
A value-added, compact disk union catalog

By Charles T. Townley

*Dean of the Library
New Mexico State University, Las Cruces*

A progress report on the Associated College Libraries of Central Pennsylvania project.

In 1988, the Associated College Libraries of Central Pennsylvania (ACLCP) received a grant from the U.S. Department of Education to create a value-added, compact disk, union catalog. Composed of 2,830,000 bibliographic records from seventeen member library databases, the operational catalog will provide virtual research library resources for users at participating institutions. The first year of the project has been devoted to implementation planning, administrative decisions, database design, and preparations for a test of the catalog. This article seeks to share this experience with other consortia and systems considering a compact disk union catalog.

ACLCP is a consortium composed of seventeen colleges, one law school, and the State Library of Pennsylvania, all located in south-central Pennsylvania.¹ The consortium is a not-for-profit corpora-

¹Member libraries include: Albright College, Bucknell University, Dickinson College, Dickinson School of Law (not participating in this project), Elizabethtown College, Franklin and Marshall College, Gettysburg College, Harrisburg Area Community College, Juniata College, Kutztown University, Lebanon Valley College, Messiah College, Millersville University, Pennsylvania State University at Harrisburg, Shippensburg University, State Library of Pennsylvania (not par-

tion (sec. 501(c)iii) with fiscal and administrative responsibility vested in a General Policy Committee composed of directors of member libraries. Activities and programs are undertaken by governance and service committees composed of individual members, who are personnel working at member libraries. ACLCP operates in a geographic region that lacks a major university library.

In 24 years of operation, ACLCP has developed a sustained track record of successful grass roots networking. The consortium founded the Interlibrary Delivery Service (IDS), now a separate organization delivering interlibrary loans and other materials among 138 libraries located throughout Pennsylvania.² The ACLCP Union List was one of the first databases accepted into the Pennsylvania Union List of Serials (PaULS). In the mid-1900s, the consortium coordinated the initial effort to introduce telefacsimile into Pennsylvania academic libraries.³ ACLCP supports continuing in-

ticipating in this project), Susquehanna University, Wilson College, and York College of Pennsylvania.

²Charles H. Ness, "Interlibrary Loan Developments: Pennsylvania," *RQ* 7 (Spring 1960): 114-16; Dwight Huseman, "Access to Materials in Pennsylvania: Interlibrary Delivery," *Wilson Library Bulletin* 59 (December 1984): 262-63.

³Mark Wilson, "How to Set Up a Telefacsimile

service training, workshops, and programs for individual members through its committees.

Needs for a union catalog

For some years, ACLCP has recognized a growing concern to develop a cost effective and practical means of sharing bibliographic information among member libraries. Interlibrary loan demand has been growing. Reciprocal borrowing has been hampered for lack of a convenient way to identify specific items in member libraries. Efforts to articulate collection development have been frustrated.

The consortium has considered a number of alternatives. In the early 1980s, consideration was given to obtaining a grant for a single mainframe computer to support a common integrated library system for all member libraries. This was rejected for want of a foundation interested in the project, high operating costs, and a desire to address unique local bibliographic needs. Purchasing common automation software was also considered. This alternative did not appear appropriate because of differences among member libraries in terms of needs and funding levels as well as differences in institutional computing equipment. The consortium continues to seek a practical linked-system approach to providing real-time access and availability information at low cost.

Two factors have led the consortium to undertake development of a compact disk union catalog at this time. First, the "Access Pennsylvania" project shows compact disk technology to be superbly suited to the development of a union catalog. Several hundred school libraries, under the dynamic leadership of the State Library of Pennsylvania, have demonstrated how to use a CD-ROM union catalog for effective resource sharing.⁴ Second, the College Library Technology and Cooperation Grants Program, Title IID of the Higher Education Act, now encourages the application of technology to academic library cooperation.

Preparing the proposal

A proposal, entitled "Strengthening A College Library Consortium Through A Value-Added Union Catalog," was developed by the General Policy

Network: The Pennsylvania Libraries Experience," *Online* 12 (May 1988): 15-25; Charles Peguese, "Telefacsimile, The Pennsylvania Experience: A State Library's Perspective," in Mary Jackson, ed., *Research Access through New Technology*. (New York: AMS, 1989), 88-89.

⁴Doris M. Epler and Richard E. Gassel, "ACCESS PENNSYLVANIA: A CD-ROM Database Project," *Library Hi-Tech* 5 (Fall 1987): 81-92.

Committee. Commitments to participate were obtained from all collegiate members of the Consortium. The grant was submitted and funded in the first round of the College Library Technology and Cooperation Grants Program.

The proposal called for the development of a value-added, compact disk, union catalog to complete a resource-sharing system among ACLCP collegiate libraries by adding bibliographic control to an already existing delivery system and telefacsimile capability. The Intelligent Catalog product produced by Library Corporation was to run the specified database, initially estimated to contain 2,300,000 bibliographic records. The proposal indicated that the equipment could also be used to access other regional, compact disk, bibliographic databases and committed ACLCP to making copies of the database available to regional public library centers and to the State Library of Pennsylvania. It was also noted that the compact disk technology would be an appropriate automation technology for a number of the smaller members of the Consortium. Further, it would serve several larger members as a backup for their integrated library systems.

The proposal described procedures and techniques to be used for implementation planning, administrative decisions, database planning, vendor relations, testing, and operations. It indicated that the project would be under the administrative direction and fiscal control of the ACLCP General Policy Committee. Each member library agreed to contribute \$3,200 over the two-year life of the project, about 40% of project costs. The director of one member library assumed the responsibility of being project director. This person was assisted by a project advisory committee composed of other General Policy Committee members.

Implementation planning

To encourage information sharing, suggestions, and support for the project among individual members, a day-long workshop was held shortly after approval of the project.⁵ The project director reviewed project objectives. A vendor representative identified technical issues that needed to be addressed prior to constructing a database. The "Access Pennsylvania" coordinator identified strengths and weaknesses of that compact disk union catalog. Participants then broke into small groups to elaborate issues and brainstorm for planning recommendations. These were reported back to the group, distributed to all member libraries,

⁵Charles Townley, *Human Relations in Library Network Development* (Hamden, Conn.: Library Professional Publications, 1988), 65-69.

and became important components of the subsequent implementation plan.

The implementation plan broke the project into three phases—planning, testing, and operations. In each phase project committees and staff, library and individual members, and the vendor were assigned responsibilities. A time line and a database matrix, indicating the characteristics of member library bibliographic records, were appended to the implementation plan.

During the planning phase the Advisory Committee would work to resolve administrative issues. A Technical Committee would define technical formats, quality and updating decisions. Individual and library members were asked to develop their understanding of the project. Selected libraries were requested to provide copies of their databases for merging and loading in a test database. The vendor was asked to work with project committees and staff to negotiate a mutually satisfactory database structure.

The budget was revised to \$134,000 to reflect a slightly smaller federal funding figure than requested and the appearance of almost 500,000 additional machine-readable records among member libraries. The initial concept of a project coordinator was abandoned in favor of a technical committee, composed of six technical services librarians, and an agreement with the vendor for merging the database.

Administrative decisions

The Advisory Committee determined that it would address access, test database participation, vendor approval, ownership of data, use of equipment, and enhancement issues related to the project. The Advisory Committee invited seven member libraries to participate in the test database. These included Bucknell University, Dickinson College, Elizabethtown College, Franklin & Marshall College, Harrisburg Area Community College, Juniata College, and Kutztown University of Pennsylvania. Three of these libraries already maintained bibliographic records with the vendor. The remaining four members possessed online catalogs and prepared tapes for the vendor.

At the request of the Technical Committee, inquiries were made regarding alternative vendors. No alternative vendor indicated an ability to meet or exceed product performance within the project budget. Therefore, the Advisory Committee recommended that the relationship approved in the proposal be completed with Library Corporation.

The Advisory Committee affirmed that the union catalog database was the property of ACLCP. Library Corporation agreed to make no other use of the union database. Member libraries remained free to make use of their data for any purpose they

saw fit. Several members have indicated an interest in creating customized compact disk catalogs drawn from their own data.

At the time the initial proposal was written, it was understood that Intelligent Catalog equipment could be used with other compact disk products. Unfortunately, this appears to be difficult and seems to erode performance. Therefore, the Advisory Committee has recommended that the equipment be used only for the ACLCP union catalog. In the interim, most member libraries have acquired more than one compact disk reader to use with a growing range of other products.

During the planning phase, the technical and project committees identified several issues that the initial proposal omitted and which would improve the quality of the union catalog. These were referred to the Grants Committee of ACLCP for possible funding and include: name and subject authority control; central editing for records of choice; incorporation of the ACLCP-PaULS union serials list; retrospective conversion of bibliographic records not presently in machine readable form; and inclusion of records currently available only on Palinet or OCLC archive tapes.

Database design

The Technical Committee worked closely with the project director, the Advisory Committee, and Library Corporation over a four-month period to develop a database design and recommend other technical decisions that would make the Intelligent Catalog fully effective for ACLCP. The discussion was comprehensive, detailed and at times challenging. Issues included: database design; materials and formats to be included; holdings display; classification order; updating methods; software needs; and testing recommendations. Changes occurred in committee thinking—proposal objectives, and vendor procedures to achieve a satisfactory result.

The committee has developed a linked and merged design for the union catalog database. The design includes two steps. The first links all Library of Congress card numbers with OCLC control numbers in a preliminary table. Then the second step merges all records with either number. Provided that one record among member institutions contains both an LC card number and an OCLC control number, any other record from any other institution possessing either of the numbers will be merged with the master record in the database.

It was also agreed that the database would be recreated from updated member library databases each time it is produced. The technical problems associated with updating a union catalog of this size with additions alone appeared to be more difficult than simply rerunning the member databases. The Technical Committee recommended inclusion of

all materials and formats. Library of Congress cross-references are to be included as a partial correction until authority control can be implemented. To begin, two catalogs will be produced each year.

The Technical Committee decided to use Library of Congress classification as the shelflist order for two reasons. First, a majority of the bibliographic records and nine of seventeen ACLCP collegiate libraries use Library of Congress classification order. Second, ASCII sequencing can be used following the Library of Congress shelflist to put the small number of Dewey-only master records into a Dewey-like order.

The committee established a descending order of inclusion for adding member library databases to the database. This "pecking order" is based on the total number of Library of Congress card numbers and OCLC control numbers in each database. The first record encountered becomes the master record to which all subsequent matches are attached. Within each member library database, it was decided to add only the most recently updated version of a record. Local notes and bibliographic references were dropped from the display.

Holdings information for each member library with an item is to be listed under the appropriate master record. The holdings statement is to include the name of the institution, automatic stamps, and the local call number. Based on advice from interlibrary loan personnel, holdings are to be shown in alphabetical order by institution. For the test database it has been decided to display summary holdings to see if the fixed length of the holdings statement is exceeded. Preliminary adjustments may be required for several member library databases to include holdings information now maintained separately from the bibliographic database in an item file. The committee also recommends that the default screen be the union catalog, not the local catalog.

Library Corporation has expressed an interest in developing interlibrary loan related software, including forms and telefacsimile, for the Intelligent Catalog. The Technical Committee has also recommended consideration of log software to record various aspects of user behavior.⁶

Library Corporation has undertaken the programming necessary to link and merge member library databases and is now preparing a test database composed of records from the seven test libraries. This database is scheduled to be delivered, along with one Intelligent Catalog station, to

all seventeen member libraries during late February 1990.

The test database contains 1,086,778 records submitted by the seven libraries. The merge-link design has reduced this to 709,523 master records. Of this number, 497,641 records show only one location. Almost 97% of the material is printed language materials. The remainder includes scores, video, audio, and computer files.

The year to come: Testing C.D. Cat

The testing phase for the ACLCP value-added, compact disk, union catalog, tentatively personified as C.D. Cat, will be built around three major questions. Does the product do what we have agreed it should do? What demands will the union catalog create for ACLCP libraries when the operational database is produced? And what public relations strategies and user education models are most appropriate for a successful introduction of C. D. Cat?

An Evaluation Committee will evaluate the quality of the product provided by the vendor and recommend changes to the Advisory Committee. The Evaluation Committee will directly evaluate the quality of the database based on the agreement between the Library Corporation and ACLCP. It will determine the appropriateness of the software and hardware for use as a union catalog. The Committee will solicit comments from other users of the system, as well as their own observations, and make recommendations on how the design of the database can be improved.

To evaluate potential demand, library personnel and a small number of selected users at each institution will be invited to use the union catalog to address information needs related to their study and research. Each participant will receive introductory information on the catalog and guidance in its use. They will then have access to the catalog on request during the limited test period. The outcomes, particularly in terms of the number of terminal sessions, interlibrary loan requests, and reciprocal borrowing cards issued will be measured. This data will be used to predict overall demand on interlibrary loan and reciprocal borrowing services when the Operational catalog is accessible by all users in member libraries.

Introduction strategies will be designed by local coordinators and coordinated through service committees of ACLCP. Bibliographic instruction techniques will be developed in the Reference Committee. Circulation and Interlibrary Loan Committees will address reciprocal borrowing and interlibrary loan protocols respectively. The culmination of the testing phase will be a workshop to be held in the summer of 1990 and tentatively titled "One Thousand and One Things To Do With C. D.

⁶Thomas A. Peters, "When Smart People Fail: An Analysis of the Transaction Log on an Online Public Access Catalog," *Journal of Academic Librarianship* 15 (November 1989): 267-73.

Cat." At this workshop individuals will report to their colleagues in service committees about strengths and the weaknesses they have identified. Papers and abstracts will be collected and shared among ACLCP members and other interested groups.

Continuing operations

During the summer of 1990 all seventeen libraries submitted their databases for inclusion in the first operational edition of C. D. Cat to appear during the summer. Approved changes will be made in the database design, software, and hardware and incorporated in the production of the operational catalog. Libraries will be asked to submit databases in the spring and fall on a continuing basis.

The Grants Committee will be working to achieve some of the enhancements identified for

the project. Operational funding, amounting to \$495 per member library, per year, will be added to the ACLCP operating budget. Access to the database will be provided to other libraries in the region.

The value-added, compact disk, union catalog promises to meet many of the needs for a resource sharing system in ACLCP at a modest cost. The planning process has involved many librarians at participating libraries and resulted in useful implementation plans, administrative decisions, and database design that may be useful to other consortia and systems. In the coming year, the test database will be assessed, the design modified, and the first operational database produced. At that time, we trust we can confirm the statement of one of the federal evaluators who indicated that the need is fitting, the funding suitable, and the technology appropriate. ■ ■

Choosing CD-ROM products

By John Haar

*Head of Collection Management
Virginia Commonwealth University*

**and Juleigh Clark, Sally Jacobs,
Frank Campbell**

*Reference Librarians
Virginia Commonwealth University*

A selection checklist for CD-ROM collection development.

Deciding which CD-ROM products are most appropriate to purchase for a library can be a much more complex process than it may appear. In fact, any purchase decision arrived at too easily may well be one that should be reconsidered. Recognizing the complexities of the task can be the first step in making a sound decision, one that weighs the impact of each CD-ROM product throughout the library. Although the most popular CD packages are reference tools, a thorough evalu-

ation will reveal that their acquisition affects far more than reference service alone.

Most CD-ROM products, particularly those that require annual updates, represent a major investment. A purchase decision means obligating thousands of budget dollars for initial acquisition and assuming yearly commitments of thousands more for renewal charges, which like serial renewals can be expected to increase steadily.

This fiscal implication is all too evident, and its