ABSTRACT
              An overview of the proceedings covers library
networks; network levels (national, regional, state, and local);
network roles, activities, and services; legal, organizational, and
constituency issues; funding and budgeting; technical issues; and
network interrelationships. There are summaries of four major
speeches which deal with the national library network, the
multi-state component of the national network, state library
networks, and local library networks. Another section of the report
contains the final statements of four groups working on national,
regional, state, and local networks, with minority opinions in some
cases. There are also lists of participants and definitions of
acronyms. (LS)

REPORT OF THE FIRST MIDLNET SYMPOSIUM
ON THE RILE OF LOCAL CONSORTIA,
STATE NETWORKS, AND REGIONAL NETWORKS
IN THE EMERGING
NATIONAL LIBRARY NETWORK

Compiled by
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from discussions and reports
of Symposium participants

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INTRODUCTION AND BACKGROUND

On January 6-8, 1976, MIDLNET sponsored an invitational symposium at Meadowbrook Hall, Oakland University, Rochester, Michigan, for the purpose of defining major responsibilities, services, and objectives at the local, state, regional, and national nodes of the emerging national library network. It was felt that it would be useful to library networks of all types to consolidate current thinking in these areas. The conclusions and opinions drawn from these discussions can have important implications for networks at all levels, as well as serve MIDNET as a guide for development and as a resource for state programs on networks within the MIDLNET area.

The symposium opened with "state of the art" reviews and practical reports on programs and issues as observed by speakers representing national, regional, state, and local network entities. Participants and speakers then divided into four discussion groups, each concerned with a different level of network, and discussions were begun on the basis of the issues and problems identified by the speakers. A preliminary summary of the work accomplished by each group was prepared and presented to the full symposium for comment by participants and speakers. Each group then reviewed its work in the light of the other summary reports and comments, and prepared a formal written summary. A presentation of these summaries concluded the formal proceedings. Final statements of each working group were prepared and mailed to each group participant for further comment, and the summary of the entire symposium was submitted to participants for comment before publication.

This report includes an overall view of the entire proceedings in the context of a few major issues, summaries of the presentations of the speakers, full reports of the working groups, including minority opinions where submitted, and a list of participants.

We would like to thank speakers and participants for their investment in time and effort that made the symposium worthwhile, and also, to acknowledge the assistance of Gale Research Company in publishing these proceedings and paying a portion of the symposium expenses.

The assistance of George L. Gardiner, Dean of Libraries, Oakland University, his staff, and the staff of Meadowbrook Hall in providing the best possible physical setting for the symposium is gratefully acknowledged.

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Library Networks

A library network is a group of libraries, not limited as to type, which identifies a set of common needs and then compacts together to meet these needs. The phenomenon of library networking that has appeared in the past decade seems to be related to the shift in the concept of the library from a local user-oriented facility to a component of a national information resource, and also, to the advent of the computer, without which cooperative arrangements that require changes in the internal structure of libraries would not be possible. Many of the key problems emerging in library networks are tied to function allocations across the various network levels. Other challenges have to do with the acceptance of the necessary condition that cooperation means giving as well as taking. Sources of funds and funding allocation is a third major problem area.

Each level of library network is justified only if it improves service to the user. It then follows that the primary emphasis of a library network should be to somehow improve physical and bibliographic access to library resources. Improvement of services, however, does not begin to draw the amount of support to a network that lowering of operational costs does. It is probably necessary both that services be improved and that costs be lowered if a network is to be viable. There are many ways of determining whether a network is successful, but one of the more reliable seems to be when people start demanding a voice in the operation of the network.

Funding of a cooperative enterprise seems to present more difficulties than funding a separate entity. It requires a degree of diplomacy and some compromises to persuade separate entities to give something up to a common cause. Reception of fees can be greatly influenced by what they are called. Any funding agency exercises some degree of control. If federal funding is being considered, it should be remembered that the role of the federal government is basically to fund levels of government. Funding can, however, be found for a worthy enterprise if the case can be presented strongly enough to persuade those in a decision-making capacity to take improvements in library services as seriously as they do improvements in other activities they choose to support.

Network Levels

The national library network should integrate all other networks. It has been described as a system and an organizational and legal entity, rather than as a single physical entity. If the role of the national network is primarily a coordinating one, the roles of other levels of network then take on added importance.

As defined at this conference, a regional library network includes libraries in a multi-state area, usually, but not necessarily, following state boundaries of contiguous states. Not being within an existing political unit, a regional network must be very sensitive to the needs of the constituents who provide its support, and it can move and change focus more rapidly than networks that function under political bodies. The regional network will succeed if it takes the initiative to identify the set of common needs for the network group of libraries and then develops programs responsive to these needs. The region appears to be the optimum size for cost-effective performance in many areas and for communication between networks at all levels.

Bibliographic activity, in many cases, and the state network is often the optimur of services to individual libraries. The fac networks report that over 80 percent of lib met within the borders of their states tel some consideration should be given to th this level of network. Nevertheless, user n of information transfer should be carefull, a state network is formed. Criteria might inc unique need for a state oriented system, a ne of the state for the same information, or a that interfaces with other systems. Though n states, state networks are effective in man, serve as a basis for regional networks.

Local library networks include librari types within a defined limited region (such area) that associate together to share mate services. Major activities usually include p benefit to the local user. The organization loose and the fostering of communication and institutions at the local level is an import

Local library networks can be cost-effe and they are the closest network level to the local network is a common, recognized de the primary entry and delivery point for al for the user.

Roles, Activities, and Services

The national library network should ac agency and possibly as a switching center, priate files are maintained and integrating all to provide bibliographic and physical access sources for all citizens. In consultation with stituency, the national network agency activities that will include the planning, obtai and channeling of funds; establishing stan studies and investigations; and implementi network programs.

The responsible agency for developing network has not yet been. defined. Possible the National Commission on Libraries Science, the Library of Congress, or the Offic Learning Resources. It is unlikely that a n formed unless strong reasons for its existen strated.

The National Commission on Librarie: Science is presently moving on the premise network will utilize existing network segmei as they are identified. A start has been mad NCLIS task force to begin developing a na gram. A resolution was unanimously passed b and forwarded to NCLIS, asking that NCL efforts of the Library of Congress to increas encourage the Library of Congress to take ; in the national picture.

Regional library networks can be act multi-state roles within the general areas communications, training, standards impleme ity control. The problem of role-defining is roles may vary from region to region. It is ; to survival that regional library networks qui some specific programs that show cost savin areas of activity were thought to contain p regional library network:

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1. Information gathering and communication. The assembling of information and development of an awareness of needs that will result in the expression of regional concerns to entities within states and to national groups would facilitate the coordination of the roles of agencies, associations, and other groups concerned with libraries. Identification of user needs, however, is probably more appropriately handled below the regional level, though regional coordination would help to develop consistent data. It is important that communications from line staff upward be developed as services are evolved. Appropriate continuing education activities. such as updating training in national standards through computer-assisted instruction. might be a means of achieving such communication.

Regional networks may also have a role to play in the political process through using the expertise available to them to inform legislators on national or state library issues.

2. Coordination of resources, human and technological. Duplicative effort in research and development can be reduced through coordination at the regional level and through coordination of the efforts of regional library groups nationally. Expertise and services either not available or not feasible at the state level and below can be provided through the medium of a regional network. Planning and evaluation technology, for example, might be designed on a broad basis that would be useful to libraries that do not now have access to these methodologies.

3. Improving access to bibliographic resources. The regional library network may be the appropriate level to deal with some of the legal and organizational problems that present barriers to service. Loan compacts that would provide bibliographic assistance and bibliographic enrichment to smaller institutions can be negotiated on a regional basis.

4. Procuring access to bibliographic services. It is possible for regional networks to procure access to MARC, CONSER, and other national authority files, as well as to services provided by bibliographic utilities and other data bases. Facilitation of data communication appears to be a particularly appropriate role for the regional network.

5. Developing a regional data base. The regional network appears to be a logical level to control input to a national bibliographic system, to act as a switching center to such a system, and to implement standards. A regional data system could provide for storage, maintenance, processing, and distribution of files, and maintenance of member catalogs. The majority of symposium participants felt that under certain conditions the regional network is the optimum size for developing and operating computerized bibliographic systems, and that this could be one of its primary roles. A minority opinion draws attention to existing local data bases developed by local groups at minimum cost and suggests that it is easier to arrive at appropriate decisions and to manipulate data in a smaller universe. Assuming compatibility, local data bases could contribute to the building of data bases at other levels. It was also pointed out that most existing bibliographic systems—OCLC, SDC, etc.—tend to be nationwide in scope.

State library networks seem to focus primarily on two major areas of activity:

1. Those concerned with the creation of bibliographic records. This includes provision of services supportive of library functions, such as development of a catalog data base, serials control system, in-process files, interlibrary loan, bibliographic information retrieval, and circulation control. It would also include the supplying of bibliographic records unique to the state and the establishment of mechanisms to allow small libraries to utilize available bibliographic services.

2. Those concerned with the physical document. All activities related to interlibrary loan and the movement of materials could be included here, as could those related to cooperative collection development and the cooperative use of media and other materials.

Other services of state library networks might include facilitating library access to reference data bases and to reference services, appropriate continuing education programs, communication of new developments in the field to librarians, and serving as an effective political base for state support of libraries.

State networks would not normally invest heavily in research and the development of original computer-based systems except where unique services that are of little interest outside the state are needed, where the volume of traffic is such that it is cost-beneficial to do this, or where it is the only way a state can obtain a desired service. Examples do exist of unique developments by a state that have grown to provide a service on a regional or a national level.

Local library networks are the logical coordinating agencies for local human and material resources. They function as referral points by matching user needs with opportunities and resources, and as the initial switching center to all network levels. Local networks provide a needed communications medium between members and often engage in appropriate continuing education activities.

Legal, Organizational, and Constituency Issues

As an independent agency that has a good deal of freedom, the National Commission on Libraries and Information Science deserves our support. It was felt that the National Commission should share some responsibilities with whatever agency is designated to develop a national library network, and that the constituency of the national network should be involved in planning, funding distribution, setting of standards, and studies and evaluation activities. Such participation is particularly important if the national network evolves as an organizational and legal entity, as is presently intended, rather than as a single physical entity.

Regional networks serve all types of libraries in two or more states, and they normally follow the boundaries of one or more federal districts. Primary support is the key to the success of a regional library network, since it exists only if its constituency wants it or if it can provide cost-effective services. As services are developed, it is important to avoid competition with existing networks and to cooperate with and reinforce what already exists. The inter-state compact is generally viewed as the most effective organizational arrangement for a regional network to operate under, but there may be valid reasons for electing an option such as the non-profit corporation or from changing from one form of organization to another.

Permanent, viable foundations for state networks are needed and state agencies can be key elements in development and operation at this level. Where the appropriate focus of concern and expertise exists, there are advantages to using existing state agencies. Where it does not exist, it may be better to try to improve existing agencies than to establish new ones, unless the prevailing political climate suggests that this is feasible. We badly need a model that could be used to either adapt an existing agency or to establish a new state agency that could serve networks effectively at all levels.

Local library networks are complex entities that must not be oversimplified, because no organizational structure can

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cover the complex political areas and private groupings of a local network. A loose organization that can accommodate all types of libraries is required, together with flexible, but well defined, membership requirements. Different loops in the network may be needed to serve different types of libraries.

Funding and Budgeting

While there are undoubtedly issues of concern in the funding of the national library network, they were not touched on in the course of this symposium.

It was the consensus that services offered by a regional library network should be provided on a cost-recovery basis, while research and development activities might require some outside support. There may be a problem in moving funds from the federal government to a regional network, but continuing funding can be channeled to regional networks by states through compact agreements. States can also pay for services, provided demonstrable plans with cost-effective projections are available. Backing by constituency and states is otherwise fairly fragile, though it is the form of funding most commonly extant for regional networks today.

It is best if the state can designate channels of support for a state network because membership support can be unstable and planning is difficult unless state governments are willing to back the state aspects of networking beyond a one year period. Libraries should normally pay the full cost of a state network and show improvement in cost-efficiency or service. Developmental funding could be federal,—but there should be no undue reliance on outside funding at the state level. Revenue sharing does not usually help libraries, but mutually reinforcing funding agreements can draw out state dollars that might not otherwise be available. If an appropriate state agency to serve networking at all levels were to be developed, it could receive and disburse funds from whatever sources.

Locating necessary sources of continuing funding is a major problem at the local network level. Foundation support for local networks is minimal. Members must pay, but there should be safeguards to ensure that double payment is not assessed through both fees and taxes. There is really no way, in many cases, that funding can come from those who benefit most, and state and federal aid is often required to compensate for the imbalances. Major funding sources must be given a continuing role in decision-making, but should not exercise undue influence on network operations.

Technical Issues

The concept of the national network is evolutionary. The National Commission on Libraries and Information Science plans to coordinate what exists and to fill gaps as they become apparent. This approach requires that components be compatible and makes it essential that standards be evolved and strictly adhered to.

The development of a regional data base has evolved as a primary goal for many of the regional networks. Two approaches are being considered—improving on what exists and utilizing what exists. Major investments in time, money, and expertise are needed to develop new systems, and the outcome is not assured. Existing resources may be used, but they may not really be designed for regional use. Either approach requires a continuing automation staff. Other appropriate activities for such a staff might include the evaluation of existing systems, facilitating of data communications,

and development of communications hardware. Probably, as systems are developed, the most highly used records should be maintained as close to the user population as is practical, while less used files can probably be more economically maintained in a multi-state or a national facility.

Technical problems for state and local networks are similar to those for regional networks. It is axiomatic that any data bases that are developed should be compatible with other data bases at the same or superior levels, and that national standards should be rigidly enforced.

The possibility of the obsolescence of one or more network levels due to technological advances was considered, but there were no real conclusions drawn. It was felt that local networks providing direct services to users would be least likely to become technologically obsolete. Probably, some network functions will become obsolete or move to a different network level as advances in technology are made, but other needs may be created at the same time that could be met through organized network structures.

Network Relationships

The National Commission on Libraries and Information Science is a coordinating, not a controlling, agency. In this coordinating role, it is important that NCLIS receive input from the regional library networks, as should whatever agency has the responsibility for the development of a national network. It is clear that the near-term roles of the Library of Congress should include the expansion of data coverage and the setting of standards. Perhaps they should also include the coordination of cooperative groups and the administration of bibliographic control for a national system.

A multi-state network needs bilateral communication "upward" with the national level, collateral communication with other multi-state networks, and "downward" communication with state and local network components. This communication should be directed toward keeping all networks informed of the activities of other networks, so that there may be mutual reinforcement and cooperation between networks as new activities are developed. Regional library networks can serve as switching centers and as distributing centers for facilitating access to national and to other data bases. Strengths of major research libraries and of unique collections within regions can be coordinated and made available through regional networks. It may also be a function of the regional library network to compensate service imbalances and to equalize service demands. Analyzing planning documents within the region and proposing cooperative programs in harmony with state plans can be another role of the regional network, but broad input from the constituency that comes as an upward thrust from the states would be required.

Within states, the roles of resource libraries and of state libraries in relation to networks need to be defined. Ideally, the state library should help develop a political climate favorable to network development. A model is needed for a state library agency that can effectively serve networks at the local, state, regional, and national levels. To effectively serve the network needs of libraries within the state, such a model should include provisions for an elected policy-making committee, an appeals procedure, public accounting of funding and accomplishments, a means of monitoring adherence to established standards, a review of project proposals by appropriate committees that advise on funding, and some capability for

raising matching funding. Because of the problems and complexities that would be encountered in attempting to coordinate fifty separate state library networks, state networks should probably be coordinated through regional groups, and where appropriate, give way to the development of regional networks as the major module.

Local library networks should be encouraged and strengthened by networks at all other levels, since they are the foundation for all other levels of network. There should be appropriate coordination at the state level to ensure compatibility between local networks. Undue dependence on or influence of the larger institutions should be avoided at the local level.

Conclusion

The First MIDLNET Symposium has accomplished its goal of combining the thinking of approximately thirty people who have had experience with library networks at different levels and in different types of libraries to produce a document that expresses current opinion and defines current issues and concerns in library networking. The Symposium also forwarded a resolution to the National Commission on Libraries and Information Science asking that NCLIS strengthen the efforts of the Library of Congress to increase its coverage and encourage the Library of Congress to take a more active role in the national picture.

There was a strong feeling on the part of participants that a review such as this should be performed annually, and it is for this reason that we have termed this the *First* MIDLNET Symposium. In the expectation that we will be calling a similar meeting in the future, we invite suggestions and comments that will help us to identify other issues and problems that should be addressed or to improve, in some way, our performance as we plan a second symposium so that it may be of maximum value to those concerned with library networks.

The National Library Network

Alphonse Trezza, Executive Director of the National Commission on Libraries and Information Science, opened his remarks by emphasizing that cooperation between libraries means giving as well as taking. In a cooperative endeavor, no one is equal in his or her ability to participate but everyone is equal when it comes to receiving services. You should not participate only for what you can get out of a cooperative.

Mr. Trezza defined NCLIS as an independent body, responsible to both the President and the Congress, whose role is to develop a national program on libraries and information services that will meet the needs of the people. NCLIS cannot dictate to libraries. It can try to establish standards, coordinate programs, and provide leadership. The NCLIS document avoids priorities, but it does have a logical order. The intent is to begin implementation now, making changes as implementation moves along. A national network should be viewed as a system and an organizational and legal entity, rather than as a single physical entity.

We were told that NCLIS is currently active in the following areas:

1. Planning the development of a national periodical system with several centers across the country.

2. Defining the near-term role of the Library of Congress—could it coordinate the various cooperative groups and retard the proliferation of cooperatives? The recommendations of the group working in this area could impact regional networks.

3. Mediation of the copyright issue. NCLIS is trying to discover patterns of library photocopying. What is the number of requests received annually for an individual periodical title? Congress is pressing to get a copyright law passed, and it is hoped that a planned review of library photocopying in 1980 will be written into whatever law is passed.

NCLIS is also concerned with present library legislation and categorical funding. LSCA, for example, in both Title I and III is designed for the development of library services at the local and state level—originally just for public libraries and now, under Title III, for multitype library development. Experience with the program indicates that there are many weaknesses in the legislation that should be improved in any renewal of the legislation. For example, the uncertainties of funding suggest the need for forward funding, federal funds to complement state funds, autonomy of state library agencies for expenditure of funds for administrative purposes, and assurance of equitable distribution of Title I funds to support the urban public library. We cannot depend on indefinite federal funds to support local libraries. The proper mix of local, state, and federal funds to support programs appropriate at each level must be developed.

Mr. Trezza indicated that only two levels of government are indicated in the Constitution, i.e., federal and state. A regional network, therefore, must get its authority through an interstate compact or incorporation as a not-for-profit organization. It is a body that exists only if its members want it to exist. That is, in a sense, a strength, because it forces the regional network to be very sensitive to the needs of its constituency. It is also a weakness, because it is more difficult to find funding for a regional. It was suggested that the existence of a regional library network should be based on its merits, and that the best organizational pattern, whatever that may be, should be kept in mind. Not all regions in the country have developed regional library organizations, for example, the mid-Atlantic states. There are a number of roles a regional network could play, such as continuing education, coordination of regional expertise, regional pilot programs, etc. Mr. Trezza concluded with a challenge to MIDLNET to use the experience of other regional networks to develop specific programs that show cost-savings and to demonstrate its effectiveness by getting some projects underway over the next few months.

The Multi-State Component of the National Network

Ronald F. Miller, Director of the New England Library Information Network (NELINET), began his remarks by referring to David Riesman's observation that the most effective force which can bring a group of nations—or individuals—together is the result of each entity perceiving the same enemy or common threat. Lacking that kind of extreme pressure for whole-hearted cooperative action, we librarians should at least be able to work cooperatively toward serving users and do it in such a way that our services not only survive but flourish. Why not counteract the nationwide despair over our economy?

Mr. Miller stressed that there was a multitude of issues which could be discussed in the context of multi-state networks and that the six which follow came easily and obviously to mind, particularly to the collective mind of a group grappling with the challenge of setting goals for a multi-state enterprise such as MIDLNET represents.

1. Why Do Multi-State Networks Exist? A glib, but true, answer to this question has to be, "because the 'right' people want it to exist." It boils down to individual and personal commitment *before* institutions can be expected to be committed to the enterprise. The *reasons* why the "right" people want MIDLNET to exist have been discussed, no doubt, many times already and the Markuson report to MIDLNET discusses many of them.

In NELINET's case, Mr. Miller asserted, they exist because they were first with a library network idea—somewhere in their history two or three people got together over coffee (or another stimulant to creativity) and scratched the idea of a MARC-based network on a napkin. From that point all that was needed was to spread the idea, generate excitement, go get some money, and find a home. What keeps them going (so far) is that the organization appears to have been able to satisfy most of the expectations of its members, coupled with the intimate involvement of its members in planning, pricing, and management.

If a competing network organization were to emerge in the same region, either because of dissatisfaction with services or because of limitations placed upon the flexibility of the organization's decision-making ability, then it would necessarily try to overcome those obstacles in order to survive. So far, in New England at least, the "ecological niche" seems to be filled satisfactorily. The analogy of multi-state library enterprises to biological organisms is not at all facetious. Mr. Miller suggested that various network groups *must* sit down together and allocate responsibilities in a very careful manner: otherwise much energy can be wasted on duplication of resources and competition for scarce talent and money. Coordinated planning rather than competition seems to be the current road to survival. Part of this problem is further illustrated by what Mr. Miller referred to as the "constituency problem."

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2. The Constituency Problem. From a library's point of view, this problem is starkly manifested when the director of a library is faced with the question: "Which network should my library join?" In NELINET, for example, one specialized research library frets about six such network organizations which compete for its attention and commitment: a tough and nagging dilemma with six horns, not just two. And the choices are not easily made, particularly if each group purports to offer the same advantages, services, or other incentives. The lesson here appears to be don't compete, cooperate; help each other; reinforce each other; and plan well.

3. The Legal Situation. Several models of legal entities which permit organizational flexibility are possible; many different approaches are represented by symposium participants. Among the options are models such as the state library agency, the municipal corporation, the multi-state compact, the non-profit corporation, and the membership association. And there are other obvious choices as well.

Mr. Miller asserted that it didn't matter all that much which option was chosen provided that certain basic operating criteria could be satisfied by the final choice. The criteria should be determined by the enchoate network's decision makers who establish the formal objectives of the new organization. Some of these criteria can be described by answering the following questions: Can all types of libraries be served by the network? Can problems be identified and decisions made as efficiently as possible? Can all sources of funds be solicited (in the legal sense)? Can the networks qualify for preferential prices from certain vendors? Who is liable if the network defaults on payment of debts? Is there an appropriate agency within which the network could be embedded which could provide the best benefits? Obviously professional legal advice should be sought on this matter. MIDLNET has this problem well in hand already.

4. Internetwork Communication. Mr. Miller described a structure within which administrative and technological communication takes place within a multi-state network. The network needs bilateral communication "upward" with the national level; collateral communication with similar multi-state networks; "downward" communication with state, regional, and local network components. Administratively, such communication usually seeks to assert the following kinds of generic statements: This is what we are doing. What are you doing? What do we want you to do for us? What can we do for you? What can we do together?

The response time required and the degree of seriousness of need for such information determine the mode of communication and the relative amount of the network resources which should be devoted to this complex task. Quite simply, budget lines for travel, telephone, publications, are almost completely consumed in administrative communication activities. And these resources are to a high degree not directly dependent upon any service-related technical networking services. So one should expect a much higher proportion of a network's budget to be devoted to the communication activity than would normally be the case in a typical library.

Mr. Miller cited several instances illustrating this situation. The Council for Computerized Library Networks—an example of a "collateral" communications channel—can consume a dozen staff-days per year plus travel. Because of NELINET's relationship to OCLC, some fifty staff-days per year are spent shuttling between New England and Columbus.

5. Some Technical Things. Mr. Miller indicated that at least three kinds of networks have emerged in recent history (the word network is used here in the strictly technical sense). The first type runs its own computer facility and sells services to its members primarily over long distance telephone lines. OCLC, the Washington Library Network, SDC and Lockheed are examples of this type of network. The second type buys services from the first type and may or may not participate in the design of future services. This network is a broker requiring little if any in-house technical equipment or expertise other than administrative and training personnel. The third type can be called hybrid, because it may serve both as a broker of second party services and develop its own complementary services over the same network. Examples of the second type include PALINET, PRLC, NASIC and possibly INCOLSA as well as others. The third type is represented by NELINET, SOLINET, and possibly AMIGOS. It should be noted that there also seems to be movement from commencing operation as one type, then assuming the characteristics of another as time passes.

In terms of overall system planning a word about data base construction and use: the most highly used records—those which would be accessed with great frequency—such as circulation control and index files, should probably be maintained as close to the user population as practical. By the same argument, least-used files, and those containing the most complete bibliographic records, can probably be more economically maintained at a multi-state or national facility.

MIDLNET should consider its position on these approaches to networking as long-range objectives are set.

6. The Planning Process. The process of planning can be one of the most exhilarating yet one of the most frustrating experiences which an organization can undertake. Exhilarating because one can approach the problem with the attitude "that all things are possible, which things shall we do?" And it's frustrating when one finds out how little freedom of action an organization really has. Mr. Miller's view is that freedom of choice for future directions should be preserved and the limits of that freedom clearly known before any contracts or procedures are put into effect.

It is safe to assume that the NCLIS and the Library of Congress will steadily increase their responsibility for the development, configuration, and operation of a national library and information network. If that is true then multi-state organizations, as well as other components of such a system, should press for active roles in the various groups which will comprise the national network governance structure. Multi-state networks can, in cooperation with state and regional networking components, assume roles which can be more responsive to the needs of individual libraries and their users than a megalithic national system might be.

In summary then, multi-state networks do have several roles to play in the development and operation of a national library and information network. The most likely key to success can be found in the full commitment and participation of institutions and state agencies toward the fulfillment of precise and common goals. Since no single network group can be all things to all people, cooperative, inter-network goal setting and its implementation is mandatory. This process should build upon the strengths of existing human, technical, and material resources.

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State Library Networks

Barbara Markuson, Director of the Indiana Cooperative Library Services Authority, started by suggesting that in the light of changes in networking in the past decade, we need a continual reexamination of the networking picture. She asked at what point the concept of libraries was shifted from local user groups to that of a national resource. Without the computer we would probably not need network structures, because the computer is the first arrangement that alters the internal structure of libraries. So long as we have cards as back-up, we can pull out. There will be no pulling out once we go to on-line catalogs. She also asked whether network survival is not related to redundancy because of network proliferation, and whether there might not be an ecological consideration in the cost of moving things in networking.

Mrs. Markuson indicated the need for state library agencies to assist the climate in which a viable network can exist. Legislation is needed to allow participatory networks in the states, as in Indiana. Local libraries need to be strengthened and the role of resource libraries and state agencies defined. Currently, some state networks are under state library agencies, some are independent state agencies, and some are non-profit corporations. A permanent, viable foundation is needed for state networks with a definition of a basis of membership, budget issues and problems, and resolution of geographic problems. Networks are now largely dependent on membership revenue, which is unstable. Also, it is difficult to plan when state funding comes only on a year to year basis. The states should designate channels of support and there should be hearings on the disbursement of federal funds. We do need state networks and they should mesh with other state networks and with networks at other levels.

State governments should back the state aspects of networking, but we encounter problems in getting money from the federal government to regional networks. Fifty computer bases are too complex to coordinate, but it is not clear where the money comes from for fewer, larger data bases. This suggests that local libraries should be responsible for local usage, but that the national resouce aspect of libraries should be backed by the federal government.

Mrs. Markuson concluded by asking whether the state library agency is the proper channel for both state and federal funding to libraries and whether librarians do not need more say about what happens in the funding area. She also reemphasized the importance of the role of the state library in developing needed legislation in the areas outlined.

Local Library Networks

Beth Hamilton, Director, Illinois Regional Library Council, agreed that a review of the sort we are now conducting is needed on a continuing basis. The number of ALA divisions concerned with interlibrary cooperation were named and it was suggested that some of this effort be consolidated. MIDLCOG is a step in this direction. A network should first plan its identity, then define time, money, and staff requirements. Political realities also must be assessed. Network overlap is not necessarily bad so long as similar services are not offered. Individual libraries may have to belong to several networks to obtain the mix of services they require.

Mrs. Hamilton stated that most of the metropolitan networks were started under LSCA Title III funding. These were largely begun by volunteers and most of them cover complex political areas and private groups and may even go beyond state boundaries. There is no organizational structure that can cover all of these entities and still provide an adequate base of tax support.

Metropolitan programs are difficult to fit into state plans under state agencies. Getting local libraries of various types working together can be a serious problem. Board members must be willing to take on the responsibility of going after permanent funding. Developmental funding also is required to build the bibliographic data bases that are needed by networks at any level.

Among the requirements that must be met for establishing a network at the local level are knowledge of local holdings, a means of communication, publications, communication of roles to members, and a definition of the network. Unstable funding is a continuing problem because, in a local network, funding cannot come only from those who benefit and fees do not cover operating costs. Also, foundations do not tend to support institutions with a public mission. IRLC, for example, is funded only through 1977, and many other metropolitan consortia are in the same position. Help will be needed from state agencies if metropolitan networks are to continue.

The Illinois Regional Library Council is a non-profit agency and Board decisions can be overridden by the state agency. Leadership of the large public and research libraries is in the charter of IRLC. Special libraries in the organization are among the hardest workers for the IRLC and tend to recognize the value of networking. One important activity of IRLC is the infopass system between Illinois and Wisconsin. Other activities are tied to the provision of a needed communications medium between libraries in the Chicago area for a variety of purposes.

It was strongly stressed that in a local network it is desirable to maintain a loose structure, but constituency must be carefully defined. Constituency problems of IRLC came to a head in the fall of 1975 when definition of the geographic area required the withdrawal of a charter member. Mrs. Hamilton ended her remarks with the caution that one should not oversimplify networks—they are complex. Also, the challenges are endless—you must be careful not to begin things you cannot finish.

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Report of the Working Group on the National Library Network

The emerging national library network is a major component in the program of the National Commission on Libraries and Information Sicence. The primary purpose of that national network is to provide bibliographic and physical access to all information sources for all citizens.

A national agency, new or existing, should have the responsibility for establishing and maintaining the national library network. It is seen that this can best be accomplished in consultation with the network constituency and will include planning; the obtaining, distributing, and channeling of funds; establishing sta. dards; conducting studies and investigations; and implementing and evaluating network programs. The selection of that agency, determination of its activities, and the design of the national network will be decided by current and proposed NCLIS studies on the network agency, a national serials system, non-serial resources, automation, and participation of the Library of Congress in the network.

Specific functions of NCLIS, the national network agency, and the network are discussed in the NCLIS program. Of particular importance is the role of the Library of Congress in a national network. It follows, then, that it is the responsibility of network participants to share with the Library of Congress the expansion of national library resources and the development of a national bibliographic data base with quality control determined by established standards. Consideration should be given to data base structure that will permit improved and comprehensive subject access. Existing public and private data bases should also be made available. Federal support of programs to strengthen, preserve, and make available unique local collections would be a component in a national bibliographic network designed to provide the most efficient access possible to the nation's libraries. The establishment of a national periodicals center with an efficient delivery system will complement the improved access to other resources. Evaluation procedures for network programs and continuing education opportunities for participating librarians must be provided. It is expected that NCLIS, the eventual network agency, and network participants will take a combined leadership role in identifying unmet needs in order to focus attention and bring research and development funds to bear on national network priorities.

Report of the Working Group on Regional Library Networks

Definitions

The following definitions were agreed to by the Working Group.

Library Network—a group of libraries, not limited as to type, which identifies a set of common needs and compacts together to meet these needs.

Regional Library Network—includes libraries in a multi-state area, usually but not necessarily following state boundaries, and usually comprising contiguous states.

Role of the National Network

In the opinion of our Working Group it should be the responsibility of the National Network:

1. To serve as a mechanism for information exchange that will integrate all existing library networks.

2. To maintain a file of bibliographic records, chiefly produced by federal agencies, not incorporated in the files of any other network.

3. To promote the widest adoption of nationally approved bibliographic standards.

Justification for Regional Networks

Each level of network organization can be justified only if it clearly improves the quality of library service to the ultimate user.

Cost Sharing. We have observed that when the work load on a data file is too low the per transaction cost is too high. Conversely, we have observed that when a network expands its membership too far, it will at some point exceed the optimum size: beyond a certain number of users, beyond a certain number of terminals, beyond a certain number of transactions, a computer network becomes over-loaded, performance degrades, and costs which have been going down as the network grew, reverse and become larger. It is the opinion of this Working Group that the chief justification for the Regional Library Network is that a multi-state region is the smallest unit that provides a network of the optimum size for cost-effective performance.

For this reason, one of the major roles of a regional network is to make possible the sharing of the considerable costs of file storage, maintenance, processing and distribution by:

1. Establishing a regional union catalog
2. Providing access to a MARC file including CONSER
3. Providing access to national authority files
4. Providing switching capability to the national system

Resource Sharing. Resource sharing is potentially as important as cost-sharing. All members of a regional network should enter into a compact to provide service equitably to all users in each library and initiate rapid copy and interlibrary loan service based on this compact. Because of the variety and extent of libraries included, a regional network can provide bibliographic assistance and resource enrichment that is attractive and useful to libraries of all sizes and all types.

Expertise Sharing. A Regional Library Network can be a significant factor in making the most effective use of the very limited number of persons skilled in advanced technology. The skilled staff of the regional network can do this in several ways:

1. Reduce duplicative R & D work within the multi-state region.

2. Develop continuing education programs, symposia, workshops, films, publications, and computer assisted instruction and make them available to libraries within the region.

3. Develop electronic hardware to facilitate data communication.

4. Study ways to reduce telecommunication costs.

Suggested Roles for the Regional Network

1. A regional network should use its professional expertise to inform members of legislative bodies at the state and national level on issues that will have an impact on library service to our citizens.

2. A regional network should support the work of the state library agencies by undertaking to analyze the planning documents produced within the region, integrate common problems and propose cooperative programs that would be in harmony with these plans.

3. A regional network should develop channels of communication among its members based on person to person contact, perhaps using network coordinators, that would reach down to the doing staff in each library.

4. A regional network should promote national standards through strict input requirements and careful monitoring of input to the regional union catalog.

Network Financing. The Working Group believes that network operating costs should be paid by the members probably on a cost-recovery for services used basis. Development costs, however, should be funded nationally, or by foundation grants. In this way, it is hoped, transferability of programs could be maximized and each regional network would not be obliged to repeat development work done successfully elsewhere. We caution that there is a danger that an early success becomes adopted by other regional networks and that further development research is discouraged because what we have works.

The first program chosen 'or implementation by a newly organized library network shoulc' be carefully selected so that it is of broad interest to the .nembers and its success is reasonably assured.

The regional library network should be governed by a representative Board responsible f. r policy decisions. The implementation of policy and day to day administration is the responsibility of the network direc'or. There should always be the maximum opportunity for m -mbers to have input to the decision-making process.

Report of the Working Group on State Library Networks

Justifications for State Network
It can be said that bibliographic activity knows no state lines, as such, and therefore the creation of a state network focusing on bibliographic concerns might appear to be artificially circumscribing the activity. On the other hand, the political and funding realities are such that there would appear to be considerable justification for establishing a network of libraries within the boundaries of a state, given certain conditions and needs. It is probably true that all states cannot justify state library networks and, before such networks are formed, an analysis should be made as to what services are needed and then a determination made as to how those needs can best be provided, whether by a state network or by a network covering more than one state.

To most observers it appears that libraries should be able to pay their full share of network costs and still show improvement in cost-efficiency or improved service. In planning, therefore, undue reliance should not be placed on federal, state, or other outside funding.

It has been the experience of some state networks that, as far as access to resources is concerned, more than 80 percent of a state's library needs can be met within the state. This high reliance on state resources, therefore, speaks rather significantly to the question of the necessity for the establishment of state library networks. It might be observed, parenthetically, that regional and national library networks, therefore, have a much more limited, albeit important, role in that these networks will only respond to something less than 20 percent of the nation's needs for access to library resources.

In general, the work of state-level networks will not be to invest heavily in the research and development of original computer based systems.

There are, however, three conditions or circumstances in which such investment may be necessary.
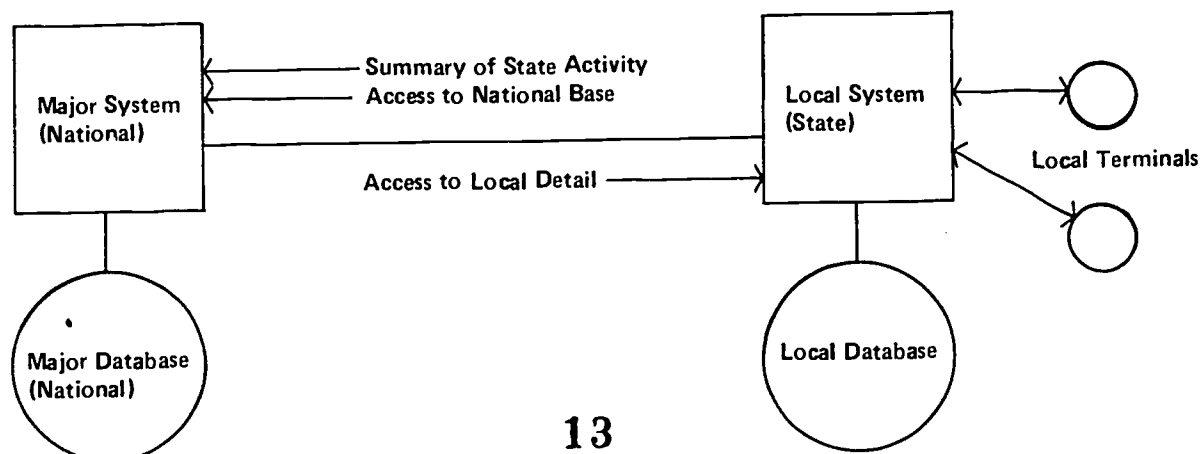
1. To provide a unique service for libraries in the state. Such a service would be of no (or very limited) interest to libraries outside the state. Examples of such a network would be statewide (probably state funded), interlibrary loan network, e.g., NYSILL (New York), or access to a purely local data base; e.g., Indiana Socio-Economic data base.

2. To provide a statewide service as a module or node of a larger service, where the volume of traffic or work is such that it is cost-beneficial to develop the node for the state, or where the volume of national or regional traffic is such that the state will only get service *if* it develops its own node.

In this case, the service, and almost certainly the computer hardware, software, and communications to provide the service are the same as, and linked to, the superior (national or regional) level service.

Networking has not yet reached this level of complexity (although there is every indication that it may very soon) so it is impossible to offer a concrete example.

One may hypothesize that an on-line circulation system, perhaps serials control and check in, perhaps access to some data bases, will prove to be examples. One possible configuration follows:

Summary of State Activity
Access to National Base

Major System
(National)

Local System
(State)

Local Terminals

Access to Local Detail

Major Database
(National)

Local Database

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3. A unique development by a state which grows to provide service to a superior level; i.e., regional or-national; e.g., OCLC.

Functions of a State Network

The focus of a state network will be in two major areas:

1. That which is oriented around the creation of bibliographic records.

2. That which focuses on the document (book, film, etc.).

Bibliographic Records. It is possible to identify a number of activities pertaining to bibliographic records which are likely either to be of concern for the state library network or a larger multi-state network. Most of the activities can be handled with the presently available, or soon to be developed, technology. Following is a listing of such activities:

A. Development of a catalog data base.

B. Serials control system.

C. In-process files.

D. Interlibrary loan.

E. Bibliographic information retrieval.

F. Circulation control.

Document. Activities relative to the document itself fall within several categories:

1. First is that pertaining to interlibrary loan. Of concern here will be the physical movement of the library material, through a document delivery system, to the user. Ultimately it may be practical to perform such delivery through electronic means, either facsimile or video-tape, but this is not at present practical.

2. Cooperative collection development, while difficult to achieve, may have some significant economic benefits. Such developments can take place in a centralized activity, such as a state library resource or a "library of record," or a decentralized mode in which the various individual institutions within the state can work together to develop resources which are mutually beneficial.

3. Document preservation is an activity which may appropriately be accomplished within the state if there are a number of major resource libraries. On the other hand, it is an activity which is expensive and there are limited existing personnel with the necessary expertise to manage such activities and this might more appropriately be handled on a regional basis.

4. Cooperative use of audio-visual materials, particularly · film resources, appears to be appropriate for state networking.

State Network Responsibilities in the National Plan

As state library networks are formed they must assume certain responsibilities with respect to the national plan. First they should assume a responsibility for supplying bibliographic records for holdings that are unique to the state. Such holdings would include state and local documents, unique archives, rare books and special collections, and other unique or valuable resources within the state. The state network should establish a mechanism whereby small libraries in the state can utilize national and other data bases through the state network system. There is a responsibility for the maintenance of quality control of record creation, whether for state use or for incorporation into national data bases.

Services of State Library Networks

Each state will have its own priorities of services that may be provided by the state library networks but among these are likely to be:

1. Facilitating access to various types of bibliographic and information retrieval-type data bases, such as the bibliographic data base of OCLC, or the information retrieval data bases of ERIC, MEDLINE, etc.

2. Facilitating reference service on a state-wide basis.

3. Fostering a continuing education program.

4. Communicating developments among state, federal, and international librarianship, to the librarians of the various libraries in the state.

5. Serving as an effective political base for the state support of libraries.

State Library Agency

A key element in the development and operation of a state library network will be the state library agency. In some instances the existing state library agency might be the appropriate legal entity to serve in this capacity. On the other hand, there may be some cases in which such present agencies may be inappropriate if the focus of their concern is limited, that is, fairly restrictive to concern for public libraries only, or if the agency has been neither sufficiently recognized within the state to have sufficient political, budget and personnel support, nor the flexibility to move from traditional concerns to cope with the developing technology necessary for the operation of state networks.

Where such state library agencies exist that can appropriately move forward to develop the political and economic base to serve effectively in the coordinating role for the state library network, there is a significant advantage in utilizing such agencies. Often it is better to try to improve existing agencies rather than creating new ones unless the political climate within the state suggests that the establishment of a new agency might be more effective.

It would appear to be an appropriate recommendation to the National Commission for Libraries and Information Science that it give attention to developing a model of a state library agency that might serve effectively in networking at the state and regional level as a part of the national plan. This would serve usefully within each state to either adapt the present state library agency to serve in this role in accordance with the model or, form the basis for the establishment of a new agency within the state.

The appropriate state library agency, once it is established or improved in accordance with the model state library agency, should be the body to receive funds from whatever sources, whether federal or state governments or private giving. As it develops the economic base for the state library network, the agency should develop guidelines and evaluative techniques to assure that such funds are used effectively, are appropriately distributed, and that networking will be furthered in a coordinated way. The agency might serve as the coordinator of the network, or alternatively, another agency might more appropriately serve as the developer and coordinator of the networking effort for the state and the region in concert with national efforts.

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In order for the chosen state library agency to serve effectively the purposes of the state library network, certain safeguards and mechanisms should be established. Among these might be the following:

1. The election of an advisory (policy-making) committee for networking.

2. Provision of an appeal procedure.

3. Public accountability and reporting of disbursement of funds and accompi:shments, on a periodical basis.

4. The establishment of a mechanism for monitoring the adherence to established standards.

5. The review of project proposals by appropriate committees, which would advise on the allocation of funds.

6. The development of the capability to raise additional funding as required for matching purposes or for operation.

State Network vs. Regional Networks

In the initial discussion of state networks, above, the question was raised as to whether state boundaries were appropriate in the consideration of bibliographic activities. A related question might be raised as to how a national plan for library networking can be carried out by the establishment and funding of 50 separate state library networks with the expectation that a coordinated plan will result. It might well be considered seriously that, to the extent possible, state networks give way to appropriate development of regional library networks as the major module in which state developments can then be coordinated. The implications of this observation bear further study, it would appear.

Report of the Working Group on Local Library Networks

1. Local network justification. Without existence of local networks or other formal cooperative arrangements at this level, there is little or no justification for other networks; it is the primary entry and delivery point. If this principle is accepted, it follows that networks at other levels should encourage, foster, and strengthen the local network in order to maximize activity at this most cost-effective and efficient level.

2. Unique services and roles. User needs served locally are the most cost-beneficial and convenient. In addition, benefits accruing at the local level include, but are not limited to, identification of resources; referral of users from one library to another which effects a more even distribution of requests among libraries; promotion of library staff personnel interaction; facilitation of identification of user needs and opportunities; and development of continuing education activities which are particularly appropriate at this level.

3. Organizational structure and memberships. In recognition of the pluralistic nature of a network, the organizational structure and the membership eligibility requirements should be flexible enough to allow participation by the maximum number of potential members. Within this structure, membership requirements should be consistent, clearly defined, enforced, and communicated. Criteria for membership eligibility could include type of library, geographical location, political jurisdiction, etc. Different classes of membership (e.g., full, associate, affiliate) should be considered but the network should be aware of the governance problems which may ensue.

Every user should have the right to access to the resources and services of the network at the local level; in practice, it is difficult to accomplish this goal, but it should be kept in mind.

Although local network organizational structure need not necessarily be uniform, interaction is more effective if a degree of compatibility in function is present. Function may include an activity or a service.

4. Relationships with other agencies. Local networks should have reciprocal relationships with professional associations, library schools, and other agencies. Network development must utilize all available resources—both human and material. In most cases, the state library agencies are the logical coordinating bodies for network activities. The major level of funding in a network (local, state, regional, federal) should have the major role in policy decisions.

5. Role of large public/private research libraries. The local network should recognize the essential role and significant contribution of large libraries; however, undue dependence on the one side and undue influence on the other should be avoided. Major imbalance of service should be identified and compensated.

6. Sources of funding. Local networks may follow different patterns of funding. These include membership fees, contract fees, service fees, state and federal aid, foundation and direct grants, and any combination of the above. Local networks, as much as any other, must have assurance of continued funding, in order to plan and operate effectively and efficiently.

7. Technical processing/data base issues. While data bases are tools of access which are necessary to effective network operation, it should be recognized that the building of large sophisticated machine-readable data bases, requiring the use of national standards and staff expertise, is ordinarily beyond the capability of local networks because of limitations of time, money, and trained personnel.

8. Summary. An appropriate model for the totality of networking is the pyramid, with the local network as the foundation which sustains those levels above it. This facilitates lateral and vertical communication between all segments of the pyramid. The pyramid model graphically demonstrates that users' needs are provided for most frequently at the local level with progressively less direct provision of services as we move upward to the apex.

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Minority Report on Local Networks Submitted to
David S. Zubatsky by Robert H. Rohlf

Thank you very much for your memo of January 9, summarizing the MIDLNET Local Network Symposium. I am very disturbed over Item 7, "Technical processing/data base issues." As I read your summary, it is 180 degrees different from the statement read at the time I had to leave the meeting. As I recall our discussion of Wednesday afternoon in referring to my notes, we had concurred that data bases were appropriate for local networks to develop and, in fact, were easier. The statement now says the opposite.

I do not know what discussions took place after my departure, but I must strenuously object, or at least submit a minority report on the statement as now written. I believe that while data bases may ordinarily be beyond the capability of a local library, they can often be accomplished more easily by a local network than certainly by a state or regional network. I believe this is true because it is easier to arrive at appropriate decisions and significantly easier to manipulate data in a smaller universe than that found on a state or regional basis.

I would suspect that perhaps from Barbara Markuson's comments, that she is pushing for regional or state data bases, and I would not be surprised if this emphasis also comes from some of the other participants including MINITEX in our area. However, the facts are that there exist local data bases developed by local networks which were developed long before state or regional data bases were developed and which were done with minimum financial ability and almost entirely with their own funds and capability.

I would request that this minority report be included in the statement unless, of course, the majority of our group wishes to revise the statement as written in your January 9 memo.

I felt that we did accomplish a significant refinement of the issues in our discussions, but I also thought we were often discussing the obvious. Perhaps this is what committees normally do. I did enjoy meeting you and working with the other members of the group, and look forward to future discussions.

Reaction to Minority Report Submitted to
David S. Zubatsky by Nancy H. Marshall

Just a comment about Bob Rohlf's letter of January 15th to you:

It is important to point out that we really meant *sophisticated machine-readable bibliographic data bases*, and that we stressed *ordinarily*.

This would in no way preclude a local network from developing a data base if it had the time, money, and expertise. Perhaps we should spell this out more clearly.

On the other hand, I do feel very strongly that statewide data bases are the answer to statewide sharing of resources. In some states, of course, local data bases, whether machine-readable or in another format, help to build the statewide data base.

I don't think it was the intention of the local group to negate the contribution or ability of local networks to develop local data bases in any form.

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Participants in MIDLNET Symposium, January 6-8, 1976

National

Alphonse F. Trezza, Executive Director, National Commission on Libraries & Information Science (Speaker)

James Riley, Executive Director, Federal Library Committee (Group Leader)

W. Carl Jackson, Dean of Library Administration, Indiana University (Recorder)

Richard Chapin, Director of Libraries, Michigan State University

Alice Wilcox, Director, MINITEX

William Roselle, Director of Libraries, University of Wisconsin—Milwaukee

Stanley McElderry, Director, University of Chicago Library

Regional

Ronald F. Miller, Director, New England Library Information Network (NELINET) (Speaker)

Velma Veneziano, Systems Analyst, Northwestern University (Group Leader)

Franklyn Bright, Chief of Technical Services, University of Wisconsin—Madison (Recorder)

Chester Pletzke, Coordinator for Regional Development, Midwest Health Science Library Network

T. John Metz, Executive Director, MIDLNET

Allen Sevigny, Library Program Officer, U.S. Office of Education

David Reich, Director, Chicago Public Library

William Asp, Director, Minnesota Office of Public Libraries & Interlibrary Cooperation

State

Barbara Markuson, Director, InCoLSA (Speaker)

William DeJohn, Senior Consultant, Library Cooperation, Illinois State Library (Group Leader)

Ralph Hopp, Director of Libraries, University of Minnesota (Recorder)

George L. Gardiner, Dean of Libraries, Oakland University

David King, Librarian, Standard Educational Corporation, Chicago

Bob Carmack, Library Director, University of South Dakota

Glyn Evans, Director, State University of New York, Division for Library Services

Local

Beth A. Hamilton, Director, Illinois Regional Library Council (Speaker)

Robert H. Rohlf, Director, Hennepin County Library (Group Leader)

David Zubatsky, Assistant Librarian, Washington University Libraries (Recorder)

Nancy Marshall, Director, WILS

Sidney Matthews, Acting Dean of Library Affairs, Southern Illinois University

Donald O. Rod, Library Director, University of Northern Iowa

Irwin H. Pizer, University Librarian, University of Illinois at the Medical Center, Chicago

Dorothy Sinclair, Executive Secretary, Metropolitan Library System, Library Council of Greater Cleveland

General Chairman of Symposium: W. Carl Jackson

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ACRONYM GLOSSARY

ALA . . . American Library Association
AMIGOS . . AMIGOS Bibliographic Council
CONSER . . CONversion of SERials Project
ERIC . . . Education Resources Information
            Center
IRLC . . . Illinois Regional Library Council
INCOLSA . Indiana Cooperative Library Services
            Authority
LC . . . . Library of Congress
LSCA . . . Library Services and Construction Act
MARC . . . Machine-Readable Cataloging
MEDLINE . Medical Literature Analysis and
            Retrieval System (MEDLARS) On-Line
MIDLCOG . Midwest Library Council Coordinators'
            Group
MIDLNET . Midwest Region Library Network
MINITEX . Minnesota Interlibrary Telecommun-
            ications Exchange
NASIC . . . Northeast Academic Science Information
            Center
NCLIS . . . National Commission on Libraries and
            Information Science
NELINET . New England Library Information
            Network
NYSILL . . New York State Interlibrary Loan
OCLC . . . Ohio College Library Center
PALINET . Pennsylvania Area Library Network
PRLC . . . Pittsburgh Regional Library Center
SDC . . . . System Development Corporation
SOLINET . Southeastern Library Network
WILS . . . Wisconsin Interlibrary Loan Service

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