Electronic Mail and Interlibrary Loan in Indiana

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A poster hanging in my office pictures a man sitting on an island under a palm tree with a dolphin swimming past a group of sharks to deliver a crate of books. The caption reads "Our Inter-Library Loan Service goes to any length!" Libraries cannot purchase all the materials demanded by their patrons. It is the job of interlibrary loan professionals to use whatever means available to obtain materials needed by patrons. For interlibrary loan to be a viable resource sharing tool the time it takes to receive materials on interlibrary loan must be reasonable. For patrons whose information needs are immediate and for the library that must maintain its role as information provider, it is not acceptable to wait the traditional two weeks or more for materials not owned in-house.

Improved interlibrary loan service is a three step process; efficient verification and location, instant transmission of requests, and reduced document delivery time. While materials can be verified and located fairly easily and quickly, it is usually a much slower process to transmit the request and receive the material on interlibrary loan. However, there is a growing interest in and commitment to these two aspects of the interlibrary loan process. Library literature shows an increasing use of electronic mail for interlibrary loan to help meet the demands for decreased turn around time.

In January 1984 the Association of Research Libraries' Systems and Procedures Exchange Center conducted a survey on the current and planned uses of electronic mail within the Association of Re-

search Libraries. Eighty-one of the 117 libraries responded to the survey. Of those eighty-one, 43 percent or thirty-five libraries currently use electronic mail.1 Many systems were being used, including over twenty commercial systems and fourteen in-house or campus-wide systems. CLASS/OnTyme was the most frequently used commercial system followed by RLG/RLN and ENVOY 100, a Canadian system. The majority of the electronic mail terminals were located in interlibrary loan followed by technical services, reference, and administration.2

Some electronic mail systems are fairly extensive. For example, the University of Washington Libraries receives 40 percent of its requests through a variety of electronic mail systems including OCLC, OnTyme, ENVOY 100, the Source, ALANET, TWX, WLN-IMAIL, and telefacsimile. The requests come from all over the Pacific Northwest and from all types of libraries—public, academic, corporate, health sciences, state agencies, and others. In addition the University of Washington Resource Sharing Program has been experimenting with the use of OnTyme to send interlibrary loan requests to the Library of Congress.3

The state of Nebraska uses five different electronic mail systems for interlibrary loan. Two systems, Octanet and DOCLINE, are dedicated to facilitating transmission of requests between health sciences libraries in the midcontinental region (Colorado, Kansas, Nebraska, Missouri, Utah, and Wyoming) and the National Library of Medicine. CMS, Nebraska's Conversational Messaging System, transmits interlibrary loan requests between public and academic libraries. Three campuses of the University of Nebraska use the mailbox function of the University's automated circulation system to request materials located online. OCLC is the fifth system used.4 These groups as well as others documented in the Association of Research Libraries' survey are experimenting with different electronic mail systems to strengthen local networking ties. In Indiana, too, electronic mail networks are evolving to meet the needs of specific resource sharing groups.

Indiana has begun its development toward an integrated statewide electronic mail system for interlibrary loan with the ALSA's use of ALANET and Indiana University's Project Electro. In August 1985, all nine ALSA centers and the Indiana State Library have access to ALANET, the American Library Association's electronic mail

and information service, for interlibrary loan. The number of ALSA interlibrary loan requests sent via ALANET is small compared to the total number of requests sent between the ALSAs. However, the effectiveness of this electronic mail system will increase as more use is made of it.

Indiana University's electronic mail system began as a recommendation of the 1981 All University Library Faculty Council's Task Force on Resource Sharing in Indiana University Libraries. Indiana University's Academic Computing Services agreed to the use of its VAX computer for the experimental project. The initial program was developed by Patrick Kenrick, Head of Public Services, Indiana University Southeast, and Tamara Stikeleather of Interlibrary Services, Bloomington campus.5 In the Spring of 1983 Indiana University-Purdue University at Indianapolis became the first campus to send interlibrary loan requests to the mail campus in Bloomington through the new electronic mail system. Indiana University-Purdue University at Fort Wayne joined the project in September 1983. By early 1984 all but the Columbus campus of Indiana University-Purdue University, Indianapolis, were using Project Electro for interlibrary loan. This campus library completed the network in July 1985.

Project Electro is a relatively simple system to operate. Using an interactive terminal and modem, the regional campuses can send their interlibrary loan requests directly to the VAX computer in Bloomington over SUVON telephone lines or through their campus computer. When a campus wants to send interlibrary loan requests to Indiana University's main campus, it enters a one letter code which identifies its files from the other campuses. For example, "F" is Fort Wayne's campus code. To send an interlibrary loan request or message to Indiana University, Bloomington, the regional campus inputs its campus code, the year, month and day. This becomes the file name. The Project Electro program then asks the user to enter an interlibrary loan transaction number. The interlibrary loan transaction number identifies the campus, the year, the type of request, either book or periodical, and the number of the request. For example, a book transaction number from Fort Wayne would read "F5B108" or a periodical request "F5P112". At first interlibrary loan requests were input in a free text form, but the program was rewritten providing prompts and a standardized format

for book and periodical requests. The "B" or "P" in the transaction number prompts the system for either a book or periodical request form. To send a message and not an interlibrary loan request the user simply types an "X" when the system queries "Enter transaction number or end." The system then replies that it is ready to accept free text messages.

Requests emanating from Bloomington or any of the participating Indiana University Regional Campus Libraries are identified in the file directory by the addition of "IU" in front of the one-letter campus code. For example, interlibrary loan requests or messages sent to Fort Wayne from Bloomington or any other Indiana University Regional Campus Library appear in the directory with the file name "IUF" year, month, day. Likewise, interlibrary loan requests from Fort Wayne to campuses other than Indiana University, Bloomington, are sent with "IU" in front of the campus code. For example, a request from Fort Wayne to the Medical School Library in Indianapolis would be sent using the campus code "IUM". The destination of the requested material is identified by the campus code in the interlibrary loan transaction number. Each campus is responsible for reading and deleting its files daily to keep the system from overloading.

In August 1985, Project Electro had been in operation for two years. During April 1985 I surveyed the Regional Campus Libraries and Interlibrary Services in Bloomington concerning their perceptions as to the advantages, disadvantages and suggestions for improvement of Project Electro. Over twenty thousand requests were sent through Project Electro during the fiscal year 1983-84. The 1984-85 fiscal year, the first full year of participation by most Indiana University Libraries, showed an even greater use of Project Electro. All of the participating Project Electro libraries, except Indiana University Medical School, reported sending over 50 percent of their interlibrary loan requests through Project Electro. Most campuses reported sending as many as 80-95 percent of their interlibrary loan requests by way of Project Electro. All campuses preferred receiving and/or sending interlibrary loan requests via Project Electro over any other system, including OCLC, the ALSAs, ALA forms, or commercial document delivery services. However, OCLC was seen as a necessary supplement to Project Electro to quickly route interlibrary loan requests to libraries not in the electronic mail network.[6]

Project Electro and other electronic mail systems are popular and successful because they offer some definite advantages over other methods of interlibrary loan transmission, such as the United States Mail, TWX, OCLC, and the telephone. The biggest advantage of electronic mail for interlibrary loan is the increased speed in processing and transmitting requests. All participants in Project

Electro reported decreased typing time. The program with its standardized format and automatic prompts makes inputting easy and fast. At the University of Nebraska Medical Center, it took eight minutes to input a request on OCLC, but only two minutes to send a request via its electronic mail system Octanet.7 Electronic mail is an efficient time manager in other ways. Messages can be sent whether or not the person meant to receive the message is in. This reduces time spent on the telephone requesting renewals, status reports, and recalling overdue books. Even more importantly, Project Electro has decreased turn around time between transmitting the request and receiving the material. Most Indiana University Regional Campus Libraries reported a two-to three-day drop in turn around time. In some cases this has cut delivery time to as little as two to three days. This is a crucial factor in making interlibrary loan an acceptable alternative to having materials in-house.

Another major advantage of Project Electro is its relatively low operating cost. Indiana University Libraries recently prepared a cost analysis of Project Electro and found that the average cost per request was $0.18.8 Other libraries also have reported considerable cost savings by using an electronic mail system for interlibrary loan as opposed to TWX or OCLC. The University of California Biomedical Library in San Diego computed its electronic mail cost using CLASS/OnTyme to be $0.25 per interlibrary loan as opposed to OCLC's $1.40 per transaction.9 The University of Nebraska Medical Center's electronic mail system, Octanet, cost less than half that of OCLC and one fourth that of TWX.10 Likewise, a study by the University of Manitoba showed that it cost one third less to send an interlibrary loan request to Ottawa over its electronic mail system, ENVOY 100, as it did using telex.11

All of the Indiana University Regional Campus Libraries expressed general satisfaction with Project Electro and most were highly pleased with the system. Project Electro, however, is not without its disadvantages. One of the biggest problems with Project Electro is directly a result of its popularity and success. Project Electro has limited file capacity and disk storage space. The files must be read and deleted at least once per day and during busy times more frequently. During the height of semester research, the Indiana University main campus must print off requests every fifteen to twenty minutes to keep the disk open and to prevent automatic file deletion. A file may contain many interlibrary loan requests depending upon disk storage room; however, the system allows only three files per day per campus. If a fourth file is entered the first file is automatically deleted. Some files have been lost due to this default mechanism. Safeguards could be installed to prevent files from being deleted automatically before they have been read.

Other problems reported with Project Electro were not disadvantages of the system, but campus specific issues. For example, one campus reported having to share a terminal with INDIRS users which sometimes caused an inconvenience. Another campus did not have the staff time to check the Project Electro files every day. Interlibrary Services in Bloomington now prints off and deletes any files that are forty-eight hours old and sends the printoff to the regional campus library through campus mail. This of course does not further the goal of decreased turn around time for interlibrary loans. Equipment sometimes caused problems at the individual campuses. One campus had to replace an older modem in order to access Project Electro. A few campuses are inconvenienced by terminals that do not have the capability of erasing or back spacing over mistakes. All of these are minor irritants which have not detracted from the overall satisfaction and enthusiasm for Project Electro.

Project Electro has proven to be a great success for Indiana University Libraries. The key to its effectiveness and to the effectiveness of any electronic mail system is the extent to which it meets the needs of the participating libraries. The Indiana University Regional Campus Libraries are normally heavy users of the Indiana University main campus libraries in Bloomington and of each other. Project Electro has strengthened that tie by making communication between the campuses fast and efficient.

Project Electro is just the beginning of what could be an effective statewide electronic mail network for interlibrary loan. In my survey most Indiana University Regional Campus Libraries expressed a desire to extend Project Electro to the other state resource centers: Ball State University, Purdue University, Indiana State University, and the University of Notre Dame. This would be a reasonable and logical next step, because of the volume of interlibrary loans which flow between these academic institutions. The ALSAs are another natural interlibrary loan network which could benefit from a strong electronic mail system. Project Electro, ALANET, and OCLC could form the bases of a statewide electronic communications network for interlibrary loan.

The Indiana State Library has expressed a new commitment to improving document delivery statewide. The *Indiana Long-Range Plan for Library Services and Development: 1985-1990* has as one of its objectives to establish a rapid statewide delivery system that will supply materials to patrons within three to five days by 1988.12 The technology is here to electronically transmit documents by telefacsimile and opticla laser disks. Possibly within the next five years instant document delivery will be a reality.

ELECTRONIC MAIL

Notes

1David R. Hoyt and Ruven Aragon. *Electronic Mail in ARL Libraries* (Washington, D.C.: ERIC Document Reproduction Service, ED 247 934, 1984) p. i.

2*Ibid.*, pp. 2-5.

3*Ibid.*, pp. 44-45.

4Carolyn G. Weaver, "Electronic Document Delivery: Directing Interlibrary Loan Traffic Through Multiple Electronic Networks," *Bulletin of the Medical Library Association* 72 (April 1984): 187-188.

5Larry W. Griffin, "Project Electro," brief three page history and description of Project Electro sent to me in early 1985.

6Cheryl B. Truesdell, "Project Electro Survey," conducted in April 1985. Each of the seven Regional Campus Libraries were surveyed, as well as Interlibrary Services in Bloomington and IU Medical School Indianapolis. The survey was conducted by telephone. There was a 100 percent response rate.

7Weaver, "Electronic Document Delivery: Directing Interlibrary Loan Traffic Through Multiple Electronic Networks," p. 189.

8Indiana University Libraries, "Project Electro Cost Information," memo prepared 21 January 1985. This was computed upon the basis of CPU charges, connect time and Input/Output count.

9Hoyt, *Electronic Mail in ARL Libraries*, p. 24

10Weaver, "Electronic Document Delivery: Directing Interlibrary Loan Traffic Through Multiple Electronic Networks," p. 189.

11Sloane, Douglas, "Electronic Mail System Lends Efficiency to Library Loans," *Telephony* 205 (September 5, 1983): 39.

12*The Indiana Long Range Plan for Library Services and Development: 1985-1990.* Indianapolis, IN: Indiana State Library, 1984.