Executive Summary.

This summary briefly outlines a separate report containing information on the growth of bibliographic utilities and academic library networking, as well as profiles of interlibrary loan activity at six academic libraries who are members or users of a major bibliographic utility. Applications of computer technology and network participation in academic libraries, and the major events in the development of computer-assisted library cooperation are summarized. A description of the major bibliographic utilities includes OCLC, the Research Libraries Information Network (RLIN), and the Washington Library Network (WLN). The Council of Library Resources' project to devise a standard telecommunications protocol for bibliographic information exchange among RLIN, OCLC, WLN, and the Library of Congress (LC) is also noted. A review of interlibrary loan programs provided by OCLC and RLIN precedes individual synopses of interlibrary lending at Indiana State University (Terre Haute, IN); Cornell University (Ithaca, NY); Lake Forest College (Chicago, IL); George Washington University (Washington, DC); St. Olaf College (Northfield, MN); and Ithaca College (Ithaca, NY). Statistics on individual library holdings and a list of interlending similarities and differences are provided. A consideration of issues for the future, particularly in regard to a national network of libraries, concludes this summary report. (ESR)
ACADEMIC LIBRARY RESOURCE SHARING
THROUGH BIBLIOGRAPHIC UTILITY PROGRAM PARTICIPATION

REPORT TO THE OFFICE OF LIBRARIES AND LEARNING TECHNOLOGIES
IN FULFILLMENT OF ORDER NUMBER 370-81-3658

EXECUTIVE SUMMARY

BY

MARY KANE TROCHIM
LIBRARY MANAGEMENT CONSULTANT, ITHACA, NEW YORK
AUGUST, 1982

Prepared for the United States Department of Education,
Office of Educational Research and Improvement,
(The contents of this paper do not necessarily reflect
the views or policies of the Department of Education.)
INTRODUCTION

The growth over the last two decades of local and regional library networks and of the major bibliographic utilities can be traced directly to the strong tradition of creative response on the part of academic libraries to the information and research needs of their users. At the same time that cooperation among libraries was becoming the most attractive answer to the problems of decreasing monetary power and increasing service needs, computers and other advanced technology provided new possibilities for cooperative arrangements. The advent of online computer library systems is credited with giving already existing consortia and cooperatives their first real successes.

The Library of Congress acted as a catalyst for much experimentation when it released the MARC (Machine Readable Cataloging Record) tapes for use by groups or individual libraries. A major result was the formation of the Ohio College Library Center (now OCLC, Inc.) and the decision by regional networks such as NELINET and SOLINET to contract with OCLC for access to and use of its online bibliographic data base.

Computer technology is now a pervasive force throughout virtually every college and university library; even those whose collections and budgets are limited usually have links through local arrangements to bibliographic or circulation systems. Technical services, public services, collection access, and administration of academic libraries have all been affected by the application of computer-assisted technology.

MAJOR EVENTS IN COMPUTER-ASSISTED COOPERATION

Some major events which have shaped computer-assisted library cooperation over the last two decades include the development by the Library of Congress of the MARC format, the installation of the OCLC bibliographic data base and the agreement by regional networks to use the OCLC base as their major source of bibliographic records, as mentioned above. The establishment of the Research Libraries Group (RLG) in 1974 and its subsequent development into a nationwide research library consortium with its own bibliographic data base and the development by the Washington State Library of the Washington Library Network (WLN) indicated a widespread interest in computer-assisted bibliographic control and access to needed resources. Even prior to the implementation of Interlibrary Loan systems at the utilities, member libraries availed themselves of the information in the data base to identify and locate requested material.

THE BIBLIOGRAPHIC UTILITIES

The major bibliographic utilities in which academic libraries generally participate are the OCLC and RLG. Common characteristics of the utilities include the development and maintenance by each center of a large-scale bibliographic data base accessible by and augmented by each member library, the centralized processing of products such as catalog cards for
member libraries, and the research and development of additional programs and services to make the greatest use of the existing data base.

OCLC is by far the largest of the utilities, with over 6,000 libraries linked directly or indirectly to the data base. Over 14 million books were cataloged during 1980-81, and almost 1 million interlibrary loan requests were channeled through the OCLC Interlibrary Loan Subsystem. Other OCLC programs include shared cataloging, acquisitions, and the distribution of archival tapes to members. 53% of OCLC's substantial membership consists of college or university libraries. New programs being developed by OCLC indicate a commitment to expanding the services offered to member libraries. These include the Total Library System (TLS) developed by the Claremont Colleges Libraries, which provides programs for circulation, interlibrary loan, acquisitions, administration, and more.

RLG was founded to address the specific needs of research libraries in a cooperative environment. At its inception in 1974, RLG had four members who laid the groundwork for the programs which currently serve 27 full member-owners and a variety of special-category participants. The Shared Resources Program, one of the cornerstones of the shared collection development philosophy of RLG, was begun at that time, and has since grown from about 300 requests per month to over 4000. The basis for RLG's growth has been its decision to adopt BALLOTS, the Stanford University Libraries' bibliographic system, for use by all RLG members. The data base now contains over 6 million records.

WLN was formed to serve the needs of the libraries of Washington State, and met with such success that it has expanded its membership to about 40 libraries. Most WLN members are still in the Pacific Northwest area. The quality of WLN's subject authority file is a great attraction to members, and to RLG, which has agreed to share data bases with WLN.

The most important cooperative agreement among the utilities to date is the project funded by the Council on Library Resources (CLR), in which the Library of Congress (LC), RLG, WLN and, to a lesser extent OCLC are cooperating to devise telecommunications protocols to link the separate data bases. The groups will also address the problems of software design to allow sharing of bibliographic data bases. Questions of authority and autonomy are already being raised, but the issue of an imposed "national network" is not likely to be an immediate concern.

INTERLIBRARY LOAN AND THE UTILITIES

The utilities recognize the need for strong and effective interlibrary loan programs upon which other programs and cooperative development can be based. Each utility has developed programs to facilitate the exchange of material among members. OCLC's members have used the bibliographic data base informally for interlibrary loan since its availability, and in 1979 OCLC produced a subsystem designed specifically to process interlibrary loan requests among members. The ILL Subsystem provides for
automatic queueing of requests and immediate information on request status.

The Shared Resources Program at RLG serves the same goals as that of the OCLC Interlibrary Loan program, but attaches a "priority" character to lending among RLG members. The RLG ILL system was, until recently, a message file in which requests were placed. As of August 1982, RLG is making available a system specifically designed as an ILL processing system which will facilitate lending among RLG libraries and enhance the recordkeeping capabilities of member libraries.

Priority lending to members is also a feature of the WLN interlibrary loan process. In addition, the memorandum of agreement between WLN and RLG permits the searching of the RLG data base for materials not located through WLN.

INTERLIBRARY LOAN AT SELECTED LIBRARIES

Much of the computer development which has so greatly affected academic libraries had its beginnings in the academic library setting itself, and the effects of advanced technology on traditional college and university library processes has been dramatic and far-reaching. In the interlibrary loan program, in particular, changes have been seen in the sheer quantity of loans processed, changing workload and staffing needs, the effects of utility-enhanced ILL on previously existing programs, and the requirements of recordkeeping of interlibrary loan activity.

Librarians at six academic institutions agreed to review and discuss some of these changes based upon their library's experience as a member/user of a major bibliographic utility. The libraries who assisted in this study are those of Cornell University, Ithaca, New York; George Washington University, Washington, D.C.; Indiana State University, Terre Haute, Indiana; Ithaca College, Ithaca, New York; Lake Forest College, Lake Forest, Illinois; St. Olaf College, Northfield, Minnesota.

Information from the participating libraries on their interlibrary loan activity was available in many forms and a variety of levels of completeness. Data reflecting interlibrary loan programs was supplemented at each location with background information from one or more staff representatives. A general reporting format was devised which accommodates the majority of information from each of the participating libraries.

Indiana State University

Indiana State University (ISU) is a publicly supported state university with a population of about 11,400 full-time and part-time students. Its general course of study has an emphasis in preparing students for service professions such as guidance and counselling, library science, health and safety and management.

Cunningham Memorial Library is the central library on campus. Its collection consists of

Total volumes 844,994
Microforms 410,904
Audiovisuals 49,085
Serial subscriptions 4,750

ISU takes part in the Four State University Libraries cooperative programs, the Center for Research Libraries and the Indiana Cooperative Library Services Authority. A commitment to interlibrary loan as an appropriate response to increased demands on collections and budgets is traditional at ISU.

ISU began using the OCLC bibliographic system for verifying and locating items when it was installed in 1976. It proved so popular that, shortly thereafter, a computer terminal was installed to facilitate use of OCLC for interlibrary loan. The advent of the OCLC ILL Subsystem has had a definite impact on the process of interlibrary loan. The effects have been in terms of accuracy of requests, number, and speed with which requests are handled. Staff members perceive that an additional effect is the increased pressure to reply to requests as soon as possible.

Data supplied by ISU indicated that ISU's identification is changing from a major borrower to a lender of materials as well. Patrons are increasingly enthusiastic about the reliability of the ILL system, and make more use of it. In addition, the availability of ISU's holdings through the OCLC system has increased borrowing by almost 60% between 1978 and 1981. Much of ISU's requests are still channeled through the consortium of which it is a member, but increases are evident in the library's requests to outside sources as well. And loans made by ISU to libraries both in the consortium and outside it have increased significantly since 1978.

Cornell University

Cornell University is a dual-personality institution: it is both a state-affiliated and a private university. Established in 1856, its current enrollment numbers about 12,000 undergraduates and about 5,000 graduates.

The library system consists of seventeen libraries on the Ithaca campus. The medical library is in New York City. Olin Library is the graduate library and the major service center for the system. The library collection contains

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Volumes</td>
<td>3,888,634</td>
</tr>
<tr>
<td>Periodical Titles</td>
<td>49,610</td>
</tr>
<tr>
<td>Microforms</td>
<td>1,048,618</td>
</tr>
<tr>
<td>Sound Recordings</td>
<td>14,094</td>
</tr>
</tbody>
</table>

The excellence of its collections has always been attractive to potential ILL borrowers; CU lends approximately six times more items than it borrows. It is a member of the Five Associated University Libraries, the South Central Research Library Council, the Association of Research Libraries, and RLG. CU's membership in RLG has had a decided impact on the interlibrary loan processes; using the Research Libraries Information Network (RLIN) to verify and locate requested items and then implementing the ILL Message System in March 1981 helped the ILL staff deal with both increased demand for ILL and decreased budget support for the program. The priority treatment of ILL requests through RLG is both a positive and negative aspect of the service.
Other areas of the interlibrary loan program affected by CU's membership in RLG include increased sophistication expected of the ILL staff and the relationship of CU as a major lender to libraries outside the consortium.

The quality of the staff is reflected in the success rate of about 60% for items which are requested of them. In addition, materials requested from other libraries for CU patrons are located very rapidly. About 73% of CU's interlibrary loan traffic goes through RLG or the New York State Interlibrary Loan system.

Lake Forest College Library
Lake Forest College is a small private liberal arts college north of Chicago. Its population consists of about 1100 undergraduates. The Donnelley Library supports the courses of study offered with a collection of

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Volumes</td>
<td>181,856</td>
</tr>
<tr>
<td>Book Titles</td>
<td>144,561</td>
</tr>
<tr>
<td>Periodical Volumes</td>
<td>21,000</td>
</tr>
<tr>
<td>Periodical Titles</td>
<td>1,000</td>
</tr>
<tr>
<td>Microform Titles</td>
<td>8,000</td>
</tr>
</tbody>
</table>

LFC Library is a member of several area cooperatives and consortia, including LIBRAS, the North Suburban Library System, the Illinois Library Network, the Center for Research Libraries, and the Library Computer System which is based at the University of Illinois. Because of its location near several major research libraries LFC has always taken advantage of interlibrary lending to supplement its own collection. Prior to OCLC, much material needed by LFC users was borrowed directly from area libraries. OCLC's implementation at Lake Forest dramatically increased lending and borrowing. A major indication of the increase at LFC of interlibrary loan use is the rise in the number of students who avail themselves of this service. During the last year over 30% of the student body made requests through interlibrary library loan. The rate at which requests are made by LFC patrons has doubled since 1975, and the number of requests filled by LFC for other libraries has increased by about 500%. Most of LFC's loans are made to Illinois libraries; this is expected to increase as the Library Computer System provides direct loan capabilities among its participants.

The Lake Forest library collection is a good example of the hidden wealth of smaller academic libraries all across the country whose resources were never reported or utilized until the advent of the shared cataloging data base through OCLC.

George Washington University Library
George Washington University is an urban institution in northwest Washington D.C. which was founded in 1821 to become a national university in the nation's capital. Its current enrollment includes over 6,000 undergraduates and over 9,000 graduates. The Gelman Library is the main University library.

The collection housed at Gelman consists of

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Volumes</td>
<td>859,802</td>
</tr>
<tr>
<td>Periodical Titles</td>
<td>8,959</td>
</tr>
<tr>
<td>Visual Material</td>
<td>350,423</td>
</tr>
</tbody>
</table>
Audio Material

GWU is a member of the Metropolitan Washington Library Council and the consortium of Universities of the Washington Metropolitan Area. By virtue of its central location in the metropolitan area and its extensive collections, GWU has traditionally been a very heavy lender to area libraries of all types. For this reason, increases in the amount of material loaned by GWU have not been significant, according to estimates made from the data available. GWU routinely lends about four times as much material as it borrows; the fill rate for requests made by GWU patrons is about 85% and the fill rate for requests made by libraries to GWU is usually about 75%. About 78% of the materials loaned by GWU are for libraries in the metropolitan; 68% of the photocopy requests filled by GWU are for local library patrons.

St. Olaf College Library

St. Olaf College is a private coeducation institution which was established in 1874 in Northfield, Minnesota. The college has a nationally renowned music program, in addition to strong emphases in religion and history. Rolvaag Memorial Library serves the undergraduate population of about 3,000, and consists of

<table>
<thead>
<tr>
<th>Book Titles</th>
<th>224,763</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Volumes</td>
<td>300,511</td>
</tr>
<tr>
<td>Serial Titles</td>
<td>1,135</td>
</tr>
<tr>
<td>Bound Periodicals</td>
<td>25,884</td>
</tr>
<tr>
<td>Microforms</td>
<td>23,995</td>
</tr>
</tbody>
</table>

St. Olaf's link to the OCLC network is through the Minnesota Interlibrary Telecommunications Exchange (MINITEX), through which the majority of their interlibrary loan traffic is channeled. The staff estimates that about 90% of loan requests by St. Olaf and about 75% of its photocopy requests are filled through the MINITEX network. It is expected that, as St. Olaf completes its retrospective catalog conversion in OCLC, demand for the loan of its collection will increase. Requests by St. Olaf patrons for interlibrary loans have actually decreased slightly since the implementation of OCLC, partially due to more careful screening of ILL requests by the staff and to a policy of subscribing to frequently requested materials.

Ithaca College

Ithaca College was founded in 1897 as the Ithaca Conservatory of Music, and maintains excellent performing arts programs to the present day. Physical education and business are two strong areas of study at IC, in addition to music, theatre arts and communications. Undergraduates number about 4,700; there are approximately 148 graduate students. IC's library contains

<table>
<thead>
<tr>
<th>Book Titles</th>
<th>161,434</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Volumes</td>
<td>267,260</td>
</tr>
<tr>
<td>Periodical Titles</td>
<td>1,773</td>
</tr>
<tr>
<td>Microforms</td>
<td>15,449</td>
</tr>
<tr>
<td>Sound Recordings</td>
<td>8,987</td>
</tr>
</tbody>
</table>
The library is a member of the South Central Research Library Council, through which New York State Interlibrary Loan requests are routed. Implementation of OCLC at IC has had a noticeable effect on the amount of requests to the library. IC began using OCLC as a verification and location tool immediately upon its installation, and use has increased since the subsystem has been implemented. In most cases, though, IC finds it financially more feasible to send requests using the ALA form rather than transmitting through the OCLC system.

The information supplied by IC indicates some lack of interest on the part of IC patrons in using interlibrary loan. However, requests made for IC materials have increased at least fourfold over the past decade. Requests made for IC materials through the SCRLC have remained somewhat constant; the number of requests from libraries outside the immediate vicinity has increased dramatically.

Summary
Some general observations arise from reviewing the interlibrary loan practices of these six libraries:
- Membership and participation in the services of a bibliographic utility (OCLC or RLIN) have had a decided impact upon the interlibrary loan services at each institution.
- In all cases, materials requested of the participating library increased in quantity; in most cases, the ability of the libraries to fill those requests also increased.
- Although at each library requests received and sent were more national in scope, the preponderance of interlibrary lending took place locally or regionally.
- New categories of use or patterns of ILL traffic have caused some obsolescence in the reporting procedures for interlibrary loan.
- Staffing for new patterns of interlibrary lending and the demands placed on the staff in terms of knowledge and skill were issues at several libraries.
- Some differences were also evident:
  - Emphasis on the value of the interlibrary loan program and patrons' expectations varied greatly from library to library.
  - Recordkeeping and the availability of background information on a library's cooperative activities differed from library to library, and in some cases, the quality of available data changed several times within one institution over a period of a few years.

ISSUES FOR THE FUTURE

The future of the nation's college and university libraries in relation to a national network of libraries is still undefined in any conscious way, as is the role which the major bibliographic utilities will play. It is evident to library practitioners that a de facto national network already exists, based upon the needs of libraries around the country, and librarianship's creative solutions to the problems of resource sharing and fiscal constraints. By virtue of their size and capabilities, the bibliographic utilities will doubtless be at
the forefront as this "network", which also includes regional networks, state library agencies and consortia, becomes more refined and responsive to current and future developments. The project which is currently underway to develop telecommunications linking protocols among the bibliographic utilities may become an appropriate vehicle for establishing standards for future data base and resource sharing.

If the needs of the library user are indeed the most important considerations in determining library priorities, then building the most effective interlibrary communication system possible would assume greatest importance. Reconciling the variety of systems and procedures represented by local and regional networks will demand the creative attention of those involved, from the individual libraries to the large utilities. Problems to be addressed include the integration of local records into one usable data base format, the combination of network services with those offered by the utilities, and the definition of relationships between networks, libraries which act as national lending libraries, and the bibliographic utilities.

Another issue of concern is the lack of standardization for compiling and reporting information about resource sharing, one of the two major activities upon which a "national network" would be based. Understanding and support of the necessity for resource sharing will be achieved only by being able to demonstrate its value and effectiveness. Responsibility for devising reporting methods for this and other crucial cooperative programs has not yet been assumed by any of the involved parties; this will be necessary as the use of interlibrary loan by an increasing number of college and university libraries continues.

To date, little research has been made available on the mutual impact of interlibrary loan programs and the bibliographic utilities to determine if developing patterns indicate a national network in practice as well as in theory. It is suggested that such a study, undertaken through a bibliographic utility or through a national library organization, could yield important information for those considering the future of a national resource sharing network.