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A Program of the Minnesota Higher Education Coordinating Board

SERIALS COLLECTIONS IN A NETWORK ENVIRONMENT
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I. INTRODUCTION

The plight of the U.S. academic libraries in adjusting to the present fiscally lean period after years of rapid growth is well documented in the literature. Pressures stemming from reduced growth rates in library budgets, continued growth in the amount of materials available, and rapid price increases of books and periodicals have compounded the usual problems of selecting and acquiring library materials.

In the opinion of most academic librarians, the collection management problem is most critical with respect to serials. In order to maintain serial subscriptions, book budgets have been reduced to the point of endangering collections and eroding services. Finite resources suggest that fewer libraries can collect materials for future generations. There is a growing belief among librarians that decisions affecting collection management will need to be based more and more on the use and costs of materials.

In an attempt to begin to alleviate severe fiscal and access problems, libraries in the 70s began shifting from independent self-sufficient entities to parts of larger wholes, functioning through a series of cooperative arrangements and networks.

II BACKGROUND

One such cooperative system is MINITEX (Minnesota Interlibrary Telecommunications Exchange), a program of the Minnesota Higher Education Coordinating Board. A network of 158 academic, public, government, and

medical libraries in Minnesota, North Dakota, South Dakota and Wisconsin have agreed to share their resources including materials, bibliographic data, and human expertise. Its programs include: document delivery, a union list of serials (MULS), a telephone reference service, an online union catalog and cataloging (OCLC), and a serials exchange. Its twelve-year history illustrates, among other things, the importance of serial literature in libraries today. The document delivery program has shared over a million items, three-quarters of which were journal articles. This pattern of use emerged early in the development of the network and induced the directors of the participating libraries to put top priority on the production of a union list of serials to facilitate access to holdings in the system.

MULS today contains over 120,000 titles and the holdings of over 350 libraries, and is a major contributor to CONSER (Conversion of Serials), a national online database. Accurate, standardized descriptions of items owned and knowledge of where each item is held are essential to manage local collections or to share resources in the network.

The management of a serials collection includes several aspects: selection of titles, bibliographic control, processing, methods of storage and retrieval, and decisions on cancellations or retention (how long to keep, in paper or microfilm copy, bound or unbound copy, etc.). Whereas an independent library must try to maintain locally a collection to meet all the immediate and long term needs of its users, a

network participant can think in terms of a larger pool of resources. Ready access, at a predictable cost, to the journal holdings of all the libraries in the network will greatly affect local decisions concerning the collection management process.

Recent sponsored research by William Baumol, Bernard Fry, Allen Kent, Donald W. King, Fritz Machlup, Vernon E. Palmour, and Herbert White have produced data and other findings relevant to the costs and utilization of serial publications in academic libraries. While all of these studies appear useful, no mechanism exists to formalize and integrate them so that an individual library can utilize this data in their local decision making process.

Five researchers and 30 library directors met together for a two-day conference October 23 and 24, 1979, at Lyman Lodge, Excelsior, Minnesota. The conference provided a setting for the exchange of research findings and practical experience in the various aspects of collection development within a network environment. The conference included both presentations by researchers on relevant findings from scientific investigation and descriptions by local librarians on current practices regarding their serial collections. It was a working conference and presentations were followed by inter- and intra-group discussions. A set of practical guidelines was developed to assist librarians in their decisions regarding serial collections in a network environment. Topics needing additional research also were identified.

Each participant was provided with copies of published research (listed at the end of this report). In addition, each library was provided with a list of its currently held titles (a subset of MULS) annotated to include subscription costs of currently received titles. It was suggested that the list be further annotated to include storage shelf requirements and availability of titles locally.

III. SUMMARY OF NETWORK EXPERIENCE

The aggregate data for 1978-79 document requests submitted to MINITEX from the group of 30 libraries was reviewed to identify general patterns of serial sharing.

Table 1 indicates the character of the 70,199 document requests submitted to MINITEX by these 30 libraries in 1978-79. Clearly, requests related to journals accounted for the vast majority of the document delivery program activities.

Table 1. Document Requests Submitted to MINITEX by 30 Minnesota and North Dakota Academic Libraries, 1978-79

	<u>Number</u>	<u>%</u>
Total Document Requests	70,199	100%
Journal Related Requests	56,167	80%
Other Document Requests	14,032	20%

As Table 2 indicates, MINITEX has been successful in responding to journal related requests in more than 90% of the cases. Of the 3,376 unfilled requests, 79% (2,671) were for titles not available to the network, 8.9% (302) were for items where the title of the journal or article could not be verified, and 11.9% (403) were for items where the journal title was available but not the specific article requested.

Table 2. Journal Requests Submitted to MINITEX by 30 Minnesota and North Dakota Academic Libraries, 1978-79

	<u>Journal Articles Requested</u>	<u>Journal Titles Needed</u>
Requested	56,167	14,007
Filled	52,791 (94%)	13,520 (96%)
Unfilled	3,376 (6%)	487 (4%)

Table 3 provides information on multiple requests for the same journal title. Over 50% of the titles which were provided through MINITEX were requested only once, 4% (61) were requested more than five times by a single library, the cross-over point between owning and borrowing and the allowable number of copies under the 1978 copyright law. Only 11 of the 487 titles needed for these unfilled requests had been requested more than five times. The 1978-79 data also shows a dramatic drop in the number of times a single library requested a journal title more than five times (61), down from 375 reported in 1976 for 28 of the 30 libraries.

Table 3. *Journal Titles Requested and Used Through MINITEX by 30 Minnesota and North Dakota Academic Libraries, 1978-79*

Number of Titles Requested	14,007
Number of Titles Used Once	6,999
Number of Times a Single Library Requested a Single Title More Than Five Times	61*

*No attempt was made to check date of publication, whether the library currently had a subscription, or if a royalty was paid. Therefore, no copyright infringement can be inferred.

A review of MINITEX activities over the last decade also provided some interesting observations. First, all but five of the 30 libraries participating in the study are currently requesting fewer interlibrary items from MINITEX than in previous years. Most library's requests peak at about the sixth or seventh year of participation in the network. Second, academic library participation in MINITEX has led to an increase in subscriptions to periodical titles. In 1971, 51 post-secondary education institutions in Minnesota reported that they subscribed to 50,020 periodical titles, in comparison to the fall of 1977 when these same institutions reported subscribing to 54,481 titles, or an 11% increase. Third, academic libraries also reported spending fewer actual dollars for binding. Fourth, while no attempt was made to correlate requests with holdings, there seems to be significantly fewer requests for copies of journal articles from year-old titles held by the requesting library. Traditionally, libraries sent their journals to the bindery at their period of maximum library demand which coincided with index availability. The MINITEX experience suggests several possibilities:

1. Serial selection decisions are closely related to user demand. (A copy of each MINITEX document request is provided to each library for its collection selection decisions. Therefore, libraries have over ten years of documented records of demand for unowned materials.
2. The copyright law is being carefully observed and either forcing purchase, payment of royalty, or restricting

usage. (See King research analysis of MINITEX data in CONTU final report, p. 235ff.)

3. Libraries increasingly are using other non-MINITEX external sources for unowned materials; for example, local cooperatives.
4. Improved bibliographic access allows users the option of going directly to holding libraries for needed materials.
5. Local librarians are suggesting alternate sources in their own collection that can provide needed information.
6. Local libraries have modified their binding policies. Many libraries have reported that they retain only the last five or ten years and do not bind in order to have the title available when the indexes become available.
7. Use of online literature searches such as Dialog, BRS, and Medlars has greatly enhanced indexing access in academic libraries and is identifying journal literature from an increasingly larger pool of journal titles.

IV. STUDY DIRECTOR'S PRESENTATIONS

DONALD W. KING, a statistician and president of King Research, has been involved in many of the major investigations regarding the use of information, the interdependencies of the library and information communities, photocopy practices, and scientific indicators. Much of his work has built on the seminal economic work of William Baumol and Fritz Machlup.

King reported on the magnitude of scientific and technical literature. Since the 1830s over 12 million scientific and technical journal articles have been published in the United States and 9,000 scientific and technical journals are currently published in the United States. About half are scholarly and publish approximately 400,000 articles annually. There are approximately 55,000 foreign scientific and technical journals. Scientific and technical journal publications tend to parallel economic and technical development.

King indicated that approximately 14% of the readings of these journal articles come from library subscriptions and 69% come from personal subscriptions. The purpose of personal subscription readings tends to be to

keep up in the field and occur during the first year of publication, while library readings tend to be related to education and research and tend to occur three to four years past publication date. Since 40% of total subscriptions are to libraries, this means that any significant decrease in the number of library subscriptions conversely affects the subscription price.

In the U.S. the annual expenditure for all activities that go into the scientific and technical information transfer is about \$12 billion. This figure includes author, publication, library, indexing and abstracting, and user costs. There are many inefficiencies in this information transfer system. On the average, ten copies of each journal article are distributed for each reading. Total cost for each reading in a library is about \$30. Electronic and telecommunication advances suggest that there will be some major changes in the production, storage, and distribution of scientific and technical information in the near future which may increase the efficiency of the system, but there are different incentives for author, publisher, librarian, and user to adopt these innovations.

BERNARD FRY, Dean of the Graduate Library School at Indiana University, has concentrated most of his research on publications and how and what decisions librarians make about these publications. His topic was serials selection--the adding and cancelling process.

He began with an observation, also made frequently by Professors Baumol and Machlup, that both librarian and publisher have great difficulty in accurately reporting their expenditures and identifying usage and activity by pre-defined and agreed upon categories. Much of the research in this area is hampered by this lack of uniformity in reporting.

However, it is clear that as staff and maintenance costs continue to increase, librarians tend to have increasingly smaller percentages of their budgets allocated for materials. This is especially acute for serials where the management costs--check in, renewals, binding and storage--are adversely constraining the total budget.

Fry's survey indicates the selection process is seldom made in tandem with the cancellation process. The selection of new titles tends to be responsive to faculty and user demand. External availability or membership in a consortium pledged to cooperation has little effect on the acquisition decision.

The cancellation process is generally triggered by budget constraints rather than space, use, or relevance to the collection or curriculum. Fry reported that in five out of every six cancellations, the decisions are made internally by staff. However, external availability and memberships in a consortium/network did play a more significant role in decisions to cancel compared to decisions to subscribe. In 47% of those titles cancelled, there was no known need to borrow and less than 25% of cancelled items are later reinstated. There is seldom a formal review process for cancellation; however, involvement of the faculty or library committee is generally perceived to be advisable for political reasons.

ALLEN KENT, Director of the Office of Communications Programs, University of Pittsburgh, is responsible for extensive user studies conducted at the University of Pittsburgh libraries (which are related only to the use of materials purchased by the University for the library).

He reported a high correlation between external circulation, in-house use and inter-library loan. A relatively small but well balanced mix of samples gives a reasonably accurate picture as to total usage. In discussing the methodology adopted in several of his studies, he emphasized the importance of using observers to check title, date of publication, status and department of user, and how they were alerted to the title.

He indicated a small percentage of the titles (9%-37%) were used; 66%-80% of the uses were published within the last five years; and most of the users were graduate students who were browsing.

Kent's presentation raised the critical question: "How can we identify materials needed in the library to support the teaching and research mission of the academic institution?" There is a need for a continued monitoring program of systematic sampling of serial usage. Hard data about specific

title usage is useful in making decisions regarding those titles and it may also provide an early alert to general usage trends in the library. Such a program should be integrated into the regular operations of the library. However, since the release of statistical data may generate a reaction that will make implementation difficult, it is important to be sensitive to the political environment of the institution.

VERNON E. (GENE) PALMOUR, a library consultant involved with major library studies during the past 18 years, including inter-library loan, periodical center/system, costs of periodical publications, and planning processes for public libraries, discussed borrowing (ILL) versus owning.

Palmour reported that his 1968 and 1977 studies indicate that there is some point of economic cross over between owning and borrowing that occurs upon usage of a title more than five times in a year, and indeed, this data was used to determine CONTU guidelines. He noted that these studies were limited in that they did not measure the cost in time delay and user frustration when the item is not immediately available.

His presentation led to the questions: What is a reasonable fill rate in the local library, in a network, or on a national level? How can you change the collection in such a way to maximize access to titles? (Over a ten-year period, no MINITEX participant has referred more than 5% of their uses to the network. This figure is calculated using reported circulation statistics. It is generally recognized that an equal number of uses takes place within the library and would lower the percentage to less than 2.5%. Of those uses referred, 88% were filled.)

Out of this discussion, Palmour noted that some decisions that benefit the entire network might not necessarily benefit or be cost effective in the individual library. In a network individual holdings become available to all. Therefore, collection development activity in a network environment is the sum of the actions of the individual libraries, including reporting activity and assuming responsibility for the purchase and retention of specific titles.

ROBERT WIEDERKEHR, a researcher involved in statistical analysis and modeling tech-

niques, addressed the use of models to aid in decision making in two areas: a) the option of owning (selecting or cancelling) or borrowing, and b) the option of retaining or withdrawing.

Once the data elements have been identified, a mathematical model can be constructed and used manually or with computer assistance. Wiederkehr discussed one such available model. Actual use of the model requires specific data on each title including accurate usage data. The cost of collecting data is not included in the model and should be taken into account in the selection process.

Wiederkehr identified the critical costs of owning from selection, ordering, processing, record maintenance, storage, binding, and retrieval. The critical costs of borrowing were described as internal processing costs and external charges. The critical costs in weeding (retention decision) were the result of selection, removing materials, changing records, and the disposition of materials. It is relatively easy to identify the highly used items and lowest or never used items. The question is: "How important is it to work on the middle marginal area?"

V. DISCUSSIONS OF PARTICIPANTS' EXPERIENCES

There was active participation by the conference attendees. The sharing of experiences regarding serials collections in a network environment fell into four categories: a) retention policies, b) local consortium activities, c) cooperative staff appointments, and d) the collection and use of statistical data.

A. Retention Policies

Retention involves decisions on several issues: 1) the cancellation of current subscriptions, 2) the partial withdrawal of back holdings of some titles, 3) the withdrawal of complete holdings of some titles, and 4) alternate formats.

Participation in a document delivery network that provides reliable access to un-owned serials at a predictable cost gives individual libraries new options in the decision making process. Research data indicates that the heaviest usage of a journal is during the past five or ten years of

publication. Since 1974 over 1.5 million withdrawn and duplicate items, some representing gifts, but mostly the result of weeding, have been sent to the Serials Exchange Program, a cooperative program of MINITEX and the University of Minnesota Gifts and Exchange. Through this program over 128,000 of these items were provided to other libraries.

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Because of severe space problems, the College of St. Benedict, St. Joseph, Minnesota developed a comprehensive methodology for evaluating each periodical title every five years. Four categories of titles and the appropriate actions for each category were established:

1. Titles of permanent value to the collection and publications with colored photographs and illustrations--retain all print copies.
2. Scholarly publications with few color illustrations--retain last five years in print and replace older print copies with microfilm.
3. Titles of limited value--retain five years in print.
4. Titles that no longer meet curriculum requirements or fit collection policy --cancel subscription and withdraw from collection.

In order to categorize the serials collection, each title was assigned to an academic department. After checking for availability at St. John's University (a Benedictine college only four miles away) or through MINITEX, each departmental faculty member was asked to evaluate all departmentally related titles. All faculty and students were encouraged to evaluate any title in the collection.

The same evaluation form is used for recommending new titles for selection. All new selections are "on probation" for one year and then receive a second evaluation.

There was heavy involvement by the entire academic community and the process worked well. Twenty titles fell into category four, and subscriptions were cancelled. Seventy-seven titles were assigned to category one and will continue to be bound. Also, 2400 volumes were replaced by microfilm or simply withdrawn and were offered to other MINITEX participants.

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Another example are the state universities at Bemidji, Mankato, Moorhead, St. Cloud, Marshall (Southwest), and Winona which have made a long term no-growth commitment. The commitments were triggered by space considerations--no building requests for additional space to house the collections will be submitted in the foreseeable future. Each institution's library, depending upon its enrollment, curriculum and available space, set maximum collection sized for serials, monographs, and non-print materials. Each title was annotated showing its availability in the local community and in MINITEX. An evaluation process was established addressing each title's importance to a specific course or department (essential, useful, marginal, and of no value) and its availability requirements (needed by library, in local community, or through MINITEX). Each item was also checked for format (paper or microform) and retention requirements. This is an on-going systemwide process. The vigor with which the guidelines are followed is somewhat dependent upon space availability in individual libraries.

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The experience of the MINITEX libraries indicates that with a reliable referral system and careful evaluation of specific journal title usage, many back runs with little use can be withdrawn with little or no impact on the users.

B. Local Consortium Activities

In addition to the MINITEX network, several local consortial arrangements have emerged. One example is CLIC (College Libraries in Consortium), an eight-member private college consortium in the Twin Cities metropolitan area. The consortium has a COM union catalog that includes the combined holdings of all eight institutions. In addition, since 1977 they each have been cataloging online through OCLC and consequently have several years of their holdings available online. Extensive resource sharing takes place through reciprocal borrowing privileges and an interlibrary loan service with a twice-daily courier.

Extensive efforts have combined incomplete sets in one location in order to retain fewer copies of back issues. The consortium has been successful in securing a number of

grants for cooperative purchase of unowned serials. Under this funded cooperative purchase program all selections are joint decisions and individual titles are assigned to and owned by a single institution who, after the grant cessation, assumes responsibility for continuing the subscription.

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Another consortium is Tri-College University, a ten-year old arrangement between three Fargo, North Dakota and Moorhead, Minnesota institutions: North Dakota State University, Concordia College, and Moorhead State University. It is a formal, legal arrangement between the three institutions, with cross-over registration, faculty exchange, and other cooperative activities, including full access to all the libraries by all students and faculty. Although there are three independent institutions, the libraries consider themselves one collection in three locations. During the early years, major emphasis was placed on courier service and common loan periods. The acquisition librarians began meeting and established reporting mechanisms for purchasing new serial and expensive sets that might not be needed in multiple locations. No formal arrangements were established until 1978 when a Tri-College Acquisitions Policy was established which provided the necessary basic philosophy and broad guidelines for individual and group decisions:

1. Broad areas of emphasis are assigned to each institution based on curricula and present collection.
2. Collecting levels for various subjects are tentatively identified for each institution.
3. Each institution is responsible for the development of an adequate individual collection to provide for its own curricular and user needs.
4. Decisions are guided by the following considerations:
 - a. the curriculum and user needs of the individual libraries;
 - b. the selection and acquisitions policies of each library;
 - c. the identified strengths of each library;
 - d. the cost, demand for, and accessibility to an individual item.

5. Possible areas for cooperation are identified:
 - a. compare selections for the purpose of reducing unnecessary duplication;
 - b. contribute to purchasing for the completion of sets;
 - c. combine existing holdings of items (such as incomplete sets);
 - d. purchase parts of a collection to be housed at one institution;
 - e. jointly purchase specific items.

The single most useful tool in building the serials collections is the Tri-College University Union List of Serials. All titles suggested for purchase are initially checked to determine institutional and consortium holdings. MULS is also checked to determine availability through MINITEX. Selection decisions are made on the basis of estimated use, cost, and availability. Tri-College University reports that the union lists are both valuable in making decisions to cancel or withdraw a title, either in part or total, since:

1. Information is immediately available on the existence, length, and completeness of runs at the other two participating libraries.
2. On the basis of this information, an intelligent decision can be made to cancel or continue a subscription, to retain or withdraw individual volumes.
3. One is informed immediately of a neighbor's needs and withdrawn volumes can be offered to another institution to fill in holdings there.
4. The printout is a most effective tool for reassuring faculty members who may be apprehensive about withdrawing volumes of journals or other serials in their field.
5. The printout itself serves as a tool for identifying titles begging to be withdrawn, as old and/or fragmentary holdings are made immediately apparent.

In addition, both lists are checked to see if withdrawn items could be used to fill in gaps in other library collections.

The librarians of the three institutions felt strongly that an environment conducive to cooperative activity is based on trust

and positive experience and needs to precede formal arrangements. Moreover, if staff members have the opportunity to work together in a non-threatening environment, the guidelines will develop as needed and have support. Initially, progress may be somewhat slower, but when it gains momentum, there is a greater chance for enthusiastic endorsement. The directors reported that currently the committee was pushing the administration for more cooperative and collaborative activity regarding the serials collection.

C. Cooperative or Joint Appointments

Sharing of staff members is a relatively new solution that allows nearby institutions to hire subject specialists jointly. Typically, a person would work halftime in each of two closely situated libraries. Besides the savings in salary costs, this arrangement opens up great possibilities for further savings in the coordination of collection management and the development of cooperative activities. A person in a shared position such as this is in a unique position to effect both savings and improved service.

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Carelton College and St. Olaf College, private liberal arts colleges in Northfield, Minnesota, have jointly appointed a science librarian who works halftime in each institution. While the two institutions have a long tradition of competition and a friendly but stand-off relationship, the last decade has seen increasing efforts at cooperation. There is a union list of serials and needed items are readily transported by hourly buses that transport students and faculty the two miles between the campuses.

As part of a St. Olaf National Endowment for the Humanities grant on bibliographic instruction, Thomas Kirk from Earlham College spent a week on the campus evaluating their program, working with the library staff, and conducting individual and group meetings with the science faculty. Carleton library staff and science faculty were invited to participate in group sessions. Out of these sessions grew the desire to jointly hire a science librarian, and a joint grant proposal to fund personnel to be shared by the two institutions was submitted. Despite the failure to obtain a

grant, the faculties were so enthusiastic and had so successfully involved both administrations that the two colleges funded a two-year science librarian appointment. In addition to bibliographic instruction responsibilities, the librarian was given responsibility for the science libraries and their collections.

It may be that the most significant impact of this joint appointment has been on serials collections. Without any formal commitment regarding the collections, the librarian began to view them as one collection and to facilitate their use in both locations. Lists of all science serial titles and their holdings have been distributed to each science faculty member. Each faculty member was queried as to whether he wanted browsing capability on titles held by the other institution. Those titles are then tagged in the check-in process and after the first week in the primary library are transferred to the secondary library for one week. In the beginning faculty were notified about the transfer of titles which interested them. Needed back issues are promptly dispatched on the bus. A joint faculty/librarian science selection committee reviews all requests for selection and retention and recommends the appropriate purchasing library.

The joint librarian has been especially skillful in facilitating cooperation in a non-threatening, non-competitive manner, which the faculty has perceived as greatly improving access and extending available resources. They are pushing the library staff and administration for more joint projects.

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Similarly, the College of St. Benedict and St. John's University, two Benedictine private colleges four miles apart, are sharing a music librarian. Many of the procedures described above are developing as the librarian is becoming intimately knowledgeable about the collections, curriculum, and faculty.

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Both of these examples demonstrate that sharing of staff members can open up new possibilities for improved utilization and access to serials collections. In the joint management of serials collections and in facilitating their use, a person in a shared position is uniquely able to provide improved service

and make more judicious use of available funding.

D. Statistical Data Collection and Utilization

Data collection is a major concern in planning serials collections in academic libraries. However, few librarians have extensive experience in this area. Edward Warner at the University of North Dakota reported extensive data collection activity; it included systematic measurement of actual usage as well as annual faculty and library staff evaluation of individual serial titles. The data collected is weighted and used to make selection, cancellation, retention, and format decisions.*

For a two-year period usage data was gathered every eighth day. All items checked out or used in the library were tabulated every two hours as they were reshelfed. A satisfactory method of collecting data on patron reshelfed items, which probably represent browsing activity, has not yet been developed.

In the spring of 1977, the University of North Dakota library embarked on a project to measure the faculty's perceived need for the titles in the serials collection. In preparation, the library staff inventoried all currently received serial titles, both purchased and gifts. A master card was made for each title including price, indexing, and remote availability in North Dakota and MINITEX.

The librarians responsible for collection development for the various academic departments were then given the task of determining the relevance of each of the 4,041 titles to one or more of the 41 departments. For example, of the alphabetized titles, t₁ through t₄₀₄₁, t₁₉₂ was determined to be relevant to departments d₁, d₁₂, d₂₄, and d₃₃ of the alphabetized departments d₁ through d₄₁.

*The discussion which follows is taken from his presentation and has been published. See 1) Warner, Edward S. and Anita L. Anker, "Faculty perceived needs for serial titles," *Serials Librarian*, vol. 4(3), Spring, 1980, p. 295-300; and 2) Warner, Edward S. and Anita L. Anker, "Utilizing library constituents' perceived needs and allocating journal costs," *Journal of the American Society for Information Science*, vol. 30(6), Nov.-Dec., 1979, p.325-329.

A packet of forms representing the titles thought to be relevant to the respective departments was delivered to each department with a request that the complete forms be returned to the library by a certain date with a unitary departmental rating for each title. As the forms with the departmental ratings on them were returned, the ratings were recorded on the appropriate master forms. Upon completion of the recording process, each master form contained one to several ratings for the particular title. For example title t₁₉₂ (*American Economic Review*) was rated "of marginal value" by department d₁ (accounting) and "essential" by department d₁₂ (Economics), d₂₄ (Management), and d₃₃ (Political Science). It was decided that all subscriptions to all of those titles which received one or more "essential" or "of moderate value" ratings as a result of the survey would be continued, and those titles which received only "not of value" and "of marginal value" would form a pool from which subscription recommendations for cancellation would be taken. (A similar program has been adopted by the North Dakota Academic Libraries Long-Range Planning Committee.)

Data collection is expensive, and the issues concerning cancellations, withdrawal, and replacement of hard copy with microform are complex. It is therefore crucial that carefully developed procedures be established and agreed upon and that there be adequate involvement of all the interested parties. In the final analysis a serious data collection program facilitates rational serials decisions.

VI. GUIDELINES FOR SERIALS COLLECTIONS IN A NETWORK ENVIRONMENT

A network environment is an evolving process and develops when a group of libraries becomes involved in three areas: bibliographic access, physical (document) access or shared resources, and a commitment of personnel to shared activity. These three areas are interdependent. An accurate and standardized bibliographic description of which serials are held individually and collectively is essential; it is the necessary foundation for a responsive referral system. Reliable access to needed materials held in member libraries expands the resources available to an individual library, and enables a library to establish what needs to be owned institutionally and what items can be accessed through shared arrangements. Willing

participation in network activity and demonstrated successful access to unowned materials develop trust. Within this context, librarians are then free to review their institutional policies and procedures and exercise new options in their decisions. The environment becomes increasingly conducive to cooperative and collaborative action. Library directors then can encourage formal institutional commitments.

Within this context, a series of guidelines for individual libraries can be formulated. The individual library should:

1. Determine institutional goals and historical commitments and review or write a serial collection policy.
2. Set library goals of providing a high proportion of serial usage/demand from each institutions' collections, since there is no substitute for local access to materials. (The MINITEX goal is 95%.)
3. Establish a responsive referral system that provides reliable access for the small proportion of users each institution cannot satisfy.
4. Establish a systematic program to monitor activity and provide data about usage of the collection and items secured externally.
 - a. Select affordable sampling techniques using circulation records, observers, reshelving, etc.
 - b. Maintain a current file of all serial titles requested externally. Trigger an order after the fifth request. There may be extenuating circumstances, i.e., a single faculty member doing specific research requiring one-time multi-use of a title, that should be considered in reaching a decision.
 - c. Establish regular evaluation by academic departments of department-related titles.
 - d. Determine title availability in the local community and network.
 - e. Integrate the data into the selection (adding and cancelling) and retention (how long to retain, in original or microform, bound or unbound) process.

(The data will be especially useful in identifying two low-risk areas in which decisions can be made--frequently used titles needing no action and seldom-used items, the candidates for action. The problem of whether items should be owned locally or be made available through shared access can be addressed. It facilitates direct patron access to desired materials in their community.)

5. Establish who has the responsibility for the selection of serials; the responsibility may be that of faculty, the library staff, or shared by both. Assign the budget to the responsible groups and set up the mechanism for decision making, including orderly review of past decisions, who meets and when, and the form of recommendations for action.
6. Establish a mechanism for a review within the network context of unique or potentially unique titles. A serial collection should primarily meet the goals of the local institution; however, some titles that are only marginally useful to an individual institution are needed by the group. Responsibility for decision making for this group of titles requires coordination.
7. Implement techniques and procedures including the movement of materials or users that will be responsive to user browsing needs of not owned titles.
8. Stimulate the use of the collection and access to vast external resources through a variety of means, but primarily through a library policy and practice of "If we don't have what you need, we will try to get it for you."
9. Study the implications of the cessation of the network on local serial collections and access to external resources.
10. Accept responsibility to and for the network; plan for the demands it will make on your collection and the level of commitment (of both time and manpower) it will require in order to function appropriately.

VII. AREAS NEEDING ADDITIONAL RESEARCH

1. Improved methodology to predict what will be needed by curricular disciplines in order to build a quality collection which accurately anticipates future usage.

2. Effective measurement of browsing use of materials in libraries.

APPENDIX A. MATERIALS PROVIDED FOR CONFERENCE ATTENDEES

Baumol, William J. and Matityahu Marcus. *Economics of academic libraries*. Washington, American Council on Education, 1973. 98 p.

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OCLC CONVERTS DATA BASE TO AACR 2 FORM

OCLC has successfully converted its On-line Union Catalog to AACR2 form. Normal on-line operations resumed Tuesday, December 23. The conversion process took 10 days (five days longer than OCLC had estimated). OCLC had shut down the on-line system on December 12 to begin the conversion.

"We converted at least one heading in 39% of the records in the data base in contrast to our earlier estimates of 13-20%," says J. Randolph Call, Manager, Marketing Services Department, User Services Division, and head of OCLC's AACR2 implementation project. "It was this extra conversion that made the process run longer than we had originally planned. But, it was worth the wait."

"The conversion resulted in a much better product than we originally thought possible because of LC's authority file affected more headings," says Call. "Our users are getting a data base that is more consistently AACR2 than our statistical samples indicated."

According to Carolyn Eyster, Manager, Systems Support Department, Computer Facilities Division, OCLC made 3,716,740 modifications to about 2.7 million records. "This is 39% of the data base," says Eyster. "The remaining 61% did not have matching LC Name-Authority records. We're developing a plan for dealing with these records."

The Library of Congress is scheduled to shift its internal cataloging operation to AACR 2 on January 2, 1981. "It will take about two months for the first AACR2 records from the Library of Congress to start showing up on LC-MARC Distribution Service tapes," says Eyster. "In the meantime, OCLC will convert LC-MARC II records to AACR2 form before loading them into the On-Line Union Catalog on the regular weekly basis."

Although the conversion process took longer than anticipated, OCLC accomplished the conversion ahead of the scheduled implementation date of January 2, 1981. For OCLC staff it was a triumph of two years of sustained effort involving many units in the organization.

"This is the first time to my knowledge that anyone has attempted via computer to make a catalog of this size consistent," says Call. "And we're now better than one-third of the way toward having a consistent catalog."

QUALITY CONTROL ACTIVITIES AT OCLC

OCLC's Bibliographic Records Department recently finished processing a backlog of 61,000 requests to modify bibliographic records (commonly known as "updates") to agree with LC catalog copy. Modifications usually mean addition of missing fields to include all information reflected on LC copy.

The department is now working on the same sort of project for music records. They also modify records to agree with LC copy in the course of their regular conversion activities.

In addition to the above project, a number of other significant efforts are underway in the Bibliographic Maintenance Section of Users Services Division. This section bears the responsibility for OCLC's quality control efforts and handles the following special projects as well as the regular flow of change requests ("error reports").

1. The section is carrying on a top priority effort to "update" bibliographic records in the music format (scores and sound recordings) and the audiovisual format to conform to LC copy. The accumulated backlog of LC copy will be completed in the next two months.
2. LC cataloging revision listed in the Music Cataloging Bulletin are being compared to music bibliographic records in the On-Line Union Catalog. Changes are made to the corresponding records. This work is up-to-date on current issues of Music Cataloging Bulletin and work is being done retrospectively to pick up

revisions in earlier issues. OCLC is also receiving revised music cards being printed by LC and the on-line catalog is being updated to reflect those changes.

3. 6,000 duplicate serial records were deleted during 1979/80. Many of those records were reported by CONSER participants.
4. Special attention is being given to serials records to study significant problems such as later entry cataloging, differences between authenticating agencies, and serials on monographic workforms where no serials workform record exists.
5. A project to add information to incomplete serials records which were added by batch load (such as MULS records) is about to begin.
6. Machine errors which come to light when OCLC processes LC MARC tapes are corrected by Bibliographic Maintenance. These errors usually involve invalid indicators or fixed field codes, missing subfield codes, and invalid tags.
7. A regular program of inspecting records to find and fix incorrect filing indicators, incorrect tagging of corporate stop list words, etc. is carried out as time and staff permit.
8. The section is working with LC to solve problems of inconsistency in imputting conventions and other "oddities."

While duplicate detection, enhance, and on-line reporting of errors are in the future, it is important to remember that the quality control effort at OCLC is on-going and is yielding positive results for OCLC participants.

MPR PROGRAMS AVAILABLE FROM AUDIO ARCHIVES

Bob Hope speaking to the National Press Club...Reagan and Bush discussing campaign plans...Naomi James telling about her record breaking solo sail around the world...Sen. Kennedy's speech before the Democratic convention. These and many other programs broadcast on Minnesota Public Radio are available on cassette tape for classroom

and workshop use, travel and vacation listening, birthday and holiday gifts.

The range of topics is tremendous, as those who listen to KSJN and the other MPR affiliates around the state will know. The cost of the cassettes is \$6.50 for a 60 minute program and \$1.00 per additional half hour or part thereof.

To find out if your favorite program is available, or for a list of recent programs, call MPR's Audio Archives at (612) 221-1500 or toll-free from within Minnesota at 1-800-652-9700.

NEW DULUTH PUBLIC LIBRARY OPEN

By Biz White

The Duluth Public Library is the biggest tourist attraction in town these days. Even with reduced hours, the facility has seen a close to 300% increase in circulation since its opening on November 17th, and public reaction has been good. Computerized check-out keeps the lines short and fluid, and the computer is a boon, too, for swift and accurate location and reservation of materials.

Picture articles in the November issues of *Building Design and Construction* and *Architecture Record* have given the building some national attention. Out-of-towners and Duluthians alike are most impressed with the bright, light atmosphere and the generous amounts of space. "All the non-fiction is together!" one patron was heard to exclaim with awe. In the old Carnegie Building, there was a piece of Dewey in each nook and cranny. Now, too, materials once stored at the branches or the Armory have ample house-room.

Space-ship, ore boat, or (going to extremes) parking lot it may appear from the outside, but indoors the Duluth Public Library is a vital, functioning information center.

Biz White is Contributing Editor to Arrowhead Lines, the newsletter of the Arrowhead Library System.

MINITEX REFERENCE SERVICE NOTES

By M.J. Dustin

WORKSHOPS: A notice will be sent out shortly listing BRS and Lockheed/Dialog data base training sessions that have been scheduled by MINITEX. Please let me know if there is interest in additional and/or different sessions.

TOLL FREE NUMBERS: Included here are some Federal Government Hotlines which supplement the toll free numbers given in the last issue:

Alcohol fuels & gasahol information	800-525-5555
Auto safety complaints & information	800-424-9393
Banking complaints & information	800-424-5488
Commodity brokers information	800-424-9838
Consumer education resource network	800-336-0223
Energy conservation information	800-424-9042
Explosive materials theft, loss, or discovery	800-424-9555
Exporter information	800-424-5201
Flood insurance information	800-424-8872
Housing discrimination complaints	800-424-8590
Oil spill reports	800-424-8802
Petroleum supplies & prices complaints	800-424-9246
Political fundraising laws information	800-424-9530
Temperature control in public buildings	800-424-9122

PEOPLE / MINITEX DIRECTORY

RUTH E. MAHAN has been named Acting Director of the North Dakota State Library in Bismark.

CLARENCE COFFINDAFFER from West Virginia has accepted the position of State Librarian in South Dakota. He will begin his appointment in Pierre on March 2.

Fergus Falls Community College has a new phone number: (218) 739-7531.

(Remember to note the above changes in your copy of the *MINITEX Directory*.)

SERIAL COLLECTION MANAGEMENT: A BIBLIOGRAPHY

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