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ABSTRACT

John Cory speaking at a conference on library networks identified four generations of library organization, each achieving increasing levels of capacity, effectiveness, complexity and versatility and decreasing unit cost. The four generations are: (1) A single library of a single type - a public, college, school or special library; (2) A system or network of several libraries of the same type (such as a public library system); (3) A combination of several library systems or several libraries of different types and (4) A combination of various types of libraries and non-library agencies concerned with related activities. This paper is concerned with the third generation which represents the growing edge of librarianship today, that is, with state and regional networks combining resources of several types of libraries. It is based largely upon reports from the states on their administration of the Library Services and Construction Act, filed with the Bureau of Libraries and Education Technology of the United States Office of Education and on information received directly from state agencies. (Other papers from this conference are available as LI 003360 - 003361 and LI 003363 through LI 003390) (Author/NH)

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Emerging State and Regional Library Networks

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Emerging State and Regional Library Networks

John Cory speaking at a conference on library networks held at the University of Chicago in the summer of 1968¹ identified four generations of library organization, each achieving increasing levels of capacity, effectiveness, complexity and versatility and decreasing unit cost. The four generations are:

1. A single library of a single type - a public, college, school or special library.
2. A system or network of several libraries of the same type (such as a public library system).
3. A combination of several library systems or several libraries of different types.
4. A combination of various types of libraries and non-library agencies concerned with related activities.

This paper will concern itself with the third generation which represents the growing edge of librarianship today, that is, with state and regional networks combining resources of several types of libraries. It is based largely upon reports from the states on their administration of the Library Services and Construction Act, filed with the Bureau of Libraries and Education Technology of the United States Office of Education and on information received directly from state library agencies. Special thanks are due to Dorothy Kittel, of the Bureau and to the state library personnel who took time to respond to our queries.

Several official policy statements released by the American Library Association reflect the consensus of the library profession that no one library and no one type of library can be self-sufficient in serving its users.

¹ John Cory, "Network in a Major Metropolitan Center," in Library Networks Promise and Performance (Chicago: University of Chicago Press, 1969), p.91.

With the exception of the school media standards,² which encourage district-wide, regional, and state instructional media centers but seem to be unaware of the existence of other types of libraries to which schools might beneficially relate, all the other statements of standard and objective by major types of library divisions in the American Library Association refer specifically to the importance of interlibrary cooperation. The Public Library Association makes a fundamental commitment to interlibrary coordination, in that its most recent standards are Minimum Standards for Public Library Systems.³ In addition to assuming that adequate library service can be provided only through larger units, which except in large cities are achieved by multi-jurisdictional public library systems, the standards also underscore the responsibility of the public library to take leadership in the fostering of interlibrary cooperation between the various other libraries, school, academic, special in the community. In fact as early as 1956 the Public Library standards stated: "Libraries working together, sharing their services and materials can meet the full needs of their users. The cooperative approach on the part of libraries is the most important single recommendation."⁴

The most recent standards for college libraries, adopted by the Association of College and Research Libraries in 1959,⁵ include a strong statement on cooperation with other college, university, school and public library agencies in the community, region, state and in the nation, for the

²American Association of School Libraries, Standards for School Media Programs, (Chicago: American Library Association, 1968)

³Public Library Association, Minimum Standards for Public Library Systems. (Chicago: American Library Association, 1967)

⁴Public Library Service: A Guide to Evaluation, with Minimum Standards. (Chicago: American Library Association, 1956), p. 7.

⁵"Standards for College Libraries," College and Research Libraries, XX . 274-80, July, 1959.

benefit of students and faculty and also on the college library's responsibility to help in providing reference service to readers beyond the campus. The ALA Standards for Junior College Libraries⁶ contains a similar statement on interlibrary cooperation with the emphatic proviso that cooperative arrangements with other libraries ought not to be viewed as a substitute for an adequate library in the junior college itself.

At the state level, the task of fostering the coordination of library resources and services throughout the state is identified as one of the major roles of the state library. Of the eight chapters detailing state library responsibility contained in the most recent standards,⁷ three of them are concerned directly with "The State and State-Wide Library Development," "State-Wide Development of Resources," and "State and Information Networks." Underlying the entire statement of standards and objectives is the conviction that "the total library and information resources of the state must be developed, strengthened and coordinated as a whole,"⁸ and that the emerging systems of public, school and academic libraries within the state must be "linked in a defined relationship with each other and with other information services to form 'networks of knowledge'".⁹

In addition to the mandates for interlibrary coordination carried in the standards for various types of libraries, in June 1967 the boards of directors of four American Library Association divisions, the associations of public, state, school, and college and research libraries, approved a

⁶"A.L.A. Standards for Junior College Libraries," College and Research Libraries, XXI:200-206, May, 1960.

⁷American Association of State Libraries. Standards for Library Functions at the State Level. (Chicago: American Library Association, 1970).

⁸Ibid., p. 10.

⁹Ibid., p. 14.

joint statement on interlibrary cooperation.¹⁰ The statement set forth "the imperative need for cooperation" (generated by such factors as changes in American education and culture which have resulted in increasing and accelerating reader demands upon libraries, changes in quantity and variety of published materials, and developments in technological applications for libraries, plus rising costs of materials, equipment and service) and principles for attaining effective cooperation. Within the assumption that "no one library can be self-sufficient," and that "libraries acting together can more effectively satisfy user needs" the statement outlines the prerequisites for fruitful interlibrary cooperation: 1) that primary responsibility for each type of library to its special clientele must be defined before interlibrary cooperation can be established to augment service; 2) that effective cooperation depends upon adequate resources, administrative capability and efficient communications; 3) that although the primary responsibility of each library must be respected each library must realize its responsibilities to the network and assume its appropriate share of responsibility; 4) that all libraries must maintain an attitude of flexibility and experimentation.

Much of the federal library legislation of the sixties reflects the concern of the library profession and of the Congress for the coordination of resources and services. The Higher Education Act of 1965, PL89-329, under Title II A provides funds for "combinations of institutions of higher education which need special assistance in establishing and strengthening joint use facilities."

¹⁰Public Library Association, Interlibrary Cooperation. (Chicago: American Library Association, 1967).

In the amendment to the act in 1968, Title VIII "Networks for Knowledge" was added "To encourage colleges and universities to share to an optimal extent, through cooperative arrangements, their technical and other educational and administrative facilities and resources and in order to test and demonstrate the effectiveness and efficiency of a variety of such arrangements." Eligible projects include "joint use of facilities such as classrooms, libraries or laboratories, access to specialized library collections through preparation of interinstitutional catalogs and through development of systems and preparation of suitable media for electronic or other rapid transmission of materials." Unfortunately, funds have never been appropriated to implement this very promising legislation.

The Elementary and Secondary Education Act, Title II requires in its regulations that state plans include some provision for coordination between school libraries and public library programs at both state and local levels.¹¹

The most significant encouragement to interlibrary cooperation came with the addition of Title III to the Library Services and Construction Act in 1966, although statewide planning for library development really began in most states with the passage of the original Library Services Act of 1956 which provided funds to the states contingent upon a plan for the improvement and extension of public library services. Under the Library Services Act and its successor, the Library Services and Construction Act public library systems were established in most states, and became the nuclei of subsequent third generation library organizations.

Title III of the Library Services and Construction Act provides funds to the states to "establish and maintain local, regional, state, or interstate networks of libraries for systematic and effective coordination of the

¹¹ Title II Regulation (Code of Federal Regulation. Office of the Federal Register, Title XLV: Public Welfare, No. 117.6), p.307.

resources of school, public academic, and special libraries or special information centers." Funds are to be spent according to a plan devised by the state library agency with the help of an advisory council representative of all library interests in the state. Projects need not be state-wide, but must include a "mix" of library types. Funds can be spent for equipment, personnel, and leasing of space, but cannot be used for the purchase of library material - a wise restriction, since it forces the linkage of existing resources and services and a more creative approach to cooperation than the traditional purchase of a collection of expensive and/or esoteric material for the use of all libraries in a state or region. Federal funds, according to the act must be matched on a 50-50 basis with state or local funds, although the Congress later resolved to suspend the matching requirement through June, 1968.

The first appropriation under Title III was made by the Congress in 1967. The act authorizes appropriations of 5 million dollars in 1967, 7.5 million in 1968, 10 million in 1969, 12.5 million in 1970 and 15 million in 1971, but actual appropriations have never enabled more than a basic grant of approximately \$40,000 to each state, a sum which if matched at the minimum level, as is common in most states, cannot fund the massive programs needed to make all the library resources of any state available to all its citizens.

Despite its minimal funding, Title III has resulted, in 49 of the states, in serious planning between libraries of all types, and in a comprehensive look, often for the first time, at all of the library resources in each state from the point of view of the user. Some linkage of resources in major libraries in each state has been accomplished. An evaluation of the total impact of Title III, and of what remains to be achieved is now urgently needed.

Funds available under Title III, supplemented often by state money, or Title I, LSCA funds have supported numerous studies of state-wide library resources, weaknesses and needs.

A most useful bibliography of state-wide studies from 1956-1967 compiled by Galen Rike¹² of the University of Illinois Library Research Center should be brought up-to-date. These studies are an unparalleled record of the growing edge of the profession and usually are available only in limited quantity from the contracting state library agency.

Most of these studies, like Michigan's Reference and Research Library Needs in Michigan¹³ (which actually antedated LSCA III) are state-wide in scope. Maryland, for example, reports "studies to discover new approaches in library planning to meet changing requirements of society, to take advantage of appropriate technologies and provide for the orderly implementation of library development plans." Maine is conducting a comprehensive study of the total library resources of the State, including factual data on resources as well as a survey of use and public opinion about libraries in three selected communities. Hawaii commissioned a broad study of all library services on the islands including an investigation into patterns of library use, as well as some research into the non-user.¹⁴ This study led to a comprehensive, long-range plan for library development in the state which is now being implemented.

One of the most extensive surveys is one soon to be published in Indiana conducted under the direction of Dr. Peter Hiatt.¹⁵ This study which began

¹²Galen Rike, State-Wide Surveys and Development Plans. An Annotated Bibliography, 1956-1967 (Springfield: Illinois State Library, 1968).

¹³Nelson Associates, Inc., Reference and Research Library Needs in Michigan (Lansing: Michigan State Library, 1968).

¹⁴Planning for Libraries in Hawaii (Honolulu: Hawaii State Department of Education, 1968).

¹⁵"The Indiana Library Studies: A List," Focus on Indiana Libraries 24:86-88 (June, 1970).

almost two years ago, includes numerous in-depth studies by a wide variety of researchers including: Response to Change: American Libraries in the Seventies by Virginia Mathews and Dan Lacy, The Role of Libraries in the Cultural History of Indiana by Robert Constantine, Professor of History, Indiana State University, Library Usage of Children and Young Adults by Philip Wilder, Dean, California State College, Bakersfield, and Phillip Mikesell, Political Science, Wabash College, A Study of Adult Information Needs in Indiana by Jack Wentworth, and Charles Bonser, School of Business, Indiana University, General Economic and Demographic Background and Projections for Indiana Library Services and Regional Supply and Demand for Library Services by James Foust, School of Business, Indiana University, Economic Aspects of Library Services in Indiana by Jerome Milliman and Richard Pfister, School of Business, Indiana University, A Survey of Library Services for Indiana's Handicapped by John McCrossan, School of Library Science, University of Michigan, Library Services to Residents of Indiana State Institutions, The Indiana State Library: A Preliminary Study, Structuring the Indiana State Library for Interlibrary Coordination, and Information Services to Indiana State Government, by Genevieve Casey, Department of Library Science, Wayne State University, Survey of User Service Policies in Indiana Libraries and Information Centers, by Edwin E. Olson, School of Library and Information Sciences, University of Maryland, A Survey of Indiana Special Libraries and Information Centers by Brigitte Kenney, Research Associate, Department of Psychiatry, University of Mississippi, Centralized Processing for Indiana Libraries by Rothines Associates, Directory of Special and Subject Collections in Indiana by Donald Thompson, Wabash College and Michael Rothacker, Graduate Library School, Indiana University, Management and Use of State Documents in Indiana by Genevieve Casey and Edith Phillips, Department of Library Science,

Wayne State University, and Historical Archival Programs of the Indiana Historical Society by Gerald Ham, State Archivist, Wisconsin. A summary volume discussing the key findings of the total study and a long-range program for implementation is being published by Dr. Hiatt. In addition to their unusual scope and depth, the Indiana studies demonstrate a uniquely fruitful partnership between a state library and a library school.

In 1968, Ralph Blasingame completed a comprehensive study of Ohio's library needs¹⁶ which led directly to new state legislation mandating a network of area library service centers and a state-wide reference network.

In addition to the Blasingame study, a recent issue of the Ohio State Library Newsletter lists five other major studies commissioned by the State Library within the past five years.¹⁷

In addition to comprehensive, state-wide surveys, other states have conducted feasibility studies on some specific aspect of interlibrary cooperation. North Carolina commissioned a feasibility study on a state-wide central research library facility. Illinois is investigating how school library programs in Illinois might relate to other libraries, especially public libraries, and has contracted for a survey of interlibrary cooperation throughout the state, to be finished in the Fall of 1970. Nebraska is investigating the feasibility of a state-wide processing center for all libraries of all types.

Other states, like Louisiana have prepared for the third generation by conducting surveys to identify subject strengths, both in print and microform in all the libraries of the state.

Evaluation of the emerging networks is understandably just beginning to take place. One of the first evaluation studies is the analysis of the

¹⁶ Ralph Blasingame, Survey of Ohio Libraries and State Library Services (Columbus: State Library of Ohio, 1968).

¹⁷ News from the State Library (Columbus, Ohio, No.108:July 8, 1970).

first eighteen months of "OTIS," the Oklahoma TWX Network¹⁸ which ties together the various regions of the state through ten transmission sites, most of them in public libraries, with the five resource libraries of the state, the State Library, the public libraries of Tulsa and Oklahoma City-County, and the two state university libraries. The study estimated the unit cost of the network, both to resource libraries and to TWX center libraries, its benefits in terms of user satisfaction, (success in locating and supplying material and turn-around time), and the extent to which the network achieved fringe benefits such as the fostering of better development and use of local library resources and broader coordination between libraries of various types on a state and local level. The study revealed that access to wider resources brought people in to local public libraries who had never used them before and universally encouraged the selection of a higher level of material in the local libraries. The study also documented that the strongest libraries of the state made greatest use of the network. (The public library systems in Oklahoma accounted for more than one third of the networks requests. The two university libraries accounted for 19 percent of the networks traffic.) The Oklahoma evidence refutes the fear, often expressed, that opening all resources in a state will tend to weaken incentives for local libraries to build collections. OTIS experience also underscores the vital importance of adequate bibliographical competence at the state library, the hub of the network.

The Texas State Library has recently published the second evaluation of their state-wide reference network.¹⁹

The New York State Library continues to lead the nation in the intelligence and sophistication with which it discharges its obligations of leadership

¹⁸Genevieve Casey, OTIS: An Evaluation of the Oklahoma Teletypewriter Interlibrary System (Oklahoma City:Oklahoma Dept. of Libraries, 1969).

¹⁹Evaluation Number Two - Texas State Library Communication Network (Austin: Texas State Library, 1970).

and planning. Studies too numerous to list have laid the groundwork for New York's emerging Reference and Research Resource Network, for the state-wide cataloging and processing service, and for NYSILL, the New York State interlibrary loan network. The careful research and planning which precedes and enables every forward step in New York, as well as their continuous evaluation of progress is an example and an inspiration to the other 49 states. A bibliography of twelve 3 R's studies commissioned by the New York State Library between 1962 and 1968 is included in a 1969 summary report by the Library's Division of Library Development.²⁰ A second 300 page study evaluating NYSILL and two regional interlibrary networks established in the fall of 1968 to supplement the state-wide network, was published by Nelson Associates in 1969.²¹ A study of the third phase of NYSILL has just been completed, documenting great improvements in the efficiency of the network and the volume of its use.

As some limited funds became available under LSCA III, and as state-wide studies documented growing needs for better access to materials not locally available, telecommunication networks have been established in almost all of the states. Teletypewriters to connect individual research libraries have been in use since 1927, as Herbert Poole indicates in his state of the art report.²² Interlibrary loan is as old as the second century before Christ, when Alexandria loaned books to Pergamum. However, these emerging networks are effecting significant changes both quantitatively and qualitatively in interlibrary loan as it has been traditionally practiced.

²⁰The 3 R's: Reference and Research Library Resources. (Albany: New York State Education Department, Division of Library Development, 1969), p. 10.

²¹Nelson Associates, Interlibrary Loan in New York State. (The Author: Washington, D. C.: 1969).

²²Herbert Poole, "Teletypewriters in Libraries: a State of the Art Report." College and Research Libraries 27:283-6. July, 1966.

The National Interlibrary Loan Code most recently revised by the Reference Services Division of ALA in 1968²³ has always taken the view that "the purpose of interlibrary loan is to make available for research materials not owned by a given library." It is conceived as a privilege to be sought only for faculty and graduate students and limited to unusual items which the borrowing library does not own and cannot readily obtain at moderate cost. Ordinarily excluded are U.S. books in print of moderate cost, serials when the item can be copied at moderate cost, rare materials, including manuscripts, basic reference material, geneological, heraldic, and similar materials, bulky or fragile materials which are difficult and expensive to pack (e.g., newspapers) and typescript doctoral dissertations when fully reproduced in microfilm and readily available.

In 1968, when it promulgated the latest national interlibrary loan code, the Reference Services Division also released for comment a "Model Interlibrary Loan Code for Regional, State, Local or Other Special Groups of Libraries." This code was intended to complement the national code, and recognized the need for fundamental changes in interlibrary borrowing and lending practices to accommodate the growing needs of the American people and the new patterns being developed in state and regional networks. In order to provide for full utilization of state and regional resources, and thus to avoid over-use of a few very large national collections, the proposed code recommended a much more liberal lending policy within state networks. As summarized by Marjorie Karlson, Chairman of the American Library Association Reference Services Division Interlibrary Loan Committee, the principal differences between the

²³ National Interlibrary Loan Code (Chicago: American Library Association, 1968).

²⁴ American Library Association, Reference Services Division, Interlibrary Loan Committee, "Draft of a model interlibrary loan code for regional, state, local or other special groups of libraries," Special Libraries 59:528-30 (September, 1968).

Model Regional Code and the National Code are:²⁵

- 1) Borrowing is not limited to research purposes.
- 2) There is no borrower statement-- anyone presumably is eligible.
- 3) Almost anything can be requested; however, there is a brief list of materials that should not be requested.
- 4) There is a strong statement on the responsibility of any library to develop collections adequate to meet its normal needs; free interlibrary loan should not diminish local efforts to build resources.
- 5) Requests to borrow should be channeled through some central agency, often the state library, where requests can be serviced in some cases, screened, and the load on other libraries distributed equitably.
- 6) Funding of state plans is considered.
- 7) Standard ALA forms may be used but it is likely that most states will use TWX or Telex installations, thereby simplifying and speeding up procedures; many state plans may pay for these installations through the state library.
- 8) All types of libraries may be included.
- 9) Participation presumably will be voluntary, and contracts for services are foreseen.
- 10) Agreements or contracts among or with individual libraries are not precluded.

Although, as stated in Marjorie Karlson's point three, "almost anything can be requested" the code does recommend that libraries do not ordinarily request a) "books in current and/or recurring demand, b) bulky or fragile materials, c) rare materials, d) large number of titles for one person at any one time, e) duplicates of titles already owned, f) materials which can be copied cheaply, g) materials for class reserve or other group use."²⁶

The model code was conceived as subject to change or modification before adoption by any local, state, regional or other group of libraries. As stated above, its fundamental purpose was to provide for the maximum use of local resources, and thus to minimize pressure upon the large research libraries of the nation.

Nevertheless, the liberalizing of interlibrary loan privilege as recommended in the Model Interlibrary Loan Code for Regional, State or Other Special Groups of Libraries and as practiced in most of the emerging state

²⁵ Ibid., p.528

²⁶ Ibid., p.530

networks has alarmed some members of the Association of Research Libraries. A position statement on the model code, proposed for the Association of Research Libraries by Arthur McAnally, Director of the Oklahoma University Library affirmed continuing commitment to the principle of ready access to information by all who need it, but emphasized that the increasing volume of interlibrary loan was placing unduly heavy burdens on libraries with nationally important collections, to the point where these libraries may soon have to terminate interlibrary lending altogether or curtail it drastically unless some method of reimbursement of cost is provided. Dr. McAnally proposed the following guidelines for research libraries participating in state or regional interlibrary loan systems:

- 1) The needs of the library's own clientele and its obligations to the authorities who established and support it must come first. No library should agree to participate in a regional or state interlibrary loan system to an extent that would reduce the quality of service to its own legal or basic clientele.
- 2) After its obligations to its own clientele, the next level of obligation of a research library of national strength is to the Nation, that is, to the National Interlibrary Loan Code. Participation in a regional or state system should not be at the expense of fidelity to the National Interlibrary Loan Code.
- 3) Any regional or state interlibrary loan code must contain a statement on the necessity for all libraries to continue to make vigorous efforts to develop library collections adequate to meet the normal, everyday needs of their own basic clienteles.
- 4) Any regional or state interlibrary loan code should contain provisions which will assure that the burden of interlibrary lending

will be distributed as equitably as possible and that it will not fall on just a few libraries, with the exception of a state library. (It is recognized that in some interlibrary loan systems contracts may be negotiated with research libraries to serve as "resource libraries" for the system.) Research libraries should be used as supports to any regional or state interlibrary loan system in which they decide to participate, rather than as the basic supplier of library materials for the system.

- 5) To secure an equitable distribution of the interlibrary lending burden, a central state agency should screen all interlibrary loan requests submitted through the system. In most states the logical screening agency will be the state library.

The screening process should be done by professional librarians. It should restrict requests to research libraries chiefly to those items needed for research which are not available elsewhere in the state or region.

- 6) As a condition of participation in a regional or state interlibrary loan system, a research library must be able to designate those categories of users which it will serve, the type of materials which it will lend and the conditions of loan.
- 7) Any research library which participates in a regional or state interlibrary loan system should be reimbursed for loans or photocopies made through the system. The amount of reimbursement may vary from state to state and region to region and may take a variety of forms. But the principle of reimbursement should be recognized and adhered to. If it is not, research libraries will not be able to bear the additional costs which will result from expanded interlibrary loan effort and, consequently, will not be able to participate in any proposed system.

- 8) Any research library should reserve the right to conduct its own interlibrary borrowing and lending programs directly with other research libraries, either in or out of the state or region served by the system.
- 9) Any research library which participates in a regional or state interlibrary loan system should do so on the basis of a formal, written contract which specifies the conditions of participation. This contract should be submitted to the governing board of the library for approval.

These guidelines were approved by the executive board of the Association of Research Libraries membership at its annual meeting in January, 1969,²⁷ with the addition of a paragraph which stated: "The Association of Research Libraries recognizes that any ultimate solution to the general problem of expanded library services, including interlibrary loans will probably require federal financial support to research libraries which serve as national as well as local or regional resources."

The majority of the state networks, like Oklahoma's, use TWX to link the major public libraries with the resource (academic) libraries and the State Library, in order to facilitate the rapid and systematic utilization of all resources with the state. Commonly as in Texas, a combination of long distance telephone (linking the smaller libraries with the major public library centers) and TWX is used with the State Library assuming the cost of the telephone lines.

Most states have available to them wide area telephone service from the State Capitols to key locations. A few states, such as Michigan, Arkansas and Mississippi, have chosen to use the telephone as the sole communication device.

²⁷ Association of Research Libraries, Minutes of 73rd Meeting of January 26, 1969, Washington, D.C. (Princeton: The Association, 1969), p.31.

Michigan's hotline project, begun before LSCA III is an example.²⁸ The State Library telephones all public library systems headquarters every working day at the same hour to receive requests which cannot be filled in the region. School libraries enter the network through their local public library. The hotline was later extended to the Community Colleges of the state and plans were made to include direct calls to the reference departments of each of the state's four-year college libraries. The State Library undertook to handle all requests within twenty-four hours, and to refer those not available in the state's library's collection to the other resource libraries in the state and outside if necessary. The advantage of the hotline over TWX is that during the same daily telephone call, a report can be given on the previous day's requests and questions can be quickly clarified on substitutions, subject requests, etc. A major advantage is that the "hotline" tends to get a network started quickly with maximum volume, since initiative is not left with the local library to use the network. The disadvantage is that it is costly in personnel (a TWX station can be unmanned) and sometimes leads to audio-confusion, especially if clerical rather than professional staff man the telephone. Iowa reports the use of data-phone, which provides voice contact as well as facsimile transmission.

In most of the networks, the State Library acts as the switching center and bibliographical hub of the system. There are a few exceptions to this rule, such as Maryland which uses the Enoch Pratt Free Library, Colorado which contracts with the Bibliographical Center, Rocky Mountain Region to manage the state network, and Kansas where Topeka has been designated as the network's center. In general, the effectiveness of the networks depend in great measure upon the competency of the State Library to fill and refer requests.

²⁸James G. Igoe, "The hotline in Michigan," Library Journal 93:521-3 (1 February, 1968).

Delivery of materials is usually done by mail, although some states, like Connecticut use LSCA III funds to maintain a truck for delivery. Many of the New York 3 R systems are delivering materials to member libraries either by truck or parcel delivery. These systems commonly articulate their delivery systems with the public library systems in the area.²⁹ On complaints that libraries were encountering long delays in delivery of material, Michigan made a careful study of mail service a few years ago, preparatory to contracting with a special package delivery service and discovered that most of the delays were occurring in the State Library itself and in the borrowing library (material delayed overnight, over a weekend in the library shipping room, material bottlenecked in the charging operation, etc.). The post office in Michigan was in fact making deliveries most of the time within twenty-four hours throughout the state.

The best known experiment with facsimile transmission was conducted by the New York State Library and abandoned as too costly and not technically satisfactory.³⁰ California has also experimented with facsimile transmission. Few people doubt that some form of usable, feasible, facsimile transmission will become available to library networks within the foreseeable future.

Most states have arranged to use the major public and university libraries as resource libraries, to fill requests not available at the state library itself. State library capacity to act as significant resource libraries varies widely from such states as Maryland and Colorado which do not aspire to research collections, to distinguished research libraries in states like New York, Michigan and California. In no state, however, can the state library hope to be the only resource.

²⁹E. J. Josey, "A Summary of the Reference and Research Library Resources Systems' Progress Reports," Bookmark 29:294-8 (May, 1970).

³⁰Nelson Associates, The New York State Library's Pilot Program in the Facsimile Transmission of Library Materials (Albany: State Department of Education, 1968).

The question of how to compensate the other resource libraries, whether university or large public libraries, is one which deserves serious study. Various patterns are being used, ranging from no compensation, to a payment of \$5.00 per transaction, worked out in Connecticut, a flat fee paid to each of the resource libraries in Oklahoma, and Pennsylvania, and other states. Michigan has taken a different approach, by contracting with the University of Michigan for an "access office." Believing that the major cost to a university library is not so much for materials (many of the requests are for periodical, document and report literature which can be photocopied, and thus duplication of materials is not a significant problem) as for staff, Michigan provides a reference librarian, supporting clerical staff, a telephone and photocopying equipment by contract to the University of Michigan Library. The function of the access office is to receive and expedite the filling of all requests not available among the one million volumes at the State Library. All requests are filtered through the State Library. Michigan's Title III Advisory Council recommended that additional access offices be opened at the three other major resource libraries in the state, Wayne State and Michigan State Universities, and the Detroit Public, as funds become available.

New York is unique in that the state enters into contracts with resource libraries in the NYSILL network, compensating them with state appropriated, rather than federal funds.

The library profession desperately needs definitive studies on the actual cost to the resource library, the extent to which duplication of material is necessitated, what the actual personnel requirements are (in terms of volume of requests), the extent to which the use made of the state network by the resource library (usually a university library) itself outweighs, or balances

its contribution to the network. The study of interlibrary loan being proposed by the Association of Research Libraries may supply some of these answers.

At least one state, Ohio, has used its (limited) LSCA III funds to establish a subject network linking the art collections in the state, rather than to initiate at the beginning a state-wide network. Several states, such as Oklahoma and Indiana are implementing some interface between the regional medical networks in operation within the state and the state-wide reference network. As networks, both geographic and subject develop and proliferate with states, regions and the nation, the problem of interface will become acute.

New York and California have already recognized the serious problem of interface. S. Gilbert Prentiss, former state librarian of New York, speaking at the Chicago network conference in 1968 identified as a major problem, the articulating and funding of New York's "networks within networks" with a minimum of conflict, competition, overlapping and other waste motion.³¹

The excellent evaluation of the New York public library systems conducted by the New York State Department of Education in 1967 also emphasized the "need for coordinating library service of all types at all levels"³² as well as the "need for intersystem coordination."³³

New York's emerging network which includes all public library systems, nine Reference and Research Resource systems (linking the public library systems with academic and special libraries in a broad area) and the top level NYSILL system providing access to the major research collections of the

³¹ S. Gilbert Prentiss, "Networks; Promise and Performance," in Library Networks - Promise and Performance (Chicago: University of Chicago Press, 1969), p.86.

³² Emerging Library Systems: the 1963-66 Evaluation of the New York State Public Library System (Albany: State Education Department, Division of Evaluation, 1967), p.237.

³³ Ibid., p.241.

state is by far the most advanced state network in the nation. Added to the problems of coordinating this hierarchical series of networks, are the complications of articulating with the numerous subject networks, national and state, in New York and the need to exploit the values of the data bank being created by the state-wide cataloging project.

The council of the California Library Association in December, 1969 approved a "Master Plan for Total Library Services"³⁴ which proposes geographic networks in which all types of libraries within a given area are coordinated and subject networks linking together in a "usable framework" all libraries regardless of type which have strong subject emphasis expressed in highly specialized collections and staff. The plan recognizes that a given library may be a part of a geographic network, as well as one or more subject networks. The California plan places responsibility for coordinating the two kinds of networks with the California State Library including "the administration of appropriate State and Federal assistance programs, provision of consultation services to all types of libraries, the maintenance of a centralized cataloging service available to all libraries, and the collection, analyses and dissemination of library statistics to reveal trends and needs in service. The plan also charges the state library to build resources at the state level, develop specialized bibliographical tools, conduct and promote resource programs, provide leadership in the field of public relations and maintain a continuing education program in cooperation with the library schools of California and other appropriate schools."

In addition to telecommunications, networks require bibliographical tools to locate materials for borrowing. More than half of the states report expenditures for some form of union list. Many other states have union

³⁴Master Plan for Total Library Services (Sacramento: California Library Association) (Mimeographed)

catalogs which antedate LSCA III, but are now being re-evaluated. Ohio, for example has maintained at the State Library a union catalog of the holdings of thirty-two public libraries, one college and two special libraries since the 30's. At Case Western Reserve University, the forty libraries in the Cleveland area (twenty-seven academic, two public and eleven special libraries) contribute to a union catalog.³⁵ In addition to these (card) catalogs, a data base on magnetic tape is being created by the Ohio College Library Center. The State Library has been engaged in studying the value, overlap and possible coordination if not amalgamation of the three data bases as the keystone of Ohio's projected state-wide reference network. Smaller states such as North Dakota, Nebraska and North Carolina, have undertaken union catalogs of all the holdings in major libraries of the state. North and South Dakota are creating a joint catalog of the serials in forty-seven North Dakota and twelve South Dakota libraries. Indiana is using Title III funds to enlarge the scope of a union list of serials in major Indiana universities to include the holdings of the State Library and several larger public libraries. Oregon, Virginia, Tennessee are undertaking union catalogs of materials held by a group of libraries in one region of the state. MARC tapes are now opening up new possibilities in capturing information about location of materials, and several state libraries are beginning to experiment with MARC, including Kentucky and Oklahoma.³⁶ Other states, such as Delaware, Louisiana, and Maryland are going the less expensive and less precise route of creating catalogs of subject strengths rather than union catalogs.

A New York State Union List of Serials, using as master checklist the SUNY Union List of Serials and the Central New York Union List, and including

³⁵ Yawwiga Kuncaitus, Comparative Study of the Cleveland and Columbus Union Catalogs (Cleveland: Case Western Reserve University, School of Library Science, 1967).

³⁶ Kenneth John Bierman and Betty Jean Blue, "Processing of MARC Tapes for Cooperative Use," Journal of Library Automation 3:36-64 (March, 1970).

in Phase I the serials holdings of the American Museum of Natural History, Engineering Societies Library, the New York Public Library Research Libraries, the New York State Library, Teacher's College and Union Theological Seminary was begun in 1968.³⁷ This list was conceived as a prototype for the development of regional lists by the emerging 3 R's systems.

When one considers the whole question of location tools for improved interlibrary loan, the experience is relevant of two major bibliographical centers in the nation, the Pacific Northwest Bibliographical Center, located at the University of Washington in Seattle and the Bibliographical Center for Research, Rocky Mountain Region located at the Denver Public Library. Both centers began over thirty years ago, both maintain author-entry card files of holdings of major libraries in several states (thePNBC, four states, Washington, Oregon, Idaho and Montana, the Rocky Mountain Center, fifteen states from Arizona and New Mexico to North and South Dakota). Both centers have massive files. PNBC estimated seven million cards, as long ago as 1961, and the Rocky Mountain Center now estimates over three million cards. Both centers are somewhat subsidized by regional library associations, the Pacific Northwest and the Mountain-Plains Library Associations, and by the institutions in which they are housed, the University of Washington and the Denver Public Library. Both centers are supported largely by user fees, and both are in financial difficulty, finding the massive card files (rapidly growing as acquisition has accelerated especially in the university libraries in the region) more and more expensive to maintain and to query. Both centers have conducted studies of their future role and financial structure within the

³⁷The Three R's: Reference and Research Resources Library Systems (Albany: New York State Education Department, Division of Library Development, 1969), p.7.

last year,³⁸ and find themselves facing a somewhat uncertain future. Recommendations in both studies are remarkably similar. Massive catalogs in card form are increasingly impractical to maintain and to query. With the possibility now of the MARC tapes, it would seem necessary to convert the retrospective catalogs to some distributable form (print or microform) and begin a new data bank in machine readable form which can produce as a byproduct state union lists, tools for which the emerging state networks are discovering a need. Effort and money presently tied up in the maintenance and querying "by hand" of the present catalogs could then be spent in creating a whole universe of bibliographic tools which the networks and growing university libraries need - union lists of serials and periodicals, microfilm, film, state documents, as well as the union lists of holdings in major libraries of each state. That there is still a place for a regional bibliographical center is documented by the fact that the Rocky Mountain Center is rapidly growing in volume of requests (eighty percent between 1964 and 1968, and seventy-four percent between the first quarter of 1968 and the same period in 1969), and that it locates over ninety-four percent of the material requested, seventy-two percent of the items in the Rocky Mountain region. Both centers have traditionally accepted as members, individual libraries of all types. Both are now moving away from multiple relationships with hundreds of individual libraries to contracts with the state-wide emerging networks. Both studies recommended that the centers become the hub of a regional network of state-wide libraries.

The plight of the regional bibliographical centers underscores the need for definitive answers to many questions in network design: How does the high cost of multiple locations in union catalogs balance against the cost

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Genevieve Casey, The Future Role and Financial Structure of the Bibliographical Center for Research: A Reconnaissance Study (Denver: the Center, 1969), and Lura Currier, Sharing Resources in the Pacific Northwest (Olympia: Washington State Library, 1969).

of subsidizing a few major resource libraries? How does the cost in time and money for querying a bibliographical center balance against the "hit-or-miss" approach in Interlibrary Loan? How does the cost/benefit ratio of catalogs of subject strength compare to the cost/benefit ratio of the vastly more costly union catalog? For example, the Ohio Union Catalog maintains literally hundreds of entry cards for titles on Bibles in the Cincinnati Public Library which are queried rather seldom. Is the simple understanding that Cincinnati Public Library has the best collection in Ohio on Biblical literature enough?

In addition to establishing state-wide networks which link libraries of all types with some form of tele-communication, and creating and maintaining a variety of "union lists," or location tools, many states under LSCA III have initiated projects for the centralized acquisition, cataloging and processing of materials. Frequently, as in Arkansas, Mississippi, and Montana, these include service only to school and public libraries, in partnership with the state library. Other states, such as Delaware, North Dakota, Utah include all types of libraries in their plan. Some states, as Oregon, Arizona, Mississippi include only a portion of the state, others, as Utah and Nebraska aspire to a single center for the entire state. Hawaii's central processing center serves all school and public libraries on the islands. New York is moving toward a single state cataloging center for all public library systems in the state.

An informed and competent staff is the key to the success of any network. Recognizing this, several western states have banded together in a unique project using LSCA III funds to contract with the Western Interstate Commission for Higher Education (WICHE) headquartered in Boulder, Colorado to provide continuing education for librarians in the region. WICHE plans to conduct a

series of conferences for librarians and library workers, across state lines, which will "encourage dialogue between public and school librarians and administrative personnel," and upgrade librarians through various programs of continuing education. The WICHE project involving several western state libraries is one of the most ambitious programs for library continuing education in the nation, differing from many projects in that it integrates an entire region, making possible a level of training which would not be within the reach of any one state in this sparsely-settled region, and that it enables orderly, long-range planning rather than short-term fragmented focus.

The Southwest Library Association is holding a meeting in September, 1970 to explore a wide variety of cooperative activities to utilize fully the spare resources of material and professional personnel in that region.

Despite the progress which has been made, before we reach our goal of an integrated library service, organized and administered to meet all the library and information needs of all the American people, we need to overcome many obstacles. Despite our fine phrases of commitment and our brave attempts, despite the now documented need to share resources, despite the encouragement of federal, and in some states, state legislative programs, and despite the exciting possibilities of new communication devices, the National Advisory Commission on Libraries in its report of October 1968 revealed that present arrangements for the coordination and sharing of library resources and services are slow and inefficient, and that planning at all levels is urgently needed to ensure American citizens access to publications and to vitally needed information.

In an effort to identify barriers preventing the development of cooperative activities among libraries of all types, the American Library Association, in the fall of 1968 held a series of ten one-day meetings in various parts of

the country to which they invited librarians, library trustees, school administrators and others. Participants at these meetings identified forty-six major barriers to interlibrary cooperation which Orin Nolting³⁹ summarized under five major headings: 1) Psychological barriers (fear of loss of local autonomy, clash of personalities, inertia and indifference, unwillingness to experiment, etc.), 2) Lack of information and experience (lack of knowledge of the needs of users, unpredictability of demands on the library by its legitimate users, failure of small libraries to realize the value of resources of larger libraries, lack of public interest, unawareness of successful cooperative efforts in other states), 3) Traditional and historical barriers (lack of adequate funds, fear by large libraries of being overused and undercompensated, inadequacy of libraries to serve their own needs, limitations on access to academic and special libraries, institutional competition between school and public libraries), 4) Physical and geographical barriers (distance between libraries and distance of users from libraries, difference in size of collections, lack of space in public libraries to serve students, delays in satisfying needs and requests of users), and 5) Legal and administrative barriers (too many government units, lack of communication across jurisdictional lines, lack of bibliographical tools and controls, incompatibility of equipment and procedures and rules between libraries, lack of properly trained staff, lack of appropriate state-enabling legislation, lack of creative administrative leadership, etc.).

In summary, libraries are now moving toward the third generation of library organization - the combination of several types and/or systems of libraries. State-wide networks are developing in most states and multi-state or regional bibliographical centers which have been in existence since the

³⁹ Orin F. Nolting, Mobilizing Total Library Resources of Effective Need (American Library Association, 1969).

Thirties are now re-evaluating their structures and moving toward more fruitful articulation with the state networks.

The profession has reached, officially at least, a consensus that interlibrary coordination is not a fringe activity but a central component of adequate library service. The profession recognizes that self-sufficiency for any library is a myth no matter how large its resources or small its constituency. In statements of standards and objectives by most types of libraries, and in the Model Interlibrary Loan Code for Regional, State, Local or Other Special Groups of Libraries, the library profession has articulated the rubrics for state and regional networks.

In surveys and studies on resources, services and needs, many states now have gathered for the first time vitally important data upon which to base future activity.

Important beginnings have been made in the establishment of telecommunication networks. Experience is being gathered by such experiments as the New York Facsimile Transmission System to provide a realistic appraisal of the present technical feasibility and the cost of our dream of "instantaneous availability."⁴⁰ Data is also emerging about patterns of use in the state-wide networks, on the major user groups, on the kinds of material being requested, on the factors governing turn-around time, on the unit cost of transactions, on the role of the state library as a switching center, on the cost/benefit of a variety of location tools, on the adequacy of resources within each state, on staff training and public information as critical factors in the success of any network.

Experience is also being gathered on the effectiveness of acquisition-cataloging-processing centers which cut across geographic, jurisdictional,

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"New York Facsimile Project Judged a Failure," Library Journal 93:1566 (15 April, 1968).

and type-of-library boundaries. Most especially, the use of MARC tapes on a state-wide basis for a variety of bibliographical services is beginning. Until these experiments are conducted widely, and evaluated, the American people cannot realize the benefits of their not inconsiderable investment in the MARC project.

On the basis of our limited experience with emerging state networks and the obstacles articulated by Mr. Nolting, the next steps are obvious, to bring our third generation of libraries into full and productive maturity, and to move into the fourth level - a "combination of various types of libraries and non-library agencies concerned with related activities."

- 1) LSCA III should be renewed, with authorization and appropriation of funds far beyond the minimal level at which it has become mired. Basic grants of \$40,000, or basic expenditures of \$80,000 (with state matching) cannot be expected to produce significant, state-wide results.
- 2) Networks for knowledge should be renewed and funded.
- 3) States should assume greater responsibility for encouraging, with legislation and funds, the development of state-wide and regional networks. Ohio's recent law providing state aid to area library service organizations and a state-wide reference network might be a model, as is New York's yet to be passed 3 R legislation.
- 4) State libraries must be strengthened to provide stronger leadership, more sophisticated bibliographical and processing capacity and more effective evaluation of the present state-wide networks.
- 5) State libraries, library associations, and library schools should work together to provide long-range, carefully planned staff development. The WICHE project may provide a model of area-wide continuing education.

- 6) School librarians, teachers and administrators must understand the importance for their students of access to resources beyond the school media center. More effective use of state-wide networks by teachers and students needs to be achieved.
- 7) Public libraries should be more aware of their responsibility for leadership in the coordination of the resources and services in all types of libraries in their communities.
- 8) Careful, in-depth cost benefit studies should be made on a) patterns of interlibrary loan, b) compensation to resource libraries in state-wide networks, c) time and money saved by union catalogs against the cost of creating and maintaining such lists.
- 9) Studies should be made on how adequately undergraduates are being served in college and university libraries and what use they could and should make of state-wide networks.
- 10) Studies should be made of actual and potential use made of state-wide networks by major resource libraries within the states and what it is costing research libraries to contribute to state networks.
- 11) State libraries and administrators of state and regional geographic networks should focus attention on how best to articulate with state and national subject networks, and with second generation networks within each state and region.

Emerging State and Regional Networks
A (Highly) Selective Bibliography

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