

Opportunities Through Communications Technology for Regional Australia

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Any discussion on regional communications must include the issue of equity of access. Before proceeding with this discussion, we should place some of these issues into perspective. In Australia the main argument is over the minimal standards encompassed in the Universal Service Obligation and digital data access etc. We should remember that 65% of the world's population do not have a telephone service in their homes. In fact, 50% have never even used a telephone. The city of Tokyo has more phones than the entire African continent. Truly, we live in a world of information wealth and poverty.

The Federal Government's Regional Telecommunications Infrastructure Fund has had a significant impact in bringing communication services to regional Australia. The success of this program may explain the annual comparative figures from the ABS¹ which state at May 1999, just under 26% of capital city households had home Internet access compared with nearly 17% of households in other areas of Australia. The comparable details for May 1998 were 18% and 8%. This represents a 44% increase in cities but a 112% increase in non-metropolitan households.

It may be true to argue that many regional communities have inferior access, however with the exception of some remote Aboriginal communities it is not true to say that they are information poor. Personal and business networking is a relatively new phenomenon in metropolitan areas. However, it is now and always has been a fundamental part of rural life. The CWA, farmers and growers associations, rural fire services, P.A. & H. societies, these and many others play an enormous role in the life of regional Australians. While particularly women's networks have keenly adopted the Internet for communications, it has also dramatically expanded the access to and flow of information.

It is fair to assume that regional Australia will never have true equity of access. Supply and demand, economies of scale and concentration of market will always ensure that technology and therefore services will be rolled out in metropolitan areas long before they are even considered for regional areas.

Disturbing Indicators

Over the final six months of this year, e-commerce software will be purchased by nearly half, or 46.7%, of US organizations.² While among process manufacturers, wholesale distributors, and financial institutions, more than 60% of businesses will acquire software for e-commerce.

While similar projections do not appear to be available for Australian businesses, ABS³ figures for 30th June last year show that only 26% of all Australian businesses had web browser access let alone being e-commerce enabled.

Meanwhile the latest ABS⁴ figures show that the number of Australian households with Internet connections increased by 18.8 per cent in the last quarter. Bringing the total number of households with Internet access up to 1.5 million with a further 684,000 householders intending to connect. It is now estimated that 40% or 5.5 million adults now have regular access with 92% accessing at least once a week.

The ABS report also shows that 650,000 or nearly 5 per cent of Australian consumers made an estimated 3 million e-commerce purchases in the period. This represents an almost 60% increase over the previous 12 months to May.

¹ ABS Catalogue No. 8147.0 Use Of The Internet By Householders, Australia May 1999

² Computer Economics. The "1999 Information Systems and e-Business Spending" July 1999

³ Business Use Of Information Technology Preliminary, Australia 1997-98

⁴ September 6 1999 3 Million Internet Purchases And 1.5 Million Households Online - ABS

USA E-Commerce Acquisition Plans for the Next Six Months

Process manufacturing	60.50%
Discrete manufacturing	48.50%
Retail distribution	38.70%
Wholesale distribution	66.70%
Banking and finance	60.00%
Insurance	48.30%
Healthcare	25.00%
Trade services	50.00%
Professional services	37.50%
Utilities	52.00%
Transportation	28.60%
State and local government	23.50%
Federal government	14.30%
Source: Computer Economics	

Just over 41% of Internet shoppers made their purchases only from Australia, 43% made them only from overseas, and 16% from both Australia and overseas. These figures appear to show an improvement over the ABS⁵ Dec 98 figures which indicated that 69% of all purchases were made from foreign vendors.

In summary, well over 60% of U.S. manufacturers and distributors will be e-commerce enabled by the end of this year. All indications are that Australian businesses are lagging well behind, while regional businesses probably lag even further. Meanwhile a rapidly increasing number of Australian consumers are buying on-line and well over half of these are buying from offshore. The implications for the balance of trade are alarming.

Over the last 40 years, Australia has made a shift away from a dependence on primary, manufacturing and extractive industries towards service based industries. This employment base is now threatened as demonstrated by a recent announcement⁶ by Hewlett Packard of what they describe as the "Second Chapter of the Internet". A major component of this \$1 billion dollar "vision for a new generation of electronic services" includes the concept of "a dynamically brokered e-services marketplace -- where requests for services are automatically brokered, bid and transacted on the Net". This vision is discussing services. Everything from legal and business advice to secretarial support, book keeping in fact virtually all administrative services will be available on a global e-commerce basis.

Australian companies attempting to compete in the electronic marketplace for Australian business will be liable for GST as of next year. The situation regarding Internet transaction based taxes in other countries is still unclear but could have serious repercussions in terms of Australia's competitiveness even in their own market.

The implications for regional Australia are even greater than for our cities. While niche products can sell successfully to the global market, the ultimate secret of e-commerce success is volume. Regional businesses will not only be competing on the global market, inter-regional competition and particularly regional competition from large centres against smaller rural towns may have some serious ramifications.

Just as fifty years ago, the tar sealing of roads empowered the people in small towns, by providing them the opportunity to more easily visit and conduct business in larger centres. Today, as the Internet becomes more pervasive into everyday life, it could have a similar impact on many small town businesses. Their current marginal profitability makes them particularly vulnerable to even small shifts in customer loyalty.

⁵ ABS Dec 1998

⁶ Cross-industry Alliances and E-Speak Technology Hewlett Packard -Palo Alto, California. May 18, 1999

The major impact of current and impending technology is to lower the barrier or isolation. The chance to compete and participate in the new global economy introduces opportunities and threats that could never have been contemplated even ten years ago. If we are going to be active participants in this brave new world, we must stop talking down our ability to participate. If we wait for equity of access, we will wait forever. Some regional Australians are doing it now and they are doing it very well with some traditional country traits: determination, innovation and motivation. The following two case studies are good examples of this.

Ruddweigh International Pty Ltd

Ruddweigh is based in the small town of Guyra in the Northern Tablelands of northern New South Wales. The Ruddweigh weighing system for livestock and agricultural produce was conceived in 1974. Bruce Thomson, currently Managing Director of the company, identified that all rural produce including livestock was traded on a weight and specification basis, yet at that time an accurate system for weighing agricultural product was not available.

It was not until 1980, some six years later that the concept became a reality and the first electronic weighing system for agricultural commodities was launched. The origin of Ruddweigh was as an engineering business in Guyra, which at that time was a repair shop for agricultural machinery and a retailer of engineering supplies.

It was an ideal location to create the demand for agricultural weighing as the area is a focal point of animal production, especially cattle. It was about the same time that the Australian Meat and Livestock Corporation decided to introduce a new method of marketing livestock. Based on an electronic auction where buyers did not have to attend the sale but simply made bids using their computers.

The concept was well received and although the expert agents described the animals accurately, the buyers did not support the system. The main reason being the weights were estimated and proved unreliable. Ruddweigh then developed the "Accurate and reliable livestock scale" that was used in the first electronic livestock auction system. The scales gave the buyers confidence in the weights.

The system known as CALM (Computer Aided Livestock Marketing) is now established in many countries and Ruddweigh systems are an essential part of the assessment protocol. Ruddweigh also designed the first Cattle Crush (Shute) that had an electronic weighing system built in. This was the forerunner of the modern steel crush used throughout the Australian cattle industry.

Today, the staff numbers have grown to 27 while sales have grown from 1 in 1980 to 27,000 in 1998. They have developed the patented 'Weigh Bar' which is ideal for niche markets such as livestock yards, factory floors and field conditions where accurate weight is needed in adverse environments. Ruddweigh are now exporting to 37 countries including the U.S.A, Europe, South America, South Africa and Asia.

Ruddweigh adopted the Internet several years ago and standardised on e-mail as its main communication platform for remote and overseas customers. The Internet has provided Ruddweigh with an enhanced marketing presence as well as the ability to provide cost effective communications and on-line support to their world-wide distribution network. See www.ruddweigh.com.au

The Aboriginal Art and Culture Centre in Alice Springs

Originally the Arrernte speaking people were those who occupied most of the choice regions in the MacDonnell Ranges in central Australia. Their territory stretched about 110 kilometres west to east and about 330 kilometres from north and south.

Today the community, which is based 80km south of Alice Springs, through the Pwerte Marnte Marnte Aboriginal Corporation has established The Aboriginal Art and Culture Centre in Alice Springs. The centre was established in 1995, as an enterprise that could be developed to help finance operations on their homelands and provide employment, housing, and infrastructure such as water and power. Purchased with ATSIC assistance, the business has grown 300% since coming under Aboriginal control. It employs 16 staff and exports to over 75 countries.

The corporation has had outstanding success in developing tourism packages and is now providing services under contract to AAT Kings and part of a retail outlet joint venture with the Aurora Red Centre Resort.

In April this year, they established their web site <http://aboriginalart.com.au>. This site is an extensive gateway not only into their commercial ventures, but their cultural, historical and political goals.

From an e-commerce aspect, the web site is a great success. The site includes a stunning virtual art gallery with artist's profiles, the Didgeridoo University of Central Australia, a full shopping cart facility and an international sales section complete with currency converter. The site has recently been featured in the U.S. Yahoo! Internet Life magazine, and is listed by Sofcom as a pick of the net. Staff estimate that the Internet site is generating up to 10,000 hits per day with virtual sales occasionally outstripping normal retail sales.

Portals

The development of portals or multi-purpose information and service search engines is having a major influence on the development of e-commerce. Most portals are designed for specific areas, services or markets. Like a virtual shopping complex, these portals offer businesses an opportunity to become part of an e-commerce community. The portal usually offers an e-commerce enabled site without the need for vendors to arrange their own shopping cart and transaction facilities. The potential benefits are for:

- exposure to greater market coverage,
- lower transaction costs and/or higher transaction security,
- lower running costs.

The reality may well be different for many businesses. Just as large shopping complexes have had deleterious effect on many downtown shopping areas. Portals could have the ability to force many businesses into expensive virtual rental and transaction arrangements, purportedly justified on the basis of increased customer volume.

For regional businesses, national portals may reproduce the "Yellow Pages Syndrome" where no matter how much money they spend on local exposure their advert will always be overshadowed in size and placement by large national advertisers.

Regional business communities should be encouraged to develop local portals which can negotiate Internet Service Provider (ISP) storage, bandwidth and access charges. Regional portals should also be able to negotiate with financial institutions for improved transaction rates, credit card verification and security procedures. Small and medium businesses cannot afford the up front cost of full e-commerce solutions which can cost well over \$100,000 to establish. A regional portal allows this cost to be amortised over a number of businesses. If successfully implemented regional portals should help to arrest business leakage.

Rural Teleworking - A Viable Outsourcing Option

The Internet can also allow individuals and/or community telecentres to participate in the paid workforce through teleworking. Defined as⁷ working at a distance from the people who pay you, either at home, on the road or at a telecentre. Teleworkers use email, phone and fax to keep in touch with their employers or customers.

Teleworking as a concept is not new, having been originally coined during the 70's oil crises as a means to remove traffic dependence on the limited oil stocks. Acceptance of the concept was initially slow, however in recent years uptake has increased rapidly, particularly with city based telecommuters who work from their home office or local telecentre one or two days per week.

The ABS suggests that in May 1999 nearly 7% of employed adults (600,000 people) reported that they were able to access their employer's computer system from home via a modem compared with 2% (200,000) of employed adults at May 1998. In addition nearly 5% of employed adults (400,000) reported that they had a teleworking agreement with their employer compared with 2% (200,000) of employed persons at May 1998.

⁷ TCA Teleworking Handbook 1997

The acceptance of telework as a viable alternative work practice is clearly demonstrated by the Olympic Roads and Transport Authority who has adopted it as one of the alternative work force planning options in their ⁸travel demand Action Plan.

TeleTask

Planning began two years ago to establish TeleTask as an innovative project to develop the use of skilled people living in regional areas to complete work for city based clients. By using the Internet, fax and telephone to bring the work and the workers together.

The concept for TeleTask developed from the experience of the Walcha Telecottage which is described in more detail later in this document. Walcha was successful in attracting significant paid data entry and survey work. The work was completed by the people in the Walcha community and clearly established that certain types of work can be successfully completed in remote locations. Although the TeleTask project was initially intended to develop work for telecentres, it soon became evident that there was also an enormous resource of skilled individuals with private access to the required technology living in regional Australia.

Teleworking Case Studies;

Malcolm Murray

In some ways, Malcolm is typical of most workers registered with TeleTask. He lives in a regional centre, in his case Mt Gambier in South Australia. He is technically well equipped and has a wealth of experience and qualifications including B.Sc.Spec.Ed., Dip.Ed., Grad.Dip.Educ.Couns. As his qualifications indicate, Malcolm was a school teacher with almost 30 years experience.

Malcolm describes those 30 years as his past life. Following a series of strokes, four years ago and a resultant two years in an institution being rehabilitated, Malcolm now describes himself as "a functional quadriplegic". On his return home, his students, their parents and his colleagues bought him a computer armed with access programs plus specialised hardware which enables him to be productive again.

Having participated in a research project conducted by the Centre for Telecommunications Information Networking at the University of Adelaide, on the development of work opportunities for people with disabilities in rural areas. Malcolm gained further invaluable experience in data entry work with a stated accuracy of 99.7%.

When Dr. Julie Summers of GrantSearch approached TeleTask for a web researcher with a tertiary or scientific background and data entry experience. It was hardly surprising that Malcolm's name came at the top of the list and the job is now well under way.

In Malcolm's own words "having a job means I and others perceive me in a more positive light. We look beyond my disability and see a worker. Somebody who can pay taxes and make a financial contribution to his family and community. In truth, whether we like it or not, in our society, we are mainly judged and valued on an economic basis. Our worth and self image are in accord with this. I sign myself Malcolm Murray - Teleworker, and it feels just great".

Karen Donaldson

It's important for most organisations to get media exposure. But it is also important for some of those organisations to know what kind and how much exposure they are getting. This kind of media analysis has become a significant business. In March this year TeleTask was given the task, as a sub-contractor to a media analysis firm, of extracting print media exposure for programming content of the ABC TV. The original print material had already been extracted and copied by the main contractor. TeleTask's role was to find a suitable person to read the content, decide on its validity, column centimetre size, author etc and enter this onto a pre-prepared database.

⁸ Olympic Transport ActionPlan for Business - ORTA 1999

While the main contractor obviously had considerable experience in media analysis, this experience did not flow through to their database development or general systems ability. Unfortunately, the database code being protected meant TeleTask was forced to work with a large and cumbersome data file containing countless empty fields intended for other projects. This had serious implications in terms of data transfer to the teleworker and the provision of training and support. Payment was based on an expected throughput of 60 cases per hour, a target which though achievable was not helped by the poorly designed templates.

Other considerations included physical transport and security of source material which normally comprised of up to 700 pages of photocopied clippings.

TeleTask eventually trialed three operators before settling on Karen who lives 30 kilometres from Boggabri, approximately 600 kilometres north west of Sydney. When she joined TeleTask, Karen hoped for some secretarial work but she was prepared to try her hand at anything. As mentioned payment was based on a throughput of 60 cases per hour and while this was achievable, it obviously takes some time to work up to this level. Although Karen initially lacked confidence, she was prepared to stick with it.

Of all the issues involved in successfully performing this job, Karen's role proved the least troublesome. She quickly achieved throughput targets and provided a quality and timely product. TeleTask encountered significant data transfer problems, entirely due to the lack of technical ability on the client's side. Data was transferred as email attachments, FTP access and even a hyperlink from a web page set up specifically for the client's use. All with no success and resulting in data finally being transferred on floppy disk by snail mail.

Despite the technical difficulties, the final success in this project has allowed TeleTask to now approach a much larger media analysis organisation and discussions are looking very promising for future work.

Internet access is a pre-requisite for all TeleTask workers. The internet is used not only as a means of general communications and data transfer but also to provide training information and support through email and the use of the remote access features of products such as NetMeeting.

Emma Pitt

In April this year, TeleTask was approached by the successful public relations firm Sefton & Associates. Their business was growing so fast they had encountered an urgent need for a special person to work on a project involving one of Australia's major corporations.

The corporate client has a major presence in regional Australia and had the need to conduct market research on customer satisfaction levels. This involved the organisation of a number of public meetings or "roadshows" throughout NSW.

TeleTask submitted three suitable people for Sefton's to consider and they eventually settled on Emma who lives on a property on the outskirts of Guyra in northern NSW.

The role was defined as "hunting and gathering" meaning Emma had to get into a town community, using just the telephone, identify the key people in that community, contact them and convince them to attend the roadshow. The job required excellent communications skills, perseverance and a persuasive personality.

The following is an email from the Sefton's Project Coordinator:

Dear Andrew

I am so pleased with the work Emma and I have been doing - it is such a relief to work with a committed, capable and delightful person. I was almost at my wit's end - until Emma was introduced to Sefton & Associates by you.

Following her success with this project we wanted to consider Emma for a job as a Virtual Assistant for a U.S. businessman with interests in Australia. The role required Emma to have access to Telstra EasyCall functions for diversion and voice mail purposes. Unfortunately, these basic services are not yet available through her older local exchange. Telstra are constantly upgrading all exchanges and these services should be available to Emma sometime in the next eighteen months.

It is interesting that Sefton & Associates are also an excellent example of successful rural teleworking. While the company maintains a Sydney office, company principal Robbie Sefton, lives out of Coonabarabran in NSW while her Project Coordinator on this job lives in rural Western Australia.

Chris Weber

The Macleay Gorges Wilderness in northern New South Wales is listed as a World Heritage Area. This magnificent area of almost 100,000 hectares contains wild rivers, gorges, magnificent mountain scenery and, of course wildlife. Bordering the south eastern escarpment of the wilderness is the grazing property "Glendower" which is run by Chris Weber and his wife Jane.

Like so many farmers today Chris relies on off-farm income to supplement the low returns that his grazing property can provide. Chris has always had an active interest in technology having previously worked as a programmer for the Beef CRC near Kingstown NSW, before taking over the family farm.

The property is on a winding, dirt mountain road, 35 kilometres from town and as most rural people know communications along that distance of copper twister pair is less than ideal. Despite his relative isolation, this year Chris has been able to complete the development of two database applications for the National Parks & Wildlife Service's office in Muswellbrook.

As in most farm homesteads, "Glendower" has an office which Chris has equipped with a fax, desktop PC and modem. He also uses a laptop for on-site work. The NP&WS applications involved the development of a turnkey application for their vegetation and park neighbours registers. This required a significant amount of client contact and although the internet communications weren't ideal, Chris was able to use NetMeeting through the TeleTask ILS server. This allowed a live linkup between Chris, the TeleTask office in Armidale, the project coordinator in Coolah and the client in Muswellbrook. In order to maximise bandwidth for program collaboration we used a direct telephone link for voice traffic. This four-way data and voice link for a one-hour connection cost in the vicinity of \$38 all up.

The project was completed on time, within budget and is now in operation in a number of sites.

Chris is currently working on the development of a member's database for the national Merino Breeders Society who are based in Sydney. Most of the training and support is again provided using remote access and collaboration through the TeleTask NetMeeting ILS server.

While slow modem speeds and line dropouts are an issue for Chris, most programmers will admit that to do your best work you need to get away from all distractions. In that concern at least, Chris has a great natural advantage.

The Walcha Telecottage

The small country town of Walcha is situated 90kms north east of Tamworth in northern NSW. Walcha has a shire population of 3,208 people with approximately 1,800 living in the town. As with many small towns, services are limited and business is in decline with bank closures and the negative impact of many years of downturn in the main primary industries of grazing and timber.

The Walcha Telecottage, Australia's first telecentre, opened in 1992 with seed funding from the Department of Primary Industries and Energy (Rural Access Program) and some cash assistance from Telstra. Further funding was obtained under the DPIE Rural Communities Access Program - Telecentres Program.

The term telecentre is often confused with *call centres* and *telemarketing*. In Australia, telecentres are usually small community owned multi purpose centres that provide access to and training in the use of computers and technology. The range of services provided by telecentres can include Internet ISP or POP services, training facilities including TAFE or ACE, government information and access services, community newspapers and community development services such as tourism development. There are now approximately 120 telecentres operating in Australia with Western Australia, by virtue of strong on-going State Government support, leading the way in overall numbers.

From the beginning The Walcha Telecottage intended to replicate the existing European telecottage model and commenced a campaign to attract data entry work from Sydney and Melbourne. Progress was initially slow however jobs were eventually found and successfully completed.

In 1995, the Telecottage was invited to quote for the data entry of the National Church Life Survey. This quadrennial event involves a detailed survey of over 350,000 Protestant churchgoers in Australia. The client greeted the initial quote with considerable scepticism, as it was too cheap. After explaining the very low overheads of the organisation and the efficiencies associated with rural teleworking the quotation was accepted.

The actual work commenced in October 1996 and employed, to various degrees, 34 people for up to 5 months. The majority of people worked from home picking up boxes of forms and returning data on floppy disks. By the agreement, they had to verify 15% of all the data and maintain a minimum standard of 98% accuracy. Furthermore, they had to guarantee a peak delivery of 50,000 cases per week. In the wash up they completed the job on time, at the price and with an accuracy rate of 99% plus.

Through these and many other efforts, Walcha was also the first community telecentre to achieve financial viability.

However today the Walcha Telecottage employs only four part time staff and although small repeat work continues to come in from the NCLS, including a recent survey entirely in Chinese, all of this work is handled by internal staff.

And yet the Walcha Telecottage remains viable and even profitable. It produces a weekly newspaper completely in-house, provides secretarial services to local clients, provides tourism information and promotion services under contract to the Council, provides Centrelink services and most recently received funding to provide Federal Government Information Services.

Among the reasons for this shift in focus is that low-level data entry work is extremely competitive not only from Australia but India, Philippines even Russia. A project such as the NCLS job requires significant management input and incurs substantial costs through the negotiation process, database and template design, operator training, administration and overall coordination. While the employment outcome for the individuals in the community is very important, it is a major commitment for a small organisation for a very small return.

Telecentres

Largely the "traditional" role of a telecottage as they were first conceived in Europe in the 80's has been superseded by the introduction of widespread computer use and Internet access in the home. This is not to say that telecentres no longer have a valid role, however, it does again raise the question of viability.

Over the last eight years, approximately 130 telecentres have been established around Australia. Unfortunately very few have been able to sustain financial viability without some form of on-going government support. While the Western Australian telecentres are prolific and provide vitally important services to their communities, how many of them would survive without the substantial level of State Government support they have received since their inception?

Although there are some exceptions, the experience of telecentres in the eastern states shows that very few manage to continue with much more than a minimal, voluntary level of service after their funding ran out.

However, there is a business opportunity available today that could offer Australian telecentres a viable core around which all of their other services can revolve.

Virtual Call Centres - A Viability Solution for Telecentres

Employment in call centres and in customer service centres is growing at an enormous rate. Current estimates are that 60,000 people are employed in Australia's call centre industry. This is growing at 20%⁹ per annum and can be expected to reach 250,000 by 2007.

⁹ Call Centre Research June 99

Traditionally these centres have been based in major cities and more recently in regional centres. Call centres and virtual call centres require infrastructure which, by and large, is already in place. The trend is towards large centralised, highly managed centres. However, it can be argued that bigger is not always better and that small rural call centres can provide comparable service at competitive costs and deliver enormous social benefits.

The Concept

The concept is based around the following components:

- a community centre such as a telecentre which provides a training and support facility.
- customer service agents based in and around a township
- the existing intelligent telephone network using off the shelf solutions such as Telstra's Spectrum combined with sympathetic call zone link charges.

The basic concept is very similar to traditional call centre operation. In the virtual centre the "switch" can either be the existing intelligent network based around the 1300/1800 incoming call system then piped to an Interactive Voice Response (IVR) and Automated Call Distribution (ACD) then onto the agent. In this scenario however the IVR or ACD may be based in a rural telecentre with the agents working within local PSTN call distance in their own home offices. For more sophisticated services the switch may comprise a Telstra Spectrum service which can currently service home agents within a 5km range of the Spectrum enabled exchange with a future option allowing a transfer to PSTN to more remote agents.

Supervisory monitoring and support can be provided through the data features of the Spectrum system or where the data requirements are less sophisticated they can be located on an intranet server based at the telecentre. The Intranet option allows the supervisor to also operate from a remote location either within the local network or any other location with Internet access. Utilising remote access services through dedicated ILS servers would allow for low cost head-office supervision, monitoring and one-on-one support.

The Benefits

- Dynamic staffing – remote agents are not required to travel to and from a fixed location. Therefore during periods of peak demand additional agents can be brought on-line in minimal time. Staff can also be multi-trained to handle more than one client portfolio. By managing the portfolio distribution we further improve the systems ability to handle individual client peaks.
- Minimal infrastructure costs – many telecentres are already in place and fully equipped. This therefore maximises the leverage use of government funding for developmental purposes. Furthermore, each remote agent normally supplies their own office and equipment at their own cost. By utilising the intelligent network there is minimal infrastructure costs.
- Few recurrent costs.
- Highly scalable – new agents or new telecentre groups can be brought on-line with little additional infrastructure costs.
- Intranet/Internet platform – being already internet/intranet based allows for seamless introduction of new services including *VoIP* or *Click and Speak* services.
- Minimal travel costs or time loss for agents.

Management

Call centre management has evolved into an entirely new area of speciality and is arguably as important as the actual service delivery. Conventional theory is based on a need for¹⁰ ;

- High volume operation

¹⁰ Peter Walker – Telstra , Principles of Call Centre Management Presentation Nov 1998

- Quality Assurance with “minute by minute” focus on all aspects of delivery
- Very high attention to detail, with constant assessment of process variations and distributions.

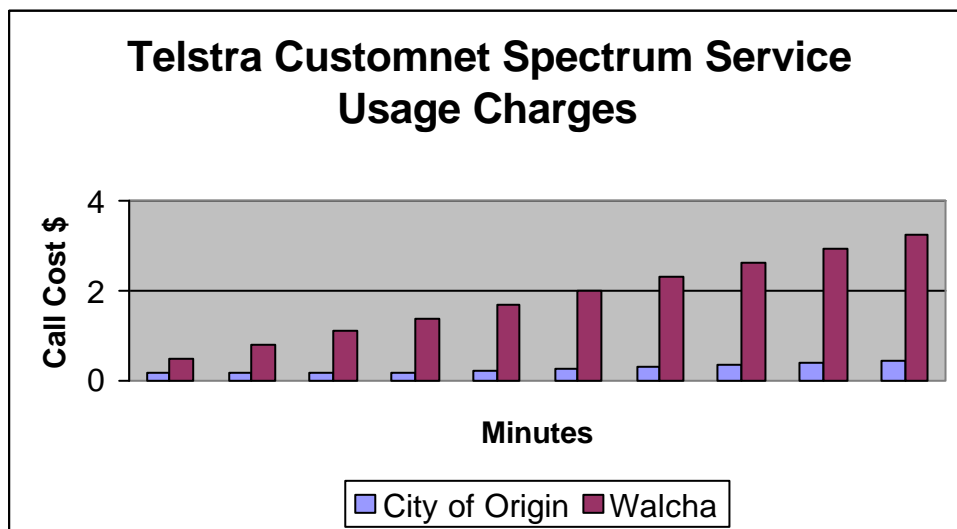
In these examples, there is a clear emphasis on BIG and “instant” or “constant”. These factors may be vital in some circumstances, particularly in very large operations. However there is a large demand for smaller services involving 10 agent seats or less. For these, a high quality of customer service can be delivered without the need for very expensive and intensive monitoring systems. By utilising the technical and operational flexibility offered today, you can have an operation which can function for a fraction of the per seat cost in a conventional centre.

Recruitment, training and motivational issues are slightly different to those in a conventional call centre but do not present insurmountable obstacles. Obviously a smaller community provides a smaller worker pool to draw from. However, this argument suggests a build up of a network of communities and thus the resource can become very substantial.

While isolation is often stated as an operational obstacle to virtual call centres. Very little study has been done on rural people. It is reasonable to conclude that rural people are already well adjusted to living and working in isolation. The reality is that telework offers rural people an opportunity to interact, albeit virtually and thereby alleviate some of their sense of isolation.

Long distance call costs remain an issue, however Telstra is at least prepared to discuss linked call zones for charging purposes. Call zone linking allows people in Longreach for example to be treated for charging purposes, as if they were in Brisbane. Without linked call zones regional centres suffer a distinct disadvantage when competing against city based operators where call origin is also city based. This is despite the fact that the actual connection costs are probably identical. Unfortunately special zone linking arrangements are usually only offered to high volume accounts and this again benefits the large-scale call centre operators.

The table below shows call cost comparison for up to ten minutes of call charges to a Sydney based call centre against a rural based, in this example Walcha. Where the call originates in Sydney.



Potential Social Outcomes

There are a number of social issues which could be positively impacted by the successful use of remote teleworkers. These include;

- impact of isolation on rural women,
- youth migration for career purposes,
- employment scope for the spouses of professionals, doctors etc.,
- development of off farm income.

Women in regional Australia are isolated by geography and socio-economic influences. Particularly women on rural properties, the spouses of farm workers and women in small rural communities.

In the example of the Walcha NCLS data entry project, the impact of a number of people bringing home even small amounts of income, in the period leading up to Christmas 1996, had a major morale boost effect for the entire town. In addition, many women reported that for the first time in their lives they had an improved sense of self-worth and confidence. Many of these people have since gone on to find permanent work, using their experience as a vital reference.

The issue of youth migration for educational and employment purposes is best summarised by a comment made by a lady from the small Queensland town of Monto. She said "We don't have an unemployment problem, we just export all of our youth".

Technology offers an opportunity for young people to access training and direct employment as teleworkers in a wide variety of fields. It also offers the opportunity for young people to return to the country after gaining qualification or experience in the city. For these people, employers are now more willing to offer teleworking alternatives rather than lose a valuable employee.

The rural doctors shortage has many fundamental causes among which are the lack of employment opportunities for spouses. This problem is also recognised by regional universities, as a barrier to the recruitment of academic staff.

Conclusion

Global competitors particularly from the old USSR, India, China and even South Africa are very active in the provision of services that can be delivered electronically. There has been a question as to whether Russians, for example, are perceived by Australian employers to be highly skilled and well educated while regional Australians may be perceived as being a little too slow. Therefore, TeleTask is conducting an on-line survey of the attitudes of Sydney based business executives. The survey sample was extracted from the Business Sydney Executives on Disk database.

The preliminary results show that only 26% had very positive attitudes to telework with a further 37% positively inclined. While 47% of respondents wanted the assurance of personal face to face contact with a service provider. All respondents had positive attitudes to the use of technology, such as video conferencing for problem solving.

The question on confidence in the performance of outsourced work being performed within their own metropolitan area, 53% of respondents were very confident with another 21% confident. Using workers based in other metropolitan areas shows 21% very confident and 42% confident. Attitudes to using overseas workers reflect 26% very confident with 16% confident. However, when it comes to using regional workers only 16% were very confident with 26% confident thus confirming our fears.

These results are only preliminary, as the survey is ongoing. However, they may largely explain the difficulties regional teleworkers and telecentres have encountered in finding work. For too long Mick's Whips, has been touted as the regional e-commerce success story. If we are to develop with the future that technology offers then regional Australians can no longer afford to carry a Crocodile Dundee image. The stereotype of the slow talking, slow thinking and slow working bushy, must be shed for the reality of smart people living a smart lifestyle.

These case studies clearly demonstrate that e-commerce can be made to work for us and that outsourcing work, even to remote locations, can be very successful. The use of technology has the potential to develop substantial employment in regional Australia. The barriers are rarely technological they are usually attitudinal.