

# **Claim your space: re-placing spaces to better meet the needs of the Net Generation**

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**Abstract:**

*The challenge for the Reid Library at The University of Western Australia was the transformation of a 1960s building into a welcoming space, with services and facilities appropriate for a more technologically demanding generation. A key issue was how to balance the continuing need for access to physical collections with the rapidly expanding demand for new kinds of learning spaces and facilities oriented towards on-line and collaborative learning and research. This paper outlines the approach taken to identify client needs (both physical and virtual), define and propose new service models, and transform learning spaces, while maintaining access to physical collections.*

## Introduction

Many libraries are rethinking their approach to physical and virtual spaces to better meet the needs of the Net Generation. The availability of online banking, shopping and entertainment has led a new generation of university students to expect a similar level of independence and convenience in locating and accessing information for their university study. They expect remote access to library services of the same quality and functionality as those provided elsewhere. At the same time, student take-up of web-based communities and social networking sites through Web 2.0 technologies has opened up new opportunities for libraries to interact with them.

Net Generation students also expect physical library services to be convenient, fast, self-service and electronic. In addition, students want their libraries to provide wired and wireless learning and teaching spaces that facilitate collaboration, as well as providing spaces for individual research and study.

The challenge for the Reid Library at The University of Western Australia (UWA) was the transformation of a 1960s building into an inspiring and welcoming space with services and facilities to meet the needs of a more technologically demanding generation. A key issue facing the Reid Library building was how to balance the continuing need for open access to physical collections with the rapidly expanding demand for new kinds of learning spaces and facilities oriented towards on-line and collaborative learning and research. This paper outlines the planning process that was undertaken to identify client needs and define a new service model to deliver the services Net Generation students expect.

The Reid Library building is the focal point of the University Library in a physical sense. It is the largest library building on campus and provides services primarily to staff and students of the Faculties of Arts, Humanities and Social Sciences, and Economics and Commerce and is used extensively by members of the wider academic and general communities. The other seven subject libraries on campus are: the Law Library, the Education, Fine Arts & Architecture Library, the Medical and Dental Library, the Music Library, and the two Science libraries Biological Sciences Library and the Mathematics & Physical Sciences Library. The Science libraries will be co-located by the end of 2008 in a new building.

The Reid Library building was opened in 1964 as the central building of the University of Western Australia Library. By the early 1970's, it was too small to accommodate the growing collection and student population. The extension that was added in 1972 effectively doubled the size of the original building. For many years, the Reid Library building also housed some academic departments. Two major refurbishments were undertaken when these departments left and space was freed up – the first in the mid-1980s and the second in 1993.

In planning the 1993 renovations, use of the building was completely reviewed and the present configuration established from early 1994: administrative and technical services on the ground floor together with the Geology and Map libraries; the Humanities and Social Sciences (HSS) Library on the first floor (with additional stacks on the second and third floors); the Scholars' Centre, a space specifically designed for postgraduate and research students, on the second floor; and the Business Library on the third floor. The three libraries were designed to be quite

independent with separate service points, staffing and operations. The key aims of the renovations were to:

- Ensure a staff presence on all floors
- Create a dedicated space for postgraduate students
- Integrate administrative and technical services
- Provide separate services to Business staff and students

A further renovation occurred early in 2005 to the first floor, opening up the main entrance to the building, allowing visitors to find their bearings and locate the way to their destination. The renovation also created space for additional computers, lockers for laptop computers, created more training rooms, and reconfigured the HSS service points. On the ground floor, service points and accommodation for administrative and technical services were rationalised.

A new Science Library at the southern end of the campus is scheduled for completion early in 2009. This new building will bring together the existing Biological Sciences, Mathematics and Physical Sciences, and Undergraduate Physical Sciences Libraries. It provides an opportunity to free up space on the ground floor of the Reid Library building which currently houses the Geology and Map collections as these collections will also be relocated to the new Science Library.

There are many opportunities presented by the freeing up of space on the ground floor of the Reid Library building. In 2005 the Subject Librarians for HSS and Business in conjunction with the Principal Librarian, Scholars' Centre, initiated a review of services and facilities in the building. The review commenced with the development of a Concept Plan for the future development and enhancement of the Reid Library building. The review provided an opportunity to evaluate the impact and ongoing effectiveness of the 1993 decision to locate the HSS Library, the Business Library, and the Scholars' Centre within the same building. Important components of this review re-evaluate the number of service points (in 2007 there were seven service points throughout the building), and a reassessment of the arrangement of the physical collection, which covers a variety of Dewey sequences on various floors.

## **Identifying Client Needs**

Significant effort was taken to identify client needs and wants (both physical and virtual). Gone are the days when librarians assume they know what clients want. To deliver the right mix of services in the right way, it is imperative to seek feedback from clients on their preferences and needs. Often the challenge for librarians today is balancing the varying needs and preferences of the diverse client groups. Even within groups there are likely to be competing needs. For example, the requirements of individuals may vary from their peers because of the nature of their study or learning style. Similarly, the requirements of an individual may differ from one day to the next.

In planning the new spaces and facilities in the Reid Library building, data from the Library's regular data gathering activities was analysed in order to identify student needs. Also, a number of other activities were undertaken to further seek understanding of what today's UWA user population wants from its University

Library. This information was then used to plan the redevelopment of the Reid building.

### **Building & Space Survey**

The Library conducted a survey in June 2007 of all eleven subject libraries to determine the type of clients that use each library and the most critical issues associated with the services and facilities offered by each library. The survey will be run on a regular basis to identify changing needs of the Library's users overall but also specific to each of the subject libraries. The survey was conducted over a period of one week (including evenings and weekends). The surveys were distributed by staff to clients in the Library and clients were asked to complete and return the survey before leaving the Library.

There were a total of 1883 surveys completed, 843 for the Reid Library building, as indicated in Table 1. A comparison across Business, HSS and the Scholars' Centre indicates:

- Almost all respondents were undergraduate students and most indicated they were on campus four or more times a week.
- Traditional Library services and facilities, such as individual study spaces and using collections, are still important.

**Table 1: Responses to Building & Space Survey**

|                         | <b>Responses</b> | <b>Client Type</b> | <b>Activity</b>                      |
|-------------------------|------------------|--------------------|--------------------------------------|
| <b>Business Library</b> | 325              | 96% u/grad         | 77% using an individual study carrel |
|                         |                  |                    | 63% borrowing books                  |
|                         |                  |                    | 62% using Reserve                    |
| <b>HSS Library</b>      | 454              | 92% u/grad         | 67% using the catalogue              |
|                         |                  |                    | 66% borrowing books                  |
|                         |                  |                    | 65% using an individual study carrel |
| <b>Scholars' Centre</b> | 64               | 73% p/grad         | 80% using an individual study carrel |
|                         |                  |                    | 69% using online resources           |

Clients were asked to rate the importance and performance of a number of factors. Table Two shows the differences between the importance and the perceived performance, including:

- The significant perceived difference in importance and performance to computers in Business and HSS libraries
- The importance of privacy and quietness is very important to all users

**Table 2: Responses to Building & Space Survey - % Importance versus Performance**

|                        | Business   |             | HSS        |             | Scholars' Centre |             |
|------------------------|------------|-------------|------------|-------------|------------------|-------------|
|                        | Importance | Performance | Importance | Performance | Importance       | Performance |
| Access to computers    | 98.3       | 55.8        | 95.4       | 74.5        | 90.3             | 89.5        |
| Adequate opening hours | 93.93      | 86.8        | 96.9       | 91.4        | 93.6             | 83.6        |
| Adequate study space   | 96.1       | 89.6        | 94.4       | 89          | 100              | 90          |
| Access to Reserve      | 93.8       | 95.9        | 86.9       | 95.4        | 78               | 93.8        |
| Privacy / quietness    | 96.1       | 78.4        | 96.3       | 83.2        | 100              | 96.7        |

A total of 312 additional comments were received concerning services and facilities within the Reid Library building. A couple of themes emerged from the comments: the desire for a 24/7 facility especially to computers, the need to continue to provide silent and quiet study spaces and to implement methods to ensure these areas do not become noisy, and the desire for more computers.

*"There are always people waiting to use the computers. The library already supplies a lot of them, but we still seem to be short".*

*"The Library can get a bit too rowdy, especially in the computer section although its is hard to stop people talking. And people & their mobile phones! GEE!"*

*"Quietness! Yes! Wouldn't that be nice".*

*"Scholars' Centre is essential! I couldn't have got this far with my PhD without it. Please keep up the good work. There's nothing else like it for postgrads in Arts & Humanities".*

These survey results encouraged the planning team to plan for a 24 x 7 facility to provide learning spaces during the hours students like to work and to ensure that different learning modes were carefully segregated so noisy activity would not interfere with quiet study, and to increase the number of PCs across all the subject libraries including the Reid building.

### **Feedback from Suggestions Service**

The UWA Library operates a suggestions service in each subject library. In 2006, the HSS Library received many suggestions that related to the use of computers, including requests for alternative Internet browsers, image software, improved wireless access, and automatic login for express terminals. The Business Library received feedback on a number of themes throughout 2007 including the need for a greater number of group discussion rooms, increasing requests for a 24/7 facility including access to PCs, and comments about access to and performance of PCs.

From the feedback suggestions it was decided to review the standard software on public PCs, a project which has been completed, and increase the number and improve the quality of group study facilities in the Business Library.

## ***Feedback from Law Library Refurbishment Survey***

A major refurbishment of the Law Library was undertaken at the beginning of 2006. As a result the number of computers increased from 32 to 71; discussion rooms increased from 1 to 5; printers increased from 2 to 3; study spaces increased from 325 to 394; training rooms increased from 1 to 2; wireless facilities were installed throughout the building; and a 24 hour access computer laboratory provided.

An online survey seeking feedback on the refurbishment was emailed to all Law students and academic staff. A total of 271 respondents replied to the survey. They responded to questions about what they liked best and least about the Law Library refurbishment, how easily they can access a computer or wireless facility, how easily they could access a discussion room, or find a quiet or silent area to study.

Feedback from this survey informed other refurbishment and building plans across the UWA Library. It also produced a number of recommendations for further action in the Law Library, for example to make group discussion rooms sound proof, and some Library-wide actions such as implementing a zoned approach to collaborative, quiet and silent study areas.

From this survey of the Law Library it was decided to ensure that meeting and group study rooms were sound-proofed and ensure different zones be planned that would keep noisy learning spaces separate from quiet spaces.

## ***Student Services Survey***

In 2006, UWA Student Services conducted a survey of commencing undergraduate students to test the assumption that students of the Net Generation are familiar with and have a preference for, what are termed Information and Communication Tools (ICT) or web tools (Cluett & Skene 2007). Quoting Crawford's (2006) market research, Cluett and Skene summarised some of the characteristics of the Net Generation as:

- Grew up with the Internet, instant messaging, downloading, so do not view these technologies as new
- Used to having choices and flexibility – in entertainment, shopping etc.
- Used to quick responses at any time of day or night
- Open-minded towards immigration and multiculturalism
- Believe technology can solve problems, including environmental problems
- Live at home longer
- Prefer to take advice from peers (or work out problems themselves) rather than being 'taught' or following instructions
- Are intrinsically motivated by their own interests and curiosity

The student profile at UWA mirrors that of the Net Generation to a large degree, as the University enrolls the highest percentage of school leavers of any Australian university, 82% in 2006. Their survey results reveal a first year student population that is well equipped with mobile devices and have reasonable Internet access (Skene, Cluett & Hogan 2007). See Table 3 for more detailed results.

**Table 3: Responses to Student Services Survey**

| <b>Ownership of devices &amp; access to Internet services</b>   | <b>Percentage</b> |
|---|-------------------|
| Own a laptop – Yes  | 56.2              |
| Access Internet more than twice a day                           | 60                |
| Access Internet more than once a day                            | 30                |
| Access Internet more than once a week                           | 7                 |
| Internet connection at home – dial up                           | 9.9               |
| Internet connection at home – broadband                         | 84.9              |
| Don't know  | 2.0               |
| No answer   | 3.2               |
| Access your student email account – more than twice a day       | 9.2               |
| Access your student email account – once a day                  | 37.4              |
| Access your student email account – once every few days         | 35                |
| Access your student email account – once a week                 | 9.9               |
| Access your student email account – less than once a week       | 6.9               |
| No answer   | 1.6               |
| How often do you access other email accounts ie gmail, hotmail? |                   |
| - more than twice a day   | 21.8              |
| - once a day  | 45.9              |
| - once every few days   | 19.3              |
| - once a week   | 4.4               |
| - less than once a week   | 4.2               |
| I don't have any other email account                            | 2.8               |
| No answer   | 1.6               |
| Do you own a mobile phone – yes                                 | 96.3              |
| Do you own a mobile phone – no                                  | 1.7               |
| No answer   | 2                 |
| Do you own a mobile device that has wireless Internet access?   |                   |
| Yes   | 40.4              |
| No  | 57.2              |
| No answer   | 2.4               |

This survey confirmed our understanding of the attributes and needs of our Net Generation students. Previously there was a concern that our students were different to those who had been reported on in the literature from the United States and UK. However, it is clear that our students did conform to the general views identified earlier about the 'Google generation'. This made us confident that we were on the right track in our planning for the redevelopment of the Reid Library building.

### ***LibQUAL+ Survey Results***

The UWA Library conducted a LibQUAL+ Survey in 2005. This is a web-based survey, produced by the Association of Research Libraries in North America and designed to help academic libraries understand user perceptions of the library service quality.

Results for the Business and HSS Libraries reflected the overall survey results. Undergraduate students believed the Library did not perform well in:

- *ready access to computers/internet/software*

- *library space that inspires study and learning, and*
- *making electronic resources accessible from home or office.*

Postgraduate students believed the Library did not perform well in:

- *print and/or electronic journal collections required for work*
- *making electronic resources accessible from home or office, and*
- *electronic information resources needed.*

These findings confirmed our view already gained from the other feedback gathering activities that we needed to improve access to PCs and computer software and to plan new types of learning spaces.

## **Defining New Service Models**

The feedback gathered through surveys and other means provided a rich source of information from clients on the types of services and facilities they require from their University library. The next stage for Library staff in planning any changes to the Reid Library building was to define new service models.

In order to transform the existing facilities and services, a number of additional activities were undertaken. These activities helped to develop and plan for services and spaces for the future.

### ***Telephone Interviews***

Telephone interviews were undertaken of nine academic libraries across Australia in 2007 to investigate existing models for the provision of services including lending, reserve, inquiry and reference and research support. The interviews were conducted with academic libraries which had a physical arrangement similar to that at UWA, and libraries whose web site indicated that aspects of their services were innovative or of relevance to the Reid Library building at UWA.

The interviews ascertained that each library has a unique combination of services that are largely dependent on the characteristics of the student population, the nature of library building(s), and the organisational structure in place at that particular institution. Some commonalities emerged:

- There was a general move to integrate services at single service points and make greater use of paraprofessional staff at service points.
- Most libraries were experimenting with new ways of communicating with clients using facilities such as chat or SMS with varying levels of evaluation and success.
- A number of libraries were providing less traditional methods of client support within the Library, often provided by other sections of the University, such as IT and learning support.
- Lending activity was generally decreasing with a rapid take up of online services such as full-text journals and e-reserve.

Results of these interviews confirmed our inclination to combine the two lending service points in Reid into one. This was achieved in December 2007. The two libraries' reserve collections were also combined. Plans to expand the online Ask a Librarian service to incorporate SMS were also supported and this will be implemented during 2008. We had been collaborating in a limited way with the



University IT and Student Services departments and the telephone survey results convinced us that more needed to be done in this area. We now plan to explore the possibilities involved in working with other parts of the University from co-location, collaboration through to integration of facilities and services in the Reid Library building.

### ***Investigating Trends in Other Universities***

An investigation into learning spaces at universities both in Australia and overseas was undertaken. This investigation found that the terms “information commons” and “learning commons” are sometimes used interchangeably, and can also be used to define different scenarios. Generally, “learning commons” implied that learning services not traditionally regarded as library services are provided. For example:

*‘A learning space beyond the classroom which sustains the learning experience from the class session into other learning contexts. It provides an integrated work environment for students and academics with learning spaces and technologies that support learning theory principles’ (Charles Sturt University 2007), and accessible, collaborative and vibrant space where people pursue and share ideas...This enriched learning environment brings together support and resources to facilitate and advance the academic experience of...students’ (Queen’s University, Canada 2005).*

In addition there was an emphasis on flexible learning spaces as “flexibility in the design of learning spaces has become essential...But the ultimate in flexibility – large open-plan centres...still presents challenges in management of sound, heat and student activity, and a mix of formal and informal learning spaces is still more frequently chosen” (Joint Information Systems Committee 2006 p. 5).

In order to address some of these challenges, libraries are starting to create “zones” to best meet the flexible needs of students. These zones include areas allowing mobile phone use, collaborative work areas, and quiet or silent study. A student will require access to many different spaces depending on their need during their time at university – whether they are formal or informal, noisy, quiet or silent.

A wiki was established by UWA Library staff to record the different types of spaces. This will be continually updated and used by the Library for space related projects. The wiki is available at: <http://www.node.uwa.edu.au/book/188>.

Having gathered this information the planning team was more than ever convinced of the need to further explore the establishment of a learning commons in Reid, and so we have commenced working through the various options to build flexible learning spaces and collaboration into our plans.

### ***Review of print collections held online***

In addition to seeking feedback from clients and scanning trends in other universities, the print collections in the Reid Library were also reviewed to help inform decisions about best use of space.

To maintain “the library as a vibrant enterprise worthy of support from our campuses”, Lewis (2007 p. 3) states that it will be necessary to “[r]etire legacy print collections in a way that efficiently provides for its long-term preservation and makes access to the material available when required...[which] will free space that can be repurposed”. The majority of space in the public areas of the Reid Library building is devoted to physical collections. As more digital content becomes available, there are opportunities to review physical collections and to create new learning spaces.

An analysis of the Library’s current print journal and microform collections in the Reid Library building show just under 20 percent, or about 1700m, of the print journal and microform collections in that building are also available online. Any proposal to relocate print and microform titles held online to storage outside the Reid Library building would depend on:

- The availability of high quality and environmentally controlled storage facilities; and,
- Consultation and subsequent agreement with relevant stakeholders, including Faculty.

### ***‘Re-framing Information Services’ Project***

To help the Library define a new model for virtual space and services, a project commenced in 2007 to look at how information services can be “re-framed” to better meet the needs of the Net generation. As new technologies emerge and reader expectations of technology change, it is imperative that services are reviewed and aligned with client need. This is especially important at UWA as a large proportion of the Library’s readers are of the “millennial generation” - proportionally UWA has the highest intake of school-leavers nationally (UWA Statistics Office 2007).

A survey in 2007 conducted by the EDUCAUSE Center for Applied Research (ECAR) found that 98.4 percent of the 27,846 students who responded to the survey owned a computer and the average time spent online is 18 hours per week. 81.6 percent use instant messaging (mostly daily), 80.3 percent use social networking sites such as Facebook, and 41 percent use wikis, mostly weekly (Borreson Caruso & Salaway 2007).

The results of the UWA Student Services Survey of first year students (Skene, Cluett & Hogan 2007) referred to above found similarities to the work conducted by ECAR. Based on the results (see Table 3), access to the Internet is wide-spread with 95 percent of students surveyed having Internet access at home and 90 percent of the students being online more than once a day. Portable devices are common, with 96 percent owning a mobile phone and 56 percent owning a laptop. 46 percent used instant messaging at least once a day, 23 percent were blogging on a weekly basis, 74 percent downloaded music and 66 percent used YouTube. Based on the ECAR and UWA Student Services surveys, students are spending a significant amount of time online and have high expectations of online services. These results make it clear that it is important the Library investigates the delivery of services to portable devices. There are opportunities for improving effectiveness of communication using emerging technologies.

The objectives of the project were to improve and enhance information services to offer more choice and flexibility in communication and assistance utilising emerging

technologies, to increase and improve interaction with Library readers, to align Library services with changing user expectations, and to increase awareness and accessibility of Library services. As a result, the Library plans to enhance services by creating podcasts and other online learning objects, providing RSS feeds and implementing an Instant Messaging service. These initiatives are aimed at the “net” generation and will help to deliver Library services more seamlessly and at point of need.

## **Transformation of Learning Spaces**

Over the last ten years academic libraries have significantly increased the amount of electronic services, resources and learning spaces available over the Internet. Physical collections and associated services and facilities have grown much more slowly or not at all. There has been a considerable increase in the number of electronic resources acquired by university libraries worldwide and a similar increase in the funds expended on electronic resources by these libraries. The proportion of total funds allocated for expenditure on e-resources has also increased. (Case 2004)

This expansion of the electronic or virtual has brought into question the future of physical services, resources and space. This questioning however has not resulted in the abandonment of physical services and facilities, but rather a reassessment of what is offered physically by libraries. As Geoffrey Freeman says in relation to learning spaces, “With the emergence and integration of information technology, many predicted that the library would become obsolete. Once students had the option of using their computers anywhere on campus – in their residence halls, at the local cybercafé, or under a shady tree in the quad – why would they need to go to the library?” He goes on to answer his own question. “Contrary to the predictions of diminishing use and eventual obsolescence of libraries, usage has expanded dramatically – sometimes doubling or even tripling. These increases are particularly common at libraries and institutions that have worked with their architects and planners to anticipate the full impact of integration of new information technologies throughout their facilities” (Kresh 2007, p. 370).

The UWA Library is working to develop and implement new learning spaces and facilities in its buildings that address the ways students learn and study in the 21<sup>st</sup> Century. As discussed earlier, there has been a move towards information or learning commons facilities and this discussion has influenced the development of learning spaces at UWA Library.

At the UWA Library, there have been efforts to implement elements of an information commons in a number of libraries. The Reid Library building is the biggest of the library buildings at UWA. The 2005 refurbishment described earlier included the development of a reception area that combined a service point for first line enquiries with Library reference services and University IT services. This facility is the prime collaborative service offered in the Library. University Learning Services also offers ad hoc services within the Library building via training facilities and a casual drop-in centre. The 2005 refurbishment also included a significant increase in the number of PCs and an improvement in casual seating.

In 2005, each Library Manager was asked to develop a concept plan for their library. Each concept plan was to include design elements that would assist students in their learning and make the library buildings pleasant, easy to use and functional. The objective of this exercise was to have a plan for each library in case funding was made available for building works. An immediate outcome was the redevelopment of the Law Library in 2006-7. The Law Library redevelopment included elements from information commons facilities including a 24x7 room, a substantial increase in the numbers of student PCs, light-filled pleasant spaces, casual seating, two training facilities and group study facilities.

In 2005, after several years planning, a decision was made to construct a Science Library to replace three existing library buildings and to consolidate science collections. At this time, the decision was made to extend this new library onto the existing Biological Sciences library. The two main reasons given to build the new library were: that the lack of space in existing facilities meant that the ability of the libraries to meet modern student needs was severely inhibited, and there was insufficient space for print collection growth. Other high-end facilities for video conferencing and multi-media development were also mooted for the building.

As at January 2008, the construction of the four-storey Science Library building is under way and the intended aims described above have been included in architect plans. Other objectives and facilities were also identified during planning and included in the architect plans:

- Support for the use of mobile devices including 100% wireless coverage and 'phone booths' where clients can take calls on their mobile phones in a sound-proof environment
- Support for creative collaborative learning identified in group study spaces that are modular and flexible
- Ensure the building can accommodate flexible study times
- Develop a variety of different sorts of individual learning spaces, including casual seating
- Identify zones in the new Science Library for particular activities designated by floor. The areas for active pursuits are at the lower levels and quieter more contemplative study is in the upper floors
- Provide video conference and multi-media facilities
- Develop a room for students to practice their presentations

In planning for redevelopments across the libraries as well as planning for the new Science Library we had considered our survey results, read widely and visited other libraries for ideas. However, we felt that further analysis of our existing data was needed as well as additional data gathering activities in our efforts to plan the redevelopment of Reid. We had also learned a lot from the planning process for the Science Library – what worked well and what did not, and what were the opportunities that we had not previously considered.

The gathering of data from other parts of the world, from our own library users and from similar university libraries in Australia has considerably broadened and deepened our understanding of what is required to meet the needs of our current

and future library users, and we believe will ensure our planning for the Reid Library meets their needs.

## **The Way Forward**

The UWA Library has developed a culture of seeking information from clients through a variety of methods, turning that information into plans for physical space, and evaluating, following implementation, on how well we have matched the plans to client need. The Library also has a policy of learning from each development, reviewing lessons learned - what has worked well and what has not. This approach has contributed to planning for the new Science Library and the Re-placing Reid project.

The data gathered has enabled the Library to identify proposed changes in the Reid Library building that will improve client services. Many of the changes will become possible following the relocation of the Map and Geology collections to the new Science Library in 2009. The proposed changes include:

- Realigning the physical collection into a single, integrated Dewey sequence
- Relocating some printed serial material where reliable, archival electronic access is available
- Reducing in the number of service points within the building (in 2007 there were seven service points throughout the building)
- Providing a learning commons which may incorporate 24/7 access

Developments to the Library's virtual services continue to grow and new opportunities be explored. The implementation of a portal, to be rolled out in 2008, will provide a more seamless access to services for members of the University and a single sign-on will simplify their use of electronic services.

Use of Web 2.0 facilities including RSS feeds and podcasts will also help to deliver services more seamlessly to University staff and students. Other facilities are also being explored such as harnessing del.icio.us to support the work of reference librarians in gathering useful resources within specific disciplines.

The expectations of today's University students with regard to physical and virtual services and facilities provide a challenge to libraries. Physical services and facilities remain highly important to the University community and the challenge is to accommodate the requirements of various client groups and provide the right balance between competing needs such as collaborative and silent study areas. Libraries have been at the forefront in developing virtual services and facilities but technology continues to develop and there are always new opportunities to implement new services or reinvent them to take advantage of advances in technology. The transformation of any library service or facility cannot be done effectively without input from clients themselves. This paper has described the various ways in which UWA Library seeks feedback from clients in a systematic way, and uses this feedback to formulate plans for the development of physical and virtual library services and facilities.

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