate outsiders to intrude on his power base. Both the one-day forum and portal evaluation processes had been skillfully manoeuvred away from outside intervention. Although the marketing group director frequently expressed frustration with inadequate Committee procedures, he expertly managed the Committee's decision-making processes.

While the marketing group had helped progress the acceptance of the tiered portal design, it did not appear to be responsible for implementing or maintaining the model. In fact, while the marketing group was hosting and updating the website as part of its project management contract with the Committee, nobody had taken ownership of the portal. As a result, no one was proactively creating awareness of the tiered portal model with regional stakeholders, let alone drive B2B communication or customer interaction.

It seemed that the Committee had bundled its strategic portal development responsibilities with its marketing needs and outsourced both to a commercial agency. Although the marketing group's professionalism and integrity were not in question, like many others, it was still coming to terms with web-based collateral development and e-commerce. Interestingly, given its project management position with multiple product regions, the marketing group was much more instrumental in shaping regional e-marketing and e-commerce developments than I had been able to foresee. With the marketing group's focus and skill base not necessarily geared towards shaping regional e-business development, there was reason to believe that the outsource arrangement directly impacted on ICT and e-commerce diffusion in the domain.

6.7 Chapter Conclusion

In this chapter I have presented a chronology of the activities as they took place during the portal consultancy with the Committee. Although actors did not participate in action-reflection cycles as I had intended, the emerged process has nonetheless generated useful insights into the network structure and provided fertile ground for the study analysis. By regularly reviewing the ongoing intervention process; and by journaling and reflecting throughout the intervention, I learnt how to emotionally distance myself from the intervention, gain new insights on what was happening, and learnt how to redirect the action research process when and where needed. Reflexivity also helped me in the overall study analysis, which will be detailed in the next chapter.

Chapter Seven

Intervention Results

What does not change is the will to change.

— Charles Olson (1910–1970)

In this chapter, I provide an analysis of the intervention by using the 7C framework proposed in Chapter Four. In determining the ICT and e-commerce adoption and diffusion process in the Grampians, the 7C framework was adopted to aid the analysis of perceived, barriers, drivers, and pathways for network innovation and change. The analysis is presented in terms of seven recurring themes, discussed at length in Chapter Four. The themes—connectivity, clustering, communication, collaboration, community, cooperation and change (the 7Cs)—are examined both as separate and interrelated components from an individual, group and domain perspective. Each theme is followed by a summary. The individual perspective focuses on the views of individual actors, as identified in Chapter Six. The group perspective refers to the Committee as a whole. The domain perspective, discussed as part of the methodology approach in Chapter Five, includes intervention actors; Grampians-based tourism operators; and public institutions and/or industry organisations that share direct or indirect domain interests. The chapter concludes with a review of the 7C framework. The review addresses the role each C-factor played in the change process and highlights emerging factors that are considered critical to achieve change.

7.1 Setting the Scene for Intervention Analysis

After the completion of the intervention in early 2002, I embarked on aggregating the myriad data collected during the intervention. Email messages; audio-taped conversations; field and journal notes; Grampians collateral produced by the marketing group; ICT and tourism policy documents; speeches, such as those made at the April 2001 Halls Gap Forum

by Tourism Victoria and Committee representatives; and other pertinent documentation were all included in the data analysis. Electronically available documents were assigned a primary document number (P1, P2, P3, etc) and entered into the qualitative analysis software program AtlasTi for document management and analysis purposes. Document coding took place progressively over a period of several months. In applying the framework outlined above, codes were rearranged and re-clustered numerous times, the results of which are summarised below. All citations utilised for illustrative purposes in this and the previous chapter include primary document and line numbers.

7.2 Connectivity

As seen in Chapter One, in these digital times, “connectivity” is generally referred to as being connected to the Internet. Connectivity is most often measured by volume—how many people are connected to the Internet—and revenue generation—the extent to which connected users transact online. With a focus on change, I was interested to learn whether connectivity had changed individual, group and domain processes in terms of ICT-based interaction and transaction.

7.2.1 *Individuals*

When I began the intervention process in late 2000, most Committee members had email addresses and I repeatedly used email as a communication tool. Certain (male) actors did not respond to my emails, but it was difficult to determine whether actors’ lack of communication via email was a result of inadequate levels of ICT-literacy, poor access to infrastructure; lack of time, disinterest in participating in the intervention, or a combination thereof.

Actors—especially those located in the outer Grampians shires, which are quite distant from any metropolitan or regional centre—expressed continuing frustration with their access to infrastructure.

Lloyd: Infrastructure that's the main thing. Our real problem is speed access. It's so slow and I mean the problem has been that the governments, as politicians do, look for the bright lights and hand out money willy-nilly, setting up these CECs [community enterprise centres] and interactive learning centres and whatever, which are terrific, plug the machine in, and try get on the Internet, wait a half hour and the people turn around in disgust (P20, 183-192).

Local Government officials, who generally enjoyed free online access as a result of their institutional ties, tended to respond to emails in a timely fashion, whereas industry-based actors, who relied on connectivity via a private account, were much less swift in responding.

Ian: They're doing everything themselves. They're getting up in the morning, they're cooking the breakfasts if they're in a motel, they're cleaning and some of them are in the kitchen again at night time. It's a bugger of a life so they don't have time to sit down and play with the computers (P5, 516-519).

While civic actors were notably more "networked" than industry actors, the difference in response time was not necessarily perceived as an infrastructure or time matter, but rather as an awareness or skill issue.

Lillian: I mean look at Igor; he doesn't check his emails every day.

Patrice: I know; I've tried to send him emails.

Lillian: He's not switched on. How do you get that ingrained in people's heads (P1, 881-85)?

7.2.2 Group

Committee or group connectivity was entirely dependent on individual ICT adoption. Connectivity and ICT literacy were not explicit skill requirements for Committee membership. Odette distributed group notices, meeting agendas and minutes electronically and posted hard copies to those actors who were not yet online. As time progressed, the Committee contact list reflected an increased number of email addresses, but there was no clear indication that

the adoption of ICT had significantly changed interactions between Committee members.

As a group, the Committee displayed a low degree of knowledge of and interest in ICT, e-commerce, and the development of the portal. The Committee had acknowledged they had to have a web presence, but no specific strategy or vision had been in place for a web presence until the marketing group and I created a portal strategy on behalf of the Committee for the ROTP grant submission. Possibly due to time constraints, the grant proposal was never distributed to Committee members for feedback; instead Omar signed it off unilaterally without a request for changes.

Despite allegedly not being switched on, Igor, speaking to Grampians tourism operators on behalf of the Committee at the Halls Gap tourism forum, outlined a networked and interactive vision for the Grampians portal.

Igor: We have an application in for funding, federal funding to upgrade our website and this will be giving us e-commerce capability. Regional connectivity, which is working in such a way that we can connect the whole region through the Internet so that in the future we probably don't need to have as many meetings, because we can communicate and get our ideas out to you and let you know what we're doing and you can contact us via the Grampians website. It's expanding the web so that we can all use it for our region. The ability will be there for those of you who want to use an online booking service...So we will have, cross fingers, a very substantial website which will link into the TV [Tourism Victoria] website, but will give you also added benefit within the region (P22, 138-158).

Once funding was secured to update the Grampians website into a regional portal, the Committee acknowledged the success of the application, but showed little interest in the progress of the portal. On the whole, web development and electronic marketing were classified as project management tasks and subsequently outsourced to the marketing group. In those meetings where I was present to report on portal development progress, I was allotted minimal presentation time; and in his capacity as Executive Chair Omar curtailed any in-depth portal discussion. When I queried these proceedings,

Otto suggested that actors did not have enough ICT knowledge, time or interest to dwell on such issues. As I noted in my journal:

It is clear that nobody has enough web experience to suggest anything or protest against anything... When we left Otto said, you see Patrice they don't have a clue. We tell them what to do and they leave everything in our hands because they don't have the time or the expertise (P26, 2027-2037).

Several group actors acknowledged that the Committee lacked ICT expertise and expressed apprehension vis-à-vis the situation.

Lisa: Part of my concern is that they have no [knowledge]. I'm saying no one is actually telling them what they need, so they just go ahead and interpret what they think you need...but they've never discussed that at a marketing meeting...it's never ever been discussed. Everyone knows the site's there and Otto says it's being updated, but... (P7, 573-588).

Lloyd: Another problem with the IT, with the website aspect of it is that we are not expert enough ourselves to be able to often make assessment as to what we are being told is that right, is that someone's figment of imagination. And that's the problem because we haven't got the knowledge, or most of us I don't think, to make the real assessment so we can be told all sorts of things (P20, 371-377).

7.2.3 Domain Connectivity

While email was used to disseminate information among Committee members, communication with domain operators continued to take place via telephone, fax, and post. Sarah, the Parks Victoria representative on the Committee, used email to communicate across her own networks, but similarly indicated that Parks Victoria interaction with industry remained conventional and unilateral in nature.

Patrice: Do you use information technology to communicate with them [tourism operators]?

Sarah: Not really because they're not very good at it. I have talked to Lillian about getting up a database with the local tour operators but at the moment we're still getting that email list together and it's still actually sitting on the desk (P14, 74-84).

According to Odette, the Committee was looking into using email to communicate with domain operators (P2, 116–120) and indeed towards the end of the intervention, upon an initiative of the Communications sub-Committee, quarterly Grampians newsletters started to be distributed electronically in addition to hardcopy distribution by post. There was no other indication that there was regular email traffic between domain actors.

Since neither the marketing group nor the Committee members assembled any ICT and e-commerce related information from tourism operators, only an anecdotal picture can be sketched of industry connectivity and domain use of ICT and e-commerce for communication, interaction and transaction purposes. Lucas, a local government employee-cum-operator, avowed that he “never had questions about e-commerce to be honest” (P3, 166–167). Otto inferred that Committee members “probably got just a gut feeling” (P19, 237) about ICT issues in their respective shires. And despite the marketing group’s pro-active public façade to survey operators on ICT use, Otto privately expressed concern about the ability of operators to respond to ICT questions. “They wouldn’t know the answers to a lot of them [questions], they’re just operators” (P19, 295–296). Both Lisa and Opal concurred that email was the prevalent level of connectivity within the domain.

Lisa: They are fairly ignorant to website full stop. It's been on the agenda for a while... most of them have just got onto email. It's been a big step to them (P7, 182–187).

Patrice: In what way do you think that technology is used?

Opal: Certainly email is used and for things like images [for the brochure]...dissemination of the information happened all by either email (P10, 373–378).

Patrice: Do they know what e-commerce is?

Lauren: They [tourism operators] don't use e-commerce. I can speak for one or two operators who use e-commerce and they do know what it is, so I don't think that's too much of an issue with some of them, but it may well be with some others...they don't really understand it (P9, 23–33).

Capability aside, there appeared to be a great deal of confusion among domain actors as to which tourism website to join.

Ian: There is a big lack of understanding. Most people don't know how the Internet works... Everyone who comes to me is trying to sell. No one is sitting down and saying "you'd be better off if you did this or the people of [town name] would be better off if they did this" and then work out the costings and give options. Nobody does this. Everybody just develops websites and says everyone should be in it and it will cost you \$300 a year (P5, 144–150).

Loretta: I think people are very confused about things like that because there is so much of it out there in the larger arena.

Patrice: VTO [Victoria Tourism Online] being one of them?

Loretta: Yes. I think a lot will depend on the cost. Let's face it. People are pretty suspicious of new things. Change is the scariest word in the English language, I mean, you kind of look at it and go ok, this could be really good, but so it's kind of "show me how it will happen" before I put money into it (P11, 310–313).

Irma: Lauren has really tried hard to get people up online [on VTO] from what I have heard in the Grampians meetings and it's a total shemozzle, but...a lot of people...they're floundering trying to work out how (P6, 235–244).

If operators were confused as to which portal to join and at what cost, there also appeared to be some dissension among Committee members as to how to guide domain actors on a portal choice. Omar seemed strongly committed to advancing the Victoria Tourism Online (VTO) site, not in the least because the Committee was receiving a rebate from the state tourism body for every operator it signed up on the state site.

Omar: VTO came out of the feeling that the regions are representative; that there are some standards...and it has the links to national, international sites. It's a product that's been imposed upon the regions and ... it's there; it's going to stay there, it's going to be developed; it's going to be pushed out to the regions. So we can say hey we don't want it, but I think we'd be silly to do that (P13, 181–210).

Igor, to the contrary, was happy to promote the regional portal as long as the Committee did not need to be responsible for its maintenance.

Igor: Grampians Marketing has done okay. We haven't got a sophisticated website, but we do have a website. It is there, people can see it, we have a presence. We can go to people and say look we are attracting, we are looking at about 2 million hits this year. Which apart from the development costs...it's a fairly good investment. As opposed to Tourism Victoria which has spent all that money...Realistically Grampians Marketing doesn't want to be involved in the actual operation of the website. Realistically. Unfortunately the way it is at the moment we have to be involved in it and we have to, we basically have to run it. I would like to see us set up something that was basically self-sustaining and something that can be managed by an outside agency. Because we are in the business of marketing; we are not in the business of running infrastructure (P16, 183–205).

Most other actors appeared willing to recommend the VTO site, described by Sam, the manager for the regional cooperative marketing program (RCMP), as the official state tourism site that should be endorsed by the Committee.

Sam: I think there is a need, like with a lot of things, to have an officially recognised site and I think that needs to be the official sanctioned site by the campaign committees...I think that there is an official site that is seen as credible in terms of the accuracy of the information and the comprehensiveness of it.

Patrice: How do you market that?

Sam: I think it's really a communication process between the campaign committees down through the tourism associations and to the operators themselves...that's a decision that I suppose the campaign committees have to face. I don't have a fixed view on whether the Grampians [Committee] should be encouraging people specifically if it's one or the other; whether they should be on the Grampians site or the Tourism Victoria site. I think that really the cost of them [tourism operators] being on the Tourism Victoria site you know ongoing is \$340 a year. Well, I think that's chicken feed for the value of it...the main thing I think is that they communicate to the operators that this is the endorsed site that we want you to advertise in (P18, 185–198).

In his role as the Grampians website developer, Otto had his own views on the state's website strategy.

Otto: They [Tourism Victoria] continue to think they own the world. They want to control the world from that one site...We'll push on and keep delivering what we think is right for the region and making sure the regional sites work as well as state sites, as well as the local sites (P19, 74-78).

Not that the VTO site had been working that well, despite the \$7.4 million the Victorian Government had spent on developing it. Steven, a former Tourism Online Victoria official described the state's attempt at domain connectivity as a top-down and technology-driven process in which infrastructure access, cost, user skills and user needs had featured as secondary considerations.

Steven: I have a definite view where things went wrong in the process and I believe that the development process followed by TV [Tourism Victoria] is not customer focused...the whole of that [customer consultation] process did not occur at Tourism Victoria. It occurred in a back room and it was not open to criticism...because the technical people ran it (P27, 153-180).

7.2.4 Connectivity Summary

The research indicates that email has become the standard communication method for internal Committee business, albeit not yet ubiquitously adopted as the external mode of communication within the domain. As such, a distinct top down vs. grass roots lead in usage was detected (see Figure 7.1). In Rogers' (1995) diffusion of innovations terminology, actors with institutional ties were the relatively more aware, early majority adopters of ICT and industry-based actors were the least aware, late majority adopters and/or laggards.

Contextual factors, in existence prior to ICT adoption, such as possessing (access to) knowledge, infrastructure, skills, time and commitment, clearly played a significant role in adoption patterns across the domain. As described by Kautz and Larsen (2000) and Rogers (1995), in "normal" diffusion networks the *cosmopolite* institutional actors would have served as change agents in the *localite* adoption process. However, in this particular network, actors did use the existing communication channels to transfer knowledge and act as change agents, resulting in vastly under-utilised interpersonal communication channels negatively impacting on the ICT adoption process. With knowledge

transfer channels towards domain connectivity being vastly under-utilised or in some cases obstructed, a chaotic ICT adoption pattern occurred across the domain. The latter is noteworthy in that the diffusion of innovations literature does not generally untangle the effects of the embedded network structure on the diffusion process and hence few, if any, diffusion studies will have previously found a diffusion process to be chaotic.

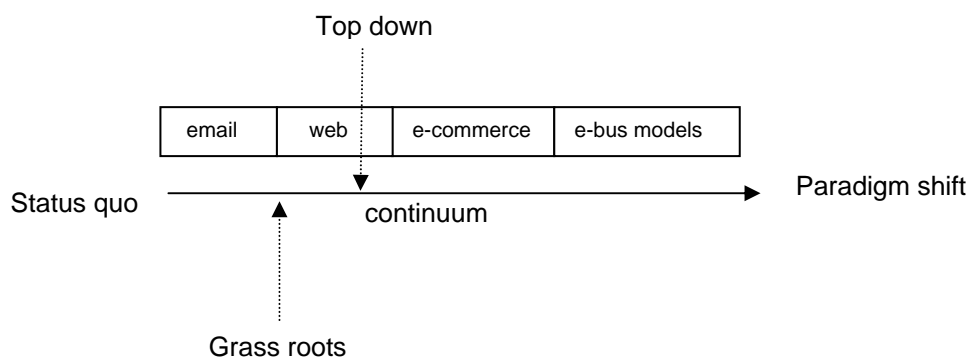


Figure 7.1
ICT Adoption Continuum

As discussed in Chapter Two, ICT cannot be considered a single technological innovation, but should be seen as a cluster of technologies. The research indicates that for most actors in the domain the adoption of the entire ICT cluster appears to be a linear process along an adoption continuum. After adopting email, the web is the second step for adoption consideration, e-commerce the third step, potentially followed by adoption of a complete e-business model (see Figure 7.1). The latter is based on the finding that the majority of individual, group and domain actors were aware of the web, but had not progressed to the e-commerce phase. Although not specifically ICT-cluster focused, Rogers (1995) and others certainly acknowledge linear and incremental phases of adoption and this element of my findings is hence in accordance with diffusion of innovations theory. In Kautz and Larsen's (2000) words, most actors could be classified as having *awareness-knowledge* of the web as a marketing and e-commerce tool. They knew the web and e-commerce were in existence, but did not appear particularly driven to seek *principles knowledge*, information on the functionality concepts underlying e-

commerce, and hence did not have the *how-to knowledge* to engage with more advanced ICT functionality such as e-commerce.

Anecdotal evidence indicates that to date most tourism firms within the domain, the majority of which are micro firms, have resisted engaging in operational e-commerce, because they lack size, resources and strategic vision. Many firms regard e-commerce as complex and have yet to understand the relevance of e-commerce to their business. These findings correspond with recent Australian literature on tourism and ICT adoption (Applebee, Ritchie, Demoor, & Cressy, 2002) and are in line with e-commerce adoption patterns of tourism SME observed in Europe by researchers such as Buhalis (1999) and Evans et al (2001). These results also confirm Earl's (2000) view that becoming an e-business is an evolutionary process that requires the negotiation of a journey that involves continuous learning and change. Rogers (1995) acknowledges the evolutionary process in terms of attitudinal change and time required for the innovation-decision process, but omits codified and tacit skills, prior experience and learning as part of the process.

The research further indicates that both the hard technology (e.g., the telecommunications infrastructure that underpins the uptake of ICT) and what Simpson (2002) refers to as the soft technology (e.g., the formal and informal skills and knowledge required for the uptake of ICT) remain inadequate. Anecdotal evidence in regional Victoria suggests that the smorgasbord of web offerings only added to operator indecision and perhaps even to technology aversion. Portal initiatives undertaken within the domain have been top-down and technology-driven, and consequently have enjoyed limited success. If the state tourism body was guilty of letting technology and funding drive online developments, so was the product campaign committee; and indeed so was I, in agreeing to develop a Grampians portal model without either a prior stakeholder needs-analysis or a future stakeholder-inclusive ownership plan, leaving domain actors to cope with ICT confusion, cost issues and no sense of belonging.

If we view the ICT cluster adoption process as a continuum, whereby the adoption of email is at the beginning of the continuum and the adoption of a complete e-business model represents a paradigm shift (see Figure 7.1), it may be argued that when top down and grass roots adoption are on par and universal adoption of e-business models has taken place, an ICT paradigm shift would occur across the domain. Rogers (1995) links the rate of diffusion to perceived relative advantage and complexity of an innovation. With anecdotal evidence pointing to e-business models being perceived as extremely complex, such a domain shift may occur at a decelerated pace.

7.3. Clustering

As seen in Chapter Four, connectivity is ideal to build on the concept of clustering. Within the texture of domain interdependence, connectivity can facilitate the implementation of an interfirm network, build B2C and B2B relations, speed up replication of knowledge, and penetrate new markets. I was interested in learning whether connectivity had created or changed individual, group and domain awareness of clustering; and whether the tiered portal model, designed with clustering in mind, had sparked individual, group or domain interest in clustering.

7.3.1 Individual Cluster Interest

When the virtual cluster concept was discussed with individual actors during the reconnaissance conversations, I described clustering as a cooperative construct whereby operators might benefit from such things as shared ICT resources; market research, e-marketing campaigns, etc. Actors generally seemed unaware of the cluster concept and did not appear to identify with potential cluster benefits. As reflected in his Halls Gap speech (see 7.2.2), Igor depicted the portal as being primarily useful for bilateral communication purposes and consumer transactions.

Only one industry actor, a relative newcomer to the region, showed enthusiasm for the concept.

Irene: We're very keen to participate in regional things that support what we're doing so we should participate and that's how I feel. We would be very keen to do that, I think it depends on how much money it costs. That's terrific, we're very keen and are looking for regional involvement (P, 480-483).

7.3.2 Group Clustering

Although they were seeking to aggregate domain actors in a regional portal, there was no indication that, as a group, actors had prior awareness of or understanding of the cluster concept. The Committee did not pose any (cluster) questions at portal presentations and showed little interest in clustering either for improved Committee interaction or for the advancement of the product region as a whole. It was difficult to ascertain whether the Committee's unresponsiveness was because they were out of their depth or because Omar curtailed any in-depth portal discussion. Perhaps actors did not show interest because they did not wish to commit themselves to a project they did not have time to implement. As Otto put it,

Otto: all the regional committees in regional tourism are made up of people who are flat out and don't have too much time to put in to make cooperative ventures work and tourism operators are also flat out and don't have any spare time to do anything. That's a fact. They are all time-poor (P19, 629-632).

The Committee's superficial engagement with, lack of strategic vision, and outsourced responsibility for driving the portal, and hence for mustering interest in clustering, were reflected in the low operator participation in the portal. As I noted in my diary on January 9, 2002 after the completion of the intervention,

I was uneasy about the so-called finished website. It's not a finished product, but rather has come to a certain stage and isn't likely to go any further. Nor can one expect it to because [the marketing group] is an advertising agency and...they do not have the interests of the operators or the region at heart...Policy doesn't translate well into action clearly! How can it. One can outsource one's advertising and promotion needs but one cannot outsource one's conscience or one's responsibility. That's in many ways what's been happening and [the marketing group] cannot be blamed for doing their job (P26, 4767-4777).

7.3.3 Domain Clustering

Cluster awareness and interest of domain actors appeared contingent on what message operators might receive from their respective Committee representative.

Linette, a tourism manager for an inner shire, did not see it as her role to recommend a particular site to operators, but believed that there was a better argument for clustering on the Grampians portal than on the Tourism Victoria website, as she feared that the VTO site was going to run into problems because "it is too big" (P15, 363-365). Besides, many operators in her shire apparently had already opted to cluster on their local shire site.

It may be construed that outer shire representatives such as Lauren, who was actively trying to sign up operators on the VTO site, endorsed state-level clustering. Leo supported Lauren's work, although he believed that it would be hard to convince operators in their (common) shire to see the value of clustering (P4, 339). Lucas, the operator-cum-tourism/events manager for the very shire in which keen-to-cluster Irene had established her tourism business, was of the opinion that operators in his shire would not be interested in clustering because the portal did not adequately represent the attributes and operators in his shire (P3, 424-430). Lillian took a somewhat broader view, describing domain clustering as part of an incremental adoption process and potential value added for operators once other vital services were in place.

Lillian: I mean the only really advantage for operators, if you look at it from an operator perspective, all they want is bookings, so that's what they want to see delivered from any web site that they go on. So the question is how do we actually create more bookings for them.

Patrice: They don't want industry information exchange or perhaps a cooperative advantage such as bulk insurance?

Lillian: That would be additional to the ultimate goal, I guess. If there was a website delivering bookings which would be their key priority. Then they would look at the other vehicles.

On the whole, clustering was regarded as an interesting but far-fetched consultant idea. Despite the Committee's interest in aggregating domain actors, communication strategies or incentives to create industry awareness of clustering were not part of the product region's strategic plan. The Tourism Victoria 2002–2006 strategic plan similarly omitted specific clustering strategies, although a Tourism Victoria official indirectly conveyed at the Halls Gap Forum (P24, 42–55) that the purpose of the VTO site was to provide an overarching structure to aggregate operators towards competitive advantage.

7.3.4 Clustering Summary

Grampians actors were still too new to the virtual world to understand the relevance of clustering for their own business, let alone as a crucial economic strategy for their product region. Since e-commerce was still beyond most Grampians operators' level of ICT adoption, the aggregation of domain complementarities or any other potential value added that might have been established along the regional value chain remained unrecognised and hence untapped. As Applebee et al. (2002) observed elsewhere in Australia, for online tourism firms the dominant web-based functionalities have thus far remained product information and promotion.

Since the portal did not address the needs of the trading community, the industry clustering tier was neither conducive to augment ICT adoption, nor to foster a cluster network. This result is in sharp contrast with successful cluster formations reported by Lowe and Berrisford (2002) in agricultural groups located in close proximity to the Grampians; and positive tourism cluster stories emanating from places like Far North Queensland, as described by Roberts (2000); and Daylesford, Victoria, where a collaborative e-commerce gateway was successfully adopted (Multimedia Victoria, 2002).

The Grampians reluctance to cluster may be attributable to various causes. Firstly, in destinations like Far North Queensland, the Great Ocean Road and Daylesford, operators may or may not be geographically dispersed, but they all identify with a single icon; for example, the Great Barrier Reef, the Southern Ocean or, as is the case in Daylesford, natural springs. To the contrary, the vast Grampians product region, which contains desert, rivers,

lakes, wetlands and several national parks, markets itself predominantly around the Grampians mountain range and its Halls Gap centre. Paying less heed to the region's diverse attributes has left outer shire stakeholders feeling alienated. Secondly, ICT alone could not permeate sub-regional barriers or initiate an inclusive virtual cluster culture. As Lowe and Berrisford (2002) have pointed out, the success of regional agricultural clusters is, in part, based on drive and communication, both of which have shown to be acutely absent in the Grampians.

7.4 Communication

As outlined earlier, the diffusion of innovations is closely linked to the communication channels within a social system. I was hence interested in learning more about established communication channels within the regional network and what barrier and pathways, if any, were in place to incorporate ICT in future individual, group and domain communication flows.

7.4.1 Individual Communication

As illustrated at length in the previous chapter, the communication flow between individual actors and myself could best be described as a communication trickle. As I noted in my journal more than once, I was frustrated by the apathy Committee members displayed and by the fact that some actors perceived my intervention attempts as an imposition (P26, 639-721). My inability to establish active communication flows with individual Committee members was, as it turned out, not something I was experiencing exclusively.

Otto: We work with that all the time. Try to get feedback from them. We're just waiting, waiting, waiting, sometimes weeks and it can get quite frustrating...you chase all the time. That's the nature of them. I don't know if we can ever change that because that's not their full-time job. They're doing it as a laugh, on a volunteer basis, for nothing, so it's "yeah, I'll get around to doing that article or whatever"...that's the fact of those Committees (P19, 634-643).

7.4.2 Group Communication

Group communications proved to be equally problematic. Possibly augmented by Odette's assumed or imposed role of Committee gatekeeper, the protocol of running any proposed action by the Executive Chair prior to distributing a communication to Committee members severely impeded expedient communication flows within the group, especially since Omar was not in the habit of responding in a timely fashion.

Group actors brought a range of other communication issues to the fore, such as meeting notices arriving too late (Loretta, P11, 561-568); dialogue in meetings being too rushed (Leo, below); communication only occurring at monthly meetings (Lisa, below); and being altogether meaningless at the sub-Committee level (Isabel, below).

Leo: At these meetings, Grampians Marketing, it's just bang bang bang and you there's no discussion.

Patrice: Because your agenda is that big?

Leo: Yeah exactly...You can't sit there for a two hour bloody meeting and expect to discuss what's going on and the problems of that's everybody's having across this huge region. Physically impossible and we should have our butts kicked for letting it happen (P4 602-618).

Lisa: We all go to the monthly meetings and go wah, wah, wah and then we go back to our caves and we forget about it until the next monthly meeting...It really needs to be addressed. Otherwise it tends to be a bit of a talkfest, a catch up gossip session (P17, 188-190; 361-363).

Isabel: I am a little bit critical of it at the moment...I feel, I think the industry input into the [Marketing sub-] Committee is either lacking or the fact is a lot of issues have already been decided outside the meeting...So it's a lack overall of communications, within the group...everything that we put, we carry or forward through goes then to the Executive for approval or disapproval. So what we get are the results (P7, 9-13; 112-129).

7.4.3 Domain Communication

Given the group's perceived lack of internal communication, I was interested to learn how this might reflect on external communications within the domain.

Lucas: I elected to go on the Communications Sub-Committee because I believed that, at least at the time, that communication was vitally important to get a message across to our operators...Now I'd have to add, even if I get the information, it doesn't mean the operators get the information (P3, 16-21).

Sarah, another member of the Communications sub-Committee, seemed hesitant as to what exactly the sub-Committee's role entailed.

Patrice: What's the role of the Communications sub-Committee?

Sarah: Communications is just really, um, making it really what it says, it's, um, working closely with development in special marketing but just ensuring that, um, that our main stakeholders with the Committee and the Committee, um, receive all the right information. So that's including like things like newsletters, um, training, training within the Shires, um, things like launches, we would organise launches, ministerial launches, um, I'm just trying to think now, um, yes to sell that communications thing (P14, 23-29).

Although Sam, the RCMP program manager was cognisant of the ineffectiveness of the Communications sub-Committee, he preferred to ascribe ineffective domain communication to industry apathy.

Sam: There is a Communication sub-Committee, as you know, that hasn't always been effective. They haven't always been effective in communicating to operators. It is always a difficult thing though, because you always get operators who inevitably, it doesn't matter what you do, they won't read newsletters, they don't bloody turn up to meetings and you can just go crazy just trying to communicate to people, but if they've got their ears closed it's pretty hard (P18, 268-273).

Odette, frequently saddled with tasks beyond her administrative duties, perhaps touched on the most significant barriers to external communication.

Odette: I think we need to be a bit more pro-active in promoting Grampians Marketing to operators as opposed to tourists and once you have promoted it to the operators they would support Grampians Marketing and it would be more effective.

Patrice: Who's job would that be?

Odette: Exactly, who's job would that be? And I think from my perspective I find that the idea is great, in theory; it should work in practice. It's not working because you cannot expect a group of volunteers to devote the time...to do the work (P2, 64-73).

Otto ascribed ineffective communication as a top down issue, reflecting across the domain. "Part of what I really think has been missing in the region and will be missing on the state level is communication" (P19, 333-334). In his usual colourful way, Igor reiterated Otto's view at one of the Committee's strategic planning meetings.

Lillian: I think we need to have a marketing meeting on how and what [marketing campaigns to partake in].

Otto: Tourism Victoria is doing it NOW for Melbourne spring.

Igor: Thanks very much, as usual, for letting us know...communication [from Tourism Victoria] is top as per usual...it's bloody classic Tourism Victoria. They've known about this for five years. Let us know when you are going into Adelaide. Ah well, look, we can't really because our advertising agency does that. So the advertising agency doesn't talk to Tourism Victoria when they are spending their \$5 million; a load of crap. So we haven't got a partnership, we've got a head-butting competition going on. This really got to change (P21, 305-307; 381-386).

7.4.4 Communications Summary

Interestingly, domain communication appeared to be synonymous with marketing; and tended to be a unilateral rather than an interactive and iterative process. Lack of access to information and non-coordination of information flows appeared to be systemic in nature. Individual actors criticised the lack of information flow between Committee members and cited poor upstream and downstream information flows across the domain. The Committee in turn suffered lack of timely access to information from the state body; and I

certainly experienced repeated communication barriers during the intervention.

In courting industry actors to participate in new communication channels such as the web, the Committee appeared more interested in obtaining a bigger piece of the state cooperative funding pie, and growing its market share, rather than increasing its communication with industry. Despite the rhetoric espoused in the RTOP funding submission that the multi-tiered hub would become the primary network structure for regional communication, after its launch the portal was not used for either horizontal communication between Committee actors or vertical dissemination of information along domain tiers (Grampians Marketing Inc, 2000). Embedded points of power in the domain appeared to obstruct communication flows. Possibly compounded by digital illiteracy, lack of resources, and a lack of understanding of the potential strength of interactive communication across domain strata, the preservation of poor communication channels politicised the ICT diffusion process. Rogers (1995) discusses the weakness of high-proximity homogeneous ties vis-à-vis information flows, citing Granovetter's theory of the strength of (heterogeneous low-proximity) weak ties as being "of central importance in the diffusion process" (Rogers, 1995, 310). In the Grampians network both horizontal (internal) and vertical (external) weak ties appeared to negatively influence the ICT diffusion process.

7.5 Collaboration

As seen in Chapter Four, collaboration is one of the cornerstones of the new economy, with social and institutional conditions functioning as prime driving forces behind regional economic growth. I was interested in learning whether connectivity and the adoption of e-commerce had changed individual, group and domain collaboration; and what barriers, drivers and pathways, if any, were in place to implement collaborative strategies.

7.5.1 Individual Collaboration

As discussed in Chapter Five, as an outside consultant I was positioned differently from domain actors and, as such, had been uncertain what level of

collaboration to expect from actors. From my perspective it proved difficult to develop collaborative relationships with individual actors. Although all actors consented to a Phase I reconnaissance conversation, most failed to pinpoint any issues as starting points for dialogue in Phase II; and by the time the Phase III portal evaluation took place, the majority of actors had altogether abandoned any semblance of collaboration in the intervention process.

The Executive Chair, in particular, appeared to find ways to prevent my obtaining "insider information" that might have facilitated the collaboration process. More than once I perceived Omar to frown upon my picking up any Committee documentation at meetings. Omar also refused my request for copies of monthly meeting minutes during the intervention period (P26, 1758-1787). When I queried him about this in an email, I received no reply. I initially construed this overly secretive behaviour as a lack of trust in me, or perhaps in my intervention process, or even in my institution. As it turned out, I was not the only one being excluded from the "in-group". After she resigned as Committee administrator, Odette explained in a telephone conversation that she had been explicitly instructed by Omar to only distribute meeting minutes to Committee members, despite the fact that meeting minutes were supposed to be in the public domain. Indeed, Committee minutes of June 2002, obtained after the completion of the intervention, unequivocally reminded Committee members that documentation relating to Grampians business was not to be forwarded, either electronically or otherwise, to any other person or organisation.

7.5.2 Group Collaboration

Made up of representatives from seven autonomous shires, Grampians Committee members voiced a number of obstacles to effective group collaboration. Volunteerism was frequently mentioned as a key barrier; as were prioritisation of individual shire interests, and the group's power structure.

Leo: See part of part of our problem, as I see it, in Grampians Marketing is that we don't have a full-time Executive Officer position...it's too disjointed now, you know. We have a monthly meeting and some good ideas come up...we haven't

got the time you know...to do the Grampians marketing, but it's unfair on Grampians Marketing to expect, and it's unprofessional as well, and we're going to get what we paid for. You know we're not going to get a very good result because of the fact that we're not prepared to put enough into it (P4, 409-426).

Lloyd: By excluding the Campaign Committees from employing anyone on a full time basis, it throws a lot of the work back to the individual Committee members...who are volunteers in most cases, they're volunteers to those committees, there are a lot of tourist officers involved with them, we're paid. However we're paid to look after our own area, not the region as a whole, and even though we benefit from it sometimes, that benefit is not relative to the work that you're asked to put in...(P20, 319-331).

Irma: There are problems within all of the seven shires and the way they operate with their tourism personnel or lack of tourism personnel, and the operators, and then Grampians Marketing, which is top heavy from Tourism Victoria...is trying to bring some sort of unified approach to the region that with not even one council is unified in bringing in tourism, local tourism operators to the area. So it's very much a chaotic attempt to try and market the whole region.

Patrice: So how do you think the Marketing Committee will be dealing with that?

Irma: Well it doesn't deal with it very well, because it's actually controlled mostly by the Head of the Marketing Committee and then he has a very solid relationship with the ad agency that they appointed.

Patrice: You are talking [about] Igor and Otto?

Irma: Yeah...it is very Halls Gap dominated and that's how they want to keep it (P6, 21-39).

Loretta, a relative newcomer to the region and to the Committee, remained optimistic, despite several failed collaboration attempts.

Loretta: I think there are some very good partnerships there. However, what I was told by the product development meeting was, when I suggested something that we look at promoting a bit more...I was told you develop it and then come see us...to my way of thinking, they would assist in the development of a product for the benefit of the entire region. I don't see it as being told to go home and develop the product and then come see us. If we go home and develop the product, we may as well market it [ourselves] (P11, 99-129).

During the course of the intervention Lillian convened an independent tourism managers forum in an attempt to improve collaboration among the tourism managers from all seven shires. Although all tourism managers were on the Committee, they rarely met as a group, since they attended different sub-Committees. The tourism managers resolved to pursue their overarching goals of removing parochialism, task duplication and cross shire boundary issues, and enable a more efficient use of resources. Several meetings took place, outcomes of which were reported to the Committee, but the independent tourism managers' efforts apparently clashed with the Committee's hierarchical power processes. As reflected in the April 2002 Committee minutes, the forum was disbanded and merged with the Marketing and Communications sub-Committees to form one sub-Committee reporting to the Executive.

7.5.3 Domain Collaboration

If the above was indicative of group collaboration, it was not surprising that on the domain level, viewed as an extension of individual, group and institutional interactions, similar barriers to collaboration were identified. Like Irma (see 7.5.2), Ian was forthright in discussing parochialism and vested interests within the domain.

Ian: People are, although they are representing a region, they still have their own area dear to their heart...We are human and I couldn't really care what happens in [town name] and [town name] couldn't care what happens in [town name]...People are having trouble being educated about regional tourism.

Patrice: Are you talking about the operators?

Ian: the operators, the municipalities, the shires (P5, 13-37).

Strongly collaborative network structures tended to be parochial and competitive-inclusive within a particular Grampians destination, such as Halls Gap, based on an embedded local policy to keep visitors within the destination, even if it meant referring clients to a competitor within the community (P5, 552-554). The negative response from shire councillors at the April 2001 Halls Gap forum dinner to a suggestion that shires jointly sponsor a

Committee administrator position revealed that most were vehemently opposed to collaborating on a regional tourism infrastructure.

If possible, the gap between the domain actors and the state tourism body appeared even wider, with officials seeming oblivious to product region issues. In discussing its impending 2002-2006 strategic plan with domain operators, Tourism Victoria's "collaborative" policy process outlined by a state representative at the 2001 Halls Gap Forum, more closely resembled a fait accompli than a genuine opportunity for feedback or sustained dialogue.

State official: So what will happen in the future? From the feedback we have received so far, it has been confirmed that this is the direction in which we should be going. Every time we go through this type of review process, inevitably we have to look at "have we got the 13 product regions right", should there be 15, are the boundaries right. The process is really based on the critical mass of the products. We have to think about how do we manage this in the future. The other principle is that we don't want to go through any unnecessary changes. Rather than being prescriptive in what regions must or should do, we are saying let's encourage a few things to happen, let's encourage strategic alliances across regions, let's encourage cross-regional marketing programs. The cross-regional programs that have been developed so far have been highly successful. So think about the fact that tourism is a business, we're all in business so shouldn't we be applying a more business-focused approach to the Campaign Committees and the way they operate (P24, 56-70).

While it is outside the scope of this study to ascertain whether and how much written feedback Tourism Victoria received from domain actors in drafting its 2002-2006 policy, anecdotal evidence provided by a former Victoria Tourism Online official suggests that the state's broad-brush relationship with domain actors, and the devolution of responsibility for industry engagement to the regional level, reinforced collaboration apathy across the domain.

Steven: One of the difficulties in Victoria was that we don't have a regional structure that wanted to get together. You could claim that the regional structure was better placed to manage the day to day relationship with the tourism industry as in fact the State doesn't have that day-to-day relationship with the tourism industry whereas the regions do. So they are selling the brochure which the State has given to the region, they are also selling the Internet site space. So Tourism Victoria were trying to do an amalgam where they provided a system, but then they were trying to get the regions to sell it. It's like trying to be half pregnant in my view (P27, 58-66).

7.5.4 Collaboration Summary

In reviewing the individual, group and domain issues surrounding collaboration, it became apparent that a systemic lack of network cohesion, common culture, commitment and trust among actors, described by Chisholm (1998), Håkansson (1995), Putnam (2000) and others, as key features to facilitate collaboration for mutual understanding and benefit, prevented meaningful collaboration from taking place in the domain. In addition, the domain's political structure, made up of a handful of male actors protecting vested interests by controlling information flows, was instrumental in preventing the establishment of a collaborative culture. This core group of actors, joined in what may be referred to as a parochial "old boy" network, controlled the workings of the Committee and the domain's marketing decisions. Genuine efforts towards collaboration that might have contributed to change—for example, via the tourism managers' forum—were unwelcome and swiftly truncated the Executive. These findings are in line with Huxham and Beech (2002), who in their paper on points of power in learning networks identify locus of power at both the macro and micro level as impinging upon network collaboration.

Perhaps even more conspicuous was the finding that policy rhetoric notwithstanding no one was resourced or responsible for implementing collaborative practices. Without providing the necessary infrastructure, the state body devolved the responsibility of engaging operators to Committee members who, in their volunteer status, bore no responsibility to collaborate either with operators, each other, across shires or, for that matter, with me during the intervention. Without resources or accountability to establish or maintain collaborative practices, actors paid mere lip service to their intent to collaborate.

7.6 Community

As discussed in Chapter Four, there is an ever-growing body of research on strategic and virtual community building, highlighting the importance of social capital, a culture of trust and a sense of belonging. Humans are believed to

have a need to belong to the social fabric of a community, may it be a business network; a community of interest or practice; or increasingly, with connectivity and changing business models, a virtual community. I was interested in learning whether the adoption of e-commerce in the domain had created a regional (virtual) community of interest and what barriers or drivers might be in place to promote a shared domain culture.

7.6.1 Individual Sense of Community

Most actors I spoke to foremost had their own business and their own geographic community at heart. As illustrated in 7.5.3, Ian made it clear that he did not care what happened in another town; nor did he believe that people in other towns cared what happened in his (P5, 13-37). As pointed out by Otto in section 7.4.1, and illustrated by Odette in the previous chapter, actors' own business, town or shire always won out over regional community interests.

7.6.2 Group Sense of Community

Given the atomistic outlook of individual actors, it was not surprising to find that there was no group culture to speak of. Both the reconnaissance conversations and the Halls Gap tourism forum dinner revealed that prospects for social capital building within the group were poor, since actors rarely socialised as the group and never exchanged personal information. In fact, actors mistrusted each other, as they were in outright competition with one another.

Lillian: We don't know anything personal about individuals. I wouldn't have a clue who's married, who's not; who's got kids, who hasn't. Who likes being in the job they're in, who doesn't...I think it's the fault of the structure. We don't do any team building. For an organisation that tries to get people to communicate at the level that we do, without doing any team building.

Patrice: Are you talking about Committee members?

Lillian: Yes, I'm talking about the Executive as well. I mean there's no trust between shires.

Patrice: What's that based on?

Lillian: Competing interests I guess.

Patrice: Right.

Lillian: I mean you're always fighting for a dollar between each individual shire. And we have got a long way, but there's that underlying if you could you would do the dirty on me. We really haven't addressed the problem of trust (P1, 995-1003).

7.6.3 Domain Sense of Community

Actors' views varied as to why domain actors did not feel they belonged to the product region community. Linette reasoned it was because the regional marketing organisation was "not owned by the operators" (P15, 170-171). Lauren was of the opinion that outer shire operators did not see themselves as part of the Grampians because it was "too Halls Gap focused" (P9, 120-124). Igor concurred, describing the domain as a set of "communities of disinterest".

Igor: In our Grampians region we have seven shires, seven municipalities we're dealing with, none of whom actually seem to talk to each other. They're all running their own show. There is no community of interest. This is the biggest problem. It is difficult to say lets put all these communities together and let's find a community of interest. Now what's happened is there's this big rock in the middle of the region called the Grampians so we'll make that the community of interest. In reality the community of interest...only exists for, say for normal [inner] Grampians shires...the rest of it is too far (P16, 22-31).

Steven, the former Victoria Tourism Online officer, described the issue as one of perspective.

Steven: The problem we are having is that the regional view of where they fit within Victoria may not be in strict accord with where the State sees it (P27, 75-76).

It would, however, be inaccurate to solely attribute the lack of a regional community culture to the systemic structure. Although Lucas argued that both the state and the Committee were "forgetting to look at the grass roots" (P3, 196), he also pointed out, and verified by Hollick (2003), that operators did not think holistically about their destination, let alone about their product region. Thinking with their hip pocket, operators did not appear to care through what

channel they marketed their businesses, as long as it produced a visible return on investment (P3, 630-642). Being in regular contact with operators, Otto confirmed that operators did not think beyond running their own business and that operator insularity and apathy were a huge problem (P19, 355-371).

7.6.4 Community Summary

In observing the myriad disconnected networks within the domain, it became apparent that the cultural norm in the product region was one of divergence and competition. With sub-regions, individual destinations and micro-businesses all behaving in an atomistic and competitive fashion, a unified regional community structure was inevitably absent and there was there no discernible collective regional voice.

The portal, which could have constituted a significant step forward towards virtual and strategic regional community building, lacked community ownership through which trust relationships within the domain might have been reconstructed. Instead, domain actors remained competitive–exclusive in their attitudes and place-bound within their own communities, disregarding artificially imposed physical as well as virtual domain boundaries for potential regional clustering and competitive advantage. Without responsibility for or vested interest in augmenting weak regional ties, domain institutions paid no heed to creating an inclusive sense of community for the product region. In line with many of the ITOL-funded projects analysed by McGrath and More (2002), the ROTP-funded Grampians project confirms that relationship issues are crucial determinants of success in e-commerce collaboration; and that the forging of collaborative networks is highly complex.

Without the benefit of a strong web identity and a powerful virtual customer community, the upgraded website has enjoyed no noteworthy increase in visitation (see Appendix D). Despite industry and tourism customer needs not being acknowledged, understood, and responded to, the Grampians portal may well survive, simply because it is now part of the regional marketing structure, not because it has been prospering in and of itself.

7.7 Cooperation

Intra-region and cross-region cooperation being central to Victoria's regional tourism policy; and the Regional Cooperative Marketing Program (RCMP) being the Committee's *raison d'être*, I deemed it important to examine whether and how connectivity and the adoption of e-commerce had changed the Grampians cooperative marketing structure.

7.7.1 Individual Marketing Campaign Issues

Individual actors appeared most concerned about campaign coordination and decision-making processes; marketing skills of individual Committee members; and the position of the marketing group.

Isabel: I have never seen any advertising or anything sent out to us; or promotional opportunities that the rest of the Grampians could be involved in (P7, 40-43).

Irma: As I have been involved, two years I suppose, it was all very much in place, occasionally material arises from other ad agencies. I mean, at the last meeting there was something tabled from [company name]. Igor sort of said "we don't need to look at it...."

Patrice: Why?

Irma: ...I don't know, it all just seems to be very [sown up]. Otto is quite a player there...Igor gets frustrated you know and he knows that the budget has to be spent and decisions have to be made and it [a campaign] has to be planned, sort of within this [Marketing sub-) Committee that goes around in circles. If he waits for answers from the group a lot of the time he just wouldn't have enough lead in to be able to buy the media.

Patrice: So he just makes these decisions?

Irma: No, he works with what the Committee actually wants or advises, but a lot of the time he has to just move it forward otherwise we'll go into another campaign year without actually having spent the budget that was raised by those advertisers for that period (P6, 265-325).

Omar: there's a range of skills and there's certain a very much, a low level of appreciation of a lot of the marketing concepts and a lot of it basically is economic drivers and concepts as well. They are very much, a lot of them are good in their own particular field, but they just don't have real depth of experience and they do need that at that Executive level (P12, 120-124).

Lloyd: They [the marketing group] do the Grampians marketing. They also do...a number of others [product regions], so if you are talking about conflict of interest, there is certainly a case there. That's got a bit out of control, even though Otto is very good. I wouldn't complain about his work or the way he approaches it or his ideas and so forth, but I just tend to think as a principle all teams are competing, all regions are competing against each other in various destinations. It doesn't make a lot of sense to have your main marketing person doing the same thing for each of them. That's the major concern (P20, 285-301).

7.7.2 Group Marketing Campaign Issues

Although the Committee had ventured into upgrading its website, it did not appear concerned about the consequences of such a move. As shown in section 7.2.2, discussions of web-related issues at monthly meetings were kept to a minimum, while some longer web discussions observed at strategic planning sessions inevitably reverted to long-standing grievances of sub-regional positioning.

Igor: The most important part of all of this is that over the last year we have had more than 1 million visitors to our website. Surely some people accidentally get there and people don't necessarily stay a long but people are looking for information and the web thing is probably where things are going to be in the future. The problem with that is selling it to operators (P21, 341-345).

Lucas: ...so do we want to get operators from outside the Halls Gap region?

Lillian: Absolutely.

Lucas: Well that is the core issue. The branding isn't right cause they think that the branding is Halls Gap. When there's advertising it's the photo into Halls Gap over the last three years. So there's been a large amount of targeted marketing.

Lillian: I think we've discussed this over and over again...

Lucas: They're going to go to the website and find Halls Gap and go there.

Patrice: That's not the way the website is going to work. There are layers built in for the [sub] regions, by experiences; it will work very differently from the current website. We'll have to update you on what that looks like.

Omar: Ok, there's more ways to go about it.

Lauren: If it concentrates on Halls Gap...

Lillian: I think we've gone out of our way to get away from that. Ok, can I just say, is there a way to get anybody who's involved in the GMI campaign in some way to get them [operators] straight onto the website?

Otto: Why don't we give everyone a free listing; they can have it free for six months...(P21, 504-510; P25, 209-210).

Specific new media campaigns did not feature in strategy discussions. While Igor liked to boast about web hits, which varied from one million (section 7.7.2) to two million (section 7.2.3) depending on his audience, no action was taken vis-à-vis portal reach into the global market place. International marketing was considered a state and national tourism body functionality and Grampians marketing campaigns did not progress beyond placing the web address on domestically focused traditional collateral.

Neither the Committee, nor the marketing group to which the Committee outsourced its web needs, seemed au fait with what venturing into e-marketing and e-commerce entailed; and that such a move would have implications in terms of interaction with the product region's customer base. While there was a strong focus on increasing tourist visitation to the product region, or as Lillian put it "more bums in beds" (P21, 171), interaction with potential customers was considered an operator matter. Conversely, operators seemed to be treated as secondary customers, with operator issues being perceived as a nuisance. Committee minutes of June 2002, obtained after the completion of the intervention, revealed an interesting new customer communication procedure. Responding to web-based tourist inquiries was apparently a marketing group task, but Jigsaw participants who sent emails directly to the marketing group regarding their Grampians website listing would not be dealt with, despite the fact that the marketing group might well have signed up the operator in the first place. All email queries relating to the website were to be directed to the designated Committee member, with a copy also to be forwarded to the Committee Administrator and the Executive Chair.

7.7.3 Domain Marketing Campaign Issues

Due to a top-down and segregated approach to online development, online marketing, coordination of information flows between domain's "official" tourism sites was poor. Since no domain web standards had been set; and since each party had independently developed or adopted database and booking systems, the state and Grampians tourism websites lacked compatibility. Despite ITOL funding received to coordinate information flows and a call in Tourism Victoria's 2002-2006 strategic plan for a more coordinated approach to online development, to date only downstream linkages have been established with product region websites.

Neither the state nor the Grampians portal appeared able to engage domain actors in their web-based marketing efforts, not in the least because each site functioned independently and operators first had to join the Jigsaw campaign and pay additional regional and state web fees. Several actors felt operators would join if they felt that there were tangible benefits.

Lillian: The website's not a significant value as it is. Yes, its good to have a web presence, but there's nothing on there that is actually physically selling an operator, so its purely a listing of name, address, phone number, it doesn't give them the motivation to say why (P1, 84-87).

Lisa: You will always have the few that are pro-active and progressive and will have a look at something new. Some of them will be quite happy to go the way they are going and that's the difficult part to bring more people on board than are already there. To actually get them along to something that they can't see the benefits of it, would be difficult. You have to give them some really tangible benefits...because there's definitely resistance there (P17, 128-133).

Especially for micro operators with small marketing budgets tangible benefits in joining the Grampians portal were difficult to detect. E-commerce capability was not yet a priority for them; they had no ownership of or affinity with the portal; the cost of entering the Jigsaw campaign to obtain a "free" listing on the Grampians portal was prohibitive; there were no upstream listing benefits on the state or national tourism site; and state policy dictated that as of March 2003 they would need (to be working towards) accreditation to be involved in any cooperative marketing campaign, including the web.

7.7.4 Cooperative Marketing Campaign Summary

From the above it may be deducted that adding e-commerce to the cooperative marketing structure did not change or enhance cooperative marketing campaigns within the domain. To the contrary, poor coordination of peak tourism sites; increased campaign cost and augmented campaign participation barriers only added to operator confusion and possibly increased aversion towards the unaffordable marketing campaigns.

As discussed in Chapter Three, the latest Tourism Victoria Strategic Plan (Tourism Victoria, 2002b) treated online as “just another distribution channel”. The regional body similarly classified the web as an additional market channel that you included in your traditional collateral, but did need to pay particular attention to in terms of e-marketing strategies or customer relations.

Accessing affordable one-stop-shop cooperative marketing and e-commerce services via their own product region’s portal could have presented value for money for domain actors, especially if the portal had been able to establish interactive and upstream links to the peak state site and hence, indirectly via the state, to the Australian Tourism Data Warehouse. However, even if these linkages were in place, a web-browsing tourist would not likely find the very thing s/he might be browsing for on any of these “official” tourism sites, namely that quaint little B&B in a sleepy country town. Since the Grampians portal and the state site, and hence the national site, only include Jigsaw campaign participants, they represent a mere sampling of tourism offerings available in the domain. Similar to other global distribution systems that have been criticised in the literature for their exclusion of small tourism firms, (Anckar, 2001; Buhalis, 1998; Werthner, 1999), the Victorian system also seemed to have effectively excluded regional operators and customers access to one another. Three other factors -- the lack of leadership; the outsourcing of the responsibility for ongoing portal development; and an inadequate skill base to establish a value-adding e-marketing and e-commerce presence – further contributed to an “empty” Grampians domain devoid of tangible benefits for either industry or tourism customers.

7.8 Change

Domain change, or the lack thereof, has already been discussed in many ways in the sections above. In this section I highlight the perceived barriers to change and how they have impacted on ICT developments in the domain.

7.8.1 Individual Change

Individuals lacked time, drive and commitment to involve themselves in any process that might have led to change. Except where an actor had a vested interest in the reconfiguration of a political or economic structure, individual actors appeared to shy away from change and seemingly preferred to interact within comfortable parochial boundaries.

Lillian: I have to look at my own perspective, from a tourism manager's point of view, I'm looking after three disparate councils myself, how much time do I dedicate to smoothing things over with other shires to make sure they're all improving.

Patrice: Is it worth it?

Linette: Is it worth it? When I go flat at the end of the day. But I mean you can't survive with our regionalism, without those regional networks, so that's why I do it at this point, but if it gets any harder than it is currently, then I can tell you it won't be happening for much longer (P1, 484-493).

7.8.2 Group Change

Considering the lack of commitment to change on the individual level, it is hardly surprising that, as a group, the Committee exhibited little interest in altering its behavioural patterns. During the intervention the Committee successfully avoided entering into collaborative learning processes in which a variety of regional agents and their regional learning institution might have taken part. With its factional power base preserving vested interests, the Committee lacked both the infrastructure and commitment to change. Without exogenous pressure on endogenous network relationships, central Committee actors shaped their own development prospects as they saw fit.

Committee actors appeared oblivious that they, themselves, were part of the transition to a knowledge economy and that knowledge sharing and

collaborative learning might positively influence their product region. Actors had built little social or bridging capital between them and seemed merely united for the purposes of marketing a top-down imposed product region with impractical boundaries. In an environment of disconnected networks with no commitment to regional innovation and social learning, there was no perceived need for change.

Due to restricted access to the Committee, the physical and virtual environments I had sought to create during the intervention as platforms for learning, knowledge creation and change, introduced by Nonaka and Konno (1998) as *ba* and *cyber ba*, could not be established. In avoiding participation in the intervention, and hence in any action research cycling, mode 2 knowledge-production (Gibbons 1994) between actors did not occur. By not entering into a "learning about learning" process, referred to by Coghlan and Brannick (2001) as meta-learning, Committee issues were not reflected upon, domain procedures remained unaltered, and discussions of any underlying assumptions were avoided altogether.

Given the limited opportunities for what Gustavson (1985) calls democratic dialogue; and learning by interacting as discussed by Lundvall (1992), tacit knowledge exchange was curtailed within local territorial boundaries, deterring the strengthening of weak product region ties. The introduction of ICT did not alleviate lack of information flows across territorial boundaries, help diffuse tacit knowledge, or increase understanding. Nor did spatial relations change because of the introduction of ICT. As Morgan (2001, 5) remarked in his work on regional innovation in Europe, geography is far from dead and the "distance-destroying capacity of ICT by conflating spatial reach with social depth is grossly over-estimated". Appropriate as this observation may be, a distinction should perhaps be made between economic and social depth, since mainstream economics literature does not necessarily consider connectivity and depth to be mutually exclusive. Evans and Wurster (2000), for example, are of the opinion that ICT has reduced the need for a trade off between information richness and reach.

7.8.3 Domain Change

The study identified silo politics and parochialism among the most significant barriers to domain change. Pivotal factors that inhibited change were sub-regional competition; lack of coordinated information flows; and lack of commitment to change. Contributing to weak network ties and the maintenance of a heterogeneous network culture were elements such as (poor access to) infrastructure; place (status and position of power) in the network; spatial make-up of the network (shire proximity to and affinity with the central icon); and individual actors' strong identity with their own community. Actors' apathy to transfer, assimilate, coordinate and utilise information across the domain; restricted actor access to the "old boy" network; sub-regional industry divergence; and the overall lack of collaborative strategic thinking across horizontal and vertical government tiers all got in the way of connectivity, clustering, communication, collaboration, community building, cooperative marketing and, ultimately, domain change.

Domain actors appeared oblivious that retaining their parochial and disconnected (online) networks might, long-term, impact on the product region's market visibility and strategic leverage. Regional tourism researchers, such as Hollick (2003), Tremblay (2002) and Pavlovich (2001), have demonstrated the importance of tourism networks for seamless visitor experiences and destination endurance; while multiple non-tourism researchers (Asheim 2001, Henderson 2001, Maskell, 1999, Porter, 2001 and others) support the view that regional network formation, clustering, and upstream reach is pivotal for survival in the new economy. Indeed, as discussed in earlier chapters, various Australian regional policy documents on both the federal and state level call for increased cooperation (Department of Industry Science and Resources, 2002; DOTAR, 2002; Tourism Victoria, 2002a). However, without an understanding of, commitment to, accountability for, and holistic support structures to facilitate change, the domain was unable to ascend political rhetoric towards innovative capability and ICT leadership.

Apparently unaware of the impermeable socio-economic boundaries in the product region, state government efforts to communicate with and engage

industry actors in marketing campaigns have continued to revolve around the volunteer Committee and its perceived regional positioning advantage vis-à-vis relationships with domain actors. With myriad new state-generated special interest, themed and online marketing campaigns now being channelled through the regional body, Committee communication tasks have increased rather than decreased. Yet, despite increased pressure on the Committee to perform both inside and outside its region in terms of competing with other product regions for pooled marketing funds, it has remained a volunteer-based and under-resourced body. What's more, according to one Victorian industry consultant (White, 2002), cooperative marketing campaigns only result in precious local development dollars being siphoned out of the product region. Under the new policy guidelines, the Committee also has the dubious yet lucrative task of promoting what could be considered its main web competition, Victoria Tourism Online, which places the product region in direct competition with its own peak tourism body for the industry's meagre marketing dollars.

In view of the extended regional cooperation agenda, one might have expected Tourism Victoria to undertake a systemic assessment of its regional policies vis-à-vis product region borders, the Campaign Committee structure and cooperative buy-in guidelines. However, despite wishing the Committees to become more business-focused in the way they operated, the state body has appeared disinclined to make what it calls "any unnecessary changes" (P24, 56-70).

Even more significant perhaps is the lack of change in evaluation methods of the cooperative marketing program. Evaluation of Committee performance is tied to collateral production and submission of timely marketing plans (see section 2.2.2), while product region performance has continued to focus on visitation statistics. Campaign/web uptake and supplier relations have been left out of the program analysis mix.

7.8.4 Change Summary

In the course of the analysis it became clear that resistance to change was a central issue in the domain. Despite the introduction of some e-commerce

solutions into the network, the resistance to change negatively impacted on the adoption and diffusion of any ICT-based solutions in the domain. The resistance to change also precluded the option of the network introducing and adopting a radical new e-business model across the domain.

The adoption of ICT did not automatically lead to increased network functionalities such as communication, community building, collaboration, clustering and cooperation. Since ICT did not automatically lead to greater network interaction or stronger network ties, the conditions necessary for increased trust within the network, more sophisticated use of technology by the network, and network innovation did not appear to be present.

7.9 The Seven Cs

The C-factors denoted for this study were explored in terms of the role each factor played in the change process when a regional cooperative network is faced with the adoption of e-commerce. In administering the 7C framework, it became apparent that each C-factor was an important element on the road to change. None of the considered C-factors could be singled out as being *the* pivotal factor that might have led to change. Instead, the analysis suggests that change was dependent on the interaction of all C-factors, or that the C-factors were interdependent. While all C-factors turned out to be significant, some turned out to be more important than others. For example, some C-factors seemed to perform an enabling role, while others were indeed critical for change to occur. In terms of the latter, two new C-factors also came to the fore, namely the need for commitment and convergence.

Figure 7.2 illustrates the interdependency of the C-factors and their respective roles. Connectivity, clustering and cooperation can be classified as enabling C-factors. While connectivity does enable e-commerce, it is a technological platform that extends the domain's marketing channels, and, as such, cannot be considered a critical factor for change. Similarly, clustering and cooperation can both be classified as enabling constructs, as each facilitates critical mass but neither can be considered critical in the change process.

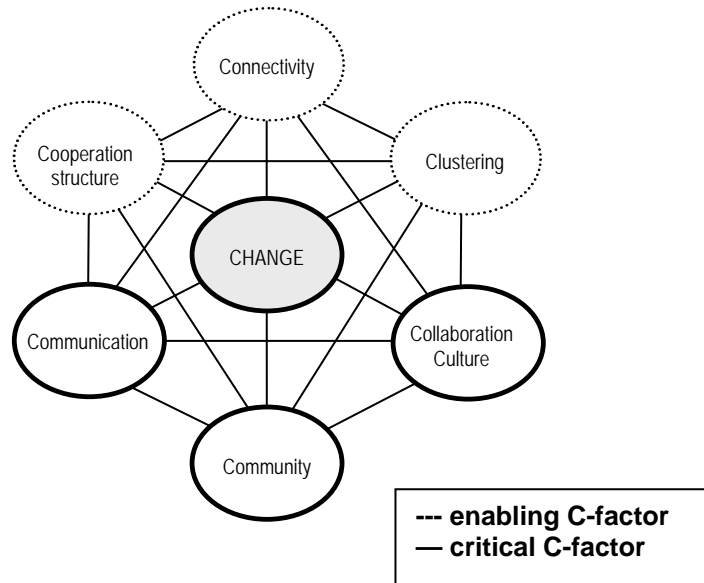


Figure 7.2
Interdependent C-Factors

Domain communication, a collaborative culture and a cohesive community, on the other hand, were deemed critical factors that underpinned change. In addition, without the commitment to change; and without social, economic and technological convergence to bring together the divergent social systems and alter the competitive and atomistic domain culture, change could not occur.

7.10 Chapter Conclusion

In this chapter I have analysed the intervention in terms of seven recurring themes. Connectivity, clustering, communication, collaboration, community, cooperation and change (the 7Cs) were examined both as separate and interrelated variables from individual, group and domain perspectives vis-à-vis ICT network diffusion and related techno-economic change in the Grampians product region. Table 7.1 provides an overview of the results of the analysis. The table reflects individual, group and domain characteristics, issues and barriers to change that were identified within the 7C framework and discussed throughout this chapter. In the final chapter of the thesis, I present my conclusions; summarise the contributions my study has made; and discuss the implications of my work for communities, regions and policy makers.

Table 7.1 Individual, Group and Domain Intervention Results

	INDIVIDUAL	GROUP	DOMAIN
7C-framework	Characteristics/issues/barriers	Characteristics/issues/barriers/	Characteristics/issues/barriers
Connectivity	ICT/e-commerce illiteracy Deficient Infrastructure Public vs. private access Resistance to change	Lack of policy and strategic vision Lack of skill base & Superficial engagement / involvement avoidance Outsourced responsibility and accountability Resistance to change	Incremental adoption pattern: email, some e-commerce Confusion, cost, skill & time issues Technology-driven solutions Top down, competitive-exclusive models Resistance to change
Clustering	Parochial competitive-inclusive attitude Impermeable boundaries Parochial social conditioning Anti-aggregation vs. potential value added	Impermeable boundaries No shared values and vision Impermeable boundaries Unacknowledged collaboration structure	Policy rhetoric and top down processes Lack of holistic support models Impermeable boundaries Disregard for local conditions
Communication	Apathy & minimal engagement Time-poor volunteers Controlled & polarised Parochial lack of trust	Management controlled Minimal internal negotiation Autocratic & secretive Preservation of vested interests Ineffective information flow internally & externally	Management controlled Ineffective information flow Disregard for local conditions Preservation of vested interests Competitive-exclusive attitude
Collaboration	Parochial, competitive-inclusive attitude Insular thinking Lack of commitment Minimal engagement with intervention	Lack of coordination and commitment Preservation of vested interests Impermeable boundaries No shared values and vision Minimal engagement with intervention	Policy rhetoric and top down unilateral processes Disregard for local conditions Impermeable boundaries Disconnected networks Lip service to community engagement
Community	No relationship building Lack of trust Localised sense of belonging Parochial competitive-inclusive attitude	No relationship or team building Lack of social capital & trust Dominant "old boy" network Imbalanced peer relationships	Uninformed regional boundaries Disconnected networks Lip service to community building Inflexibility
Cooperation	Lack of trust Apathy & minimal recognition No sense of value add Subliminal vested interests	No New Economy recognition Lack of time and marketing skills Lack of input/coordination Outsourced responsibility & accountability	Top down sticks without carrots Lack of relationship and trust building Disconnected networks Disregard for local conditions
Change	Apathy and parochialism Lack of time and commitment No networking and trust Lack of <i>ba</i> and <i>cyber ba</i> learning and reflection Resistance to change	Lack of autonomy, resources and recognition Preservation of vested interests Dominant "old boy" network Lack of <i>ba</i> and <i>cyber ba</i> learning and reflection Resistance to change	Top down, broad-brush and technology-driven Lack of community engagement and interaction Lack of holistic support structures Disconnected networks Resistance to change

Chapter Eight

Conclusion

*The philosophers have only interpreted the world,
the point, however, is to change it.*

— Karl Marx (1818–1883)

In the previous chapter, I analysed the nature of the change process in the Grampians cooperative marketing network faced with the adoption of e-commerce; and its impact on the diffusion of Internet technologies on the product region. In this chapter, I present the conclusions of my study and discuss the wider implications of my findings for regional communities, networks and policy makers. In discussing the conclusions, I highlight the contributions the study makes to diffusion of innovation frameworks, to regional development and to action research. A dynamic change model is introduced and discussed in conjunction with the diffusion framework developed in the study. I conclude this last chapter of my thesis with a personal reflection on the intervention and research process.

8.1 Discussion

When I started this study, I was driven by an interest to become more knowledgeable about the nature of the change process when a cooperative marketing network seeks to adopt e-commerce. I wanted to explore the nexus between new technology adoption and regional network structure and was interested to learn whether the change process differed in the face of incremental change (adding some e-commerce solutions to the network) or radical change (changing the overall business model). I also wanted to broaden my understanding on how the adoption of e-commerce might potentially impact on tourism operators and their respective business communities in terms of competitive advantage. I chose to examine these questions in a regional network context through an action research

consultancy process and by applying what I came to refer to as the 7C framework, a set of recurring patterns identified in the literature.

8.1.1 Comparing Diffusion Frameworks

In reviewing the study results and positioning them alongside Rogers' (1995) seminal work on the diffusion of innovations (see Table 8.1), some interesting comparisons can be made. The study's diffusion patterns reflect both the unit of measurement (the nature of the network links) and the action research methodology (the process applied to help untangle the effects of the embedded network structure) that I adopted for the study. They necessarily differ from linear and graphical diffusion frameworks that typically determine the number of network links via quantitative methods. These results should, hence, not be construed as a criticism of Rogers' work, but rather as an extension of the existing theoretical framework. Relevant diffusion components are reflected in Table 8.1 and discussed below.

Rogers' (1995) defines the main elements of diffusion as the innovation, the communication channels, the social system and time. While the study recognises these elements, it also suggests a strong relationship between network structure and diffusion, extending the traditional diffusion framework with contextual moderating components resulting from the network structure. Moderating components include space, place, power, trust, worldview, and commitment.

Table 8.1. Comparison of Diffusion Frameworks

Roger's diffusion framework	Study's diffusion framework
Quantitative methodology (Rogers, 1995)	Action research methodology (5.2)
Elements of diffusion: innovation, communication channels, social system, time (Rogers, 10)	Elements of diffusion: innovation, communication channels, social system, time, context (network place, space, power, trust; worldview and commitment) (8.2.1)
Unit of measurement number of links within the network (Rogers, 23, 308)	Unit of measurement nature of links within the network (4.2)
Social system engaged in joint problem-solving to accomplish a common goal (Rogers, 23)	Social system inhibited goal setting and joint problem solving (8.1.2)
The social system constitutes a boundary within which an innovation diffuses (Rogers, 24)	Social system boundaries controlled by stakeholders. No bridge between social systems (7.3.4)
Assumes access to centralised and decentralised communication channels (Rogers, 364)	Centralised and decentralised communication channels were ineffective (7.3.4)
Communication patterns assumed to be interactive (Rogers, 288, 308)	Communication was unilateral (7.2.3)
Patterned flows of information in a communications network affect the diffusion of an innovation	The network structure determined the communication flows; information flows were controlled by central actors (7.3.4)
Trust implicit in communication channels (absent in text)	Absence of trust in network inhibited information flows (7.5.4)
Diffusion occurs in fluid, linear maturation phases (Rogers, 162)	Diffusion occurred in a chaotic manner (7.2.4)
Homogeneity slows down diffusion; diffusion strengthened by weak ties (Rogers, 308)	Heterogeneity did not appear to speed up diffusion; diffusion seemed weakened by weak ties (7.8.3)
Opinion leaders and change agents influence change (Rogers, 330–335)	Actors own change agents. No centralised or decentralised commitment to change (7.2.4)
Social learning single reference to learning (Rogers, 330); collective learning and reflexivity undefined (absent in text)	Innovation & change impeded by worldview and lack of commitment to collaborative learning and reflexivity (7.8.2)
Diffusion success is measured by rate of diffusion and critical mass (Rogers, 313, 339)	Diffusion success obstructed by contextual factors, critical mass was not attained (7.8.3)

Rogers (1995) typifies diffusion networks as social systems in which actors are engaged in interactive communication for joint problem solving and the accomplishment of common goals. Describing a complete lack of communication in a system as a rare phenomenon, Rogers generally assumes centralised and decentralised communication channels to be available for information-rich exchanges. His framework further suggests that reciprocal ties exist between actors. The Grampians network was characterised by weak ties and limited structural bridges between social systems. Barriers to diffusion seemed to stem from internal organisational dynamics of the network; the lack of convergent goals of individual and group actors; and the top down approach to ICT policy from key government bodies. Despite industry homogeneity, relationships were heterogeneous in nature, with actors operating in geographically dispersed and divergent cultures. The geographic make-up of the network (space) contributed to network communication channels being vastly under-utilised as information exchange conduits. The systemic norm of outsourcing structural bridge- and domain building compounded ineffective communication exchange. By equating communication with marketing, unilateral or broadcast-type communication was standard across domain strata. Since communication was unilateral and non-interactive, it lacked meaning and was static and non-emergent in nature.

As discussed in the previous chapter, the network structure supported exclusionary communication practices. Access to information was dependent on actors' position in the network. The importance of network positioning, and especially of closeness to centrality in the network, has long been of interest to researchers (Freeman 1979). In my study, those actors occupying close centrality positions in the network used their status and strong "old boy" network ties to restrict domain knowledge flows and to control communication channels. The Gaventaa and Cornwall (2001) observation that the hidden face of power is as much about keeping actors and issues from getting to the table, as it is about control over the production of knowledge is highly relevant to this study.

In their recent article on the social side of creativity, Perry-Smith and Shalley (2003) provide a useful discussion on network ties. Based on the work of

Coser, the latter researchers argue that weak ties are believed to facilitate autonomy, a structure that certainly appeared to suit both institutional and industry actors disinterested in domain convergence. The researchers further describe long-term central network actors with strong ties as likely being entrenched in status quo positions. Central actors apparently have difficulty to break free of their web of ties and see beyond them to new ideas. In my study, certain domain actors' long-standing central positioning may have perpetuated actors' parochial worldview, which in turn may have constrained the diffusion process. There is also some evidence in the literature (in Pavlovich 2003) that incremental change strengthens existing power structures within a network. In my study, central actors may have wished to slow down the e-commerce diffusion process by intentionally obstructing communication channels and avoiding the forging of strong ties with non-central actors.

Rogers' diffusion framework does not specifically address trust-based issues vis-à-vis the seeking of information that leads to the adoption of an innovation. Rogers (1995) simply argues that later adopters seek out early adopters for advice, which suggests implicit trust in said communication channels. In the studied network, cultural divergence resulted in closed communication constructs, with neither centralised nor decentralised domain actors seemingly prepared to function as referents or change agents. Consequently, diffusion occurred in an ad hoc and chaotic manner and I hence argue that, in my study, heterogeneity and weak ties appeared to slow down or weaken the diffusion process. This finding differs markedly from Rogers (1995) who, based on the seminal work by Granovetter on the strength of weak ties, posits that heterogeneity and weak ties speed up diffusion.

Concurring with Rogers, Bouty (2000) and Shah (1998) found that actors freely shared information with weak ties, as long as the information was not too complex or proprietary. Such studies may suggest that large numbers of weak ties would be conducive to diffusion. However, as Perry-Smith and Shalley (2003) aptly propose, there is a point of diminishing returns, "where too many weak ties are no longer advantageous" (Perry-Smith & Shalley, 2003, 95). The latter is especially true when there is no perceived availability of time to cultivate weak ties, as was the case in the Grampians domain.

Hence, I consider time another diffusion moderator in the study, but differentiate the study's concept of time from Rogers' who interprets the time variable in terms of the duration of a linear (knowledge, persuasion, decision, implementation, confirmation) innovation process.

In Rogers' diffusion framework, the success of an innovation is measured by time, as defined in the previous paragraph, and critical mass, when the rate of adoption becomes self-sustaining and change is achieved. Rogers does not refer to actors' commitment to the change process, nor to the collective and reflexive learning process that is involved in achieving change. In the study, lack of actor commitment to reciprocal and reflexive learning proved a significant deterrent to domain innovation and change. As McIlduff and Coghlan (2000) have demonstrated, for a system to change, key individuals have to be motivated to change and do something about what needs changing; for example, make information available to overcome lack of trust and resistance to change. In my study, domain actors were left to their own devices and had to become their own change agents, many of which did not see the immediate need for change. The prevalent parochial worldview placed actors on the periphery of innovation boundaries. McLeod et al (1998) include worldview in a set of sociotropic judgments that exert major influence on normative roles, values and communication patterns. Worldview and commitment to learning are hence included as contextual moderators in the study's diffusion framework.

In summary, contextual elements—for example, place (status and position in the network); space (the geographic make-up of the network); power, trust, worldview and commitment—proved to be pivotal moderating components of diffusion. Actors' apathy to transfer, assimilate, coordinate and utilise information across the domain; limited actor access to the "old boy" network; cultural divergence; and the overall lack of collaborative strategic thinking across horizontal and vertical government tiers precluded innovation and change. The incorporation in the study's diffusion framework of contextual moderators considerably extends Rogers' traditional diffusion of innovations framework.

8.1.2 The Crafting of Innovation

I am by no means the first researcher to apply an action-oriented methodology in the pursuit of ICT-related change. There are some predictable parallels between my study and existing ICT-related action research work. Evans' (1999) work with London-based operators towards a shared destination website highlighted varying degrees of actor reluctance in taking up ICT and joining a network. The latter may also be a reflection of the seemingly universal atomistic nature of the tourism industry. In discussing clinical inquiry, Schein (1992) proposed early on that the challenge of introducing ICT-related change would be a cultural one. In describing and practicing the art of clinical inquiry in ICT-related change in organisations, McDonagh and Coghlan (2000, 2001) similarly point to diverse sub-cultures and inter-community conflict as major challenges to ICT-related change. With actors bound to their own cultural mindset; the dominance of economic and technical considerations; and the relative marginalisation of human considerations; the latter authors also report that the number of ICT initiatives that have actually produced business value have been disappointingly low. Organisations, communities and networks seeking to incorporate ICT will need to address these persistent dilemmas of ICT-related innovation.

The emergent view of the fifth-generation innovation model (Rothwell 1992), which reportedly widespread does depict the process as essentially interactive,

involving the 'coupling' of various inputs. It recognises that effective innovation requires both pull and push, acting like the blades of a pair of scissors, or like partners in a dance, with extensive interactions and feedback loops" (Dodgson & Bessant, 1996, 32).

Although the model is recognised as a complex networked activity, the actual change process involved in innovation appears to be less well understood. Interactivity and reflexivity are yet to be integrated in contemporary innovation policies, perpetuating "the linear diffusion model as the implicit blueprint within many technology innovation policies and structures" (Dodgson & Bessant,

1996, 32). Despite endorsing interactivity and networking as the foundation of effective innovation, Dodgson (2000) expresses concern that governments might concentrate on funding Mode 2 rather than Mode 1 research because it is “more manageable”. Both modes are needed as they build upon one another; and funding criteria should not solely be based on “‘deliverables’ and returns within the electoral cycle” (Dodgson, 2000, 218).

Networks are dynamic organisms with ever-changing actors and contextual innovation factors that should be recognised. Extending the recognition and benefits of interactive and reflexive innovation practices to include the actual change process is essential. There is no doubt that networks are indispensable for diffusion; and understanding the change processes that take place in diffusion networks has the potential to benchmark change and speed up diffusion.

When one does not encounter the type of difficulties I experienced in setting up a collaborative learning process, a clinical inquiry/action research approach to ICT-related innovation can offer “unrivalled opportunities for gaining deep insights into the complex nature of such change” (McDonagh & Coghlan, 2001, 377). Effective action research can help expose such elements as worldview—described by Reason (2002) as the fundamental basis of our perceptions, thinking, values and actions—and firmly place pluralism and cultural diversity on the innovation agenda. Competent action researchers will challenge power structures and pay attention to whose voices or knowledge are not represented (Gaventa & Cornwall, 2001). Moreover, as Chisholm (1998) has demonstrated, using action research can be helpful as an orientation toward network development, as, ideally, the approach pervades every network member, group and activity.

8.1.3 Towards a C-change

The C-factors were not initially expected to play a role beyond their use as a loose framework for study analysis purposes. However, through the emergent process of analysis it has become apparent that change occurs through the interaction of the C-factors; and that the framework could therefore serve as a de facto model for regional network development and change.

To achieve change, it is argued, a shift in both critical and enabling C-factors will need to occur, although the magnitude of change will be influenced by the critical C-factors that underpin change, such as communication flows, a collaborative culture and a cohesive community. Two new critical C-factors, commitment and convergence, were added to the framework, which require urgent attention if a holistic C-change is to take place. Convergence is defined in the broadest possible terms to include social, economic and technological concepts. Social convergence is sustained by commitment to augment social network capital. As Putnam (2000) has argued, social capital is the store of trust, goodwill and cooperation in our communities. Nonaka and Konno (1998) have also pointed to socialisation as the foundation of knowledge creation and trust. Trust in turn can lead to a commitment to collective learning and knowledge exchange, enabling both economic and technological convergence. The process is an iterative and dynamic one, with neither knowledge production nor action undertaken for its own sake; rather, knowledge is created through action (Gaventa & Cornwall, 2001).

Economic convergence requires commitment to eliminate a competitive-exclusive culture and a move towards a mindset that combines competition and co-operation—along the lines of what Brandenburger and Nalebuff (1996) refer to as co-opetition—allowing sub-regional communities to uncover their value chains and become complementors in creating the regional market. Economic convergence enables clustering and cooperative e-business structures, while connectivity is enabled by technological convergence. The latter hinges on commitment to integrate domain online activities, as well as commitment to coordinate and support standards and adoption processes.

By adding commitment and convergence to the original C-factors, it is suggested that the expanded framework may be of use as a regional network development and change model. However, as Senge and Scharmer (2001) have observed with their community action research work in the American context, and “‘self-organizing’ cannot always be left to itself” (Senge & Scharmer, 2001, 245). Appropriate infrastructures that support inter-organisational learning and collaborative work are necessary. In the words of social scientist Eva Cox (1995), one of the diseases of our present

communities is that there seems to be a constant trade-off between time and money. Building connected communities, and supporting the modern drivers of change, requires commitment of resources and financial backing, which cannot be accomplished in a voluntary system that markets policy sans engagement and communication sans meaning. It requires whole-of-government engagement and support. The latter may well be a case of "déjà vu" or "plus ça change". In 1972, in discussing the challenges of change, Professor Dexter Dunphy made a similar case for commitment of resources and support to take responsibility for and create confidence in change (Dunphy, 1972).

In reviewing the role of each C-factor, I argue that commitment (engagement and resources) underpins all other actions; without commitment change cannot occur. I further argue that the C-factors reinforce one another; and that there are cumulative and reciprocal linkages between the C-factors, resulting in a cyclical spiral model as depicted in Figure 8.1. All C-factors are subject to interaction and continuity—continuous renewal through action and reflection—to ensure a fluid learning culture and constant change. Cyclical models have been used to describe organisational relationships between efficacy and performance (see Perry-Smith & Shalley, 2002). Of course cyclical models lie at the heart of action research (Coghlan, 2002; Reason & Bradbury, 2001) and the proposed framework hence supports the fusion between regional innovation models and action research methodologies.

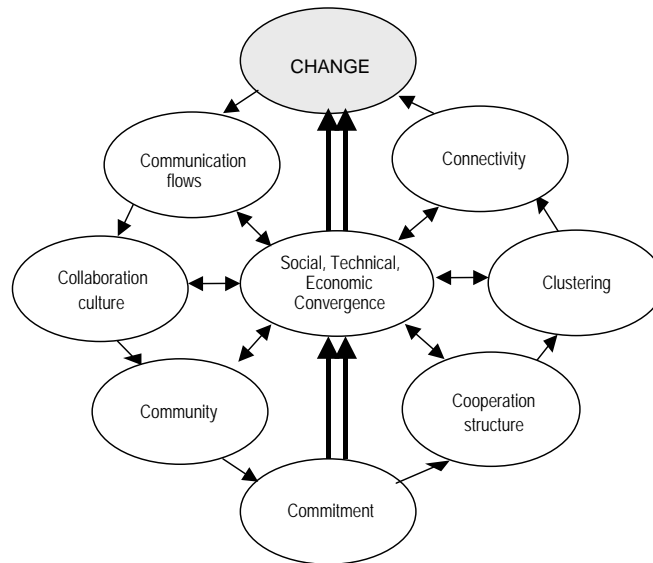


Figure 8.1
C-change Model

8.2 Future Directions

This study has identified a number of barriers to technology diffusion and the advancement of regional innovation. While implications and areas for future exploration are predominantly discussed in terms of regional tourism communities, networks and policies, it is suggested that both the diffusion framework and the regional innovation model developed in this study may – either jointly or separately – be applicable beyond the tourism and service sector; thus providing myriad multidisciplinary avenues for future experiential research. I follow Porter (in Argyres and McGahan 2002) in differentiating the framework from the model. My framework is aimed at capturing “the full richness of a phenomenon”, whilst my model is aimed at “deciding what to extract and how to manipulate it” (Argyres and McGahan, 2002, 44) in order to derive the best possible solutions.

8.2.1 Soft Innovation Support

It will be some time before regional actors are ready, to use Earl’s (2000) terminology, to drop the “e” out of e-business and consider e-commerce part

of their daily business routine. The necessity of bridging the public-private digital divide will need further consideration, as will the support of so-called “soft innovation” elements. To get comfortable and take mental, physical and virtual possession of the ICT domain, initial value for small firms lies in the debunking of ICT jargon, cutting connectivity cost, gaining online visibility, gaining trust in new media leadership, and obtaining e-commerce skills through linkages with local networks and regional training institutions.

Marketing and distribution relationships vis-à-vis the Internet also need re-examination. By drawing on a broader skill base through the forging of new partnerships between regional e-commerce experts and marketing bodies, issues such as product richness and channel reach may be addressed. Similarly, inclusion of small firms in global marketing and distribution systems may help advance tourism regions into the global marketplace and help forge new destination management partnerships.

8.2.2 Clusters, Supply Chains and Value Chains

To foster an inclusive cluster culture for regionally dispersed tourism firms, an appropriate balance needs to be struck between autonomy and competition. Standard practices such as highly competitive buy-in schemes and single icon branding for a product region with multiple attributes, will need careful reconsideration in moving from a competitive-exclusive to a competitive-inclusive model. Game theory, which has been in existence for many years (Bailey, 1969), is an example of a useful tool to help determine both the competitive and cooperative aspects resident in a region. Coordination of web standards; and the establishment of seamless upstream and downstream linkages across domain websites may help reduce cost and confusion; and eliminate pointless competition for industry dollars between state and regional marketing bodies.

Similarly, questions must be posed on what elements capture value and contribute to a good cultural and strategic fit within a domain. This research has found that varying degrees of trust relationships appear to exist in geographically proximate industry clusters. My study suggests that the strength of cluster ties, the cluster’s geographical make-up, and the level of

shared domain knowledge may all hinge on trust; and that trust relationships, or the lack thereof, may underpin the development, advancement or demise of clusters. Trust and cluster structures hence merit further consideration vis-à-vis regional innovation.

8.2.3 Spatial Differentiation

This study found that geography (space) matters more than ever; that local communities wish to maintain their cultural identities in a global economic climate; and competitive advantage is not based on seamless transmission of codified information, but rather on tacit knowledge embedded within local communities. It may hence be useful to explore regional development from a spatial differentiation perspective which, coupled with devolution of power, has been gaining momentum in Europe since the early 1990s (Storper, 1997). A spatial policy approach may create more appropriate domains and highlight attributes for market individuation and differentiation in value chains. Considering that spatial policy relates to political and economic boundaries, while regional tourism policy concerns marketing boundaries, a cross-institutional spatial policy approach may be desirable.

8.2.4 Moving into an “Experiential Economy”

To better engage with regional communication challenges, we need to enhance our understanding of the complex process of communication and the relational underpinnings that affect network information flows. It may be useful to explore the creation of both *localite* and *domain ba* to encourage Mode 2 learning. It may also be beneficial to explore some of the socialisation practices that have been implemented in Scandinavia, where action research is utilised as primarily a communicative process (Gustavsen, 2001).

In accepting knowledge as the basis of policy and praxis, both the public and private sector require new skill sets. To facilitate the latter, a rapprochement of relations between the public and the private sector is essential, whereby public servants, academics and industry collaboratively seek informed, pluralistic and actionable policy paths and outcomes. Equally important is the need for new evaluation metrics for new economy policies and practices.

In the process of tripartite knowledge trading, actors have the opportunity move beyond a learning economy into the domain of an “experiential” economy, which acknowledges the value of experiential knowing. Further exploration of the Heron and Reason (2001) notion of an extended epistemology may contribute to a new sociology of knowledge needed for the Australian culture shift from an economic focus to a learning focus.

With Australian university charters reflecting an increased commitment to tripartite collaboration, it is now possible for regional learning institutions to adopt a referent role and progress the relationship between regional development, learning and capacity building processes. Such constructs may be particularly useful in an Australian context, where there is not a strong tradition of learning for learning’s sake. With inadequate social glue between regional actors and limited external links, there may initially be most affinity with an approach that is seen to have concrete and practical benefits (Braun & Billard, 2002).

8.3 Personal Reflection

This study has been a catalyst for change for me as a consultant, a researcher, and a person. As a consultant, I learned that being an outsider seeking to enter a regional network was a complex endeavour. I naively entered the process believing that my expertise would be welcomed, only to learn that bridging capital alone could not break down social barriers. Embedded political and power structures presented unexpected intervention and personal challenges. Domain governance appeared to be “men’s business” and my gender may have further decelerated my entrée into the network. I was not afforded much time or bonding capital to create social capital within the network, let alone function as an overt change agent. In the words of Judi Marshall (1999), I learnt when to persist and when to desist.

The intervention process dramatically altered my view of ICT. Initially unaware that I let technology and the lure of a consultancy-cum-research focus drive the project, I went dutifully about fulfilling my contractual obligations as a consultant by designing a portal model without requisite knowledge of or

accountability for the user community. I learnt the hard way that the design of ICT was not value neutral and that the process was heavily influenced by the intentions of my client.

I also learnt that there was some intrinsic enmity against my learning institution resident in the region; in addition to which expertise from across the planet appeared to be preferable over local know-how. As a sole actor, I felt unable to noticeably change the perception, standing, or the role of my institution within the regional community. Also, my consultancy was a one-off and short-term venture, a format that, by its very nature, could not dramatically impact on the region or contribute to sustained dialogue and enduring learning experiences. My work may, nonetheless, be claimed as a step in the right direction towards a gradual strengthening of rapport with public and private enterprise in the region.

As a researcher, I became acutely aware of the importance of my own domain, or what I like to refer to as my “network externalities”, the internal and external expertise and support of my wider institutional infrastructure, that I frequently drew upon during the research process. As such, I perceive myself to be a living example of how an actor or firm might benefit from being part of a dynamic cluster or value chain. I broadened my horizons by attending conferences, delving into the literature, and seeking out people and paths to make my work as a researcher/practitioner actionable and relevant to the domain. I learnt to focus on linking theory to practice, so that my research would be more useful and my actions would be better informed.

There have been many personally beneficial changes as a result of my work, including a much better understanding of interactivity, reflexivity and the benefits of informed action in everyday life. Even the iterative nature of writing about my work has resulted in a sense of personal innovation, emergent change and growth. There is no doubt in my mind that action-oriented methods are the way forward for sustainable innovation in the 21st century.

Appendices

Appendix A

Roy Morgan Value Segments

Basic Needs: This pattern of thinking or segment is usually associated with older people who are retired, pensioners, or people on social security payments who have an active community focus to their lives, and with people on sickness benefits or workers compensation who have reduced their expectations in line with reduced income.

A Fairer Deal: This pattern of thinking is generally found among unskilled and semi-skilled workers who have left school to start learning from friends who share blue denim values. This segment is more likely to experience unemployment, family pressures and the feeling of getting a raw deal out of life. They tend to be heavy consumers of radio and television, but their newspaper and magazine readership is light.

Visible Achievement: This pattern of thinking is associated with the proof of having made it up the seemingly never-ending social ladder. Personal recognition, higher incomes, job satisfaction and other tangible rewards of success such as travel, recreation and high quality homes, vehicles and holiday locations provide the very best of visible good living. They are heavy readers of newspapers, particularly national newspapers. They also tend to be heavier than average readers of magazines, particularly business and finance related magazines such as *BRW*, *Personal Investment*, *Money Management* and *The Bulletin*. Due to their frequent flying they are readers of *Qantas Club*, *Australian Way* and *Panorama*.

Real Conservatism: This pattern of thinking is associated with people who are mature and mid-career, holding conservative social, moral and ethical values and seeking a disciplined, ordered society, which is safe and predictable. There is a strong tendency towards authoritarian, blue chip, business orientated preferences that offer security and the feeling of very much being in control. This is a common pattern in rural settings. The Real Conservatism segment are heavy consumers of television, watching news, current affairs and lifestyle programs. They have a high newspaper readership, especially weekend newspapers.

Something better: This pattern of thinking is associated with people who are very competitive, seeking to clinch a bigger, better deal that will develop a little bit more to help pay off an excessive mortgage on the new family home. This segment has extensive debts and a strong preference for more power, improved status and security. There is medium to high television consumption among this segment, enjoying the brasher American style comedies and sit-coms and information programs on improving their life such as *Our House*. They tend to be light readers of newspapers and magazines, seeking their information quicker, easier, and only what they need.

Traditional Family Life: This pattern of thinking personifies middle-ageing Australia—homeowners with relatively stable incomes that meet the needs of the smaller household. Energies revolve around the ideal of becoming grandparents or getting children to come home for visits or at least to keep in touch. Health and spirituality dominates a sense of meaning and purpose in life and being well respected in the community is very important. There is high television consumption among this segment, particularly news and current affairs programs. Newspaper readership is also relatively high.

Look at Me: This pattern of thinking is associated with active, unsophisticated, somewhat self-centred and peer-driven behaviour that sees success as a kind of game and not to be measured by family standards. This is the pattern of the “decibel generation” that lives in McDonalds, drinks Pepsi, burns up money (their own and their parents), spends hours watching commercial TV and can’t wait to be somewhere else.

Conventional Family Life: This pattern of thinking is most closely associated with suburban families devoting all their time and efforts to building a “home” to give to their children the opportunities they deserve, striving to improve their home, enjoying family life and having enough time to keep in touch with their parents and friends. The Conventional Family Life segment are low to medium consumers of television and light readers of newspapers and magazines. They have particular interest in homemaker magazines such as *Better Homes & Gardens*, *Family Circle* and *Our House*; and major women's magazines such as *Woman's Day* and *Women's Weekly*.

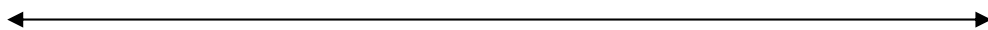
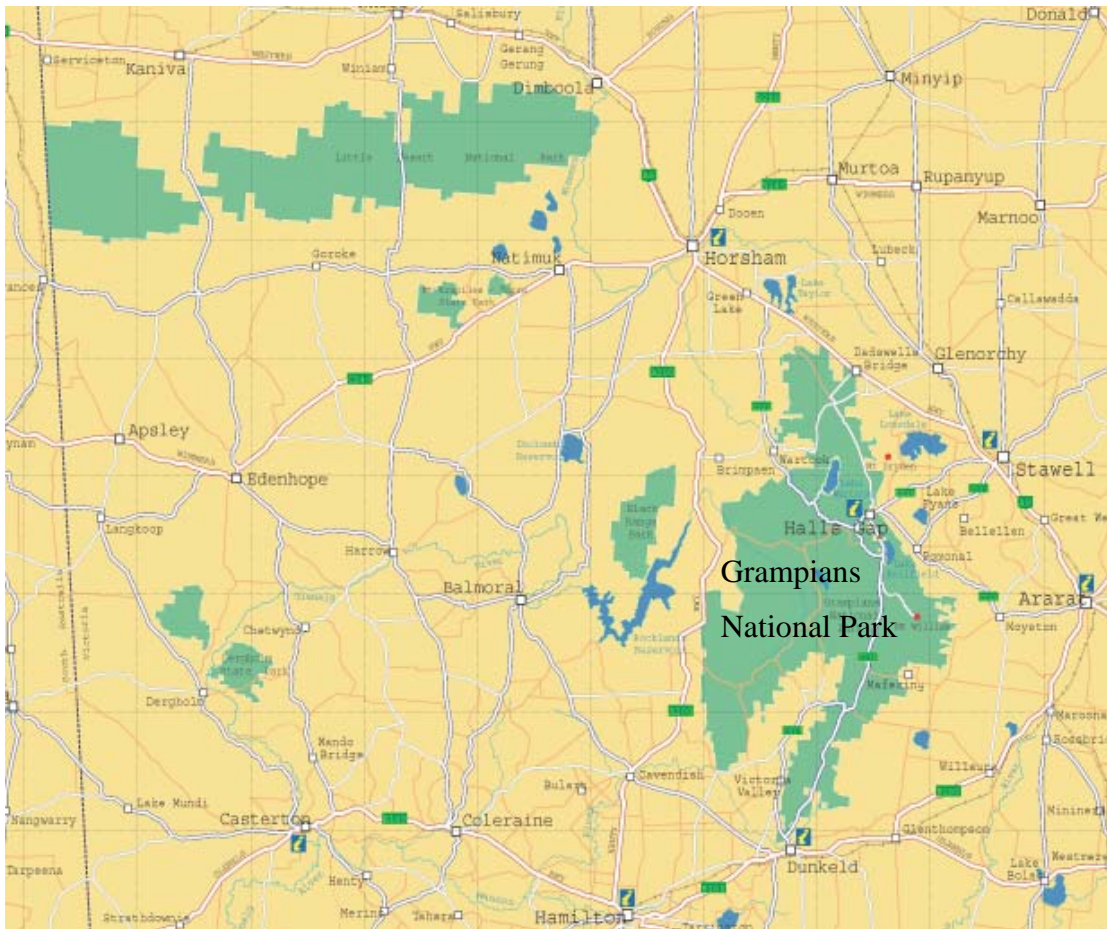
Socially Aware: This pattern of thinking is usually associated with the highest socio-economic group in the community. This segment is the speciality of public servants, pressure groups, business analysts and politicians of all political colours. These “insatiable information vacuum cleaners” are addicted to finding out or trying anything that’s new or different and persuading others to accept their opinions, priorities and lifestyle preferences. The Socially Aware segment are low consumers of television. They are heavy readers of print media, particularly newspapers such as *The Australian*, *Financial Review* and *The Age*.

Young Optimism: This pattern of thinking is associated with young professionals, technocrats and students whose thoughts are focused on achieving a good career, overseas travel and generally improving their prospects in life, having a sense of fulfilment and a chance to enjoy an outgoing lifestyle. It is generally more prevalent in inner city and urban lifestyle settings. Tending to be light commercial radio and television consumers, attracted to the slightly “off beat”, eclectic and “witty”, programs. They are heavy readers of newspapers and magazines including *Rolling Stone*, *Juice*, *Cosmopolitan* and *Cleo*.

Appendix B
Grampians Product Region

The Grampians Region | Victoria | Australia

Map displays the boundaries of the product region



Approximately 200 kilometres



Appendix C

Grampians Roy Morgan Value Segmentation

In working toward selecting suitable target markets for the region, the following table displays the Grampians geographic area market segmentation.

Product–Market Segment Matching Matrix

Product	Primary Market Segment	Secondary Market Segment
Grampians National Park	Young Optimists Socially Aware Traditional Family Life	Visible Achievers Look at Me
Little Desert National Park	Young Optimists Socially Aware Traditional Family Life	Look at Me Conventional Family Life
Aboriginal Culture	Socially Aware Conventional Family Life	Traditional Family Life Young Optimists
Urban Heritage	Traditional Family Life Visible Achievers Socially Aware	Young Optimists Something Better
Arts and Crafts	Visible Achievers Socially Aware Real Conservatism	Traditional Family Life Young Optimists
Wineries	Visible Achievers Socially Aware	Young Optimists Traditional Family Life
Lakes	Special Interest Groups (Ornithologists & Anglers)	Socially Aware Something Better
Parks and Gardens	Traditional Family Life Real Conservatism Visible Achievers	Conventional Family Life A Fairer Deal
Sporting Events	Look at Me Young Optimists	Conventional Family Life A Fairer Deal
Rural Landscape	Traditional Family Life Socially Aware Real Conservatism	Conventional Family Life Something Better

Source: Rob Tonge & Associates / Monaro Consultants Analysis 1997.

In matching the Region's product strengths with the needs of the different Roy Morgan Value Segments, four primary markets have been identified:

VISIBLE ACHIEVERS

Advertising: Respond to clever, unusual appeals, aspirational lifestyle needs respect, sceptical about claims, offers.

SOCIALLY AWARE

Advertising: Respond to stylish, tasteful and intelligent appeals, concepts and ideas are important; they reject hype and clichés.

TRADITIONAL FAMILY LIFE

Advertising: Respond to practical ideas, clear communication, and down to earth common sense.

YOUNG OPTIMIST

Advertising: Respond to "in your face" or unique appeals, more likely to respond to website call to actions.

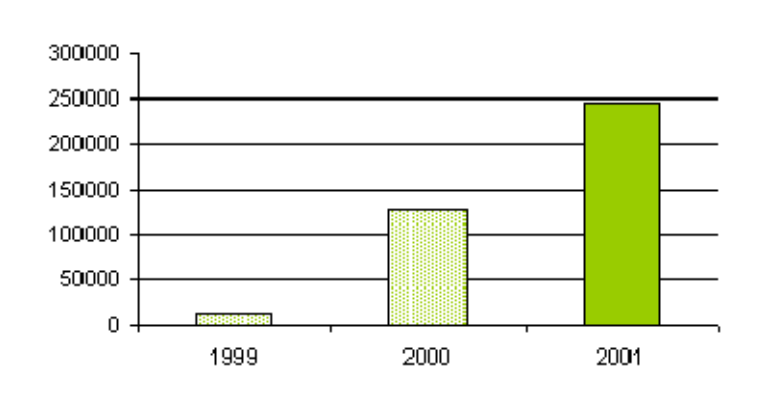
Source: Grampians Tourism Development Plan 2000–2001. <<http://www.tourismvictoria.com.au/pdf/grampian.pdf>>

Appendix D

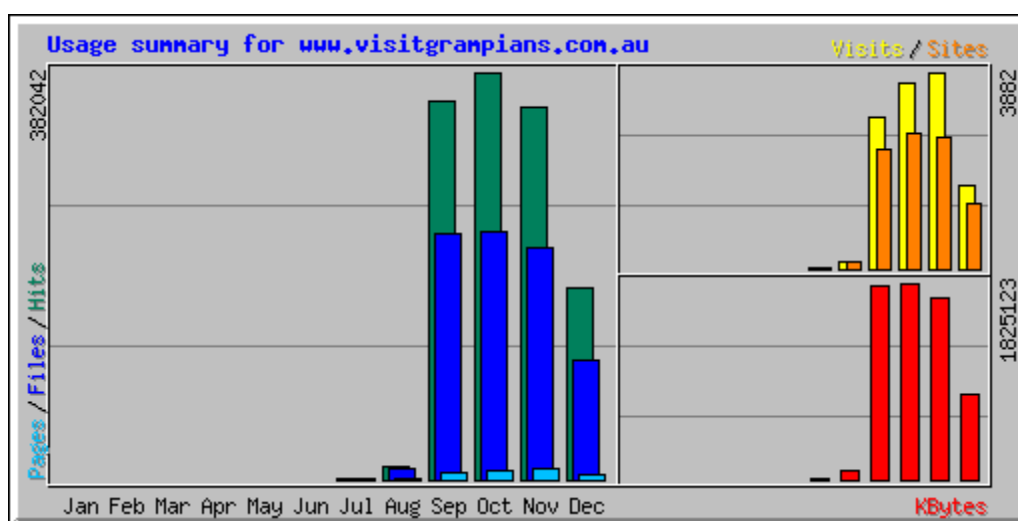
Usage Statistics for <www.visitgrampians.com.au>

Summary Period: Dec 1999-2001

December	Hits
Dec-99	12779
Dec-00	127220
Dec-01	245035
	248108



Summary Period: December 2002



Summary by Month										
Month	Daily Avg						Monthly Totals			
	Hits	Files	Pages	Visits	Sites	KBytes	Visits	Pages	Files	Hits
Dec 2002	10024	6206	227	91	1301	789634	1645	4092	111723	180433
Aug 2002	4335	3348	66	42	157	75445	128	200	10046	13005
Jul 2002	100	63	4	0	2	3201	7	42	575	900
Totals						6178835	12324	30556	802736	1279294

Appendix E

Set of Guiding Questions Used in Reconnaissance Phase

1. How many tourism operators are there in this shire?
2. What is the uptake of technology in this shire?
3. How many tourism operators use the Internet?
4. Have you ever asked them specifically about their IT interests or needs?
5. Does any tourism operator use online booking?
6. Does any tourism operators use e-commerce?
7. Do tourism operators ask about connecting to the Internet?
8. Do tourism operators ask about Internet training?
9. Do tourism operators ask about using e-commerce?
10. What do you think is most needed in terms of IT in the region?
11. Do most tourism businesses have their own computer equipment?
12. If so, what software packages do they use?
13. Do operators use the Community Enterprise Centres (CEC) in the shire?
14. If so, what do they use the CEC for?
15. Have you noticed a change in attitudes amongst operators towards using the Internet since the CEC opened?
16. Do you think they may have an interest in participating in a cooperative online portal?
17. Do you think operators are willing to pay for an online presence?
18. How do operators view the existing cooperative marketing plan in the region?
19. Do operators share their business information and knowledge with you or with one another?
20. What thoughts do you have about communication flows between operators?

Appendix F

Tourist Operator ICT/E-Commerce Profile

Our company: **tick (✓) all that apply**

- does not use computers at all
- uses computers and is gaining some benefit
- uses email instead of, or in addition to, a fax
- uses the Internet to find business information
- uses a website to attract new business
- uses a website to communicate with customers and suppliers
- uses a website to transact with customers and suppliers
- would like to use the web to communicate, market & transact
- would like to be part of our product region's (e)marketing campaigns

Our company size: **tick (✓) one**

- 1–5 people
- 6–20 people
- 20–100 people

Industry Sector: **tick (✓) one**

- Tour operator packaged day tour chartered other
- Accommodation B&B motel hotel self-contained other
- Restaurant/Café/Food
- Transport
- Nature-based and/or cultural tourist attraction
- Other (please specify)

Understanding of technologies: **tick (✓) one per category**

- | | | | |
|-----------------|------------------------------------|---|--|
| Fax | <input type="checkbox"/> knowledge | <input type="checkbox"/> competent user | <input type="checkbox"/> I would like more info/training |
| Email | <input type="checkbox"/> knowledge | <input type="checkbox"/> competent user | <input type="checkbox"/> I would like more info/training |
| Web browsing | <input type="checkbox"/> knowledge | <input type="checkbox"/> competent user | <input type="checkbox"/> I would like more info/training |
| Company website | <input type="checkbox"/> knowledge | <input type="checkbox"/> competent user | <input type="checkbox"/> I would like more info/training |
| E-commerce | <input type="checkbox"/> knowledge | <input type="checkbox"/> competent user | <input type="checkbox"/> I would like more info/training |
| E-marketing | <input type="checkbox"/> knowledge | <input type="checkbox"/> competent user | <input type="checkbox"/> I would like more info/training |

Company Name: _____

Company Address: _____

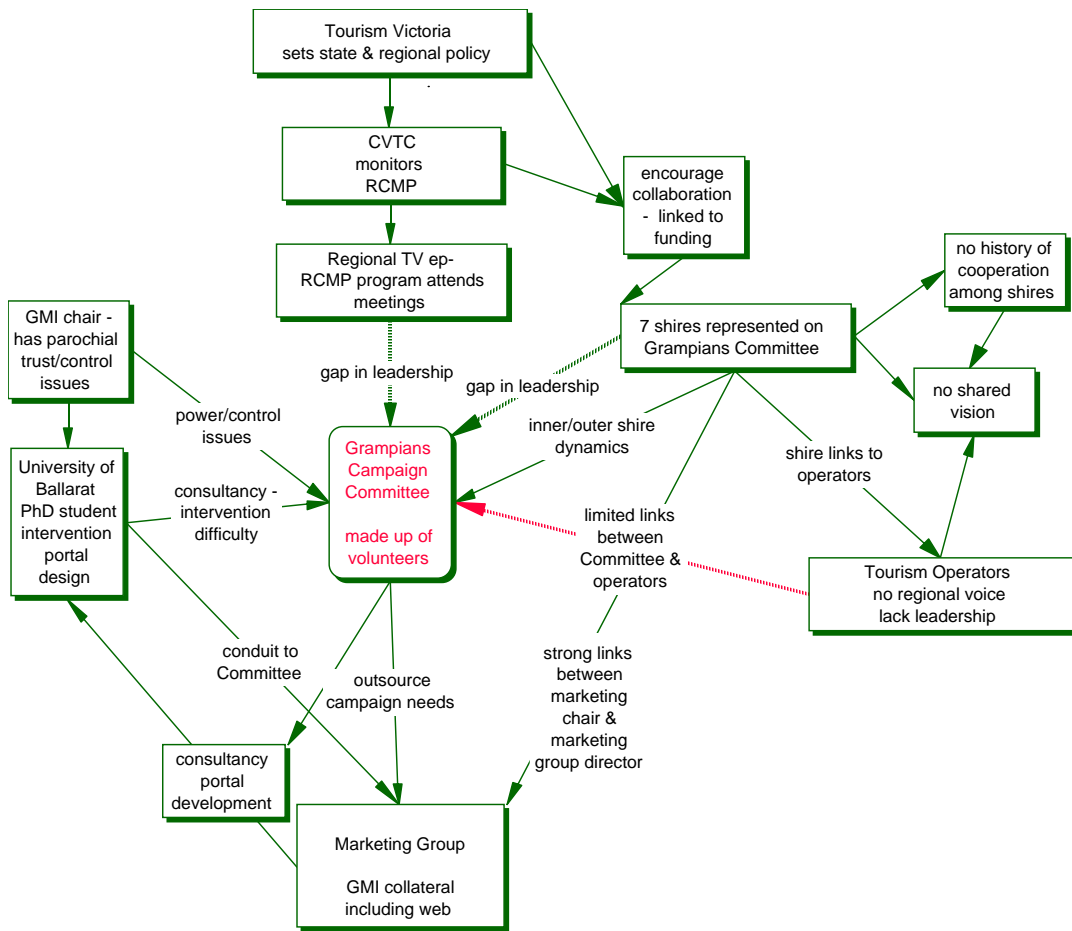
Phone/Fax: _____

Email: _____

Company Website: _____

Appendix G

Grampians Product Region Relationship Map



Appendix H

GMI Website Evaluation

This is a work in progress. Your feedback is instrumental in developing the GMI site into a user-friendly and informative regional site, so please assist us by answering to the following questions and providing suggested changes:

Please comment on the overall GMI site:

(for example: exciting, interesting, useful, disappointing)

Please comment on the below GMI design elements:

(for example: effective, adequate, inappropriate)

- introductory screen & survey
- main visitor screen
- industry section
- media section
- background colour
- overall navigation
- side navigation & rollovers
- text colour

Please comment on the below GMI information categories:

(for example: well ordered, effective, confusing, inappropriate)

- about the region
- towns & villages
- your specific town or village
- how to get here
- find accommodation
- search by attraction
- search by experience
- individual attraction listing (e.g. parks)
- individual accommodation listing (e.g. line, keyword listing)
- individual experience listing (e.g. fishing)

Please comment on industry/marketing participation opportunities:

(for example: appropriate, confusing, good or difficult on-sell)

- hot deal on visitor hp
- hot deals (under accommodation)
- line listing link to operator hp
- event of the month
- industry section—events, workshops

What is missing from the GMI site?

Glossary

ABS	Australian Bureau of Statistics
B2C	Business-to-Consumer
B2B	Business-to-Business
C2C	Consumer-to-Consumer
CRS	Computerised Reservation Systems
CTVC	Country Victoria Tourism Council
E-Commerce	Connectivity, electronic data exchange and transaction capability via the Internet (<i>Source: The Allen Consulting Group, 2002</i>)
Extranet	A partial extension of an organisational Intranet that is accessible to authorised outsiders via a valid username or password (<i>Source: Webopedia.com</i>)
Gateway	A node on a network that serves as an entrance to another network. In enterprises, the gateway is the computer that routes the traffic from a workstation to the outside network. In homes, the gateway is the ISP that connects the user to the Internet. (<i>Source: Webopedia.com</i>)
GDP	Gross Domestic Product
GDS	Global Distribution Systems
GMI	Grampians Marketing Inc.
ICT	Information and Communication Technologies
Internet	A global network of interconnected computer networks (<i>Source: Webopedia.com</i>)
Intranet	Internal (organisational) communications network accessible only by the organisation's members, employees, or others with authorisation (<i>Source: Webopedia.com</i>)
ITOL	Information Technology Online

NOIE	National Office for the Information Economy
OECD	The Organisation for Economic Co-operation and Development
SME	Small and Medium Size Enterprises
Portal	A Web site or service that provide access to a wide range of heterogeneous network services, which can be either local or remote, structured or unstructured. The user stays inside the portal interface, which provides access to remote web sites on the user's behalf (<i>Source: Brophy 2001</i>)
RCMP	Regional Cooperative Marketing Program
ROTP	Regional Online Tourism Program
TV	Tourism Victoria
VTO	Victoria Tourism Online
World Wide Web	'The web' is a data transmission model that is built on top of the Internet. The Web uses HTTP (hypertext) language for universal transmission and is a (large) portion of the Internet. The terms Internet and "the web" are not synonymous (<i>Source: Webopedia.com</i>)

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