

## From Aardvark to Xylophone to bandwidth from telephone:

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***Abstract:***

*The benefits and implications of online information delivery are now beginning to be understood. Libraries Online and Rural Libraries Online have since 1998 been developing Internet access in Victorian public libraries. Funded by State (Multimedia Victoria) and Australian Federal (Networking The Nation), these projects have provided a whole of Library approach to e-services which includes provision of bandwidth, infrastructure, ICT skills and content. The specific projects such as Satellite delivery of bandwidth, Rural POP's, Victoria's Virtual Library ([www.libraries.vic.gov.au](http://www.libraries.vic.gov.au)), and the Gulliver consortium are discussed, as is the experience of working with 44 partners with very different needs and capacities and the associated ongoing issues.*

# Introduction

As the presence and influence of the world wide web became more pervasive during the late 1990s, it became clear that at least two organised groups had issues that threatened to become pressing. First public libraries were realising that here was a whole new “thing” that library users wanted to be able to access. Secondly western democratic governments were realising that from their point of view here was a whole new “thing” that could either become a force for exclusion or inclusion of citizens, and that might save money in terms of dealing with citizens. Eventually the obvious happened, and the two groups (who after all were no stranger to each other, public libraries being an arm of government) realised that the other was the solution to their problem. It seemed a funding and service delivery match made in digital heaven.

This paper explores the many facets and impacts of this relationship that, on the surface, is as far apart as Aardvark is from Xylophone are in the dictionary yet in reality are bound to each other.

## International ICT developments

In the last four or five years, a number of governments have turned to the public library network as a means of providing public access to the Internet, public access to online information resources and increasing the general availability of ICT skills among public library staff and patrons. The UK has been a leader in this field.

### People's Network

This UK-based project describes itself as: ‘part of a commitment to delivering the benefits of lifelong learning to every citizen in the country, the Government has resolved to use the new Information and Communication Technologies (ICT) to deliver those benefits as quickly, as widely and as cost-effectively as possible.

Public libraries, of which there are over 4,000, located in every community in the UK, have been placed at the centre of this commitment. As UK Secretary of State Chris Smith says, "they are our street-corner universities" and, thus, the ideal place give access to these new learning resources. The People's Network project aims to connect all public libraries to the Information Superhighway by the end of 2002.’ (The Library and Information Commission, 1997)

By October 2001, this project reported that 65.8% of libraries have been connected and 14.45% have 2Mbps connection.

It should also be noted that the Peoples Network had remarkably similar aims to those of the Libraries Online and Rural Libraries Online projects – connectivity, staff training and content provision:

- £20M to allocate to the TRAINING of all library staff in the use of ICT
- £50M for CONTENT CREATION for which public libraries can bid
- £200M to create the LIFELONG LEARNING CENTRES and GRIDS

## **New Library**

This is an initiative based on two reports from the then Library and Information Commission (now retitled Library and Information Resources): the first **New Library Network**, and the second **Building the New Library Network**, (The Library and Information Commission, 1998) which provided the UK government's vision of the future contribution public libraries could make to the management of information and wide access. Consultation with the profession has resulted in an agreed practical framework for the implementation of that vision.

There are a number of other UK based ICT projects such as the University for Industry, which have an element of involvement by public libraries, but the Peoples Network is very similar to the approach of Libraries Online and Rural Libraries Online, although much more ambitious in funding and scope.

## **Australian Context**

The online libraries projects in Australia and in particular in Victoria have drawn much on the experience of other western countries, in particular the UK and the United States; the UK in terms of a complete approach targeting skills, content and infrastructure and the US largely in relation to the development of consortia.

### **Federal – Regional Telecommunications (NTN)**

Funded by money from the partial sale of Telstra, the Commonwealth Government established a funding program - **Networking the Nation** (NTN, 1997). This five-year \$250 million Regional Telecommunications Infrastructure Fund, is aimed at helping bridge the gaps in telecommunications services, access and costs between urban and non-urban Australia.

Networking the Nation aims to assist the economic and social development of regional, rural and remote Australia by funding projects which:

- enhance telecommunications infrastructure and services in those areas;
- increase access to, and promote use of, services available through telecommunications networks; and
- reduce disparities in access to such services and facilities.

Although not aimed at public libraries in particular, this money has been utilised successfully by the Rural Libraries Online project. Funding bodies wrestling with issues of access seem to have recognised that the only community network of any significant size and usefulness left in rural Australia is the public library network. Further funding from NTN has been obtained to install and upgrade printers in Rural Victorian public libraries.

## **NOIE**

Another Commonwealth Government agency, the **National Office for the Information Economy (NOIE)** also has some influence on the development of online projects. The Minister for Communications, Information Technology and the Arts, Senator Richard Alston, announced on 11 October 2000 that the Government would expand the functions of the

National Office for the Information Economy (NOIE) and establish it as an Executive Agency within the Communications, Information Technology and the Arts portfolio.

As part of the expanded functions of NOIE, the functions of the former Office for Government Online (OGO) were also incorporated into NOIE in late 2000. Bringing these Offices together provided a coordinated approach to addressing technical, regulatory and social issues affecting government, business and consumers in the take-up of online services and the development of the information economy.

The new Executive Agency will have direct responsibility for the development and coordination of advice to the Government on information economy issues, including:

- the impact of information technology and communications issues on the information economy—including issues relating to technology and industry convergence;
- the regulatory and physical infrastructure needed for online services—including e-commerce;
- the application of new technology to Government administration, information and service provision;
- assistance to business and Government agencies to deliver services online; and
- consistency of the Government's position relating to information economy issues in relevant international forums.

In addition, it will be responsible for the promotion—domestically and internationally—of the benefits of, and Australia's position in, the information economy.

## **State of Victoria – MMV – Connecting Victoria**

**Victoria21** and **Libraries21** were the two key policy statements that drove the development of the Libraries Online program. **Victoria21** had at its heart an aim for widespread take-up of the Internet and considered that it should be “cheap, easy and useful.” (Whitehead & Toohey, 2000) The issues of sustainable funding and professional development seem to reinforce this principle.

### **Library 21**

The Victorian Libraries Policy 1997 aimed to use technology to deliver traditional library services in new and more effective ways through development of:

“...a single, integrated and cooperative library system ... where access to the collections and services of Victoria's libraries will be available at any time of the day and from anywhere in Victoria, or indeed the world” (Libraries 21: Defining and reinventing the library of the 21<sup>st</sup> century, 1998)

The Policy described the concept of an integrated library as increasing connectivity between libraries and providing positive encouragement to strengthen cooperation between library sectors through coordinated program development. It proposed initiatives to improve the availability, quality and usefulness of Internet access through Victorian public libraries:

- expand the electronic network within the public library system and ultimately extend the network to all Victorians
- facilitate state-wide cooperative purchase of access to networked information resources, in order to maximise access and minimise costs to individual institutions
- create a 24 hour library service

- investigate opportunities to transform service provision to the disabled, based on a coordinated main streaming approach to disability services within public libraries
- focus on development of language services and skills in public libraries
- Implement a gateway to provide unified access to existing catalogues of academic, public and government libraries and the SLV.

These initiatives were to be funded through the Library Infrastructure Program, an essential component of Victoria 21: Into the Information Age, the Kennett Government's communications and multimedia policy. The Program's intended outcome was increased access to online information and communications and multimedia computers for the Victorian community, particularly those who are disadvantaged in accessing new technologies. Again government policy makers recognised that, especially in rural communities, the one network remaining in continual community contact was the public library network. This situation is not at all removed from the UK recognition of libraries as the "street corner universities".

### **Libraries Online (LOL)**

One of the underlying themes in Victoria's multimedia initiatives has been that, for there to be widespread take-up of networked information and communications by the Victorian population, the technologies and associated implementations should be affordable, easy to use and useful to the end user. Effective participation in the information society requires both a capacity to use information and communications technology effectively and an information infrastructure that is as transparent to the user as it is efficient to the technician.

As community-based information spaces Victorian libraries were seen as an integral part of a thriving informed community; hence the impetus for public Internet access through all public libraries, which led to the establishment of the Libraries Online projects.

### **LOL Project Background**

Launched in September 1998 with funding of \$2.4M, Libraries Online is an umbrella project for these initiatives. Its objectives were to:

- provide, maintain and meet public demand with a sufficient quantity and quality of publicly accessible Internet workstations in public libraries
- assist public libraries to develop their network infrastructure to best obtain and manage the delivery of high performance Internet access
- develop online content and services to assist Victorian public libraries to take advantage of the opportunities for better service provided by the Internet
- provide and maintain equipment, software and services to ensure that Victorian public libraries meet accessibility guidelines.

The Libraries Online Program was initially divided into eight projects.

- Expanding the Library Network
- Networked Information
- Email for all Victorians
- State wide Library Membership
- The 24 hour Library
- The Microlibrary

- Disability and the Network
- Multilingual Access.

Of the eight original Libraries Infrastructure Program projects, 'Email for all Victorians' has been overtaken by market developments (such as HotMail) with its objectives being met by simply providing more internet access points. The 'Networked Information' project has been renamed Victoria's Virtual Library and now incorporates the three projects related to 'Statewide Library Membership', 'The 24-hour Library' and 'The Microlibrary' as well as being the chief access point for the Gulliver databases (Gulliver is the brand name EBSCO and GALE database products).

As a result, Libraries Online eventually comprised four major projects that incorporated five subprojects:

- Expanding the Library Network
  - Geelong/Corangamite Project
  - 'Last Guys'
  - Workstations
  - Melbourne Infrastructure
- Disability and the Network
- Multilingual Access.
- Victoria's Virtual Library
  - Gulliver

## **LOL Evaluation**

Completed in March 2001 the evaluation of the Libraries Online program set out to evaluate the effectiveness of the 8 Libraries Online projects and:

- issues arising from project implementation and ongoing maintenance of the projects
- the relationship of the Libraries Online project to other state government projects
- the future development and effectiveness of the Libraries Online projects.

Analysis of the projects, their implementation and administration raised some significant issues for the future. These issues are interrelated and should not be considered independently. The key issues can be grouped under three headings:

- project Approach
- funding Responsibility
- getting Value for Money

## **LOL Project Approach**

Libraries Online's 'action research' approach involving pilots and trials was supported and encouraged as it enabled conditions for success to be tested. Oddly enough this is in keeping with the thinking of Andrew Samuels, Professor of Analytical Psychology at the University of Essex, who in his book "Politics on the Couch" offers the idea of an "Institute of Failure" in public life, which would look at what can be learnt from failure (Samuels, 2001). This "action research" approach was viewed as an appropriate role, on the condition that future projects learn from the experience and changes are quickly built into future planning, especially in technology areas.

## **Funding Responsibility**

Long-term funding of Victorian public libraries' online infrastructure (technological, content and skills) rests with local councils and the Department of Infrastructure and some Councils do not have the finances to fund or do not see online services as a priority. This is a major issue and is likely determine the whole future of online services in public libraries in Victoria.

## **Getting Value for Money**

The preferred model is based on efficient targeting of resources with reward for effort/investment/commitment by Library Services within practical constraints (eg. physical conditions, actual demand). This of course leads to harder decisions within budgetary, bureaucratic and political environments. However this can be achieved by involvement of peak bodies, group representatives and end users in planning stages.

Marketing and promotion was also identified as vital to successfully extract the best value from such project funds. To that end funds need to be identified in projects specifically for promotion and awareness campaigns.

## **LOL Evaluation Conclusion**

I & J concluded that the Libraries Online projects had been successful in meeting their objectives and a significant and valuable investment in Victorian library network but a lot more needed to be done regarding infrastructure, skill development, content and partnership to build a complete network. (I & J Management, 2000)

## **Rural Libraries Online (RLOL)**

### **RLOL Project Background**

In October 1998, a joint application for funding was made to Networking the Nation by the Country Public Libraries Group of Victoria Inc. (CPLG) and the State Library of Victoria through VICNET. The objective of this project is:

“To ensure the delivery of on-line information and Internet services and activities to the communities of rural Victoria through developing network connectivity to all branch libraries within rural and regional Victoria. The core aims are to increase connectivity for public access and reduce the ongoing costs to public access providers so that a sustainable public access environment is established.”

In regional and remote areas poor telecommunications infrastructure combined with the high cost of connecting to existing networks has created a situation of great inequity of access to information resources of all types and in particular the Internet.

Victorian Rural Libraries Online seeks to redress this inequality by building a long term sustainable network of infrastructure that:

- is comprised of a flexible mix of technologies
- is built around local availability
- is cost effective, sustainable and expandable
- builds on local initiatives, capacity and relationships
- provides on-line connectivity for every rural, remote and regional branch library and to participating community public access locations.

Victorian Rural Libraries Online aims to deliver the infrastructure to all rural and regional branch libraries in the state to provide:

- online public access to local library resources
- high quality on-line public access to the Internet
- online public access to other local information resources
- online public access to value added networked information resources
- online remote library access to local library resources
- communication potential for remote access to local library resources from the Internet.

The members of the Victorian Rural Libraries Online partnership (CPLG and VICNET) are the core providers of public access Internet and information services, support, training and related activities throughout rural and regional Victoria. The funding application for \$3.47 million was largely successful because NTN recognised that Victorian rural and regional libraries are well placed to reach a substantial proportion of Victoria's community and maximise the availability of on-line public access.

## **Summary**

It can be seen that the key themes running through both the LOL and RLOL projects is the value that libraries provide for public access to online information and services because of the extensive physical network that they offer. This physical network, albeit under funded, has skilled staff, access to a wide range of information resources and service philosophies that resonate with the rhetoric of the "information society" policy agenda. This network is currently the greatest asset and opportunity that public libraries have.

## **Part II: A tour of the Issues**

Both LOL and RLOL had two fundamental underlying themes:

- whatever was done must be 'cheap , easy and useful'
- skills, content and access.

These are very similar to the " Competency, Content and Connection " catchcry of the Peoples Network. The experience of LOL and RLOL points to another underlying principle that is critical to success which is that of Partnership which was much more evident in the Peoples Network programs. The second part of this paper will touch upon some of the issues that arise from the LOL/RLOL projects of which Partnership is common to all.

The Libraries Online and Rural Libraries Online projects are large in scope and as many issues and lessons arise from them as there are letters in the alphabet. These however can be summarised as these following four key headings:

- partnerships
- infrastructure
- social Capital
- continuity and change

## **Partnerships**

The experience of working with 44 different stakeholders, no one of which was at the same stage of technological development, may be likened to being married to 44 different partners.

Some of the relationships develop strongly and others, whilst maybe not in the counselling stage, do require a lot more work and effort to maintain. The growth and development of consortia, the increasing role of ICT as core to public library service and the need to maintain and build the funding base of public libraries has meant the library managers have had to seek and maintain much broader and more complex partnerships.

### **Consortia**

Public libraries, especially rural regional libraries, require access to consortia such as the Gulliver consortium. The immediate need and use of consortia for public libraries is to increase purchasing power. However it would be a mistake to focus upon this solely as many non-commercial benefits can be gained from being part of a consortium such as skill exchange and development, sharing of other resources, and collaborative planning. (Lowe, D & Feighan, D, 1999) As well, strategic opportunities arise more readily for the consortium than they do for the stand-alone library, as the capacity to respond is greater.

### **Collaborative relationships**

Critical to the success of strong collaborative relationships is two-way constructive and consultative communications. This includes the capacity for both the project partners to compromise and reach shared solutions. The relationship between libraries, their peak bodies and their funding bodies is no different.

In the early stages, some libraries communicated in great detail about the projects, and as a result the project in their area became more of a collaborative project. This resulted often in the projects being tailored to their community concerns and interests. Some libraries took up every opportunity to meet and discuss the projects and with VICNET's technical staff, and as a result both parties better understood the technical installations and strategic aims of the other. Reaching this shared understanding is a much slower process for those libraries who choose to be less involved in the broader view of libraries. In some cases better value for money was achieved by pooling funds.

### **Government**

Government has a broad agenda and the experience of the LOL /RLOL projects indicate that libraries need to be more flexible in their thinking and response to government policy initiatives. Governments across the world are building more and more policy around ICT and they see public libraries as one of the keys to the successful implementation of that policy largely because they provide the opportunity and place to connect communities. Government does not see libraries as exclusive from the community environment that they exist within.

As well, both sets of funding for RLOL/LOL, nearly \$6 million have come out of non-traditional library funding areas and this is increasingly likely to be the situation. Libraries that have good relationships with both their local and state government representatives are achieving much more than those that are removed from these representatives who are their "voices in the smoke filled rooms" i.e. funding and policy decision-makers.

### **Funding**

Funding for Internet access is clearly one of the biggest issues that public libraries in Victoria face. Information technology and telecommunications, particularly in relation to the Internet, are becoming central to library operations. However, this has imposed new ongoing costs on libraries without, in most cases, any substantial increases in funding levels. The consequence is that other aspects of library operations are currently paying for the technology.

The library industry generally seems reluctant to promote both this new hi-tech identity and the important role that libraries can and do play in the information society. In some quarters there is a tendency to complain to funding bodies about the burden of this new role rather than embrace it. Government money will no longer flow to the library sector because public libraries are an inherent and obvious good. Where possible libraries need to match their aims and objectives with those of government. This of course means libraries promoting new capacities not their old.

### **Infrastructure**

The RLOL and LOL projects have firmly identified a huge need to build infrastructure through the library network. The biggest issue at the moment however is how to maintain the infrastructure already in place. It is also clear that governments and funding bodies will support the building of capital infrastructure when and where it meets their policy agenda but are reluctant to assume responsibility for recurrent costs.

### **Bandwidth**

Bandwidth, access to it, how to pay for it, how to monitor who is using what and for what purpose has become across the state one of the biggest issues to be identified from the LOL/RLOL projects. Bandwidth has in effect become the new utility. From a budgeting point of view it can be likened to electricity, water, gas and the telephone in that the more you use, the more it costs. Unlike those utilities its usage however is much more difficult to monitor and thus estimate for budgetary purposes. However the novelty of bandwidth as the major issue will wane in that library managers in five years time won't have to "lie awake worrying about their power bills". This will happen sooner if libraries can demonstrate and promote the value of ICT in libraries. How in fact did libraries hand over from candles to electricity?

### **Interoperability**

Public libraries are increasingly becoming interested in interoperability as a means of getting better value not only from catalogue resources but also from online commercial databases that are Z39.50 compliant and web resources that can be targets for cross searching. Evidence from a range of Z39.50 projects, especially the clumps and clusters project in the UK, is that this will take some time to implement effectively and efficiently (Brack, 2000).

### **Telecommunications and traffic routing**

This issue is partly a skills issue but the new infrastructure that is in place in Victorian public libraries means that they have a much more complex data traffic environment to manage. Library technical staff must now have a solid understanding of how telecommunications work and how traffic can be and must be monitored on a daily basis. Getting the "man from Telstra" to plug in the line and connect your branch or library and then forgetting about it is no longer sufficient for IT management practice in public libraries.

### **Buildings**

If we didn't know it already, then the LOL/RLOL projects have exposed the fact that the majority of public library buildings are not designed for online library services. The Victoria's Virtual Library, Gulliver and Ask-a-Question projects, have moved the issue of how libraries integrate online services with traditional services from the theoretical and something that may be happening elsewhere in the world to a live issue for Victorian public libraries to deal with.

## **Social Capital**

The term social capital is being used more and more in and around the public library industry to express the value of library networks and the services provided. For social capital to really exist in the public library network effective partnership and collaboration and a willingness to contribute to the well-being of others, be they government aims or other is critical.

“Social capital” refers to features of social organisation, such as networks, norms, and trust, that facilitate coordination and cooperation for mutual benefit. Social capital enhances the benefits of investment in physical and human capital.” (Putnam, 1993)

## **Professional development and workforce**

A number of recent studies have also identified professional development especially in relation to technology as an issue amongst public library staff. Souter (2000) and Chong (2000) both highlight an aging, immobile workforce, struggling with the impact of and difficulties in implementing and promoting use of new technology, as well as keeping up with ever developing information technologies. This is especially the case in rural Victoria where support from outside the library is almost non-existent.

I & J Management also support those findings and add that library staff have a reluctance to promote resources reliant on technologies that they are not comfortable with (I & J Management, 2000). This is especially the case with online resources such as Gulliver, which is an interesting paradox in that from a reference point of view public libraries in Victoria have never before had such a powerful information source at their fingertips.

## **Information Society**

There is a plethora of government programs promoting the inclusion and involvement of all citizens in the economic and social benefits that are held to result from an increase in ICT skills, knowledge and access. As this relates to public libraries the twin themes of providing a viable network and having a reputation as the “Street Corner University” are the key elements. This opportunity for libraries to build on existing reputations and networks is unlikely to disappear for some time to come unless libraries actively reject components of the information society. This is the danger of placing restrictions on such things as free access to the Internet and email.

## **Investment**

Local government tends to view their public libraries as a cost centre and investment in the library network purely as expenditure. Partly there needs to be a revolution in the thinking about this, but also librarians need to consider all the possibilities that increased marketing and promotional expertise gives them in presenting libraries as a community asset to their funding bodies. Perhaps the balanced scorecard approach would be a relevant tool here as this concept is gaining growing credence. The balanced scorecard takes a range of different criteria rather than just the bottom line in the assessment of a business’s success or otherwise.

## **Community and social engagement**

Libraries make a huge contribution to community stability, viability and cohesiveness. Whether this equates to community and social engagement is a moot point. It is true that public libraries provide both “venue and process for greater community engagement between government and citizen”; however for this to be effective ICT is now a central and critical

ingredient. While libraries may be deemed to be “ nice, safe places “, it is a huge leap to then say that by merely providing a space equates to social engagement.

### **Continuity and Change**

The constant themes in public libraries revolve around skills and knowledge, collections and buildings. It has always been a struggle to maintain the critical mass of budgetary resources to support and develop service delivery. Libraries, as all organisations, are in a constant state of evolution and the tension is played out by the urge to return to “ the quiet days of the catalogue card”.

### **Sustainability**

Sustainability has always been of concern to the library industry, however there has been a tendency to view this purely as a funding issue. Sustainability is a misunderstood concept in that it really is about how libraries organise themselves, both individually and collectively. In that sense it is a structural and decision making issue as well as an evolving reality. An illustration of this is how the Gulliver consortium moved from a pilot to an ongoing service funded by the libraries themselves. It may in fact be more useful for the public library industry to focus on relevance and growth.

### **Accessibility**

Adaptive technologies are necessary to incorporate wider and targeted communities, however they are only part of the accessibility puzzle. Approaching accessibility from a holistic point of view allows libraries to move from service provision to greater community relevance. Accessibility in the broader sense means doing the things that make current library services and collections available to one and all.

### **Expectations and understanding**

The rollout of equipment and resources has raised the expectations of the library network, sometimes beyond what either the project or VICNET can deliver. As well, the expectations of some are very different from others and so on. This can be partly addressed by regular communication; to this end the projects have developed a communications strategy that uses a range of communication tools such as regular forums, regular reporting to different peak bodies and subcommittees. It should be said that those libraries that the projects and VICNET has the best relationships with are those that regularly attend all industry forums, maintain regular contact and are aware of industry and government developments, local national and global.

### **Conclusion**

In conclusion, it must be said that technology is here to stay and is now a core part of libraries’ service and with it all the difficulties and benefits that technology brings. To successfully meet these challenges the key will be partnerships. These partnerships will be more fluid and unexpected than we are used to in the library world, and more and more it will be the technology that enables that collaboration and partnership to be successful.

The solutions to the issues raised in this paper are not quickly resolved; some require money and new resources; some require increased or new skills, and some require new or different thinking. All however require successful partnerships to be developed and maintained and some of those partnership will be as odd as an Aardvark playing a Xylophone!!

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