

LIBRARY SERVICES TO SUPPORT E-LEARNING: USER SURVEYS AT THE VICTORIA UNIVERSITY OF TECHNOLOGY

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ABSTRACT

Australian university libraries are developing e-library services to support e-learning.

The Victoria University of Technology conducts an annual Client Satisfaction Survey and has conducted web site surveys during 2001 to assist in the development of its e-library services.

E-learning initiatives at other Australian university libraries have been reviewed to assist in identifying areas for action at Victoria University Library.

The major areas identified for future development by the Library are:

- the provision of seamless and customised links through the installation of a library portal
- the improvement of links between library resources and services and teaching curriculum and resources
- the development of a full e-learning information search skills program

INTRODUCTION AND BACKGROUND

The provision of Library services to support e-learning is an area of growing importance to Australian libraries. Most Australian universities are currently delivering some form of e-learning and some, such as the University of Southern Queensland, are major on-line course providers.

Nearly 14% of Australian university students and 10% of Australian TAFE students study by distance education: a few courses are being offered fully on-line but the main growth has been in mixed mode delivery.¹ Nielsen Net Ratings show that household traffic to Australian university sites grew from 774,000 users in March 2000 to 1,134,100 in March of this year. Web site usage showed that large numbers of students were logging in after 6.30 p.m. to pick up course notes, communicate with lecturers and visit the library.²

Australian libraries are responding to the growth of e-learning by developing their services accordingly. Libraries which had a strong tradition of supporting traditional distance education, such as Deakin University Library, are well placed to provide a range of print and electronic services to support on-line learning to distance students.

A number of university and TAFE libraries, such as the RMIT University Library³, are cooperating with information technology staff to provide Learning Centres or Information Commons, where on-campus e-learning students can access a range of resources and services.

Many Australian libraries are developing statements about their services to support flexible learning or e-learning; electronic services and web sites are forming a major component of these services.

Victoria University of Technology was established in 1990 and has thirteen campuses in Melbourne, a centre in Echuca in northern Victoria and international centres. It combines higher education and technical and further education (TAFE). The University has approximately 47,000 enrolled students (head count) and 1,800 equivalent full time staff.

Victoria University currently makes considerable use of flexible delivery in its TAFE Division and increasing use of flexible learning, particularly on-line, in Higher Education. The University is currently developing a policy on its approach to flexible learning, including e-learning, and the Library is planning its services accordingly.

In common with other libraries, the Victoria University of Technology Library has developed a range of electronic (e) services which are accessible remotely through the Library's World Wide Web page and have the potential to support online electronic (e) learning. These services include

- the On-line Public Access Catalogue (OPAC);
- electronic full text serials;
- indexing and abstracting services;
- loan renewals and reservations or "holds";
- subject guides to world wide web resources;
- an email enquiry service;
- a web search tutorial;
- forms for recommending orders, obtaining materials on inter-library and inter-campus loan and placing materials on reserve and
- information about the campus libraries' services, collections, liaison staff and hours of opening.

The Library is carrying out surveys to ascertain the effectiveness of its electronic services and to identify new areas of development. These include the Library's annual client satisfaction survey, a new client web site survey and a library staff web site survey.

A review is also being carried out of electronic service developments in other libraries which have the potential to support e-learning.

CLIENT SATISFACTION SURVEY

The Victoria University of Technology Library conducts an annual Client Satisfaction Survey which indicates that there has been a substantial increase in the use of its remote on-line services over the last few years. Overall, the remote usage has increased from 56% of respondents indicating that they have used the service in 1998, to 67% in 1999 and 71% in 2000. The University of Technology, Sydney reported similar growing student support for using materials on-line in its 1999 Student Satisfaction Survey.⁴

The rates at which the use of the various remote services have increased is shown in the following table. The most substantial increase has been in use to consult electronic journals (18% in 1998, 20% in 1999, 35% in 2000). Database searching has also increased (34% in 1998, 39% in 1999, 43% in 2000) as has electronic document delivery (90% in 1998 and 1999; 12% in 2000). Remote use of the Victoria University Library catalogue, loan and other services has continued to be significant but has not increased.

Table I
Remote Library Use

Description of Remote Library Use		1998		1999		2000	
		No	%	No	%	No	%
1	Use this University's catalogue	301	73%	368	68%	360	72%
2	Use Another Uni's Catalogue	124	30%	124	23%	117	23%
3	Search a Database	143	34%	213	39%	215	43%
4	Consult an electronic journal	74	18%	108	20%	176	35%
5	Order an Electronic Document Delivery	39	9%	50	9%	61	12%
6	Check Items on Loan	209	50%	223	41%	219	44%
7	Renew a Loan	219	53%	241	44%	233	47%
8	Reserve a Book	190	46%	195	36%	191	38%
9	Recommend an Order for a Book or Serial	23	6%	21	4%	32	6%
11	Other			31	6%	19	4%
Responding Cases		415	56%	543	67%	498	71%
Total Cases		739		808		704	

Survey respondents are asked to rank their satisfaction with a range of Library services, including some online library services. The responses are given in the following table. A significant increase has occurred in the rating for satisfaction with use of the Library's on-line information services (3.4 in 1998, 3.42 in 1999, 3.56 in 2000). There was no significant change to the rating for satisfaction with the Library catalogue (3.71 in 1998, 3.71 in 1999, 3.75 in 2000).

Table II
Satisfaction with Library Services

Service Description	1998	1999	2000	1998	1999	2000	1998	1999	2000
Use the Library Catalogue	81%	81%	78%	597	653	552	3.71	3.71	3.75
Search for known books or periodic	80%	81%	78%	592	658	547	3.57	3.50	3.61
Search printed indexes and abstracts	36%	36%	36%	269	292	253	3.07	2.98	3.07
Consult other reference sources	53%	54%	48%	390	437	338	3.22	3.17	3.21
Use the Library's on-line information	50%	56%	59%	370	454	417	3.40	3.42	3.56
Consult the reference/info desk	75%	74%	69%	554	601	489	3.61	3.46	3.51
Take part in user educ/information	24%	22%	21%	174	176	149	3.05	2.74	2.97
Use the reserve/short term loan colln	54%	58%	55%	400	467	389	3.60	3.48	3.45
Borrow material	85%	83%	80%	626	671	566	4.04	3.98	3.99
Return material	82%	80%	77%	604	650	541	4.07	4.03	3.97
Request material from another campus	55%	56%	55%	403	449	390	3.68	3.55	3.74
Request an interlibrary loan (ILL)	32%	35%	33%	235	282	229	3.34	3.30	3.37
Collect holds or ILL material	34%	39%	35%	249	318	249	3.45	3.37	3.53
Pay replacement costs or other o/d ch	14%	16%	14%	107	128	102	2.52	2.51	2.36
Query or appeal against overdue ch	16%	19%	17%	118	156	119	2.54	2.55	2.47
Book audiovisual equipment/software	33%	34%	28%	242	278	200	3.41	3.13	3.06
Browse in the collection	68%	72%	67%	500	581	472	3.60	3.54	3.48
Look in the new book/periodical disp	51%	49%	46%	378	395	324	3.46	3.40	3.42
Use the photocopiers	64%	68%	69%	473	550	485	3.43	3.37	3.19
Use the microfiche/film readers	18%	19%	16%	132	154	111	2.58	2.53	2.64
Use the audiovisual equipment in Lib	28%	28%	27%	204	225	192	3.27	2.84	3.02
Use the computer labs in the Library	33%	44%	43%	241	355	304	3.02	2.92	3.02
Use the PC/MAC for wordprocessing	19%	28%	27%	143	227	188	2.82	2.78	3.05
Use the special collection	17%	20%	18%	125	162	124	2.91	2.72	2.82
Use the Library as a place to study	54%	58%	55%	399	465	385	3.53	3.52	3.56
Use the Library as a place to relax	33%	36%	33%	244	290	231	3.11	2.92	3.10
Look in the special display/exhibition	24%	24%	18%	179	192	127	3.09	2.89	2.91
Other		6%	6%	46	51	39	2.46	2.76	2.62
Total	739	808	704						

The rate of client satisfaction with Library facilities is shown in Table III below. Client satisfaction with remote use of Library services has not altered significantly over the last few years (3.44 in 1998, 3.26 in 1999, 3.43 in 2000). A new question was introduced to the survey in 2000 to ascertain client satisfaction with remote access to the Library, as well as use of the services. The rating for access was 3.53. The satisfaction rate with Library facilities is highest for the Library catalogue followed by remote access and remote use of services.

Table III
Satisfaction with Library Facilities

Satisfaction with Library Facilities		1998	1999	2000	1998	1999	2000
1	Reference collection	3.27	3.19	3.21	77%	76%	71%
2	General collection	3.29	3.23	3.28	85%	84%	79%
3	Periodicals collection	2.99	2.87	3.03	70%	67%	63%
4	Reserve/short term loan collection	3.41	3.24	3.23	62%	63%	58%
5	Circulation/loans desk	3.44	3.38	3.43	70%	71%	66%
6	Interlibrary loans desk	3.50	3.36	3.41	45%	47%	45%
7	Physical equipment (photocopiers, etc)	3.21	3.10	2.93	65%	70%	70%
8	Library catalogue	3.55	3.52	3.62	75%	75%	75%
9	Electronic databases and CD ROMS	3.39	3.33	3.37	50%	55%	56%
10	Remote access to the library			3.53			58%
11	Remote use of Library services	3.44	3.26	3.43	45%	50%	54%
Total					739	808	704

The results of the Library's Client Satisfaction Survey suggest that increasing use is being made of the Library's electronic services and that clients are reasonable satisfied with these services.

CLIENT WEB SITE SURVEY

A survey of clients concerning the Library's web site was carried out at the start of the 2001 academic year in order to obtain feedback on client satisfaction with the site and suggestions about possible new services.

The survey form was mounted on the front page of the Library home page from 7 February to 20 March 2001.

An invitation was also emailed globally to staff and via specific mailings to students. This specific student mailing took a sample email listing of Schools, Departments and campuses across Victoria University to attempt to capture a diverse range of possible student respondents from both the TAFE and Higher Education Divisions and from both large and small campuses.

In total 111 survey responses were received. 57.7% (64) were from students, 38.7% (43) were from staff and 3.6% (4) were from visitors.

Most (90.1%) of respondents were "on campus" rather than "off campus" students. A later cross tabulation of responses by on or off campus against all responses indicated little variation in response between these two groups, however it must be noted the numbers were very small.

In terms of why respondents were using the web site, 81.3% (35) of staff indicated they were more likely to use it for "*research*" and "*teaching*" purposes. 90.6% (58) of students indicated they used the site for "*study*" and "*research*".

The use of the site by respondents overall is ranked in the following table. Comments indicate where there is a difference in use between staff and student respondents.

Table IV
Respondents Ranking of Parts of Library Web Site Used

Rank	Usage	Part of Site	Comment
1	67.6%	Library Catalogue	Clearly the most used part of the library web site; this is reflected in the comments where its features were frequently mentioned.
2	50.5%	Databases and E-Journals	
3	20.7%	Services and Collections	This section of the library site contains information on services and special collections. Visitors tended to indicate they used this site.
4	18.9%	Web reference resources	This part of the site is a collection of selected web tools for use by clients. It also received some very favourable comments.
5	18%	InfoLink	This site of subject based reference resources received lower usage than expected. Promotion may be needed.
6	14.4%	Library Hours	Student use of this site is higher than staff use.
7	8.1%	InfoQuest	Surprising usage of this service as it is a relatively newly launched (December 2000) email reference service. More popularly used by staff than students.
8	Below 5%	Library Contacts	List of Subject Liaison Librarians. Could be queries are now being referred to InfoQuest or that page needs to be revamped.
9	Below 5%	Search Smarter	Internet site tutorial. May need to come off front of library web site but still used by both staff and students.

Table V summarises responses to specific site features. It should be noted that staff and student responses to this series of questions correlated. In addition an increasing number of response rates indicated “no opinion” or simply did not respond to the last two questions. 18.9% indicated “no opinion” or no answer for *Wide range of resources available*; 19.8% for *Practical assistance to study/teaching/research*. This could simply highlight that they were unclear as to the meaning of the question or were unclear about what else could be offered or expected.

TABLE V
Responses to Site Features

Site Feature	Responses
Easy to navigate and use	85.6% “strongly agree” or “agree”
Assists in location information	78.4% “strongly agree” or “agree”
Wide range of resources available	73.9% “strongly agree” or “agree”
Practical assistance to study/teaching/research	76.6% “strongly agree” or “agree”

Comments received from respondents can be grouped as seeing the best features of the site as:

- the catalogue and its features (holds, renewals);
- online journals and databases;
- access being available from home or anywhere.

The worst features can be characterized as:

- exam paper printing;
- long ID numbers required for authentication in e-reserve;
- not enough online journals;
- complexity with navigation in the site and a view that links are hidden.

Respondents were asked to name any web sites they particularly like using. A variety of sites were named including:

- company/government/organisation sites (13)
- search engines (12)
- databases (7)
- other libraries (6)
- chat rooms (2)
- teaching sites (2)
- bookshops (1)

Respondents were also asked if they would like to add services to the Library web site. 23.4% indicated “yes”. The kinds of services requested were:

- addition of specific databases for example SSCI, Science Direct;
- more access to online library services. For example, placement of items on reserve, new material notification.

Some of the requests for additional services indicated that respondents were not aware of already existing services, for example a request for details of all the reserve items in each campus library (currently available in the catalogue), or stated that they felt more marketing was needed “so that part-timers like myself are aware of this resource”. (Staff respondent)

Further analysis is being carried out by comparing survey usage results to online statistical data for the same time period for the top 20 pages hit and the pathways used through the site.

The library catalogue and the databases and e-journals page offer an opportunity for a one stop shop and seamless integration that appears likely to satisfy many of the Library clients’ needs. Focus groups are about to be held to explore how this integration could best be achieved to meet their needs.

LIBRARY STAFF PERCEPTIONS WEB SITE SURVEY

A survey of Victoria University Library staff concerning the Library’s web site was carried out shortly after the client survey, in order to obtain feedback about the site and suggestions about possible new services and to determine whether there were differences between client and staff perceptions.

A survey form, which was similar to the client web survey form, was sent by email to 111 Library staff.

19 survey responses were received, a 17% response rate. 16 were received from staff in the Service Delivery Branch of the Library who work directly with clients and 3 from other areas of the Library. 7 were received from the 2 largest campus libraries and 12 from the other 10 campus libraries. 15 were received from staff in positions with the higher, generally professional classifications levels and 4 from staff in positions with the lower, para-professional classification levels. Given the small number of respondents, no analysis of the data was carried out on a Library Branch, campus or position classification basis.

The main reason Library staff respondents gave for use of the Library web site was work assisting clients (17 respondents). 12 Library staff indicated that they used the site for other work and 6 for study or professional development purposes.

17 Library staff indicated that they use the site on a daily basis and 2 on a weekly basis.

The sections of the Library web site used by Library staff are shown in the following table and compared with the results for clients.

Table VI
Section/s of the Library Web Site Used

		Clients		Library Staff	
		No.	%	No.	%
1	Databases and e-journals	56	50.5%	17	15.3
2	InfoLink - subject based electronic resources	20	18	15	13.5
3	InfoQuest - email enquiry service	9	8.1	5	4.5
4	Library catalogue	75	67.6	19	17.1
5	Library contacts	6	<5	10	9
6	Library hours	16	14.4	12	10.8
7	Search Smarter - web search tutorial	5	<5	13	11.7
8	Services and collections	23	20.7	9	8.1
9	Web reference resources	21	18.9	11	9.9

The most commonly used sections of the web site by Library staff were the same as those used most commonly by clients i.e. the catalogue (17% of staff; 67% of clients) followed by databases and e-journals (15% of staff; 50% of clients). Client use of both of these services was significantly higher than Library staff, possibly reflecting the work patterns and work methods of Library staff.

Library staff reported significant levels of use of other parts of the web site. Library staff use of the Search Smarter web search tutorial was higher than clients (Library staff 11.7%; clients less than 5%), possibly reflecting Library staff accessing the tutorial to assist clients.

Library staff were asked to indicate how the Library web site assisted them and also how they thought it assisted clients.

The following table shows the level of client satisfaction along with the level of Library staff satisfaction.

Table VII
Satisfaction with the Library Web Site

	Clients	Library Staff
Easy to navigate and use	85.6% “ <i>strongly agree</i> ” or “ <i>agree</i> ”	94.7% “ <i>strongly agree</i> ” or “ <i>agree</i> ”
Assists in locating information	78.4% “ <i>strongly agree</i> ” or “ <i>agree</i> ”	94.7% “ <i>strongly agree</i> ” or “ <i>agree</i> ”
Practical assistance to study/teaching/research	76.6% “ <i>strongly agree</i> ” or “ <i>agree</i> ”	89.4% “ <i>strongly agree</i> ” or “ <i>agree</i> ”

Library staff rated their satisfaction with the Library web site more highly than clients. 94% of Library staff and 85% of clients “agreed” or “strongly agreed” that the site is easy to navigate and use. 94% of Library staff and 78% of clients “agreed” or “strongly agreed” that the site assists them in locating information. 89% of Library staff and 76% of clients “agreed” or “strongly agreed” that the site gave them practical assistance in their work or studies.

The following table shows the level of client satisfaction along with the level of client satisfaction perceived by Library staff.

Table VIII
Perceived Satisfaction with the Library Web Site

	Clients	Library Staff
Assists in locating information easily	78.4% “ <i>strongly agree</i> ” or “ <i>agree</i> ”	89.4% “ <i>strongly agree</i> ” or “ <i>agree</i> ”
Practical assistance to clients in understanding teaching/work/study research	76.6% “ <i>strongly agree</i> ” or “ <i>agree</i> ”	84.2% “ <i>strongly agree</i> ” or “ <i>agree</i> ”

There was a significant difference between the satisfaction level reported by Library clients and the staff perception of these satisfaction levels.

The difference between client and Library staff responses, both in the satisfaction of the staff themselves and in their perception of the client satisfaction is significant. It is also significant that no Library staff respondents “disagreed” or “strongly disagreed” with the statement that the site is easy to navigate and use, that it assists in locating information and that it assists work, teaching, etc. either from a personal or from a client perspective. Only a few staff had “no opinion”. Strategies may be needed to improve Library staff understanding of clients’ needs to assist in further improvement of the web site.

A few comments were made by Library staff including the suggestion that names such as “Infolink” and “Search Smarter” be expanded so that users know what they are and that a key to abbreviations be included in the catalogue.

Library staff gave a range of responses when asked what they thought were the best features of the Library site which can be grouped as follows:

- Infolinks (7 responses)
- databases, e-journals (6 responses)
- clearly set out for easy, quick and remote access (4 responses)
- Search Smarter (3 responses)
- on-line loans renewals and holds (2 responses)
- catalogue (5 responses)
- Infoquest, electronic forms, campus library pages (1 response each)

Infolinks was the feature most mentioned by Library staff but did not feature highly in client responses to this question. It is possible that staff place a higher value on the Infolinks because they are compiled by the staff, and/or that Infolinks are found useful by staff in answering reference enquiries.

The worst features reported by Library staff were:

- The contacts list which is too big and inconsistent (2)
- Problems with changeover to a new University web site (2)
- Clients having to look at the catalogue to consult their loans records (1)
- Different results from keyword searches of databases in the catalogue (1)
- Difficult to get around; a search engine is needed (1)

Four Library staff stated that the site had no “worst” features and eight made no response.

There was little commonality between the responses of Library staff and those of clients in this area.

Library staff named a number of WWW sites they particularly like using including:

- search engines (4)
- government sites (4)
- other libraries’ sites (4)

These sites were also nominated by clients.

Two staff nominated new services they would like added to the web site. Fully on-line inter-library loans were suggested; the Library is currently installing the LIDDAS system which will provide this facility. Consistency between services provided to staff on the Library’s web site and on the Library’s intranet site was suggested; this needs follow-up. Links to public libraries were suggested; this could be useful, although the sites mentioned by clients were state and university, rather than public, libraries.

There were surprisingly few suggestions for new services from Library staff, perhaps because there are already good Library staff consultation processes in place and because the site is updated and expanded on a regular basis.

POSSIBLE FUTURE DEVELOPMENTS

A review of activity in other libraries suggests a number of areas of possible development for the Victoria University Library’s e-services.

Special Markets

In developing the Library web page for support of e-learning, continuing consideration will need to be given to access by clients with disabilities. Ongoing activity will be needed if poor use of the web's accessibility features is to be avoided.⁵

Victoria University Library provides some services to support courses targeted at the indigenous community in Echuca; the year 2000 client satisfaction survey elicited a strong response and a high level of satisfaction from Echuca users. E-learning has the potential to provide a real option to indigenous people where travelling to study has been a constraining factor.⁶

Off-shore students have recently been provided with access to most Victoria University Library on-line database services and a guide for off-campus students is being added to the web site. Further development of e-library services to these students is desirable.

Guidelines for academic staff on the services available to students, along the lines provided by Deakin University, may be useful.⁷

Print Materials

The Victoria University Library's surveys focussed on on-line service delivery, however conventional library service delivery will also be required to support e-learning.

Victoria University Library currently mails printed books and copies of print journal articles to TAFE students studying within Australia by flexible delivery and plans to expand the service to Higher Education students. Most university libraries provide such a service.

The University of Technology, Sydney Library has announced a range of "more flexible" print services to support its flexible learning programs including overnight closed reserve loans, more copies of texts and extended loan periods.⁸

The University of New England Library allows external students and students with a disability to request print materials on-line through its e-reserve system.⁹

Several libraries offer students assistance in gaining access to other libraries. Victoria already has a good reciprocal borrowing scheme and a National University Borrowing Scheme is about the commence. However, assistance will continue to be needed for off-shore students

E-Books

Provision of e-books is likely to be a significant growth area over the next few years. Victoria University Library currently provides access to netLibrary through its web page with catalogue entries via the INNOPAC software. The Victoria University Library web survey did not reflect e-book use because the service was not fully operational at the time of the survey, however experience elsewhere indicates that netLibrary has been well received by users with statistics of use increasing each month.¹⁰

E-Reserve

Almost all Australian university libraries have implemented electronic reserve collections or are in the process of implementing them.¹¹

For copyright control reasons, the software to provide e-reserve is being used in some libraries, including Victoria University Library, to hold digital teaching resources. The new Australian Digital Agenda Amendments to the Copyright Act allow digital copying but warning messages must be displayed, accesses restricted to University staff and students, the usual print copyright limits apply and only one copy of an work can be made in the University. Library e-reserve systems have the capacity to manage these requirements.

E-reserve has the potential to develop into a major service which extends beyond the traditional print reserve role.

Web Site and Catalogue

Although libraries have long desired one-stop shopping, duplication and inconsistency is taking place between the library catalogue and the library web site at Victoria University Library's site and most other library sites.¹²

Developments in electronic cataloguing include moves away from the MARC format in downloading of certain records for aggregated databases and the use of metadata for some resources.

These issues will need to be addressed in the long term planning of services.

Information Search Skills

A survey of 133 U.S. library web sites concluded that libraries could profit by making greater use of on-line tutorials and virtual tours to supplement bibliographic instruction.¹³

Victoria University Library Search Smarter web tutorial was not reported as a high use or high demand service by clients in the web survey, although Library staff placed a relatively high value on its use. The Library is currently adapting an information search skills on-line training package developed by Queensland University of Technology; this will require good promotion and evaluation of its use.

At several universities, library staff work with information technology staff in delivering programs and at the University of New England Library a "technology passport" for students is being provided in conjunction with information technology staff and includes basic instruction in the use of the web and email as well as library e-services.¹⁴

A closer link between library information search skills training and the curriculum may be desirable. At the Northern Territory University the Library's information skills program has been included in the curriculum and has web-based modules for distance learning.¹⁵ Griffith University Library has developed a library research tutorial which provides students with instruction, on-line assessment and practice which is on the web.¹⁶ Swinburne University of Technology Library is responsible for modules in an information methods subject.¹⁷

More flexibility may be needed in information skills training delivery such as scheduling information literacy classes at weekends¹⁸, providing classes on-site, providing classes as an

integral part of student distance learning workshops¹⁹ or providing sessions by video conference.^{20,21}

Portals

There is a global trend on the World Wide Web towards the use of portals which reflect e-commerce design and include customisation of sites to meet client needs.

The need for seamless and integrated access to the Library's e-services is reflected in many of the survey respondents' comments. A client portal which incorporates a search engine would address this need and would also provide opportunities to provide customised services and services based on "push" technology to users. Less than ten Australian universities currently use portals however 83% of respondents to a recent survey said that they had, or were considering, a portal.²²

Some Australian libraries are already providing or developing portal or "My Library" facilities. Monash University's web page provides a portal for students which links to the Library's web site (<http://mymonash.edu.au/>). The Monash site was rated by a number of respondents to the Victoria University Library web survey as a site they liked using. The University of Queensland Library is developing a customisable front end service based on overseas "My Library" models.²³ At the University of Western Australia "MyCygNet" allows users to bookmark and retrieve sites.²⁴

The Australian Research Library Information Network (ARLIN) project is developing a portal to provide access to Australian library resources and services. The project is funded by the Australian Research Council and is based at La Trobe University; its participants are the National Library of Australia and nineteen universities, including Victoria University. The ARLIN project will enable students to access national resources and services and will complement local university portal developments.

Teaching and Learning Links

Links between library web services and teaching and learning resources provided on the web by teaching areas are likely to become increasingly important. The Victoria University Library already provides links between some lecturer/course web pages and the Library; a more comprehensive approach to this appears desirable. At the University of Wollongong, academics are being invited in the library newsletter to link their student access web pages to the article level of library electronic journals, or to titles or subjects that could be "clicked" on to provide citations. (Database, 2000) At the RMIT, staff designing on-line courses are invited in the library newsletter to incorporate links to appropriate library services.²⁵

An Australian National Training Authority survey of on-line learners' support in TAFE concluded that few Australian TAFE lecturers had integrated the use of resources into their courses or provided links to the library from within their course materials and that very few TAFE libraries were offering the resources required to support their on-line learners.²⁶ Considerable progress has been made since then but much remains to be done in both TAFE and Higher Education.

The TAFE Virtual Campus web site has been established by the Victorian Government to facilitate the delivery of on-line courses in Technical and Further Education. The TAFE Institute libraries and the University libraries with TAFE divisions, including Victoria University, are providing access to their services through combined library services information on the site (<http://www.tafevc.com.au/libraries.html>). Further development of local links at the course level appear desirable.

The [Online@RMIT](#) web site includes a section entitled Sourcing Learning Objects which contains a list of potentially useful web resources to aid in the identification of third part courseware. It also contains information on library resources and services. ²⁵

Professional Development

The professional development of library staff will be an essential component of library support of e-learning. A study of the impact of new learning technologies on vocational learning concluded that the professional development of all staff involved, including staff who support staff in their learning environment, is essential. ²⁷

In Victoria, the libraries of TAFE institutes and universities with TAFE divisions are participating in a government funded training program for library staff in the use of on-line technologies. This is being provided to assist library staff in supporting students who are learning through the TAFE Virtual Campus.

Future professional development programs for library staff supporting both Higher Education and TAFE may need to place greater emphasis on developments in teaching and learning than they have in the past.

CONCLUSIONS

Australian libraries are positioning themselves well to support e-learning through a range of electronic and other services.

Victoria University's client surveys indicate ongoing demand from users for the services and a reasonably good overall level of satisfaction with the services.

There is some incongruence between library staff perceptions of user views and users' own reporting of their views which needs to be explored further.

There are a number of areas of potential future development at Victoria University. The most significant of these are the development of a client portal to access library services, the improvement of links between library and teaching resources and services and the development of a full e-learning information search skills program.

Central to the future development of the Library e-services will be strong working relationships between library staff and teaching staff involved in the development of e-learning.

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