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UNFORSEEN OPPORTUNITY: IMPROVED SERVICES MIGRATE FROM DOCUMENT SUPPLY TO DISTANCE EDUCATION

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Introduction

This paper will discuss the progress of the LIDDAS Project in Australia, concentrating on its implementation at Macquarie University Library. LIDDAS stands for Local Interlending and Document Delivery Administration System, an Australian project aimed at automating the interlibrary loan process and delivering vastly improved services to library customers.

The paper will track Macquarie's involvement in the project, focusing on the challenges and particularly the opportunities brought about by the project. The project has been a lengthy one and there is no doubt that our aims in implementing the software have evolved as changes in higher education have impacted on the type of services expected from academic libraries. The paper will consider some of these changes and discuss how they have caused us to re-think our strategies for implementing the software.

About Macquarie

Established in 1964, Macquarie University became Sydney's third metropolitan University. Known as Australia's *Innovative University*, Macquarie enrolled its first undergraduate students in 1967 and now has over 27,000 students and 1,500 staff members.[1] The University was named after Major-General Lachlan Macquarie, one of the early Governors of New South Wales. Macquarie University is home to The Macquarie Dictionary, the first dictionary of Australian English. The University supports 6 national research centres and is one of the most international of Australia's universities.

Macquarie University has a number of guiding principles that underlie its approach as a university, one involving a commitment to "delivering first rate educational programs by a variety of modes, including face-to-face teaching in Sydney, and from strategically chosen locations in Asia, and by flexible, online and multi-mode learning in selected fields throughout Australia and the world". Another relevant to this paper is a commitment to "making innovative use of modern technologies to enhance academic outcomes and administrative processes".[2]

Macquarie's vision is to be a borderless university and much of what occurs within the University is underpinned by this vision. In 1997, the Centre for Flexible Learning was established at Macquarie, charged with the task of supporting the design of high quality flexible education which can be offered as on-campus, distance, international, open or

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[1] Macquarie University Homepage, http://www.mq.edu.au/about/
[2] Macquarie University Homepage,
http://www.reg.mq.edu.au/Sections/Publications/Homepage/StatementofAffairs.pdf

continuing education programs. The Library sees its role as assisting the University to deliver relevant aspects of the Borderless University strategy.

In keeping with the University's reputation as Australia's innovative university, the Library also has a strong tradition of innovation. It was the first university library in Australia to embrace a preference for electronic journals over print. The Library has been involved in a range of national and international projects, of which LIDDAS is just one example.

Background to LIDDAS

The LIDDAS project grew out of the earlier CILLA project, a study aiming to identify the needs of Australian interlibrary loan departments and then reviewing available software products with a view to determining their suitability. The CILLA project was inspired by the work of Judith Greenaway in Australia and Mary Jackson from the United States. [3] Neil McLean, then University Librarian at Macquarie University, was instrumental in attaining funding for the CILLA project and later the LIDDAS project. Kerry Blinco must also be acknowledged as contributing enormously to the development of the LIDDAS software we are now using in Australia and other countries. Kerry has worked extensively with Fretwell-Downing Informatics to develop a product appropriate for the needs of large Australian libraries.

A suitable software product was not available at the time of the CILLA project, and this led to the establishment of a joint initiative between the Australian Vice-Chancellors' Committee (AVCC) and the National Library of Australia. The LIDDAS project went out to tender in May 1997 and the successful tenderer, Fretwell-Downing Informatics, began re-development of the VDX software, part of their existing OLIB library system.[4]

At the time that Macquarie University Library bought the software still under development in 1998, the Interlibrary Loan Department at Macquarie was completely paper-based. It was difficult to provide good customer service, as it was almost impossible to track the progress of a request. An enormous amount of filing was required and the operation was simply not as efficient as we would have liked. However, rather than purchase a very basic automated system which would not satisfy all our needs, we were determined to find a product which would revolutionise the way we conducted our interlibrary loan business.

The VDX software is an automated interlibrary loan management system. It allows for a very sophisticated level of workflow and makes managing interlibrary loan requests much more effective and efficient. The software is ISO ILL compliant, enabling it to converse with other compliant systems. Of course, there are now several other systems available which offer something similar. However, the VDX provides the opportunity for doing much more than merely managing the interlibrary loan workflow. It uses Z39.50 functionality and can therefore become the end-user's primary information gathering tool. In many instances, end-users will use VDX software rather than the catalogue for searching. The software also provides copyright tracking. A wide variety

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[3] Greenaway, pp. 39-55
[4] Pearson, p. 157

of benefits are provided for the library's end-user. The end-user can perform a search and will be advised when the home library holds the item. If the home library does not hold the item, an interlibrary loan request can be created, automatically searching a range of pre-determined catalogues. The VDX employs a highly sophisticated *automediator* which can be used to allow for automatic requests authorisation in suitable circumstances, meaning the interlibrary loan staff need only intervene when there are problems with the request. Once the request has been placed, end-users are able to check on the progress of their request. When copies are supplied from other libraries, the end-user is able to indicate if they would like the item delivered direct to the desktop via the VDX document store. The end-user receives a message when the copy arrives to the document store and needs only to log into the VDX to collect their article. When a book arrives, an email is automatically generated to advise the end-user that the book is available for collection from the library. The true beauty of the VDX software is in the vast array of functionality that can be configured by individual libraries to suit their own needs.

The LIDDAS project has travelled a long and difficult path over the years. Largely because the Australian libraries initially involved in the project had an enormous wish list of functionality, the final version of the software is extremely complex. It would seem that all parties involved underestimated the challenges that this would present. Some libraries have chosen to join consortia to pool their resources when configuring the complexities of the system. Others have poured significant staffing resources into managing their own configuration. Nevertheless, in May 2003 the LIDDAS Management and Development Group Steering Committee issued a Certificate of Acceptance for version 2.3 of the product. This version of the software has taken the VDX from developmental software to a fully commercial product. In July 2003 the interoperability between the National Library's Kinetica Document Delivery system (KDD) and the LIDDAS system was introduced and this put the LIDDAS libraries in a position to move forward with their implementations. Libraries in Australia are at a variety of stages in terms of their implementation of the VDX software, with the Western Australian WAGUL consortium being the leader at this point in time. At Macquarie University Library, interlibrary loan staff are using the software and are exchanging requests with other libraries. Trials are currently being conducted with our end-users and the software will be rolled out to all end-users at the beginning of 2004.

Current Climate in Higher Education in Australia

Shaping the current climate in higher education in Australia are a variety of influences, the most significant of which is a dramatic reduction in government funding over the past several years. As Julie Wells explains, "Since 1996, the Government has cut almost one billion dollars out of university budgets, in the form of cuts to operating grants and other funding programs". [5] Many have written of the dire impact of these funding cuts. It has been said that the cuts "are now culminating in what some have termed a funding crisis". [6] Don Aitken cites the early '70s as the beginning of a decline in funding for higher education, in part because the postwar boom years had come to an end and in

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[5] Wells, P. 39
[6] Wood and Meek, p. 9

part because globalisation led to a focus on issues other than those for the public good. [7] This situation has been common throughout the world. By the early '90s in Australia the binary system had disappeared, there were approximately 40 universities and the Higher Education Contribution Scheme (HECS) had been introduced. It would seem that government funding to Australian universities has steadily decreased since that time and universities have had to find other ways to boost their funding.

The financial cost to students has continued to increase. Many courses are now full fee paying. The costs differ significantly according to subject area. However, it is clear that access to higher education is becoming increasingly more inequitable as fees increase. Links with industry have become increasingly common as a means of attracting funding. This has led to an increased emphasis on vocational courses rather than those within areas such as the humanities. In addition, in recent years, Australian universities have sought to increase funding options by attracting increasingly large numbers of overseas students. This has been particularly evident in the last couple of years. It involves recruitment of overseas students for on-campus courses, an increase in offshore teaching and "the development of offshore perspectives within the curriculum". [8] A recent report quotes foreign students accounting for one in five of all Australian fee-paying tertiary students. [9] The "expansion in international student recruitment" [10] is not just a phenomenon in Australia, as Taylor comments in his article on postgraduate education in the UK. Indeed, it would appear to be a world-wide trend, particularly in the western world, as universities look for ways to enhance their funding opportunities.

Finally, although distance education has long been with us, it is now growing and changing. As we see more mature age students struggling to work and study, remote services have become more attractive even for those students not enrolled specifically as distance students. Furthermore, the expansion and further development of the Internet has made providing any type of remote service much easier.

It is with these changes in mind that we have begun thinking about uses for the VDX software other than for interlibrary loan functions. At Macquarie University, we are now assessing the suitability of the software as a medium to enhance services to any students requiring off-campus services.

Emerging Opportunities in Distance Education, Postgraduate Services and Internationalisation

Macquarie University Library has for more than ten years offered a service to students enrolled in the external mode of study. However, we have never received specific funding for this service and the Lending Services Department has struggled to provide an adequate service with continually increasing demands. In 2002 we started reviewing this service and it was recognised that there was considerable double-handling being performed by Lending Services staff and Document Supply staff. A recommendation was made that the Library should investigate the feasibility of moving the distance

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[7] Aitken, p. 36-37
[8] Austen, Schmidt and Calvert, p. 63
[9] The Australian, p. 91.
[10] Taylor, p. 53

education service from Lending Services to within the Document Supply Unit to allow for single handling of requests. It has become obvious that the implementation of the VDX software will make it very easy to combine the services and to dramatically improve turnaround times with desktop delivery. A research project designed to investigate costing and service will assist the Library in presenting a case to the University for additional funding support.

The VDX software has the potential to allow distance students to search the Macquarie catalogue, identify holdings and request required material. Desktop delivery of articles and book chapters will significantly improve turnaround time. Students will also be able to use the Z39.50 functionality to search catalogues of other libraries simultaneously, thus identifying material held in local libraries if not available from the Macquarie collection. The software allows end-users to create profiles of various collections to assist them in organising their searching methods.

The software monitors copyright compliance, therefore fulfilling legal obligations for both interlibrary loan and distance education supply of documents. An email alerting system and full end-user authentication are also features of the system. Authentication, however, is dependent on the university's level of authentication and Macquarie still has a great deal of work to do in this area.

In 2003, postgraduate students at Macquarie University account for 34% of the total student population. This has prompted the Library to start investigating services offered to postgraduate students to ensure that their needs are being adequately met. In addition, 50% of our international students are also postgraduate students. Some are offshore and some are on-campus. However, they all need access to document delivery services and many of them don't have time to visit the Library on a regular basis. Our implementation of EZproxy, a software providing authentication for remote users wanting to access databases subject to license arrangements, has dramatically improved accessibility to databases for students not wishing to visit the Library. However, they still have to come to the Library to collect their interlibrary loan materials.

The implementation of the VDX software provided through the LIDDAS project is affording us the opportunity to deliver documents to the desktop. Given the fact that many postgraduate students have busy lives and don't have the time for regular visits to the Library, we believe that in the current climate, making a distinction between distance students and other students is artificial and unnecessary. In response to this, in May 2003 the Library established the Postgraduate and Distance Services Project to investigate services to postgraduate students, distance education students and any other members of the student body who require remote access to information. The project is specifically focusing on how the VDX software can be used to provide services to these students.

Where are we now with LIDDAS

As previously mentioned, the Document Supply Unit at Macquarie University is now using the VDX. Staff are gaining experience in the use of the software and are building up confidence in its ability to perform. A LIDDAS Implementation Group has been

established at Macquarie, comprising representatives from all areas in the Library. Issues currently under consideration include training, marketing and technical support. Work is being done on customising the end-user interface to the software, which will have Macquarie badging and include local help screens. Training packages are being developed for end-users and procedures are continually being refined and developed for our interlibrary loan staff at Macquarie. Over the next 12 months, workflows within the Document Supply Unit will be gradually refined to ensure that we get the most out of the software in terms of process improvement. A trial has already begun with a small group of our end-users and this is providing valuable feedback.

As Elizabeth Firman noted in her 2002 paper, there are still a range of challenges to be faced in the successful implementation of the VDX software. [11] Z39.50 is a fairly primitive standard, very dependent on the quality of the records it interrogates. No doubt there will be enhancements to existing standards and the development of new standards as times goes on, but at the moment it is an issue. As previously mentioned, authentication is still a problem for Macquarie and we will have to work out ways of managing this. Furthermore, patron loads are an issue at Macquarie as we are unable to obtain all necessary information from existing sources.
Once we have successfully completed our end-user implementation of the VDX for interlibrary loan functions, we will review our distance education services and make informed decisions on how we may use the software for this group of clients.

The Future

We have now arrived at the age of distributed learning, where learning can occur both on or off campus, students have endless flexibility in the way they learn and the time can be of their choosing. Learning can occur "anytime, anyplace". [12] This change, by it's very nature, means that traditional library services must change to meet new demands. We know that the number of international students continues to increase. We also know that most, if not all of our students, are time-poor. The VDX software is offering us a tool for providing a better service to a wider range of clients. At Macquarie, we believe that the future will see continual technical developments to enable more efficient and effective services for our clients, at their convenience. It is, indeed, an exciting time to work in academic libraries.

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[11] Firman, unpublished.
[12] Oblinger, et al, p. 1

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