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MARC BOOK CATALOG PRODUCTION IN WASHINGTON STATE

THE LIBRARY PICTURE IN WASHINGTON STATE

PROFILE OF LIBRARIES

The current inventory of libraries in Washington State compiled by the Washington State Library shows the following profile:

College and university libraries	18
Community colleges	22
City, town, county, and regional public libraries serving a population of:	
Over 100,000	12
25,000-100,000	8
5,000-25,000	18
Under 5,000	45
Total	<u>83</u>
Business and industry	22
County law libraries	39
Historical societies and museums	5
Medical libraries	8
Other special libraries	3
U.S. government libraries	18
Washington State government libraries	<u>4</u>
	222

The figure 222 represents a minimum count since only parent institutions or organizations are included. Branches of main libraries or separately administered libraries in different departments or locations are not counted; however, Air Force, Army, Navy, and veterans administration installations are counted separately. Of the college and university libraries, six are state supported. Included in this figure is the new Evergreen State College scheduled to open in Olympia in 1971. All of the community colleges have been under the jurisdiction of the state since 1967.

THE STATE LIBRARY

The State Library Commission, appointed by the governor, is the policy-making body for the State Library. The state librarian is a member of the governor's cabinet.

The State Library is organized into four divisions: management services, readers services, technical services and development, and library development, all reporting to the state librarian. An associate librarian for planning and research was appointed in July 1968.

Except for the law library and archives services, which are the mandate of separate agencies, the State Library has the responsibility for all library services to the legislature and to all agencies, institutions, and other organizations of state government. It also is charged with the development of library service and interlibrary cooperation throughout the state.

The latest addition to its services is a training and audiovisual services program established for the purpose of providing non-print reference service and serving as an instructional resources center for the state government. Within the latter responsibility, a pilot project has been undertaken to provide technical and material support to the department of personnel's training division, which serves 30,000 state employees.

LIBRARY DEVELOPMENT

A state-wide library development plan was formulated by the Washington Library Association (WLA) as early as 1934.¹ The State Library Commission and WLA updated and made more specific the public library portion of the state-wide plan following a study by Charles Bowerman in 1948, which recommended division of the state into twelve regions, each with population and tax bases large enough to allow it to maintain adequate library service.² Funds from the Library Services and Construction Act (LSCA) and its predecessor, the Library Services Act, have since supported three multi-county regional library "demonstrations," all of which have resulted in the assumption of support of library service by vote of the people.

INTERLIBRARY COOPERATION

The outstanding example of interlibrary cooperation in the area is the Pacific Northwest Bibliographic Center (PNBC) founded in 1940 to serve the states of Idaho, Montana, Oregon, Washington, and the province of British Columbia—and now Alaska. While the center's activities have been somewhat curtailed from the original program, the center serves as a major "switching center" for interlibrary loan among members. Washington libraries are by far its heaviest users. A recent study by Lura Currier analyzes PNBC's present status and makes recommendations for its future role, funding and operation.³

Further highlighting the cooperation that exists at the policy-making level in the state, the Washington Library Association's planning committee for state-wide programs has long acted as an advisory council to the State Library Commission in the interest of developing good library service in the state. This committee has recently been combined with the Title III (LSCA) advisory council to form the state-wide library development council, charged with advising both WLA and the State Library Commission on library development and interlibrary cooperation programs in the state.

In addition, the Washington Higher Education Library Committee (WHELCOM), composed of the librarians of the state-supported colleges and universities and the state librarian meets regularly to consider matters of common concern. The willingness of the large university and public libraries to cooperate with the State Library in the development of state-wide library services is long standing.

Shared Resources—At the present time, all interlibrary loan requests from public libraries in Washington are channeled through the State Library which purchases nonfiction materials as back-up for public library collections as well as for its own services to state agencies.

Interlibrary loan requests not filled by the State Library are forwarded to PNBC whenever the requesting library is a member. Requests for interlibrary loan from non-public library members usually go directly to PNBC. Washington State members of PNBC number eighty-seven, but only nine of those libraries contribute their holdings. The University of Washington holdings are not incorporated into the union catalog, but its catalog is available for consultation.

Agreements for reciprocal services are in effect between Spokane Public Library and Spokane County Library, Bellingham Public Library and Whatcom County Library, Port Angeles Public Library and Clallam County Library, Seattle Public Library and King County Library System, Tacoma Public Library and Pierce County Library. In each case, a large municipal library has opened its doors, for only a token fee, to give the same service it provides for its own borrowers to patrons of the contracting library.

A common library card is issued to borrowers of the tri-cities area for use in the Pasco Public Library, the Richland Public Library, and the Mid-Columbia Regional Library in Kennewick, serving both Benton and Franklin counties.

Interconnection of the state-supported universities, four-year colleges, community colleges, and the State Library on the SCAN (State Controlled Area Network) telephone system allows inexpensive query among those libraries, which is utilized to some extent informally. SCAN institutions may call off-network libraries, but off-network libraries have no access to the network at the present

time, though there is a possibility that libraries and other special groups may be admitted as members at a later date. Special courier service has been established between the University of Washington and Western State College in Bellingham. The Boeing Company contributes funds for the purchase of aviation materials by the Seattle Public Library and also supports a staff member at the University of Washington.

A study of *Library Service Across the Border: Idaho, Oregon, Washington* was conducted during the summer of 1969 by Grace Stevenson.⁴ The study recommends a four-county demonstration made up of two counties each from Oregon and Washington, experiments in the use of a common library card and numerous other cooperative projects which would serve users on either side of the common borders.

Shared Technical Services— There are no processing centers in the state which serve multiple independent libraries. Regional public library systems perform centralized processing services for their branches, as do the large municipal libraries and school systems. Recently Anacortes Public Library agreed to assume processing services for LaConner. Battelle Northwest Technical Information at Richland performs technical processing for the Graduate Center for Research, a graduate school sponsored jointly by the University of Washington, Washington State University and the University of Oregon.

Since 1965, the State Library has performed all technical services for the five-county Timberland Regional Library (TRL), formerly Timberland Library Demonstration. Prior to that date all catalogs of the member libraries were merged into a union book catalog. A current book catalog is published bimonthly, cumulative continuously throughout the year. A complete reissue of the TRL catalog through 1969 is in progress.

Since 1966, the State Library has also published the book catalog for North Central Regional Libraries (NCRL) and now provides catalog data from LC proofslips or original cataloging for all new NCRL titles, but neither orders nor physically processes their materials. Beginning in January 1970, the Timberland and North Central book catalogs have been combined into a single catalog which shows the libraries holding each title. The experimental MARC book catalog produced for these two library systems and the King County library system is described later in this paper.

WASHINGTON NETWORK PLANNING

THE CONCEPT

The previously described activities occurred quite independently of the impetus toward interlibrary cooperation generated by Title III

of LSCA. Specific planning for an interlibrary cooperation program within the state under LSCA began as soon as Title III was introduced in Congress, and the advisory council was appointed immediately upon passage of the bill. Early in 1967 the council requested that the State Library Commission engage Joseph Becker and Robert Hayes to develop a state plan.⁵ Basic objectives were agreed upon between the consultants and the council, and the plan was presented orally to the council in July 1967, and approved in concept by the council and the commission. The concept was presented to the profession at a series of fourteen meetings around the state, and to the public at several governor's conferences on libraries between September 1967 and May 1968.

LSCA Title III was merely the catalyst; the real impetus for a network stems from the increasing demands placed upon libraries and the resulting need to use available resources better. In the words of the Becker and Hayes plan:

The intent of the program is three-fold:

- 1) To promote the increased sharing of resources by libraries, particularly of different kinds and with different area jurisdictions.
- 2) To use modern technology in an appropriate, economic manner and by doing so, to facilitate the sharing of resources.
- 3) To expand the availability of library materials to every resident of the State.⁶

THE BECKER AND HAYES PLAN

The library network as proposed by Becker and Hayes is constructed of groups of libraries cooperating voluntarily, independent of their administrative base, on the basis of geographic area. One dominant library in each group is identified as the group center. Directories of the holdings of all member libraries in the area group allow maximum sharing of resources within the group before going outside the group. Directories of the other area groups in the area center make it possible to identify possible sources of interlibrary loan if materials are not available within the local area. A catalog production center at the State Library produces the directories for the various area groups, and may perform other centralized cataloging or processing services. A central switching center provides switching and referral services for requests that cannot be satisfied at the area group level and which must therefore be referred to major state and national resources. Communication equipment differs at each level depending on the kind and amount of use demanded.

Groupings of certain libraries are also proposed based on subject specialty or specialized constituency served. For example, a library with an important collection in medicine or a community college library would join with other public, academic, special, and school

libraries to form a geographic area group, but the medical library might also join with other medical libraries throughout the state in a medical specialty group and the community college library with other community college libraries in a community college specialty group.

NETWORK REQUIREMENTS

An efficient network depends, among other requirements, on 1) knowledge of what materials, expertise, etc., are available and where they are located; 2) agreements as to what materials may be borrowed within the network; 3) fast, efficient internal procedures for filling requests; and 4) common formats, procedures, and languages.⁷

The communications aspect of networks is often overemphasized at the expense of the basic information of *what* and *where*. Broadcasting a request for an item with no knowledge of whether it is available within the network, or where a copy of the item may be located is a very wasteful activity. This is not to say that an improved communications system among libraries should not be undertaken until there is a capability for determining what is where, but it seems that the directory function should have at least equal priority with the upgrading of communication facilities. Ordinary telephone service (while admittedly lacking the virtue of producing a hard copy record) and mail service can be very effective when combined with prior knowledge of holdings and speedy processing of requests *within* the libraries on either end.

For the directory to function effectively, the bibliographic items should be described and analyzed according to a standard set of rules, against a common authority file and data base, with a common degree of completeness. Further, the machine-readable record must be structured in a standard format with standard content designators for each type of material.⁷ The MARC format provides the standard structure. Standard content designators for monographs, serials, maps, and motion pictures and filmstrips have now been drawn up. The MARC Distribution Service provides bibliographic records in MARC format for English-language monographs currently cataloged by the Library of Congress. Future extension of the Distribution Service to other languages is dependent upon the extent of support evidenced by the library community and the consequent ability of LC to secure funds.

The RECON Pilot Project will provide the same standard MARC records for LC English-language monographs back through 1968 or earlier. A future conversion program depends upon the results of the pilot project and, again in large measure, on the support of the library community.

The Washington State Library, as the agency responsible for developing and administering the network, is firmly committed to the use of the MARC format and MARC records as the basis for network

services. Currently acquired materials which are not within the province of the MARC Distribution Service will be locally input to be compatible with MARC. Furthermore, the State Library considers it uneconomical and wasteful to consider conversion of retrospective records before the RECON Pilot is complete and before a determination is made of subsequent conversion activities by the Library of Congress, unless the circumstances are unusual. The library intends to make maximum use of and cooperate in all possible ways with a future RECON program.

SYSTEMS DEVELOPMENT FOR THE NETWORK

MARC PILOT PROJECT

The system now being designed to provide 1) current directories of holdings of network member libraries, and 2) current cataloging support services is a direct descendant of the State Library's MARC Pilot participation. As noted earlier, the State Library was already producing book catalogs for Timberland and North Central areas. King County library system had been producing book catalogs for its branches since 1951. A book catalog system was therefore a logical experimental project for Washington State. Since the same catalog data was required for shelflists and book preparation materials, the State Library undertook to provide these materials, as required, for participating libraries. Complete sets of cards were printed for the State Library catalog. While the cards and labels were printed and distributed weekly, the combined three-system book catalog was produced as a one-time output, covering titles acquired during 1967. No effort was made to input titles that did not appear on the tape, and since it was a pilot project, all of the three individual catalogs were run as parallel systems throughout the experimental period.

The catalog format chosen was that of a register with indexes. This type of catalog had already been produced commercially using a photographic reproduction of a printed catalog card as the register entry. To the best of our knowledge, Washington State was the first to produce both the register and index from a machine-readable record.

The four sections of the catalog may be described as follows:

Section 1: A register, consisting of full LC entries arranged by a register number assigned in the order in which a title came into the system. With this arrangement, the full entry catalog could be constantly added to but would never require resequencing and reprinting to accommodate new titles.

Sections 2, 3, 4: Author, title, and subject indexes or finding lists. These briefer entries gave enough information to identify the book, locate it on the shelf, or request it on interlibrary loan.

Each index entry gives the register number, so that the user can refer to the full bibliographic information as he wishes. All LC tracings were used as access points (with the exception of series added entries, which were omitted only because programming time was limited). Additional subject headings, and author and subject cross references were added as needed. Each entry in the index sections showed mnemonic codes for libraries holding that title.

The experimental catalog proved the utility of centrally produced and distributed MARC tapes for the production of book catalogs, although no attempt at any real resolution of the filing problem was made. The IBM Sort 7 program was used to operate on a sort field created automatically for each entry. The specifications for the sort fields are shown in Table I. In addition, a table look-up was used to suppress initial articles in English for filing purposes.

Table I. Sort Field Specifications for Washington State Library MARC Pilot Book Catalog

	Author field	Title field	Subject field	Date field
Author catalog	40	16		4
Title catalog	16	40		4
Subject catalog	15	5	70	

The specifications for the experimental catalog purposely precluded any "editing" of the MARC record that could not be done automatically by programming. This was done to take full advantage of the centrally prepared catalog record and to demonstrate the greater economy of using the standard record. All three public library systems and the State Library accepted the LC author entries, subject headings, and an automatically shortened Dewey Decimal Classification. Dewey numbers were added if lacking in the LC record.

Since automatic acceptance of LC cataloging obviated any need for "proofing" a printout of the MARC record before printing the cards and pockets, all cataloging support services output could be produced as soon as a matching MARC record was found. Books could thus be processed and put into circulation with minimum delay following receipt.

The State Library MARC system was programmed in Autocoder for the IBM 1401 computer with 14K units of core storage then available at the State Data Processing Service Center. Later in the project IBM 360 models 30 and 40 were made available to us in

another agency. The programs were modified for running in emulation mode on those computers in order to take advantage of a 60-character print chain and a lower hourly charge.

The card print program provided to MARC participants was utilized, with modifications, to print either single cards or card sets and the entries in the register section of the catalog. For the latter, extension cards had to be made continuous with the first card, and "white space" normally left between tracings and body of the entry had to be compressed.

BASIC BIBLIOGRAPHIC SYSTEM FOR NETWORK

The basic bibliographic system to be designed is a generalized set of programs to allow maximum flexibility in inputting, processing, and outputting bibliographic data and associated information. Within the broad framework, three subsystems have been identified for implementation: 1) directory subsystem, 2) catalog support services subsystem, and 3) in-process information subsystem.

The development will be a joint effort of the State Library, the Evergreen State College, and King County library system. In addition to these three libraries, the first group of libraries included in the project is expected to be the two public library systems for which the State Library's Technical Services and Development Division already performs cataloging services and probably two additional systems to which service may be extended during the coming year. A community college, public school system, and a special library should be added to the group at a slightly later date, in order to test the system with all types of libraries.

Complete technical services are expected to be provided only for the State Library and for the Timberland Regional Library. The manner and extent to which the Evergreen State College and the State Library will work together in matters of acquisitions and physical preparation is not fully determined at this date. As presently foreseen, network services will be confined to directory and catalog support services. The latter will be optional, and by contract. Member libraries not desiring this service will be required to submit their catalog data for entry into the directory. It should be understood that we are chiefly concerned with currently acquired library materials at this time, not with retrospective materials, although an opening-day catalog for Evergreen and an urgently needed retrospective catalog for King County are priority requirements of the system.

Directory Subsystem— The directories will provide bibliographic and location (holding library) information for groups of libraries for the purpose of making materials held by libraries in the group more accessible to all borrowers. Whether the group directory is as

acceptable to the public and to the librarians as the catalog of the individual library must be determined by experimentation. Instead of group catalogs combining bibliographic and location information, all of the bibliographic information for all titles held by network members anywhere in the state—or by those libraries covering a major portion of all titles held—could be printed in one catalog. Location information might then be printed as separate listings by area. This latter pattern of catalog organization requires a double look-up operation for location data, but avoids duplication of the entries when the same item is held in more than one area group.

There will also be monitoring of the utility of the register/index catalog, which has yet to be tried in an operational environment in Washington. To avoid different register numbers for the same title in different group directories, the register number must be assigned on a state-wide basis and a single register issued. It is possible that only the indexes are needed in many libraries, and that the register is required only in larger libraries and group centers. Possibly the National Union Catalog (NUC) can substitute for the register as a source of the full entry. That there is interest in the register/index style catalog for a future NUC compounds this problem, since local indexes would then have to refer to the NUC register number which could not readily be known in advance.

Among further questions to be answered are the following: Should serials titles (other than periodicals) be included in the same directory with monographs, leaving holdings data for serials union lists, or should they be separated entirely? Would it be as desirable as generally thought to include phonorecords, motion pictures, and other non-book materials in the same catalog with monographs, or are they best consulted separately? Should adult and juvenile titles be listed together, as current opinion among two of Washington's regional libraries suggests, or is this unsatisfactory? And are there differences in the answers to any or all of these questions depending upon the size and type of library? These are some of the problems Washington State hopes to gain insight into as it begins implementing its directory system.

The production technique of book catalogs will also be the subject of experimentation. The entire catalog may be printed by line printer, photo-reduced, and reproduced on an offset press; all or certain issues may be printed using photocomposition techniques; computer-output-microfilm techniques may be used to create a catalog on microfilm or go through microfilm to a master for offset reproduction. Microfiche is another possible medium for publication.

Depending upon the method and cost of production, an optimum frequency of issue and pattern of cumulation must be determined. Present plans for the initial project call for monthly issues, cumulated continuously up to one year.

Cataloging Support Services— This service will include the distribution of selected MARC records in printed or machine-readable form, including catalog cards, labels, punched circulation charge cards, magnetic tapes, etc. These are provided according to a profile of requirements for each library.

Individual library book catalogs in standard format and using standard catalog data may also be produced as subsets of the directory subsystem. The catalog of current acquisitions of the State Library will in all probability be separately produced for distribution to all state agencies and to libraries throughout the state to facilitate borrowing from the State Library.

In-Process Information System— This subsystem must operate on three levels. Where ordering, receipt, and processing of materials are required, it serves to produce order lists by vendor, and weekly updated status lists showing titles which have been ordered, received, and processed. At each stage, the receipt of a matching MARC record will be indicated. Titles will be deleted from the in-process list upon their appearance in the book catalog. In addition to serving as a status information system, this subsystem will provide management information concerning on-order time for purposes of vendor evaluation, MARC record receipt time in relation to receipt of the book, and processing time.

Where only cataloging support services are required, the in-process subsystem will report entry of the request into the system and shipment of required products out of the system, along with information on availability of MARC data. Titles reported purely for directory purposes will be listed as in-process until they appear in the book catalog update, with the indication, where appropriate, that there is a matching MARC record.

At present, the in-process information system is envisioned chiefly as a control and management tool. At a later date, the system might be expanded to provide information to the individual library on the status of its requests for materials or catalog data, and to the group center on materials in process in its group between updates of the book catalog. Because of the volume of updating, this subsystem is an obvious candidate for later on-line operation.

When future acquisitions and on-line circulation systems are implemented for the State Library, hopefully in common with Evergreen State College after the basic bibliographic system is operational, the in-process information system will become a link between the two.

USE OF MARC RECORDS

MARC AS THE STANDARD RECORD

Some policies which are being followed in the design of the network system are as follows:

MARC records will be used at as early a point in the system as they are available, and with effectively no change except for certain programmable options. MARC records are used without prior prooflisting, with minor exceptions.

MARC records will be accessed only by the LC card number until a standard author/title search code for use with them has been developed for the library community.

Temporary cataloging will be done for materials received in advance of an expected MARC record when there is a request or reserve on the book, or after a predetermined elapsed time, but the temporary record will be superseded by the MARC record when received.

Local cataloging of materials not cataloged by LC will be performed as nearly consistent with LC practice as possible. Where libraries contribute their own local cataloging for directory listing, MARC and/or LC data will be substituted when they can be located; where no LC data is available, the local record will be entered as is with its source identified as a prefix to the identification number.

All records input by the State Library cataloging center will be given content designators effective up to the level of MARC records edited by LC. Future uses of the data base are unknown; we do not wish to reduce the level of content designation until a reduction is jointly agreed to by LC and the library community.

TIMELINESS OF THE MARC RECORD

Timeliness of the MARC record—and prompt utilization of those records that are needed—is of primary importance, so that library materials may be processed and put into circulation in the shortest possible time. In order to have the critical items of catalog data available at an earlier date, Washington State Library urges that cataloging-in-source be reinstated, that the MARC record be created at that point, prior to availability of the collation data, and that the MARC record be updated for collation information only for LC internal use. If updated records are distributed at all, this might be done at an extra cost to subscribers.

TECHNICAL ASPECTS

The State Library is required to use the facilities of the State Data Processing Service Center. The computer facilities consist of an IBM 360 model 50, under O/S (operating system), operating in an MFT (multi-programming, fixed number of tasks) environment. High speed tapes, 2,314 discs and remote terminal hook-up are available as needed. A "TN" text printing print chain with 120 characters, consisting of upper and lower case alpha and special characters is also available.

The participating libraries are working together on final specifications for the system. Whether the decision is made to have the computer system design and program contracted out or done "in-house," permanent staff of Evergreen, King County, and the State Library will monitor its programs and be thoroughly trained for continued operation of the system.

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