



67th IFLA Council and General Conference

August 16-25, 2001

Code Number: 091-108-E
Division Number: V
Professional Group: Document Delivery and Interlending
Joint Meeting with: -
Meeting Number: 108
Simultaneous Interpretation: -

Union Catalogs and virtual Union Catalogs – repositioning Interlibrary Loan

BARBARA PREECE & JOAN THOMPSON

Boston Library Consortium
City and Country: Boston
Boston, MA, USA

Abstract:

Libraries in the United States share a long history of developing consortial arrangements for resource sharing. This paper explores the use of union catalogs and virtual union catalogs in the United States to support resource sharing and provides an overview of a project that links disparate catalogs among members of an academic consortium and a statewide regional library network. When fully implemented, the Virtual Catalog/ Direct Distance Borrowing Project, funded by the Massachusetts Board of Library Commissioners and administered by the Boston Library Consortium, will enable patrons to search and request from over 56 million volumes.

Introduction

Libraries in the United States share a long history of developing consortial arrangements for resource sharing. In the early 80s members relied on bibliographic utilities such as OCLC, RLG, and WLN to view the holdings of their reciprocal partners. While this is an advance from earlier times when libraries checked book catalogs such as the National Union Catalog or microfilm listings, it does not meet the needs or expectations of today's patrons. In addition, it is an expensive operation. The utilities may charge for the use of the interlibrary loan component, and as the ARL/RLG study of 1993¹ noted, staff expense adds greatly to the transaction cost.

How can patrons obtain items that are not held by their home institutions in an efficient and cost-effective manner and what role can consortia play in meeting the patron's needs? Consortia have selected a multitude of methods to support resource sharing, especially the sharing of returnables. This paper will explore the use of union catalogs and virtual union catalogs in the United States to support resource sharing and provide an overview of a project that links disparate catalogs among members of an academic consortium and a statewide regional library network.

NAILLD Project

The Association of Research Libraries North American and Interlibrary Loan Document Delivery Project (NAILLD) promotes developments that will expedite delivery of materials to patrons at a cost that can be easily borne by libraries.ⁱⁱ The NAILLDD Project envisioned an interlibrary loan system from the patron's perspective. This system would

- have transparent access to the most relevant information through appropriate local and remote library catalogs, citation databases, and electronic resources,
- transfer bibliographic citations or details about non-bibliographic items into electronic requests or orders,
- pass requests or orders through the library online system to determine the local availability of the item,
- depending on the user's choice and local policy, direct the request or order to one of a range of suppliers including document delivery suppliers, or a local or remote library interlibrary loan/document delivery department,
- communicate electronically with the chosen supplier, and
- receive the print materials, multimedia, data, or full text/full image copy of non-returnable documents directly at their desk or workstation.ⁱⁱⁱ

Union Catalogs

One method consortia have used to embrace this vision is through the establishment of union and virtual union catalogs. The union catalog combines the resources of consortial members, sometimes in a single bibliographic record with holdings attached. Lynch makes the following distinctions among union catalogs: Commercial services such as OCLC, RLG and WLN represent shared cataloging activities that do not have real time links to circulation data. Union Catalogs, such as MELVYL, are an outgrowth of shared cataloging, and shared union catalogs that are integrated library systems shared by libraries.^{iv}

One of the earliest versions of the shared approach was ILLINET Online, a consortia of academic and research libraries in Illinois. An early version of this consortia's catalog consisted of a database that held a single bibliographic record fed from OCLC data. Records from the libraries were deduped and holdings data linked to the record. The records were also linked to each library's circulation database, which indicated availability to the patron. Patrons could then use this function to request items (returnables only) directly from consortial partners. Since the patron database was shared, authentication was not an issue. The patron's home library however, was unaware of a patron's request until an item was received for a patron. Also, patrons often forgot whether a request had been submitted directly on the system or through traditional interlibrary loan. It was however, a popular system, as evidenced by a dramatic increase in borrowing.^v Data Research Associate's Classic System later replaced this system. In this version, the patron

searches the union catalog for an item, places the request, which is then routed to one of the consortial members according to a variety of algorithms that supports load leveling. The lending and borrowing libraries have access to the requests and allowing them to track the request's progress through the system.

Other United States consortia have selected similar approaches to a shared union catalog. One of the most well known is OhioLink while one of the most recent consortia to select the shared union catalog approach is Mobius, a consortia of academic libraries in Missouri.

Libraries of the University of California selected the union catalog approach. MELVYL® is a centralized database representing the cataloging from libraries that participate in the California Digital Library. As Coyle notes, MELVYL is a document discovery tool for end-users.^{vi}

Virtual Union Catalogs

The virtual union catalog differs from the union catalog in a variety of ways. It links disparate catalogs through Z39.50 protocol, represents a harvesting of the various databases and does not represent a uniform set of indexes and search functions. Local system downtime can impact the catalog's availability, local catalogs must support additional capacity, and Z39.50 does not support deduplication of records. Version 3.0 supports a sorting function however, not all systems support this version.^{vii}

Libraries that are unable to participate in a shared union catalog find the virtual union catalog a viable alternative for resource sharing. The Boston Library Consortium (BLC), an organization of 16 academic and research libraries in Massachusetts and Rhode Island, is participating in a virtual catalog project funded in part by the Massachusetts Board of Library Commissioners¹. The project links the disparate catalogs of the BLC membership with those of the Massachusetts library Networks. Once software installation is complete, BLC patrons will have the ability to search over 25 million volumes among the combined BLC collections and will determine an item's availability instantaneously. Once the networks are added to the project, the searchable collection will reach over 56 million volumes.

The project, using epixtech's URSA, links disparate catalogs through software that emulates interoperability. URSA simultaneously searches across disparate integrated library systems and de-dupes requests based on designated criteria. The local catalogs are searched using Z39.50 protocol, display an item's holdings and current availability, and authenticate patrons. The software is flexible and permits requesting and lending through mediated or unmediated techniques.

The project is unique in that it is a multi-consortial partnership linking disparate consortia. The implementation process began with a phased approach to the Virtual Catalog/Direct Distance Borrowing Project. An early implementers group comprised of BLC members University of Massachusetts-Boston, Marine Biological Laboratory/Woods Hole Oceanographic Institute, Wellesley College, and Brown University began using the catalog in staff mode in the fall of 2000; patrons began using the system at the beginning spring semester 2001. Massachusetts Network implementers include Minuteman Library Network and the Metro Boston Library Network, representing collections of 8 million volumes. The next phase of the project includes

¹ The member institutions of the BLC are: Boston College, Boston Public Library, Boston University, Brandeis University, Brown University, Marine Biological Laboratory/ Woods Hole Oceanographic Institution, Massachusetts Institute of Technology, Northeastern University, State Library of Massachusetts, Tufts University, University of Massachusetts Amherst, University of Massachusetts Boston, University of Massachusetts Dartmouth, University of Massachusetts Lowell, University of Massachusetts Worcester, and Wellesley College.

University of Massachusetts Dartmouth, University of Massachusetts Lowell, and University of Massachusetts Worcester with a planned patron implementation for summer. Other consortium members and the remaining networks will join the project in 2001 and beyond.

The Consortium serves as the project's fiscal agent, offers leadership to the membership, assists them with the transition to a patron initiated environment, helps identify emerging technologies, and attempts to anticipate the needs of the members and their constituents. The consortium is continually investigating new methods to deliver information, suggesting new communication methods, and working toward balancing advocacy with inquiry.

The project has instilled a deep sense of collaboration among the consortia membership and strengthens our attempts to share resources more aggressively. It serves as a calculated response to the increase demand for access and providing materials in a timely and cost effective manner. It also supports many of the best practices suggested by the NAILLD project, including the redesign of the interlibrary loan, improvement of mediated services, and the provision of unmediated services in a networked environment. This partnership has provided new opportunities for the patrons, has extended the library beyond the building, and made us rethink the way knowledge is managed.

ⁱ M. Roche. ARL/RLG Interlibrary Loan Cost Study
Association of Research Libraries and Research Libraries Group, June 1993.

ⁱⁱ Mary Jackson. Maximizing Access, Minimizing Cost: The Association of Research Libraries North American Interlibrary Loan and Document Delivery (NAILDD) Project. A Five Year Status Report January, 1998. <http://www.arl.org/access/naildd/overview/statrep/statrep-9801.shtml>

ⁱⁱⁱ Information Access & Delivery Services: A Strategic Direction for Research Libraries.
<http://www.arl.org/access/infoaccess.shtml>

^{iv} Clifford A. Lynch. "Building the Infrastructure of Resource Sharing: Union Catalogs, Distributed search, and Cross-database Linkage." *Library Trends*, v. 45:3 (Winter 1997), pp.448-462.

^v Barbara G. Preece and Thomas L. Kilpatrick. "Cutting Out the Middle: Patron-Initiated Interlibrary Loans." *Library Trends*, v. 47:1 (Summer 1998), pp. 144-157.

^{vi} Karen Coyle. "The Virtual Union Catalog: A Comparative Study." *D-Lib Magazine*, v. 6:3 (March 2000), <http://www.dlib.org/dlib/march00/coyle/03coyle.htm>

^{vii} *Ibid.*