

Unmediated is the message: consortially-facilitated, user-centered approaches to enhancing interlibrary loans: one academic library's experience

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Introduction

This paper discusses the work of one university library in the implementation and delivery of 3 consortially-facilitated, user-centered initiatives to enhance traditional interlibrary loans, thus “breaking barriers” in interlending and document supply.

Ryerson University, in Toronto, Ontario, Canada is a leading centre of career-focused education, offering more than 40 undergraduate and graduate programs, with an enrollment of 17,041 FTE (full-time equivalent students). The Ryerson Library collection consists of over 480,000 books, 2,500 print journal titles and over \$1 million (Canadian) annually of electronic resources. The Library's staff is comprised of over 70 full-time positions, including 22 professional librarians.

Ryerson began its life in 1948 as Ryerson Institute of Technology and was developed out of a retraining and reintegration institute established for veterans of the Second World War. The name was changed in 1964 to Ryerson Polytechnical Institute and in 1971 the institute was granted the right to confer degrees. Ryerson was granted university status in 1993, as Ryerson Polytechnic University. The first graduate programs began in 1999, and in 2001, the name was officially changed to Ryerson University.

Given the historical background, the Library suffered from a lack of appreciation by the institute's community, and subsequently also from chronic under-funding. This situation has improved in recent years, but Ryerson Library still has the lowest number of books per student of any university library in Canada - hence the importance to us of consortial resource-sharing, interlending and document delivery.

Ryerson University Library has benefited considerably from resource-sharing endeavours through OCUL (The Ontario Council of University Libraries), a consortium of 20 university libraries in the Province of Ontario. The member libraries cooperate to enhance information services through resource-sharing, collective purchasing, document delivery and similar activities.

One consortial digital initiative, netLibrary eBooks, provides user-centred, unmediated access to shared virtual monographs. In a collaborative OCUL purchase, approximately 2000 NetLibrary ebooks, plus an additional 1600 titles shared with COOL (The Consortium of Ontario Libraries, which also includes the public and college library systems), are fully integrated into our OPAC (On-line Public Access Catalogue), and are available to our users remotely via the Web. Users can search, browse, borrow, read and return ebooks on-line. This shared electronic collection was the first of its kind in Canada, notable for its cooperative model that includes both public and academic libraries.

Another project, Ryerson's fully-subsidized document delivery service (which benefits from OCUL discount rates for the Ariel system of transmission over the Internet) allows users to order journal articles directly from the CISTI Source (Canada Institute for Scientific and Technical Information) database. An important added feature is that the database is linked to the Ryerson Library catalogue, preventing users from requesting Ryerson holdings and connecting them directly to our full-text resources.

Interlibrary loan is a costly and complex activity, and at a small university like Ryerson (with a small collection and an increasing demand), plays a large role in the delivery of library services. The ever-volatile global information ownership and access environment requires the library to participate in the implementation of new software and engage in the latest consortial endeavours in order to deliver timely and cost-effective services. The most recent large-scale initiative of OCUL is the implementation of the ILL management system VDX (Virtual Document eXchange). Since June 2003, Ryerson faculty and students have had access to RACER, a new interlibrary loan system, which provides "Rapid Access to Collections by Electronic Requesting." Users have the added convenience of being able to search a virtual union catalogue of Ontario university libraries and selected world catalogues through a single search point.

Background: Library Consortial Initiatives in the Province of Ontario, Canada

Ontario Council of University Libraries

The Ontario Council of University Libraries is a consortium of 20 libraries in the Province of Ontario, with a total FTE service population (as of July 2003) of 291,531 and growing. (1) (The provincial government recently made the decision to abolish the final year of high school. For September 2003, a "double cohort" of graduates of grades 13 and 12 applied for placement at university, and all Ontario universities, including Ryerson, were required to accept additional numbers of students.) Acting in a consortium provides considerably more clout and more money for the Ryerson Library in negotiating with vendors for electronic resources, and has resulted in substantial cost-savings for Ryerson and the other participating libraries.

Not only are these resources being purchased collaboratively for cost-savings, but OCUL librarians are also currently working together to create uniform modes of access to the wide array of electronic resources offered. For example, Scholarsportal is a project that provides a common search interface to journals from several publishers. Partially funded by the Government of the Province of Ontario Innovation Trust funds, Scholarsportal brings together a growing number of scholarly digital resources. It currently provides access to the full text of over 3,800 journals published by Academic Press, American Chemical Society, Elsevier Science, Harcourt Health Sciences, Kluwer (Kluwer Academic Publishers, Kluwer Law International and Kluwer/Plenum), Springer-Verlag, and John Wiley & Sons. (2)

Ontario Digital Library

In a similar endeavour, “the Ontario Library Association has been pursuing the concept of an Ontario Digital Library for over two years. The Ontario Digital Library is a vision of how publicly assisted libraries in Ontario can collaborate to create and sustain a partnership that will provide seamless services and resources to all the citizens of Ontario. While recognizing the unique responsibilities of public libraries, school libraries, college and university libraries, the Ontario Digital Library envisions a digital network of information resources and services that will inter-link and inter-operate to enable province-wide access to high quality information resources.” (3)

Canadian National Site Licensing Project

“The Canadian National Site Licensing Project (CNSLP) is a ground-breaking digital library initiative established by the Canadian research library community to increase the capacity for research and innovation in Canada. CNSLP has been widely recognized in Canada and abroad for its significant role in the development of Canada's infrastructure for research excellence. Through innovative licensing agreements, CNSLP has secured desktop access to electronic versions of scholarly journals and research databases primarily in science, engineering, health, and environmental disciplines for 64 participating universities, including Ryerson, across Canada. Currently, more than 700 scholarly journals are available online to over 650,000 university researchers, post-doctoral fellows, graduate and undergraduate students.” (4)

Canadian Universities Reciprocal Borrowing Agreement

Since May 2002, under an agreement which could have the potential for lessening the load of interlibrary loans for monographs, the Canadian Universities Reciprocal Borrowing Agreement provides for in-person reciprocal borrowing privileges for students, faculty and staff from most universities across the country. All that is required for borrowing from another participating university library is a valid university identification card or a valid regional consortia card. (5) Previously there had been an agreement in place for “direct borrowing” amongst the OCUL libraries. There are two other universities in addition to Ryerson in Toronto and several others in nearby cities. The Ryerson community has therefore benefited from this agreement. Between May 2001 and April 2002, we lent 4483 items to 519 individuals from the OCUL libraries through direct borrowing. During the same period, 368 Ryerson individuals directly borrowed 7531 items from other libraries. (Since the University of Toronto does not allow direct borrowing to undergraduate students, Ryerson's borrowing from them, at 4457 items, or 59% of the total borrowed, represents graduate students and faculty only.) The total number of OCUL direct loans between May 2001 and April 2002 was 238,894 for 171,477 individuals, thus potentially reducing the workload of ILL staff by thousands of transactions, as well as the costs of ILL.

NetLibrary

NetLibrary eBooks are full-text electronic versions of books previously published in print. It is the most comprehensive collection of electronic books available (over 40,000 titles) in a wide range of subject areas including business, economics, technology, social sciences, health sciences humanities, etc. All access to these ebooks is through the Web, and no additional software or hardware is required.

OCUL and netLibrary

The OCUL netLibrary eBooks consortial purchase is a concept that could be described as sharing the virtual as opposed to the traditional ILL role of lending of the physical. The advantages of shared ebooks are many: user convenience of having remote unmediated instant access 24 hours a day, 7 days a week from anywhere in the world; cost/labour saving, as no staff time is involved in the process; cost saving as the collaborative purchase resulted in a far lower price per title for each library.

The idea of shared ebooks was not new. Cannon and Watson detail the experiences of the Tampa Bay Library Consortium (in Florida) in acquiring and making accessible netLibrary eBooks in September 2000. They report a favourable outcome in terms of content and use, and are ready to move ahead in this area. (6) Lynch describes the process of the Nylink (in New York State) consortial acquisition of a collection of netLibrary ebooks beginning in June 2000. She is more cautious about the success of their venture, and notes that while ebooks may be here to stay, their potential impact is still in its infancy. (7)

The OCUL consortium purchased 2,000 netLibrary titles in March 2001, obtaining perpetual rights (rather than annual rights) for access. Discussions leading to this purchase began in October 2000. To begin the selection process, each participating library identified the Library of Congress classes relevant to their curriculum and collection development policies. The results were compiled by a working group from some representative libraries, and titles were then chosen from lists from Canadian Presses, Choice Outstanding Academic Titles, COPPUL (The Council of Prairie and Pacific University Libraries in Canada) selections, and netLibrary's business titles. This preliminary list of selections was then circulated to participating libraries for potential eliminations, and a final list compiled. One copy of each title is shared between the 13 participating libraries. A cost-sharing formula, based partially on FTEs, was developed, and Ryerson paid approx Can\$5 per title. The statistics on the number of "turn-aways" (see below) show a success rate of 85%, which compares favourably with the results of a Materials Availability Survey undertaken by the Ryerson Library in March 2000, where the success rate for finding physical items on the shelf was 74% (adjusted to remove searches for items not found in the OPAC). (8) These statistics indicate that the shared mode is currently adequate for our users needs.

COOL and netLibrary

In October 2002, the original OCUL consortium was joined by the Consortium of Ontario Libraries (COOL) to purchase additional titles. The COOL participants in this project were select public libraries of the Southern Ontario Library Service (SOLS) and the Bibliocentre, which represents the Ontario Community Colleges. 3000 netLibrary titles were purchased by the COOL group. OCUL was given access to the COOL titles, and COOL to the OCUL titles, at no additional cost to either consortium. Because of an overlap with the original collection, the OCUL numbers grew by about 1400. As a result, Ryerson now has approximately 3400 netLibrary eBooks.

The acquisition of this electronic collection was the first time in Canada in which both public and academic libraries worked collaboratively. Each sector contributed money, and in return increased its purchasing power. This collaborative process has been described in detail by MacDonald. She notes that “This project demonstrates that the library sectors can work together cooperatively to the benefit of all and actually save money for the taxpayer in the process.” (9)

Ryerson Library and eBooks

At Ryerson, the past few years have seen an ever-increasing demand for remote access to full-text resources. One reason for this was the establishment in 1999 of a Distance Education unit within the university, and a subsequent exponential increase in the number of distributed learning courses offered.

The OCUL purchase has enhanced the Ryerson Library collection through new titles and additional copies, with relevant content. (NetLibrary usage statistics reports, the results of checking of bibliographies for recent collection evaluations, and subjective observation of the use of eBooks in the Reference area of the Library, have substantiated this claim.)

One of the key factors in the users’ easy adoption of eBooks has been that they are fully integrated into the library catalogue. NetLibrary provides MARC records, compatible with the Innovative Interfaces integrated system used by the Ryerson Library, and these were loaded into our Web OPAC.

Ryerson users will typically find an eBook through the Ryerson Library catalogue subject or keyword search. Our catalogue can also be searched by author “netLibrary” for an alphabetical listing of these eBooks. (Alternatively, users can search through the netLibrary site www.netlibrary.com, which has the additional enhancement that the full-text of the books are keyword searchable.) eBooks may be accessed in two ways: browsing or checkout. Users can browse on-line for an unlimited time: while the user is actively using that eBook, no other user will have access to it. If 15 minutes elapse without active use, the connection is lost and the book is virtually returned to the shelf. Access is validated through IP authentication. Off-campus users connect through ezProxy for remote use, as they would do for other Ryerson databases.

Users may also create a free account on-line on an IP authenticated computer and then have access to the collection through the netLibrary Website from any location worldwide, without IP authentication. Account holders are able to check out titles for a 24-hour loan (for the OCUL titles, 2 hours for the COOL titles) period for exclusive on-line reading. The OCUL group is currently considering changing to browse only access, as the usage statistics indicate that most users spend an average of 5 –15 minutes on a title.

Ryerson usage statistics (2001/3)

The OCUL netLibrary eBook collection has been accessible from March 2001, although most activity has occurred since September 2001, as our academic year runs from September through April, and the collection was not actively promoted until September of that year.

Therefore, statistics for 2 academic years (September 2001 through April 2003) are as follows:

- Over 800 accounts created (but accounts are not necessary for browsing access)
- 1581 different titles accessed (through both browsing and checkout)
- Total accesses: 6030
- Turn-aways: 880
- Usage: range from 172 uses per title to 0

The statistics and unofficial feedback from our users indicate a positive response to the ease of use, quality content and availability of our collection of netLibrary eBooks. Subsequently, we have expanded our holdings of ebooks through the OCUL consortial acquisitions of the ENGNetBASE and Cognet databases, although titles are not shared between OCUL libraries in the same way. These databases allow an unlimited number of simultaneous users. The monograph titles in these databases are in the process of being added individually to our catalogue to provide one-stop shopping for all Ryerson ebook titles. Ryerson Library's initial foray into shared ebooks was essentially an experiment that has had a successful outcome. Thus far, however, our collection of ebooks has been driven primarily by these consortial initiatives, rather than as a direct internal policy decision. The Library is now in the process of creating a formal collection development policy for ebooks in order to clarify decisions around future acquisitions.

An Ideal Interlibrary Loan/Document Delivery Model

Throughout the 1990's, there was extensive discussion on unmediated or user-initiated document delivery and interlibrary loan. This transfer of power from ILL staff to end-users in directly finding citations, placing orders and receiving documents is the key to an "ideal" model of interlibrary loan or document delivery service. An ideal model, as envisioned by Shirley Baker (10), Sellers and Beam (11) and Mary Jackson (12), has to include all or most of the following features:

- furthers users' self-sufficiency by supporting patron-initiated electronic ordering from within a bibliographic database;
- ease of use;
- a seamless link to library holdings to automatically block requests for materials available locally;
- multiple delivery options, and
- standards that permit intersystem transfer of requests.

A number of articles on user-initiated document delivery projects reported varying successes in achieving the above objectives e.g. University of Nevada, Las Vegas in the United States (13) and McGill University in Canada. (14) Almost all libraries concur that such projects expand local collections or enhance service by providing one-stop shopping for users. While some may be skeptical of the amount of staff time saved and, in particular, the potential of unmediated document delivery replacing ILL, there are libraries such as McGill University that have experienced a reduction of ILL requests and staff workload as a result. (15)

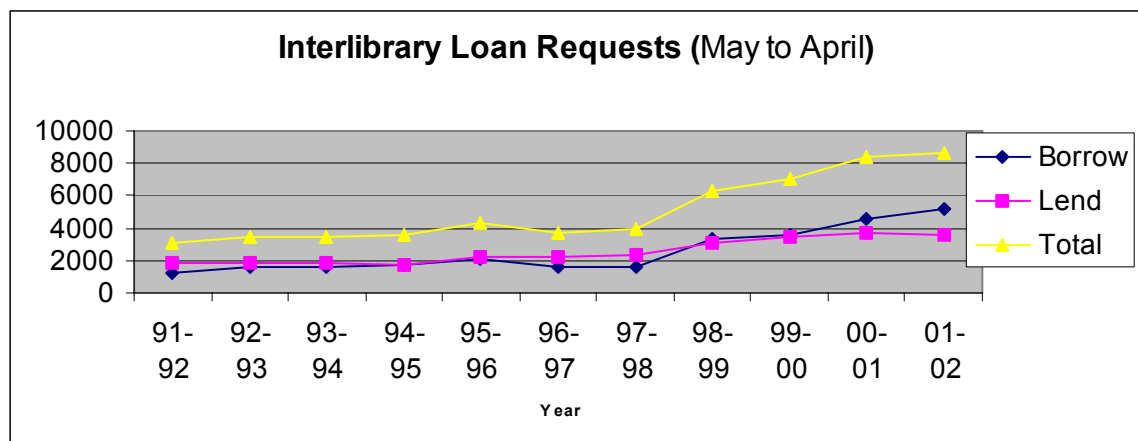
Ryerson University Library's Interlibrary Loan and Document Delivery Service

Unlike most document delivery projects in North America - University of Nevada, Las Vegas (16), McGill University (17), New Mexico State University (18), University of Tennessee Library (19), and University of Houston's M.D. Anderson Library (20), just to name a few, massive journal cancellations were not the main driving force behind Ryerson University Library's pilot project in offering CISTI Source direct ordering service. Service enhancement and convenience to users were the prime considerations. Service and users are also the theme that runs through all of these user-centred initiatives that began at the same time – the introduction of Ask A Librarian Chat Service (2001), e-books (2001), and continual expansion of electronic access to databases, especially full-text, including the CNSLP (2001). Almost all of the above, including the RACER interlibrary loan system (2003), are enabled by consortial or collaborative efforts, directly or indirectly.

CISTI Source Direct Ordering Project

Reasons for Pilot Project

The CISTI Source direct ordering project <http://www.ryerson.ca/library/info/cisti.html> was Ryerson University Library's first stride into the territory of user-initiated electronic requesting of documents within a bibliographic database. There were a number of reasons for launching the service at the end of 2001. The official change from a polytechnic institute to university status in 1993, and the resulting increase in research activities, have accentuated the need for access to scholarly literature beyond our local holdings. In spite of significant acquisitions in electronic full-text databases, the expanded journal collections are inadequate for the breadth and depth of research needs. In November 1997, the Library started a pilot project of offering free interlibrary loan service to faculty, and then to students in March 1998. Subsequent years have seen a skyrocketing increase in ILL requests.



The fully subsidized interlibrary loan service has addressed a main concern of users in conducting research – the cost of getting materials. Timing is the next important issue. A benchmark study by the New Mexico State University indicated that a majority of users believe that copies should arrive quicker than loans and expect delivery within 48 hours. (21) However, according to a 1996 ARL Performance Measures Study, the average turnaround time to fulfill a borrowing request in the traditional ILL setting was 15.6 calendar days for Research libraries and 10.8 days for College libraries. (22)

At Ryerson University Library, various technologies have been adopted to improve the turnaround time. In 1997 Ryerson started using AVISO, a DOS-based ILL system. Through OCLC, the Library began in the early 1990's to use the Ariel software for scanning and transmitting documents. Being a member of the OCLC group, Ryerson has been using “netting out” payment to eliminate individual billing. In 2000, Ryerson adopted the OCLC's ILL Fee Management (IFM) service to reduce time and labour in processing invoices. The staffing complement of Ryerson's ILL department was increased from 1.91 FTE in the mid 90's to 3.89 FTE in 2002. All these efforts have helped to improve the ratio of ILL requests processed by staff (from 1,667 requests per FTE in 1991/92 to 2,288 requests per FTE in 2001/02). Nevertheless, a turnaround time of 48 hours cannot be guaranteed. As indicated in the Ryerson Library's Interlibrary Loan policies (http://www.ryerson.ca/library/info/ill_docdel.html), the average turnaround time is “a few working days or more for articles, and a week or more for books. International requests will take longer time.” In 1998, the average ILL borrowing turnaround time for copies was 13.8 days (from the time a request is entered on AVISO to checking-in an item). An improvement was recorded in 2001/02, with borrowing time averaging 6.6 days for filled requests. However, it was still far away from the target of 48 hours. Choosing a document delivery service provider with a credible track record of fast turnaround time was the next logical direction for service enhancement.

Choice of CISTI Source

CISTI Source was the prime choice. Firstly, it guarantees 48-hour turnaround time. Secondly, CISTI Source is a Canadian database, covering more than 17,000 journal articles in the scientific and engineering disciplines. Over 70% of the journal titles requested by the top borrowing departments in 1999/2000 were listed in CISTI Source. Furthermore, Ryerson could benefit from the OCUL negotiated rate of Can\$7.50 per article (previously Can\$6.25), a 25% discount from CISTI's posted rate of \$10. The cost compares favourably with the average ILL charge. The OCUL group members charge one another Can\$5 for articles. The cost will be much higher if the requests have to go outside the province or the country, as much as US\$20 in some instances. This does not even include the hidden cost of staff processing which, according to the ARL study, is several times higher than the borrowing fees, which only accounted for 7% of the actual unit cost of ILL in 1992, and 16% in 1996. (23)

Lessons Learned

Ryerson has benefited from the experiences of other libraries that offer document delivery service to their users. It was recognized that user training is important and linking the library's holdings to the CISTI Source database would prevent unnecessary ordering of materials owned by the Library. Ariel delivery provides better quality copies than fax, especially graphics and charts (<http://www4.infotrieve.com/ariel/ariadv.html>). There are ways to work within the Canadian Copyright law, which does not permit the direct transmission of documents to the user's desk top. McGill University Library in Canada, for example, has helped its user departments to install Ariel software on their computers, enabling them to receive documents directly. (24) However, being a pilot project, and starting small in scale, Ryerson staff wanted to evaluate CISTI Source's performance by keeping a log of its turnaround time and inspecting the quality of articles received. Therefore, requested articles are delivered to the Library's Ariel machine. Users subsequently pick them up at the Circulation desk. Faculty can request for articles to be sent to their offices via campus mail.

It was soon discovered that everything learned could not be applied without a constant re-assessment of local culture and users' needs, and re-thinking of the project parameters. Initially, Ryerson ILL offered the CISTI Source service only to the science and engineering faculty. Cited studies have supported the view that science users would find the service most beneficial. (25) This group of users would probably most need current information and need it fast. In anticipation of enthusiastic response, ordering was limited to 15 articles per user during the six-month trial period.

This restriction proved to be unnecessary, as users did not initially over-use the new service. Since both ILL and CISTI Source service are free, cost was not a consideration in choosing either service. Some heavy ILL users were accustomed to mediated service; they were contented to be served. They requested ILL well in advance of their needs. Hence, the "just in time" selling point of CISTI Source ordering had limited appeal for them. In addition, the service was hampered by an

incomplete comparison of local periodical holdings with CISTI Source's bibliographic database. The two collections are compared at the title level and not volume and issue level. This has resulted in some faculty orders being blocked while the Library's collection could not provide them with the articles due to cancellations of subscriptions, incomplete runs, or other reasons. The chronological coverage of the CISTI Source database was another issue. The database covers materials from 1993 but faculty may need information published earlier.

Change in Strategy

A change in strategy was required. To remove the mental barrier of saving the CISTI Source option for future or urgent needs, we did away with the upper limit of ordering articles (15 articles per person) at the end of the trial period. As CISTI Source has 35% of social sciences and humanities content, the service was extended in April 2002 to all faculty instead of being restricted to the science and engineering departments. To zero in on the heavy researchers, flyers were sent out in January 2002 to faculty who had recently obtained research grants or were actively engaged in research projects.

The decision was made to appeal to a new group of users who place higher priority on speed, convenience and control over the ordering process. In September 2002, the service was extended to graduate students and in May 2003 to research assistants, and then 4th year undergraduate students in September. While reaction from this latest group remains to be seen, graduate students were quick to take advantage of the service. 43 faculty users were registered between the period of November 2001 to June, 2002. A higher number of graduate students have participated since September 2002, bringing the combined total of registrants to over 100 in June, 2003. Ordering of articles has doubled since the service was introduced to graduate students.

It became clear that focusing only on speed of delivery to faculty was not the proper strategy. Co-incidentally, CISTI Source changed their marketing strategy to offer free Alerts to document delivery registrants. The Library quickly seized the opportunity to re-package the marketing plan – emphasizing that the CISTI Source service is the ultimate research tool, combining in one source the Alerts, the link to full-text resources (via our catalogue links) and document delivery at the time of needs.

Improving the linkage of local holdings to CISTI Source database relies on an overhaul of Ryerson's serial cataloguing records and converting them to the MARC format. The process is time-consuming and labour-intensive. The Serials Solution software has recently been acquired to enhance the linkage of journal titles to electronic full texts. These initiatives should eventually improve the automatic checking of library holdings against the CISTI Source database, thereby reducing one of the biggest frustrations faced by users.

Project Evaluation

In spite of some imperfections, the CISTI Source service has been well received by Ryerson users. Two small-scale surveys on user satisfaction were carried out in February and July 2003. 30% of the registrants responded. The respondents were

overwhelmingly in favour of the service (over 93% ranking it in the top two categories on a scale of 1 to 5). These users were most appreciative of the speed and convenience.

CISTI Source User Survey

| | Outstanding | | | | Unsatisfactory |
|-----------------------------------|-------------|------------|-----------|-----------|----------------|
| | 1 | 2 | 3 | 4 | 5 |
| Overall satisfaction | 53% | 40% | 0% | 7% | 0% |
| Speed in obtaining search results | 50% | 36% | 7% | 7% | 0% |
| Document delivery time | 75% | 17% | 8% | 0% | 0% |
| Ease of placing orders | 75% | 17% | 8% | 0% | 0% |
| Subject coverage | 36% | 46% | 18% | 0% | 0% |
| Chronological coverage | 22% | 45% | 0% | 22% | 11% |
| Library staff assistance | 75% | 17% | 8% | 0% | 0% |
| FAQ or library instruction | 50% | 25% | 0% | 25% | 0% |

Most of the evaluations of document delivery projects seem to discuss the relationship with collections and the cost of ILL (access versus ownership issues). An interesting variation is the report of the University of Houston's M.D. Anderson Library's project, discovering a new relationship between the subject librarian and the faculty via the ILL process. That Library has mediated the service through one subject librarian, thus strengthening the ties and increasing the interaction. Above all, the Library is now able to "get them what they needed now, and they were delighted."(26) In a similar way, the CISTI Source project has increased the profile of Ryerson Library's ILL department, and initiating a new relationship between the Library and its users, especially the more recently hired faculty and graduate students in the University's newly created Masters and Ph.D. programs.

While Ryerson may not appear to have realized in full the requirements of an "ideal model", the high satisfaction rate from the survey respondents and the steady increase in ordering indicate that Ryerson is on the right track towards meeting the main objectives of the project:

- To provide our users with an alternative means of electronically ordering journal articles besides ILL;
- To provide ease and convenience of 24/7 ordering;
- To guarantee fast turnaround time (48 hours) of journal articles delivery, which is not possible with ILL;
- To provide users with more control of their request and borrowing process and flexibility in planning their research; and
- To raise the profile of the ILL department in the new, re-defined relationship between the Library, education and the users.

David H. Fuller, Jr. discusses in his article the relationship between distance education, technology, educational trends, and library services. (27) The Internet has

increased faculty and students' access to resources outside the walls of the library. The emphasis on speed and convenience in the digital age penetrates every facet of our life, from fast food delivery to the door within guaranteed time, to no-waiting wireless access to the Web, and to integrated voice, e-mail, Web functionality in a compact portable cellular phone. Basic library services are simply not enough to meet the needs of the new generation. Traditional interlibrary loan service has to adapt to keep pace with these changing demands. Like many other libraries, Ryerson Library has redefined and re-thought its services in relationship to the educational needs of its users. The Library has striven to provide 24/7 access to a significantly expanded collection of full-text electronic databases and electronic books through netLibrary, and instant reference assistance through the interactive Chat service. A self-charge out machine for books was installed in September 2003. Electronic Reserve is being implemented. The Library is interested in pursuing digital image databases and web streaming video and will continue to stay alert to developments in these areas. Document delivery is just another aspect of Library service which allows the users the convenience and speed of accessing information at the point of need.

RACER (Rapid Access to Collection by Electronic Requesting)

RACER provides a good example that demonstrates the concerted efforts of the OCUL group to attain, as completely as possible, the "ideal model" of an interlibrary loan system (<http://racer.scholarsportal.info/>). The ability for end-users to search across 20 library catalogues simultaneously and in real-time is a breakthrough not only for end-users but also for ILL staff. The RACER database includes the virtual catalogue of Ontario universities and selected world catalogues such as AMICUS (an information resource developed and maintained by the National Library of Canada for libraries and researchers), Library of Congress, British Library, National Library of Canada, RLG RLIN (the Research Libraries Information Network, an internationally available bibliographic information system used with RLG's Library Resources) and SOLS (Southern Ontario Library Services, Canada). The capacity for bibliographic information derived from these searches to auto-populate the ILL forms has become a user-centred vision finally realized. The real-time e-mail alerts sent to users informing them of arrivals, non-supply and local holdings as well as users' ability to monitor the status of their requests are features that are absent in the DOS-based AVISO system that was created in the early 1990's. Finally, the ideal mentioned in Mary Jackson's 1998 Library Journal article, the "standards that permit intersystem transfer of requests", is closer than ever before. (28) Since June 18, 2003, Ryerson Library has been using the VDX (Virtual Document eXchange) technology to communicate with other modified ISO (International Organization for Standardization) and Generic Scripts (e.g. AVISO) systems. There may soon be ISO direct requesting to other resource-sharing systems such as OCLC and RLG's ILL Manager, thereby reducing the remaining hurdles in the way of transferring requests.

OCUL (Ontario Council of University Libraries) and RACER

The RACER project is the most ambitious ILL project yet for Ontario universities. In 1967, the Inter University Transit System (IUTS) was created to address the long delays faced by faculty and students and the high costs incurred by university libraries

when using interlibrary loans. The service, which the Council of Ontario Universities (COU) established in September 1967, initially served only 14 universities. In 2000, the service delivered approximately 195,000 items to COU's 19 member institutions. In the early 1990's, Ariel was acquired through a group purchase. Subsequent upgrades continued to be acquired through this means, taking advantage of the consortium rate. Group acquisition of the AVISO software package was launched a few years later. An agreement was signed with CISTI for a special discount rate on behalf of all OCUL members in 1999 for a 3-year contract, which has been renewed. However, none of the above is as complex and involves as many levels of staff from participating institutions as the RACER project. None has taken as long as almost three years from its inception to actual production for eight institutions in the OCUL group, beginning in June 2003.

Without the government funding from OIT (Ontario Innovation Trust), Ryerson and many other Ontario universities would never have had the chance to acquire a system as sophisticated as VDX. The regional project was funded by a five-year grant from OIT in 2001 (for hardware, software and site licensing) and contributions from OCUL members (for salaries, administration and evaluation).

Collaboration and Consortial Efforts

The idea of collaborative acquisition and implementation of a new ILL system is the result of a general desire of Ontario university libraries to replace their existing ILL systems, mainly AVISO. AVISO is a DOS-based batch-processing ILL management software developed in the early 1990's. While sufficient to support most ILL functions, including invoicing and statistics, the shortcomings were more pronounced when the Web, real-time interaction and interoperability became the buzz words for other library functions and systems in recent years. The opportunity for collaboration came in 1999 when the University of Toronto was reviewing ILL software and invited other OCUL members to participate in evaluating ILL products. Spurred on by the desire to replace AVISO and impressed by the contrasting VDX ILL interface, the OCUL ILL managers voted unanimously at a meeting in March 2000 to recommend to the OCUL Directors the adoption of the VDX software across OCUL. The recommendation was accepted in April and a Task Force was set up to work on an action plan.

The planning was a long drawn-out process. The contract between the University of Toronto and Fretwell-Downing was expanded to include all OCUL members. Acting as the central service provider for the whole OCUL group, the University of Toronto had to acquire servers and other necessary hardware in the following year. In 2002, a project team of specialists was recruited to plan, manage, train and provide support to OCUL members. ILL managers from OCUL volunteered to serve on various teams, responsible for collecting data on policies, external locations, statistical reports and systems to help lay the groundwork for the global settings and defaults. When approaching the "going live" stage, a public services team was formed in April 2003 to deliberate on end-user instruction and training. Numerous surveys were conducted aiming at confirming the OCUL and location specific configuration settings. These included questions on Z39.50, external locations, and policies. Wherever possible, attempts were made to reach consensus on some common service settings. The

implementation timelines have been revised a couple of times due to various complications, technical and otherwise, and involving either OCUL or Fretwell-Downing

In 2002, the Z39.50 catalogue was launched. In order that VDX could send and receive Generic Script ILL requests to the many other Canadian institutions that do not have ISO compliant systems, OCUL made a special deal with Fretwell-Downing to develop a translator program (called the Generic Script driver). Both OCUL and Fretwell-Downing staff spent substantial time on testing and development work to ensure the “translation” functions. OCUL libraries had to undergo training at different stages and practice communication with each other for months, testing the generation of “Rota” (a list of potential responders, or request routing), the display of local availability, the automatic Alert sending to users notifying arrival of materials, cancellation of requests and availability in local collections, and the performance of the system under stress – when it is being used simultaneously by participating institutions.

Some compromises of local preferences are inevitable in any collaboration. In the main, consensus has been reached for policy defaults and global settings, which include turn-around time expectations, renewal policies and selections of holdings for the DocFind matching (The Rota is built by a processor or ILL driver called DocFind). When it was deemed desirable, the Tactical Information Group (TIG) also negotiated with other ILL consortia for a global reciprocal agreement or a common service policy between them and OCUL members.

Other resource sharing partners have been very helpful. For example, the National Library of Canada provided a copy of the National ILL Directory so that RACER could begin with a fairly complete database of all potential Canadian resource sharing partners.

Benefits to Users

Convenience to Ryerson users is undoubtedly enhanced by the new system, especially when compared with the former AVISO system.

| AVISO | VDX |
|---|--|
| User filled in a blank Web form on the Library’s Innovative integrated system | User has the additional choice of bibliographic search across library holdings and results auto-populated the ILL request form, without re-keying. |
| User had to search local library holdings and other catalogues separately | User can search a virtual catalogue and holdings simultaneously. |
| User could not monitor the status of his/her request. | User can monitor the status of his/her request – whether it is in process, or cancelled. |

| | |
|--|--|
| User had to communicate with staff in person or through the phone to find out the status of request. | An automatic Alert is sent to the user's e-mail account, informing him/her that materials have arrived, requests cancelled or available in local holdings. |
| Staff had to re-key users' requests in AVISO from the Innovative system. Requests sent/received through AVISO were stored overnight on local computers before batch dispatched to other locations. | Users' requests are received in real-time by staff and sent in real-time to lending locations. |

Growing Pains for Staff and Users Alike

At this initial stage of implementation, the process is mediated by OCUL staff, although it is possible for end-users to directly send the requests to lending locations without the intervention or monitoring by staff. Whether the VDX system comes close to an "ideal model" has to be tested in the months to come. The implementation is being staged in different phases across OCUL members. Ryerson was among the first group to go "live" on June 18, 2003. It is hoped that the entire consortium will be in production later in the year. At Ryerson, both the ILL staff and users went through a big learning curve during the transition. Confusion with the self-registration process was the first hurdle for users. Then came the misunderstanding of VDX or ISO terminology when users were checking their own profiles. Users have not yet taken full advantage of the new capability of bibliographic searching and requesting ILL within the same system; there is still the tendency to separate the process and use blank ILL forms exclusively for requests. Staff are groping with a changed workflow. They are discovering what the new technology can do or cannot do in reality, learning to strike a balance between their own preferred practices with the global policies and defaults, trying out temporary e-mail workarounds to address some system incompatibilities, and answering numerous questions from other non-VDX libraries as well as enquiries from end-users about the new ways of communication.

System interoperability is a big challenge for the RACER project. While on one hand, the RACER system has seamless requesting and receiving with ISO systems – CISTI, National Library of Canada and the British Library (using the ARTISO system), the Generic Script driver and e-mail workarounds were created to communicate with the many resource sharing partners, who are still using the DOS-based AVISO or have no systems at all. The OCUL Tactical Information Group (TIG) has been working hard on improving the accuracy and reliability of Docfind results, as Z targets vary from vendor to vendor.

Other Consortial VDX Users

Consortial installation of an interlibrary loan system is becoming a trend. Within Ontario, in addition to OCUL, the academic consortium, SOLS (Southern Ontario Library Service) is a public library consortium adopting VDX. Recently, an

announcement was made by Fretwell-Downing that CREPUQ in Canada (Conférence des recteurs et des principaux des universités du Québec) had signed a license agreement for VDX to be installed for their 18 universities. In the United States, there are academic or public consortia which are VDX users. Examples are New York WNY Libraries and California University Libraries. Interestingly enough, not all VDX libraries are using VDX the same way. The OCUL TIG, in sharing information on configuration and implementation issues with the project staff at the University of California (UC), came to realize that the U.S. counterpart is focused mainly on VDX as a tracking tool behind their Melvyl system. UC does not use Zportal or the Z39.50 search capabilities of Docfind to build a Rota since over 70% of UC interlibrary loan requests are filled within the UC system setup. Even within OCUL, members are split in the approach to integrating the end-user personal information on the system. Some choose to upload their whole patron database on the system on a daily or very regular basis while some, like Ryerson, have opted for end-user self-registration through electronic means, putting the registration form behind the libraries' proxy servers.

The OCUL RACER system has demonstrated the emphasis on a user-centred approach to the ILL process. The extensive collaboration between the members in planning and executing the project is an example of how a consortium can help to achieve an end which is difficult to be met by individual efforts. Interlibrary loan itself is a partnership process, enabling reciprocal borrowing and lending. The forming of different consortia, regional or functional, to reduce cost, or to share resources, is a new definition of the partnership, which few academic libraries can afford to ignore.

Conclusion

These three consortial initiatives: netLibrary eBooks, CISTI Source Document Delivery, and the RACER VDX ILL system, have greatly enhanced Ryerson Library's ability to satisfy its users with resources beyond the Library's limited collection. They have empowered the user to access resources more directly, from remote locations, and at their own time and convenience. Ryerson will continue to work with OCUL and other Canada-wide (or even international) initiatives to expand access to unmediated electronic resources, and to work towards making Ryerson's interlibrary loan and document delivery services truly unmediated.

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