Automation of interlibrary loan services: effects on the patron and the library

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Introduction

Many interlibrary loan departments have undergone dramatic technological changes over the past few years as a result of a growing demand for quick and cheap interlibrary loan and document delivery services to patrons. Moreover, the growing need of the library to minimise expenses and reduce the number of labour-intensive tasks has accelerated this trend. These factors and others prompted the Interlibrary Loan (ILL) unit at the University of Haifa Library to undertake a systematic process of automation.

This paper will describe the process of automation of the ILL unit, and also assess the extent to which the automation process has improved customer service. It will also outline the ways in which the library has benefited from this process.

The University of Haifa

The University of Haifa is a major research and teaching institution specialising in the humanities and social sciences, with departments in mathematics, computer, biology and law. Currently 12,750 students at all degree levels are registered as well as over 600 academic faculty members. One central library, which holds 1.8 million volumes, serves the entire university community.

Background

Like many university libraries, the University of Haifa Library has seen an increase in the demand for interlibrary loan and document delivery services since the mid-1990s, and with this increased demand, increased expectations of the various services available. These trends have made automation of procedures a necessity. Since January 1997 the Interlibrary Loan unit at the University of Haifa Library has been undergoing a systematic process of automation, the main objective of which has been an improvement in customer service.

Steps in the automation process

The first step in the automation, after the installation of Ariel (www.rlg.org/aruk/)
index.html) in 1995, was the utilisation of the ILL module of the existing library management software Aleph (www.exlibris.co.il) Although Serials, Circulation, Acquisitions, and Cataloguing modules have been in use since the early 1990s, the ILL module was not used by any Israeli library until 1997. Most Israeli libraries preferred to continue with manual operations or purchased ILL software packages from local commercial suppliers, such as Sapir Information Systems.

Although the module includes only borrowing functions, it has a number of other benefits including:

- order management;
- electronic transfer of orders;
- easy assessment of the status of orders;
- creation of statistical reports;
- creation of periodical claim reports.

It also contains a loan feature for the circulation of items borrowed for patrons by creating a temporary new record in the Online Public Access Catalogue (OPAC), and a utility that removes patron identity numbers from the bibliographic records of photocopies supplied and books returned, thereby limiting access only to current requests. Moreover, it has an electronic order form which allows patrons to place requests directly into the ILL module via the Aleph Web catalogue from any location. The Web catalogue also enables patrons to view the status of old and current ILL requests together with current non-ILL loans and reservations from the collection. Lastly, it allows patrons to download specific records and create printouts for later use.

Although the Aleph ILL module is a vast improvement on manual operations, the lack of lending and invoicing functions has made the development of local programs a necessity. Therefore, the second step in the automation process was the development of the following functions over the three-year period 1997-2000.

The functions developed by the team are:

1. automatic printouts of:
   - payment vouchers for cash payment of ILL requests;
   - amounts to be deducted from the requester’s salary or research budget;
   - new orders, sorted by call number, language, and patron;
   - reservations placed for books that are on the shelves in the library (not on loan) sorted by call number;
   - amounts due for items supplied by us to other libraries;
   - amounts to be paid by us to other libraries;
   - address labels based on information taken from the Readers’ File;
   - expenses incurred and amounts received from libraries and patrons;
   - automatic statistical reports of time of supply and fill rate;
   - automatic loan/discharge, recall and renewal system.

2. automatic transfer of orders received from other libraries by e-mail to the ILL module.

3. automatic calculation of amounts due for items supplied and input of these amounts into ILL records.

The following development is planned for the immediate or near future:

- automatic creation of an archive of all transactions.

The third step in the automation process was the use of OCLC’s Prism ILL software in 1998. This enabled the ILL unit conveniently to order items from libraries around the world. In addition, it enabled the patron to send a request for an item located in any of the Firstsearch databases directly to the ILL unit, with no printing, re-keying or form-filling. In the same year, ordering from British Library Document Supply Centre (BLDSC) became Web-based with the launching of Opac97 and Inside which have Ariel and a regular mail delivery option within 48 hours.

Full-text databases purchased by the University of Haifa Library and by the Israel Academic Inter-Library Network from 1998 onwards also changed ILL procedures and the methods by which items were supplied, such as the sending of PDF attachments to e-mail addresses. Finally, the distribution of Docview (www.archive.nlm.nih.gov/) software enabled patrons and requesting libraries to view articles transmitted via Ariel by e-mail at any location. In the near future, Prospero software will enable the ILL unit to convert articles transmitted by Ariel to PDF and send the patrons notifications of availability on a local server.
Benefits of the automation process to the patron

To determine whether the process of automation has been beneficial to the patron and has improved the quality of service, the following factors were considered:

- timeliness of the service;
- fill-rate;
- quality and completeness of the material received;
- interaction with ILL staff;
- ease of ordering and remote ordering;
- price of the service;
- convenience.

Timeliness of the service

The use of e-mail as the main method of transmitting orders to other ILL units and as the foremost means of notifying patrons of the arrival or delay of the material has ensured a speedier service.

Claim letters to supplying libraries are sent out when the estimated date of delivery has passed, ensuring that orders are not forgotten and are sent to another library if the original one to which the request was sent does not supply within the requested timeframe. In the past, the speed of delivery was largely dependent on the amount of pressure the individual patron placed on the ILL unit. Verification of problematic citations by the ILL unit, and not the patron, has also reduced delivery time. Moreover, by receiving articles by Ariel, and not by couriers or regular mail, delivery time has been greatly reduced. Instead of sending IFLA forms by regular mail to individual libraries, the use of automated systems for ordering from major document delivery suppliers, such as BLDSC, and library networks such as OCLC for foreign orders, has also reduced delivery time. Automation, therefore, has enabled the ILL unit accurately to estimate the dates of arrival for orders and to reduce delivery time to an average of ten days for a photocopy and 12 days for a loan (although at least three libraries consistently send photocopies within three days (Figure 1)).

Furthermore, automation has not only enabled the University of Haifa Library to supply requested items more quickly to requesting libraries but, by using statistics to establish which libraries supply quickly and using them whenever possible, have encouraged other libraries to improve their own supply times.

Fill-rate

Patron and librarian access to databases has improved the quality of citations and thus ensured a higher fill rate. In the past, a certain number of requests were returned to patrons unfilled because of incorrect citations. Requests that were not re-verified and brought to the ILL desk were not filled. Under the new arrangements, all incorrectly cited requests are verified by ILL staff and a high percentage of orders submitted are supplied. Furthermore, foreign orders are nearly always supplied because they are verified before ordering. Regular claiming has also ensured a higher fill-rate. Automated messaging systems such as Prism ILL have also allowed access to a greater number of potential suppliers, thereby increasing the fill-rate.

Quality and completeness of material received

Because the citations are often verified before being sent out to suppliers, fewer incorrect items are received. However, the University of Haifa still does not have an automated method to ensure the quality of photocopies received. These are checked manually for their quality, completeness, and for the sequence and direction of the pages. If the supplying library has a good scanner then articles supplied via Ariel will be of high quality. Likewise, if the requesting library has high quality and fast printers, articles will be of high quality. The University of Haifa ILL unit has two high-quality laser printers, ensuring high quality photocopies of material received by Ariel.
**Patron interaction with ILL staff**

Automation has improved the speed and accuracy of responses given to patrons regarding their requests. Inquiries about the status of requests are dealt with by searching the ILL orders file by any number of access points: the reader's identity number, author or title of item requested, supplier, or date of order. ILL librarians can also create printouts for readers of all their ILL transactions.

**Ease of ordering and remote ordering**

The use of the Web ILL order form and e-mail order forms – in addition to faxed, mailed and personally delivered order forms – has enabled patrons to make use of ILL services outside the regular hours of opening and from remote locations. The Web ILL order form is located in the Aleph Web catalogue where patrons usually discover their need for an ILL request (Figure 2).

The use of FirstSearch databases also enables patrons to send an ILL request directly to the ILL unit from a remote location without having to print the bibliographic details or to re-key the information. Moreover, if Docview is installed on their PC they can also ask to receive the scanned article by e-mail and not at the ILL desk provided they have requested deduction from their salary or research budget.

**Price of the service**

The price of an ILL request is highly subsidised by the University of Haifa in order to encourage the use of ILL. Automation has reduced the University's overheads, thereby allowing prices to remain low despite an increase in prices that supplying libraries charge. Moreover, automation has allowed the more widespread use of ordering from foreign sources and, with it, a flat rate charge independent of the size of the article or the speed of delivery. Thus, patrons can order long articles from abroad and receive them within 24-48 hours at no extra cost.

**Convenience**

Greater convenience to the patron lies in two areas: the method of submitting the request and the method of receiving the request. Automation has enabled the library to offer a method to suit every patron.

However, the current policy of in-library use of ILL materials, stemming from the lack of automated loan/discharge, recall and renewal system, is inconvenient to the patron.

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**Figure 2 Location of Electronic ILL order form in Library Web Catalogue**

![Image of Library Web Catalogue](image-url)
Once these features are automated, greater convenience will be ensured to the entire university community who will be able to use items obtained for them by the ILL unit at any location they wish.

Clearly, the benefits of automation to the patron are many. The benefits to the library as an institution are also numerous.

Benefits of the automation process to the library

In order to determine whether the process of automation has been beneficial to the library, the following factors were considered:

- range of services and costs involved
- prestige of library;
- interlibrary loans as an alternative to journal subscriptions and book acquisitions;
- use of staff time;
- base of use;
- statistics for management.

Range of services and costs involved

Since automation more services have been offered to patrons at no extra cost to the library, such as Web and e-mail ordering, e-mail notification of arrival, remote viewing of documents by Docview, Prospero, PDF e-mail delivery, and rush delivery from abroad. Personnel costs have been reduced by the reduction in labour-intensive tasks such as invoicing, filing and filling in payment forms. Costs have also been reduced by the use of e-mail for the messaging system between libraries and for notifying patrons of the outcome of their requests. This has also led to savings in telecommunications charges and time. Moreover, the use of Ariel to supply articles has saved postage, fax, and courier costs. Evaluation in terms of user satisfaction has not yet been carried out but statistics prove that service and fill rate are much improved.

Prestige of the library

Automation has a psychological effect on the patron. It increases the prestige of the library in general, and the ILL unit in particular, in the eyes of the patrons. An automated ILL unit is “seen to be better organised, more reliable, and technically knowledgeable” (Miido, 1996). Reduced turnaround time and improved quality have “increased customer confidence in the ILL process” (Kriz, 1999).

Access vs ownership: ILL as an alternative to periodical subscriptions and book acquisitions

Because automation has made ILL a faster and more reliable service, access to information has become a cost-effective alternative to ownership. Librarians are able to assure patrons that they will have quick and cheap access to materials without the library subscribing to expensive journals or purchasing expensive books.

Use of staff time

Fewer time-consuming functions are performed manually such as calculating the costs of items received/supplied, filing, invoicing etc.; thus staff time has been freed for speedier processing of requests, dealing with difficult requests and patron queries (Figure 3).

Statistics show that despite an increase in the number of requests processed, the same number of staff were able to deal with all the requests.

Ease of use

Automation has made all ILL transactions available online to all library staff, thereby enabling non-ILL staff to report on the status of ILL requests and to give payment vouchers when ILL staff are not available.

Statistics for management use

The statistics that can be generated as a result of automation can be used for calculating personnel requirements, improvement in service, collection development, funding, number of requests from full-text journals, percentage fill-rate, average time of supply and breakdown by language and more.

Figure 3 Total incoming and outgoing orders 1997-2000
Conclusions

Curiously, the availability of full-text journals did not cause a reduction in the number of ILL requests, perhaps because many Israeli patrons order Hebrew materials, are not used to searching and downloading from full-text databases themselves, and because most submit requests for articles that pre-date full-text.

In order to assess the effects of full-text journals on ILL and the extent to which users see automation as an asset, a comprehensive user-satisfaction survey will be carried out in the future.

Based on the premise that the same amount of resources were used to process a greater number of requests, the automation process at the University of Haifa Library has improved the quality of ILL service which is beneficial both to the library patrons and to the library as an institution. With the completion of this process, increased customer benefits and library efficiency can be expected.

References
