Our virtual clients: changing to meet the challenge

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Abstract
In 1998/99 the State Library of Victoria conducted a usability evaluation of the Library’s Web site. This paper examines the evaluation process and the consequent recommendations and implementation. Issues to be addressed include:

the evaluation process
the recommendations from the evaluation report
the development and project management of a web strategy
the role of State Library staff in the production of online content
the relationships between our online and onsite users
the re-engineering of the navigational infrastructure
proposals for e-commerce, specialist channels, visitors’ centre, visitor registration and Victorian Certificate of Education targeted material.
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1 Introduction

The State Library of Victoria’s Web presence has evolved over a period of several years. The initial goal of the Web site was to provide information that reflected the physical Library, its services to the clients of 328 Swanston Street, and addressed the needs of those virtual clients whose only access to the Library is via the Web. The development of the site was based on the perceptions of Library staff as to what the client required (and what they were willing to provide), rather than on known expectations of the virtual client. In 1998 the opportunity arose, through funding from the Library’s Multimedia Source Project (a project focused on developing access via the Web to digital content and developing prototypes for multimedia product), to provide the Library with the means to conduct an evaluation of the Web site using outside expertise. Professor Patricia Gillard was contracted to conduct an evaluation of the State Library of Victoria Web site. This evaluation provided the Library with fresh insight into the needs and perceptions of the virtual client, and instigated the development of a Web strategy.

2 History of the State Library Web Site

The State Library of Victoria has had a Web presence since July 1995. Initially on VICNET, the State Library’s Web site was transferred in September 1996 onto its own Web server (www.slv.vic.gov.au) under the management of the Library’s Technology Services Division.

Until February 1997 the development of the content on the Library’s Web site was on an ad hoc basis. The enthusiasm of VICNET and a small band of State Library staff, who were encouraged by the importance of community publishing, fostered the initial Web site. However, the State Library had not at this stage developed a clear idea of its virtual clients or identified the role and purpose of a Web presence. This can probably be said of many organisations during these early stages of World Wide Web publishing.

By mid 1996 the Library began to recognise the important role that the World Wide Web could play in providing access and service delivery to those whom we now identify as the virtual clients. This new perception developed as a result of innovations in OPAC (Online Public Access Catalogue) technology, enabling Web access to the Dynix catalogue. This new technology allowed clients to access over 1 million records in the catalogue and allowed the Library to provide access to digitised material that was only previously available inhouse as Pictoria (a database of images of Victoria). The State Library of Victoria now had a vision for the Web site, driven by the perceived needs of clients.
Providing access to the catalogue was, and still is, a main function of the Library’s Web site. But it was also recognised that our clients had a much broader view of the Library beyond simply being a repository of the physical collection. It was important therefore for the Library’s Web presence to reflect and provide a holistic view of the Library’s role and function as a Victorian cultural institution. To achieve this goal, the Library appointed a Web Coordinator in February 1997, to coordinate the Web site and foster distributed content development throughout the organisation.

In December 1997 the management of content and Web technology developments was transferred to Experimedia, the newly formed multimedia unit. The creation of this unit acknowledged a distinction between the technical aspects of Web server administration (managed by the information technology area) and Web content development. It was recognised that a unit responsible for new media development with a focus on the client was essential to keep up with changing Web technology and drive the Library forward in electronic service delivery. This unit was established to provide a cross organisation coordination role and works closely with other Library divisions to shape content for both virtual clients and clients located within 328 Swanston Street.

The State Library’s multimedia unit, Experimedia, evolved out of the Multimedia Source Project. The project was supported by Multimedia Victoria (a Victorian state government department), which granted the State Library the funding to digitise Pictoria for access via the Web site. As a conclusion to the project an evaluation of the Web site was proposed, and the State Library embraced this as an opportunity to identify the gap between the perceived needs and the real needs of our virtual clients.

### 3 The evaluation process

The Gillard Report was commissioned in 1998 as part of the Multimedia Source Project to look at use and useability of the Web site and the Multimedia catalogue. The specific purpose of the research was: “...to evaluate the Web site of the State Library of Victoria especially the Pictoria/Multimedia sections. The Web site was itself part of the extensive digitisation program, and reflected the priorities of the Victorian Government that cultural institutions should be leaders in the application of multimedia and the development of online audiences and product”. From the point of view of the State Library, the evaluation process aimed to discover the following:

- who are the clients?
- is the State Library addressing clients’ needs and in fact did the Library know what the clients’ needs were?
- how does the Web site market the Library, and what impression does it give virtual clients?
- is the Web site achieving the Library’s goals?
The evaluation of the State Library of Victoria’s Web site was conducted during May to August 1998. A combination of methods, drawing on social science, cultural theory and useability research, was considered appropriate because of the breadth of the Library’s activities and the variety of client groups it serves. Four stages of research included:
1. an online survey,
2. useability testing,
3. Quester scenarios and,
4. a sociocultural analysis.

3.1 Online survey
An online survey of clients was designed to obtain information about characteristics of visitors (a visitor profile) to the Web site, their major interests and any problems that they experienced. The survey was available via the State Library of Victoria’s home page during the months of June and July and attracted 127 responses. It was recognised that the respondents were not representative of all clients who use the State Library Web site, but provided a useful picture of the patterns of use for a proportion of clients. Gillard suggested, “…strong findings for this group are likely to be found for many other users.”

3.1.1 Visitor Profile
The visitor profile, defined in the online survey, looked at visitors’ demographics, purpose of visit and interests. The information was then compared with data gathered both from the Library’s Web site statistics and market research of visitors to the State Library. The visitor profile supported much of what we already believed we knew of the Library’s online clients. Primarily the site is a source of information for the Victorian and Australian public, some of whom were planning to visit the Library. A large number of clients were students or those doing research using the Library’s special collections such as genealogy resources and newspapers. As expected, access to the Library’s book catalogue and Multimedia Catalogue (image database) were considered key resources on the Web site.

Clients indicated some problems when accessing the web site including:
• difficulty accessing and using the catalogue
• confusing instructions
• concerns with page structure such as fonts and identifying hyperlinks
• some problems with language and terminology
• desire for key specialist areas to be linked from the home page

Age: There was a wide spread of ages (14 – 76), with the average age 40 years, but the standard deviation of 18 demonstrated an evenly spread distribution across a broad age range.
Location: 92% of visitors were from Australia, 8% from overseas. Of Australian visitors, 75% lived in Victoria, 11% in New South Wales, other states less than 1%. The distribution between Australian and overseas visitors is also reflected in the Library’s Web statistics.

Purpose of online visit: 60% of clients were looking for information, 28% were browsing and a smaller number (12%) were preparing for a visit to the Library. This is important because it establishes a link between an online client becoming a visitor to 328 Swanston Street. 6% of online visitors were working inside the State Library at the time; this is because the State Library uses the Web site as an in-house public interface. A quarter of the visitors (24%) said they were students. This is supported by the State Library’s market research, which indicates that up to 55% of Library clients are students, both secondary and tertiary.

Interests: People interested in genealogy and family history made up a third of respondents. 70% of these people were satisfied with what they found on the State Library Web site. A similar number of visitors came with very specific topics or interests, however only 63% were satisfied with their findings. Those seeking images made up 14% of visitors, of which 71% of requests were satisfied; much of their needs obviously met by the 160,000 digitised images in the Multimedia Catalogue. However, of the 11% doing historical research only 55% indicated they were helped.

These results show that in areas where the Library’s Web site content has been developed, such the genealogy and newspaper sites and the Multimedia Catalogue, visitors’ expectations are being met. But for the Library, with its broad content, it raises the problem of how to satisfy the information needs of such a wide range of clients.

Pages visited and major uses: Visitors were asked to indicate what pages they visited and rate their ‘usefulness’, and indicate pages they would bookmark or return to. Predictably the page ‘Search the collection’ was most frequently visited (69%), with 40% to 50% visiting the Multimedia Catalogue. Other pages nominated by a fifth or more of visitors included opening hours, information guides, newspapers, Australiana collections and genealogy. Most people who nominated a page also found it useful, the exception being the ‘Search the collection’ page where a fifth of those who had visited (21%) said it was not useful. This statistic indicated to the Library that one of our key areas on the Web site needed to be seriously re-evaluated to ensure clients had a more user friendly interface to a key resource.

3.1.2 Web Site Statistics
While the survey could not necessarily be considered representative, a comparison with the statistics on usage of pages in the Web site offered the opportunity to expand the understanding of Web site use. During May 1998, the home page was downloaded 11,066 times. This does not account for all visitors to the Web site because people may have bookmarked other pages as entry points. The results of the online survey show approximately two thirds of repeat visitors bookmark a page other than the home page.
May 1998 Web site statistics supported the most frequently used pages as indicated in the online survey.\textsuperscript{x} When analysing statistics it was ascertained that listing a resource on the State Library home page promoted the number of visits to that area of the site. This has implications for both navigation and marketing in future design.

3.2 Use and Useability

Based on comparable Web sites as a benchmark, the State Library’s Web site was examined allowing for different users and useability.

Different clients included:
- children
- the elderly
- the disabled
- the visually impaired
- non-English speaking
- those with learning difficulties.

Useability included:
- branding
- interface design
- download rate
- language and terminology
- feedback mechanisms

Gillard indicated that the State Library Web site was considerably better than many others however, it was still an immature site and needed to tailor its interface and content to a myriad of clients. Gillard described it as, ‘…‘jumping in’ and getting experience, learning by mistakes and continuing to develop a better website.”\textsuperscript{31i}

3.2.1 Useability

Some points to note were:
- there is no special provision for different users: the apparent assumption is that the client is a normally abled adult with at least secondary level education
- design issues were raised, especially regarding font size, the use of buttons or icons to create a more intuitive and visually interesting site
- the opportunity exists to cater to the needs of non-English speakers.

3.3 Quester Scenarios

“A quester is an individual who takes their own pathway or creates their own narrative. In this activity, the customer also becomes a producer; of relationships, of networks, of new products such as hypertext stories.”\textsuperscript{31i}
Quester scenarios were tested by moving through the Web site in the role of a particular user and seeing what could be accessed effectively, and what problems a particular user might encounter.

Definitions of possible Quester scenarios were formed from interviews with reference librarians about the major user groups within the State Library. The scenarios were:

**Quester scenario 1**
A quester with no knowledge of research techniques wants to know what ship his ancestor arrived on, when, and what it looked like.

**Quester scenario 2**
Academic researching for information about agricultural machinery in Victoria before 1939.

**Quester scenario 3**
Year 12 VCE student group researching information for their CAT on Point Lonsdale.

**Quester scenario 4**
Casual visitor looking for anything of interest.

The Quester scenarios identified the difficulties encountered by many clients unfamiliar with the Library and online information resources. Highlighted were issues such as:

- lack of familiarity with research techniques
- difficulties with terminology used on the Web site
- clients’ expectations of full text documents being available
- technical problems relating to the Web catalogue.

In many cases the Quester scenarios ended with the quester deciding to “ring the Library in the morning”. The Library identified the need to provide online guides that will help users navigate, research, interpret content and understand the nature and scope of online resources. It also highlighted the importance of providing access to online research services.

### 3.4 Sociocultural analysis

Sociocultural analysis of the structure and content of the Web site was undertaken by Professor Cranny-Frances, to reveal the values communicated to visitors about the State Library of Victoria and suggest improvements to the relationships established through its pages. The analysis explored many aspects of the Web site, the obvious and the implicit meanings of design layout and what the placement of elements of a design might mean as well as how they look. Much of this analysis found that the Web site reflected the traditional role of the Library, while still championing the new ‘multimedia online’ Library. An unintentional balance had been struck through the design of the Web site between the old and the new Library, the Library as a traditional cultural entity versus a progressive virtual entity. Professor Cranny-Frances stated:
…the SLV Home Page works in several different ways for users. Overall, its subject is the SLV on-line which it constructs as a site of information and authority, a space for research and creative engagement, a global player with a local presence. The SLV web site is also constructed as linked to the Library of the past, with its accrued intellectual, social and cultural capital. This rich text allows for a variety of user approaches, from the most conservative or traditional to the most multimedia literate.

4 Recommendations from the Web site evaluation

Professor Gillard’s evaluation of the State Library Web site concluded that people use Web sites in very different ways and arrive with a variety of expectations and assumptions. The Gillard Report highlighted the need for the Library to articulate the purpose of the site, and to target its intended audience more strongly. Problems identified by the report could most generally be attributed to a lack of policy regarding appropriate content for a hypertext medium, and an underlying paradigm which views the Web site solely as a publishing forum for State Library content. Insufficient attention was being paid to useability issues. At a more specific level, the report made recommendations for the future operations of the site, focusing on streamlining access and developing our relationship with visitors.

The following is a summary of recommendations by Gillard:

- Visitors’ centre
  The addition of a simple ‘visitors’ centre’ graphic to welcome non-traditional Library clients and provide a single point where all the ‘how to use this Web site’ information could be located. This information could include a tutorial to familiarise clients with the site. The Visitors’ Centre will offer two types of information: Visiting 328 Swanston Street and Getting the most out of your virtual visit.

- Specialist channels
  Specialist channels provide information aimed at identified client groups. These information gateways would assist clients to find information, improve access, and encourage audiences. These could include information gateways aimed at the larger client groups (for example students), as well as a general research channel that will help clients develop basic research strategies.

- VCE / students
  The Library could offer a special tutorial service for VCE students to help them understand using the Library and the Internet. Issues such as research skills, planning, plagiarism, the limits of information and its reliability could be addressed in the context of an actual research task.
• Visitor registration
A visitor registration service is a value added service for frequent State Library Web site clients. Visitor registration offering a unique ID and recording a profile and history of clients’ previous visits would enable the system to offer the user direct return to where they were before, save search results, emailed notification of new Web information, notes, bookmarks and other information.

• Relationships between online and onsite clients
It was recognised that it would be rewarding for clients and for the Library if relationships between online clients and those onsite were thought through in a more strategic fashion. Regular online visitors might like to be on a mailing list and make special visits to meet others with similar interests.

• Audience-Web site development strategy
There is a need for an overall audience development strategy. The Library should identify those user groups it would like to encourage most to use online resources. These could be groups who are at present stretching the accommodation and staffing resources in the Library, or they could be a completely novel group of Library clients. The future of the Library might best be secured by introducing younger groups of clients to the Library, and this could be done through Internet links to schools.

• Navigation Issues
Front Page – It would be useful to subdivide or group items that can be accessed collectively on the front page. This would reduce the amount of information on the page.
Buttons – The use of buttons would eliminate the need to underline every link and allows designers to create a visually interesting site. The buttons would provide a focal point for clients.

5 The State Library’s response to the Gillard Report
5.1 The development and project management of a Web strategy
The Gillard Report highlighted the importance of an audience development strategy to create relevant content and customised Web site information for particular groups. The State Library saw the need to develop more than an audience strategy and took the opportunity to address a number of issues under the banner of a ‘Web Development Strategy’. To facilitate Gillard’s recommendations the Library needed to address content development, accessibility issues, site design, navigation, audience paths, marketing, and the technical re-engineering of the Web site. The rapid development in Web technology provides many more opportunities for the virtual client than originally considered by Gillard’s report.
The Web Development Strategy paper, completed in July 1999, clearly outlines for the first time a coordinated strategy to develop and manage the Web site. The paper includes the formation of a Web Strategic Planning group to address issues such as:

- funding
- cross-cultural organisation issues
- strategic directions of site development
- cross-divisional strategic developments such as digitising, e-commerce and online service delivery.

This group is coordinated by the Director of Collections and Information Management at the State Library of Victoria and includes stakeholders from external cultural agencies and government funding agencies.

The content development and functional issues of the Web site management will be addressed through the coordinated activities of three projects teams:

- Content Management team
- Audience Development team
- Service and Technology team.

The development of the Web site as both a content provider and service delivery point is a Library-wide responsibility. The adoption of an online service point requires the culture of organisation to change to recognise the different types of clients. Staff input into the formation and ongoing development of the site is crucial and relies on organisational commitment. The three teams act on the objectives identified in the Web Development Strategy and advise the Web Strategic Planning group on issues that need to be addressed at a higher management level.
In the process of developing these team structures a SWOT analysis was carried out using data from the Gillard Report, and the State Library’s Marketing Plan as well as consultation with staff. From this analysis a set of more specific Web site goals was identified. These articulate the virtual clients’ current needs and will also embrace future challenges.

The State Library of Victoria through the redevelopment of its Web site aims to:
- improve levels of awareness of current services and collections
- increase online access to the State Library of Victoria’s collections
- develop the Web site as a service delivery channel
- enhance the role of the State Library of Victoria as an active and innovative cultural institution and as a leader in the library and information sector
- build online communities in partnership with other libraries and cultural agencies
- promote the State Library of Victoria’s programs, publications and products
- evaluate and provide access to the world’s online resources.

Each team has specific objectives that address the challenges raised in the Gillard Report as expressed in the Web site goals. Objectives include editorial, metadata and usability standards, an e-commerce solution, improved site design, better informed clients and a framework of solutions for service delivery. Although these standards already exist, the teams articulate them in greater depth and lobby for them to be supported by the organisation.
The teams also take an active role in identifying content requirements on the Web site, based on their objectives. The Library’s web site has relied on specialist areas being responsible for the identification, creation, development and maintenance of web content. While the participation of library specialists is essential, this process has led to the current situation where the Library has not provided a consistent approach to content with a focus on the client. The teams provide a holistic and focus framework for shaping the Web site. Specialist librarians are becoming more and more time-poor, and while distributed content development across the organisation is still important, realistically the employment of a ‘Web writer’ working in collaboration with library staff may be a more cost-beneficial solution.

Evolution of the site means that some issues identified by the Gillard Report can be addressed immediately, while others will require a technical solution and possible re-engineering of the Web site.

Virtual clients will be monitored through a variety of methods to ensure that the Library continues to address their needs. These methods include ongoing online surveys, focus groups and market research. Before any new or significantly changed areas of the Web site go online the Library will also test their usability with a cross section of the client base. This information will be fed back into the Web Development Strategy Teams and the Web Strategic Planning Group, identifying new challenges and opportunities for our virtual clients. Ongoing evaluation can be costly in both time and money but the Library now recognises, through the results of the Gillard Report, the vital role it plays in determining our clients’ needs.

6 Future Opportunities

Government policy at the time of writing this paper has been very strongly focused on providing information and services online. The recent *Global Victoria* Policy encourages access to online information. *Global Victoria* identifies four strategies to position Victoria at the leading edge of the information economy.\(^xv\) They are designed to drive the early emergence of a critical mass of online participants. These strategies are:

- to dramatically increase online usage by developing compelling reasons for participation at a community level
- to encourage rapid experimentation by industry to identify new innovative approaches in the online environment, to spread these lessons to the wider business community and to assist with the commercialisation of this experience
- to deliver benefits to all Victorians by using information technology and communications to improve their experience of the services they use from day to day, and by the best practice of use of technology by government
- to build on Victoria’s active stance in the development of an appropriate national policy and regulatory framework for the information economy, and in the promotion of a competitive telecommunications market. This strategy encourages leadership by government through strong advocacy, and more effective public access arrangements.\(^xvi\)
The Library, as a government agency, is working strongly toward achieving these strategies both as an institution and in cooperation with other Victorian institutions.

The virtual client is an intelligent information seeker and has expectations of the Library’s ability to provide resources beyond the physical collection. The Library seeks not to be proprietary about information but will provide access, through the Web site, to content regardless of the information provider when possible. Virtual clients are now expecting seamless access to information. In response to this, the Library is indexing electronic resources and making them available via the catalogue. The Library is also participating in cooperative programs like the Libraries Online’s Gulliver Project, which will provide the Library’s virtual clients with access to full text resources.

The State Library of Victoria is working with Museum Victoria, the National Gallery of Victoria, the Performing Arts Museum Library and the Public Record Office, along with government agencies, to establish an information portal focused on the virtual client. Arts Victoria has instigated a feasibility study focused on establishing an arts/culture channel. The channel will provide online information to our virtual client regardless of the information provider. These collaborative programs provide solutions to complex issues facing online providers today. For example, the arts/culture channel may choose an e-commerce solution for all the Victorian cultural agencies. This solution could provide the virtual client with a seamless and familiar environment in which to perform online transactions. A collaborative approach alleviates the burden on individual agencies to find solutions to these expensive and complex issues.

*Government Online* also provides an opportunity for the State Library of Victoria to examine how it does business online and presents the chance to improve and develop online services for its virtual clients. This program aims to deliver all Victorian government services online 24 hours a day, 7 days a week by 2001.

## 7 Conclusion

In conclusion, the State Library of Victoria’s Web site started with almost no planning. In 1995 the enthusiasm of some staff within the Library with some idea of their clients needs started the State Library of Victoria on the road to online publishing. In hindsight, the distinction between actual and virtual clients was not articulated and this led to some confusion on the Web site.

In 1998, an evaluation of the Web site and Multimedia Catalogue was carried out. It focused on similarities and differences between actual and virtual clients. As a result, a Web Development Strategy was written to ensure the commitment of staff and the Library to the process of reengineering the Web site, which will accommodate the changes recommended by the Gillard Report, the change in Web technology and client expectations. It was recognised that the Library needs to change its culture to address the two different types of clients; virtual and 328 Swanston Street.
The re-engineering of the State Library of Victoria’s Web site is an ongoing process; some issues can be addressed immediately while others need a significant increase in resource allocation. Opportunities exist for funding and collaborative projects with other cultural organisations in Victoria and it is essential that the Library actively participates in helping shape these projects.

The process of evaluation is not static and the Library is committed to ongoing assessment and re-engineering of the Web site. The Gillard report presented an invaluable opportunity for the Library to finally define and address the needs of the virtual clients. Planning and resources will ensure that in the future the State Library of Victoria will continue to change to meet the challenges posed by our current and future virtual clients.

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1 The Multimedia Source Project was a two year funded project focused on developing access via the Web to digital content and developing prototypes for multimedia product.

ii Professor Patricia Gillard was formerly Head, Department of Communication Studies at RMIT, Director Telecommunications Need Research Group. At the time of the evaluation Professor Gillard was a Director of User Insite, providing consultant services.

iii VICNET started in 1994 and was established with funding from the Victorian Government’s Community Support Fund. VICNET is a unit within the State Library of Victoria focused on community publishing and networking through the Internet. Further information about VICNET can be found on the Web site, www.vicnet.net.au.

iv State Library began providing online access to collection material in 1990, after receiving a grant of $309,000 from the Sidney Myer Fund to create a videodisc consisting of a range of Victorian pictorial materials from the Library’s extensive Picture Collection. This was known as Pictoria and was made available on stand-alone terminals. These 109,000 images were used as the foundation content for the Library’s Multimedia Catalogue. Further information about this project can be found in the article *The Future of Digitising at the State Library of Victoria, Australia*, Ariadne, Issue 9 May 1997 at: www.ariadne.ac.uk/issue9/digitising/intro.html

v The State Library of Victoria has taken the lead in Australia by building a new space for multimedia at 328 Swanston Street in recognition that some of our virtual clients would prefer to explore new media in a Library setting with the help of professionals. Both the Multimedia Unit and the new space are known as Experimedia.


Gillard (1998) p. 9


Gillard (1998) p. 20


*Global Victoria: Victorian government information technology and multimedia policy* Multimedia Victoria (July 1999) p.3

Further information about this project can be found at www.librariesvictoria.vicnet.net.au/gulliver/.