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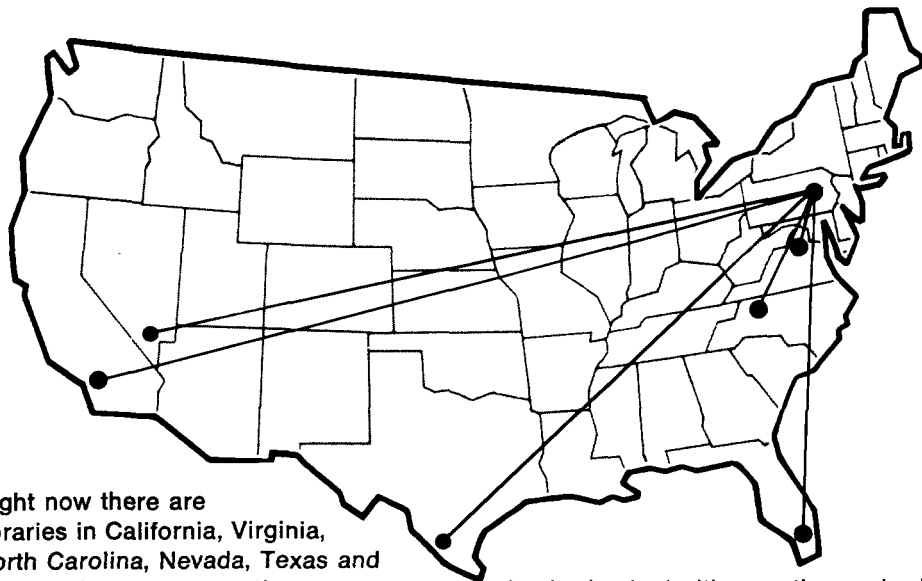
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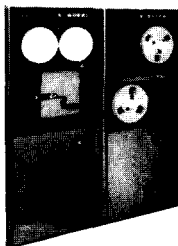
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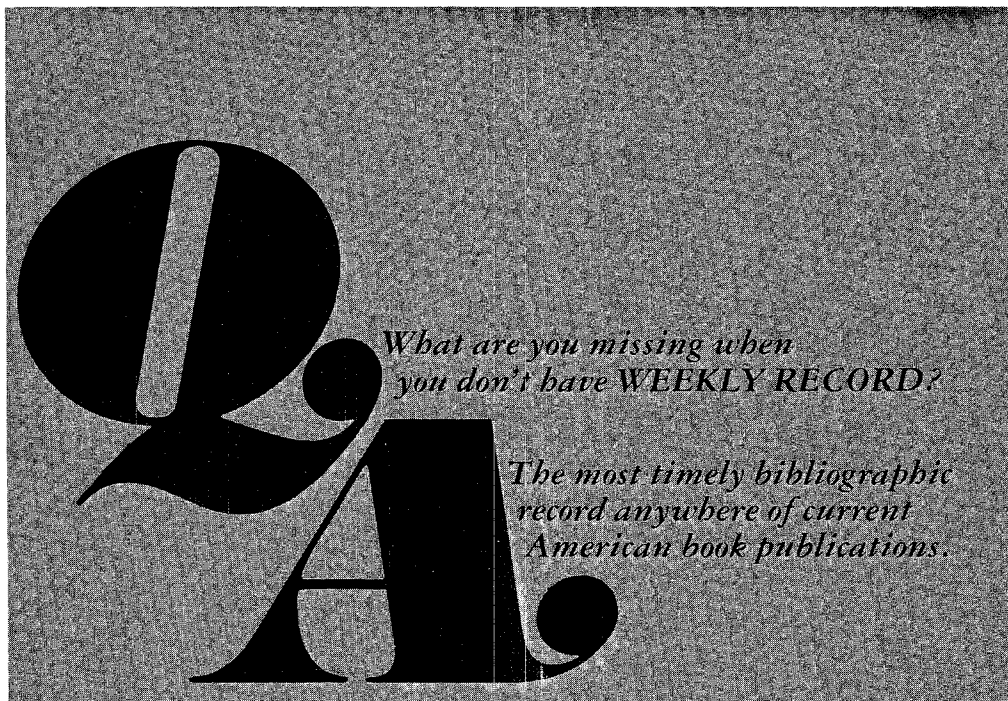
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LETTERS

Australian Maps

I am disappointed at the sparse coverage given to New Zealand map collections in Margaret U. Ross's article *Map collections in India, Australia and New Zealand: An Overview*, in *Special Libraries* 66 (no. 1): 32-36 (Jan 1975). I realise that the writer was limited by time and therefore did not visit all the collections listed in Appendix B.

The two most important collections in New Zealand are not even listed: the map collection of the National Library of New Zealand and that of the National Archives of New Zealand. Both are national collections which reflect the nation's mapping history since its discovery to the present day. The collections are primarily historical and are national collections which complement each other. The writer has also overlooked the Hocken Library, Dunedin with its important collections covering the former provinces of Otago and Southland.

A further large collection of manuscript survey plans and maps are kept in the Dept. of Land & Survey's branch offices throughout the country. This collection contains a vast amount of historical material.

I hope that any map specialists visiting New Zealand in the future will keep these collections in mind.

P. L. Barton
Alexander Turnbull Library
Wellington, New Zealand

The View from Another Angle

I should like to make a few comments about Salvador Waller's article [Libraries, Managers, and People. *Special Libraries* 66 (no. 9):411-415 (Sep 1975)].

When management is written about there always seems to be the assumption or implication (even by Mr. Waller) that functions of management, if recognized, are being performed and, consequently, are being done well. This is scarcely the case. However, Waller's definition of the system of organization is succinct, basic, perhaps classic, and is the reality in most organizations, especially large ones, despite claims of "innovative" or "participative" management.

A real difficulty in writing about library management is in the attempt to make it all encompassing; to fail to recognize administration as a different part of management; to pretend that all managers are administrators and all administrators are managers. This is seldom true.

The differences between managers in libraries and library administrators (managers of libraries) are of a magnitude sufficient to invalidate many of Waller's conclusions. Managers in libraries may display "anxiety" syndromes, but the same actions by library administrators are most likely to be "insolence" or "arrogance" syndromes. "It is so because I say it is so and I am the Director of Library Services" is a panacea commonly offered to subordinates as an explanation whenever the library administration exhibits one or more of Waller's fifteen warning signs. This type of administrative behavior is, I think, inherent in the scheme of the system of organization presented by Waller and any consideration of library management must differentiate between managers in libraries and managers of libraries.

"Anxiety" syndromes can be controlled and tolerated by a considerate and concerned library administration. If the fault is in incompetent or arrogant library administrators, the management profile is poor throughout the organization. And it is seldom due to anxiety, but to administrative insolence habituated in bureaucracy.

Gerald Johns
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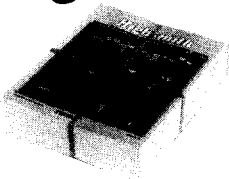


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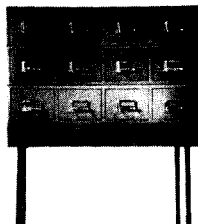


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The Information Professional and the Neighborhood Information Service

Harvey A. Licht

Syracuse University School of Information Studies, Syracuse, N.Y. 13210

■ The neighborhood information service (NIS) is a relatively new social service which could benefit from the experience of the information profession. Several service models of the NIS are described. Possible roles of information specialists in the planning and organization of NIS centers are outlined.

INCREASINGLY, information services are being provided by other than the traditional information outlets. The neighborhood information service (NIS) is a recent example of this trend. A special service aimed at the general public, the NIS has been developed and put to work by the social services profession. Its objective is to assist individuals who need help in their personal problem-solving. Information provision, i.e., responding to inquiries and supplying useful information, is the core activity of the NIS; yet it is by no means the only one. Different service models have included a variety of activities seldom offered by agencies dealing in information exclusively.

Public libraries, in efforts to expand their services into the community, have explored the establishment of centers similar in concept to the NIS. The Neighborhood Information Centers Project

sponsored by the Bureau of Libraries and Learning Resources is a good example of these efforts (1). Most of the discussion in library literature has focused upon the need for public libraries to expand in this direction and upon the types of service they should provide. A more interesting question has been overlooked. No emphasis has been given to the role of the information specialist with those NIS centers not sponsored by public libraries.

The NIS is a hybrid service. To be effective it needs the cooperative efforts of several professions. There is a distinct need for the participation of information specialists. In this article the nature of NIS will be described. In addition, the nature of the information provided by the NIS will be discussed. My aim is to create some understanding of the information profession's potential role in the planning, operation and development of NIS centers.

NIS Models

Various social services exist which can help people solve many of their problems; however, the existence of services is no guarantee that people in need are able to use them. There are several types of barriers which can hinder problem-solving by individuals. In an analysis conducted for the American Rehabilitation Foundation a variety of these are reviewed (2). In general they fall into two categories: information barriers and information-utilization barriers.

Harvey A. Licht was a student at Syracuse University.

People in need of social services also need information. They need to know what services are available and how to go about getting them. This service-related information is not readily available to the general public, and finding it can be quite a complicated task.

In most localities the social service system is composed of a large number of independent agencies. Different services are provided in different places by different people with little knowledge of what goes on outside their own agency or field of practice. There is no one place where people can obtain information about these different services. What information exists is usually scattered among a number of different agencies. An agency which centralizes service-related information and makes it available to the public could increase the accessibility of available services by reducing information barriers. This is the main rationale underlying the NIS.

Information-utilization barriers are somewhat less evident. In some situations an individual knows what is available yet is unable to gain access to these services. Often additional factors prevent utilization of that information. Barr has described several possible utilization barriers (3). Some of them are connected with the individual. For example, an individual may be reluctant to ask for help, or may have difficulty expressing the need. Others are connected with the institutional nature of social services. Given the reality of agencies with limited budgets administered by overworked staffs, there are a number of things which can stand in the way of adequate service delivery. Occasionally individuals are mistakenly denied service to which they are entitled.

Several different NIS models have been developed with the idea of minimizing the information and information-utilization barriers to service access. One of the more familiar models is that of the information and referral (I&R) service. During the last decade the I&R service has become a rather important component of many agencies. In one nationwide study of multi-service neighborhood centers released in 1972, it was reported

that nearly three-quarters of the centers contacted placed a great emphasis on I&R (4). The service has become so widespread that the United Way has released standards for its operation (5).

Long (6) identified 5 activities commonly associated with an I&R service:

- **Resource File**—Centers establish and maintain an indexed file of service-related information.

- **Information Provision**—Centers provide relevant service-related information to inquirers.

- **Referral**—Where necessary center staff actually make contact with a service agency and set up an appointment for an inquirer.

- **Follow-up**—After referrals are made the center staff contacts both inquirer and agency to ensure that the referral was appropriate.

- **Escort**—In situations where it seems appropriate, clients may be escorted by center staff through the intake process at other service agencies.

The first two activities mentioned by Long are aimed directly at overcoming information barriers; the other three are designed to maximize effective utilization of information.

Another NIS model is based upon the British Citizen's Advice Bureau. Kahn described this model in a study done for the Columbia School of Social Work (7). The model is similar to the I&R model, but includes some additional activities which clearly distinguish it:

- **Advice**—In some cases individuals want more than information about what options exist for them. Some people want other opinions about what would be the best choice. In cases like this center staff can provide informed opinions (7, p. 113).

- **Case Advocacy**—This is a two part service for individuals who have wrongfully been denied proper service at other agencies. First, information is provided concerning client rights and appeal procedures. Next, where circumstances warrant it, an escort accompanies a client through reapplication or appeal processes to provide support or act as an advocate on behalf of the client (7, p. 116).

The two models described above are the predominant ones in use today. To a large extent even the newer library based centers derive from them. Yet as models they have some notable shortcomings. Although both have well developed service components aimed at information-utilization barriers, the components aimed at organizing and providing information are poorly defined. The models are based upon rather simple ideas of people's information needs and the services necessary to address them. It is in this area that the information profession can make a contribution.

There is a discrepancy between the information needs recognized in the two basic models and the needs actually met by NIS centers. The model described by Long recognizes the need for providing service-related information. Kahn goes further and includes the need for advocacy information. Some NIS centers, recognizing an even greater need, provide an additional kind of information.

Information Provision Needs of Problem-Solvers

Information provision is the core activity of the NIS. The type of information provided is based upon the agency's conception of the information needs of problem-solvers. The information needs of the general public have been the object of several different studies, and a number of different typologies have been developed (8). These typologies have focused upon the kinds of problems which people perceive, and not upon the type of information needed to solve problems (9). In this section a different kind of typology will be discussed. It is based on the different types of information needed at different stages of problem-solving.

Someone with a problem may need a number of distinct types of information. Not everyone will need the same types. If a problem is a small one, with an obvious or familiar solution, it may take little or no assistance to solve it. As problems become more critical, and as solutions become more unfamiliar, the need for assistance grows. A person's familiarity with the

means of solving a problem determines the type of information that person needs.

For the purposes of this article 3 types of information needed by problem-solvers will be identified. This typology is based upon three basic questions: What can I do to attack my problem? Who can help me? How do I go about securing a specific type of help? These are the types of inquiries commonly asked of an NIS center. Each one reflects a different level of familiarity with the means of solving a problem. The answers to these questions help to distinguish 3 distinct information categories.

Answers to the first question would fall into the category called "action-planning information." This is the most general type of information, and it is the first type needed by someone who is completely unfamiliar with possible solutions. This type of information is provided in different degrees by many NIS centers, but it is not recognized by Kahn or Long.

Answers to the second question comprise the category of "resource-availability information." This type of information is needed by people who know what can be done, but are unfamiliar with the type of help available in doing it. Answers to the final question comprise the category of "access information." This information, which would include directional information and information about application procedures, is needed by people who know what type of help they want, but are unfamiliar with how to gain access to it. Kahn's and Long's conceptions of information are encompassed by these two categories.

The easiest way to visualize the differences between the 3 types of information is to look at the case of an individual who needs them all. The following case is transcribed from an interview with a staff-person at an NIS in Massachusetts (10). It describes a problem handled by that agency:

A Utilities Shut-Off Case

Request—Mrs. N. came into the center and indicated that the utilities company had shut off all power and gas to her apartment that morning. She was quite distraught since it left her unable to heat the house, cook for her

children, or keep food in the refrigerator. She wanted to know what she could do.

The request, as first presented in this case, is for information at the most general level. It is a request for action-planning information. In many cases a request will be for information of a different type. It is a matter for question negotiation to determine if the initial request corresponds to the actual needs of the inquirer. This case was chosen specifically because it avoids this complication. Nevertheless, it should be recognized that the question negotiation process is as relevant here as in a traditional library environment.

Action-Planning Information—After talking with her for a little while to get more specifics on the problem and to reassure her, we suggested a number of possible courses of action. The possibilities fell into four areas of activity: 1) securing immediate adequate shelter, 2) checking the legality of the shut-off under state shut-off regulations, 3) securing assistance in payment of arrears, and 4) preventing reoccurrence of the problem in the future.

At this point the staff has indicated some feasible means of solving the various parts of the problem. The next step is to provide information concerning what sort of assistance is available for the possible activities.

Resource-Availability Information—Mrs. N. indicated that she was presently receiving some assistance from the Welfare Department. We talked with her to find out what assistance she was already receiving. Next we discussed some additional sources of assistance for which she would be eligible. We identified several agencies which could help her with her problem-solving: 1) the Salvation Army could provide emergency shelter, 2) the local Legal Services agency could check on the legality of the shut-off, 3) the Welfare Department makes allowance for a once-a-year payment of arrears, 4) additional financial assistance is available from the local church relief fund, budgeting assistance is available from the local extension agency, and a local food-buying club can help to reduce her living expenses.

Access Information—We provided Mrs. N. with descriptions of the application procedures for most of the services we had talked about. After explaining them so that we were confi-

dent that she had a good idea of how to get them, we emphasized the fact that we could assist her again if she ran into any further difficulty in solving her problem.

Although NIS centers provide a whole range of information, their resource files cover only a part of the information provided. The standards for I&R centers established by the United Way specify only that centers should keep files of service-related information. These files contain only 10 data elements in the record of each service agency: legal name, address and telephone number; services provided; eligibility; application procedures; cost of services; length of time on waiting list, if any; area of service; branch offices, addresses and telephone numbers; intake worker name; administrator name (5, p. 5-6). Many types of access information, including advocacy information, are seldom provided in the files. Action-planning information is almost never included. The lack of adequate back-up for information provision could limit the effectiveness of the centers, placing reliance on the knowledge stores of a few staff members. This is one of the areas in which contributions by information specialists could be useful.

The Role of the Information Professional

Information specialists have a lot to offer social service agencies. They have the unique ability to compile and organize an information base and establish a cost-effective access system tailored to the needs of a particular group of users. In addition, no other profession has the ability to recognize and analyze the precise function of information within an agency's operation, or the ability to train others to be "information-oriented."

Training NIS Staff. Question negotiation is as important for the NIS center as it is at the reference desk. Information specialists could help in the training of center staff-persons in the techniques of question negotiation. Equally as important, information specialists can help staff persons become information-oriented, recognizing the particular needs of the center, as well as its clients.

Documentation. Information specialists can work with members of the social service profession in recording and organizing files which would more readily reflect the information actually provided by the NIS centers. This would broaden the accessibility of the center's information base, reducing the center's dependence upon the knowledge of certain key members of the staff who are "in-the-know." It would also increase each staff member's ability to work with a wide range of problems. Kochen has discussed the ability of NIS staff members to work without documented aids in answering routine requests (11). Expanded files could enhance the staff's ability to provide information effectively for non-routine problems.

File Organization. Quite a few community resource files and directories have been constructed by social service agencies. In many of these only a limited type of access has been provided. Poor organization has limited the useability of these files. Many have limited subject access, such as arrangement by broad categories of service, and only a small percentage have subject indexes. Next to none have access by eligibility criteria. The potential value of an information specialist's skills in this area should be evident.

Setting up resource files can do more than just increase access to a single file. Kochen, in his work for the North Philadelphia Model Cities Information Center, integrated the resource files of 35 different existing agencies (11). Information sharing of this type can increase the cooperation of otherwise independent agencies. An information specialist can enhance the coordination of social services by helping to establish shared information bases.

Interagency Information Networks. Conceptions of the NIS usually carry with them the underlying assumption that a single agency staff will put together the resource files covering the whole social service system. In some places this could be a mammoth undertaking, particularly in large cities. In a library situation such an effort would be split among a number

of different agencies, as in a shared cataloging system. A similar type of effort could be established for the NIS. From a practical point of view, it might be more effective to have different agency staffs construct in-depth files in their areas of specialization. Each specialized file would cover part of the total social service system, with the total file being the cumulation of the different specialized files. The information specialist can make an important contribution by applying models of interlibrary cooperation to the information components of the social service system.

NIS Center Extension. People take their problems to many places, oftentimes the wrong places for their particular problems. The question of how to get people with problems to the proper agency from the point of first contact is an important one facing the social service system. The fact that a number of NIS centers exist will not ensure that people will use them any more than the existence of other services will guarantee their use. New points of contact with the system need to be established.

There are quite a few people in a position to help others who cannot do so as a direct result of limited information. The police are a good case in point. Although a large percentage of police work involves non-criminal matters, such as family disputes, few police forces have the information needed to channel problems encountered into the social service system. This is certainly the sort of information barrier which could be reduced by extended information services.

The aim of extending services is to expand the number of people who can provide basic helping information to those in need of it. People involved in such work would become de facto NIS center outposts. They would direct people to local NIS centers, or in some cases make direct referrals to some other agencies.

To make the outpost system work, participants would need a particular kind of support. Specialized directories could be constructed from sections of the NIS files for use by those who routinely encounter certain kinds of problems, such as doc-

tors, clergy, police, or even bartenders. Training in the use of these directories could also be provided. Needless to say, both the construction of directories and the instruction in their use could best be done by information specialists.

Conclusion

The NIS has developed into a well defined service which is of growing importance to the general public. It has, however, several shortcomings which limit its effectiveness. The information profession is uniquely suited to helping NIS centers overcome these problems.

Involvement with NIS centers should emphasize that information provision is not the only activity of importance in putting knowledge to work. Services such as the NIS, where different professions can cooperate, can be the training grounds for the interdisciplinary partnerships of the future. It will be these partnerships which will provide us our greatest opportunities.

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Contracting in Library Networks

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■ A network of 49 public, academic, and special libraries supplies a variety of services through contractual arrangements within its own membership and outside of it. These services are described.

The network is a regional facet of New York State's 3Rs (Reference and Research Resources) program. Funding comes from state aid, membership fees, and service fees.

CONTRACTS are a convenient and formalized means of providing more and better library services to the users of any one library in a network of libraries. They are a vehicle for spelling out reciprocal obligations in a resource and labor sharing situation such as a network; they lend a legally binding framework to the details of an agreement. The Rochester Regional Research Library Council has no library of its own: the only library materials it owns are some 110 16mm film titles. Through contracts, the council, which is a network of 49 public, academic, and special libraries, makes arrangements for resources to be made more widely available within the Rochester, N.Y., metropolitan area—a 3,000 square mile region covering five counties. The contracts fall into three groupings: those within the council's membership, those with contractors outside the network's membership, and those in which the council itself acts as a contractor. I will describe each contract briefly then explain how each benefits special libraries.

Membership Services

Services offered through contracts within the membership vary. They include the following.

Delivery. This service requires three separate contracts with three public library systems. Under the terms of the contract with the largest of the three, the Monroe County Library System, we furnish a delivery vehicle, pay the wages of a driver, share the cost of a back-up driver with the library system, cover employee fringe benefits, uniforms, fuel, oil, insurance, maintenance and repair on the vehicle and 10% overhead, at an annual cost of \$18,000.

In the other two counties, the public library systems provide the vehicle and the driver and charge us on a per-stop per-week basis. Present charges are \$6.00 per-stop for service three days a week in one county, and four days in the other. Delivery costs are shared by the members receiving the service. The academic libraries pay 55% of the annual per-stop cost, corporate libraries pay 100%. The total cost for delivery in fiscal 1974-75 was \$20,447. Income from delivery fees for the period was \$6,101, leaving a net cost of \$14,346 to be absorbed by the council's budget.

Interlibrary Loan. This service is provided by reimbursal to the two largest library systems: the Monroe County Library System and the University of

Rochester Libraries. Our agreement with the public library system is to pay for the labor involved in processing requests from academic and special libraries at the present rate of \$1.30 per transaction. Photocopying charges are paid by the recipient library. Our payments to the public library were \$6,932 for 1974-75. The University of Rochester is reimbursed for service to area libraries under the terms of a contract between itself and the State Education Department. Rates are \$1.00 per title searched and \$3.00 per title supplied; payments include an annual participation grant of \$3,300. That cost was \$60,857 for 1974-75.

Media Center and Film Collection. A contract between the council and one of its member institutions, the State University College at Brockport, furnishes a film locator service as a first step in providing regional media services. It makes available a collection of 16mm films, a full time audiovisual technician who books films, compiles filmographies, locates information on hard-to-find films, and orders films for preview and purchase. Furnishings, equipment, and films are purchased and owned by the council; the service is based at the college's media center because it is the largest and the best equipped and staffed media center in the area. Payments to the college cover the technician's salary and fringe benefits, and operating expenses for the office. The amount budgeted for 1974-75 was \$24,235. Expenditures were \$22,144. To offset the cost, a \$5.00 fee is charged per title booked, yielding an income of \$1,910.

Nonmember Services

Services contracted for outside the council's membership are different from member services. They include the following four.

OCLC. In New York State OCLC is available through two prime contractors: the five Associated University Libraries and the State University of New York. The Council has a sub-contract with SUNY for a terminal and on-line cataloging with off-line production of catalog cards. Hit charges are passed on at the

OCLC rate, as is the purchase price of the terminal. Advisory services and training are provided by SUNY at the rate of \$25 per terminal per month. The council is responsible for communication costs, telephone equipment and start up costs. The contract documents include a terminal service agreement between OCLC and the council. Costs for the first year 1974-75 were budgeted at \$15,000.

Union List of Serials. The council has published the third edition of our union list of serials. All three projects were carried out in the same way, through a contract between the council and the SUNY Central Computer services, for the production of a camera-ready copy showing the region's holdings in union list form. The contract enumerates the libraries whose holdings are listed, requires SUNY to provide procedural instruction and checklists to all participating libraries. It defines the scope and format, and style of entry, output standards, deadline dates for the council to provide input from all libraries, and for SUNY to deliver camera-ready copy. The cost contracted for in 1974-75 was \$6,600 for listing the holdings of 40 libraries, approximately 31,000 titles.

Teletype Service. This service provides for the installation and operation of six teletype machines with dataphone sets in academic libraries. A contract with the RCA Service Company (Camden, N.J.) includes leased equipment, specifications, installation, and maintenance agreements. A contract with the Rochester Telephone Company covers the equipment for the Data Access Arrangement required to make the apparatus compatible with the equipment used in the New York State interlibrary loan network. The participating libraries pay for their paper and tape supplies and toll calls. The cost of this service was \$5,245 for 1974-75.

Fast Patent Copying Service. Through a contract between the Rochester Regional Research Library Council and the Western New York 3Rs Council in Buffalo, N.Y., a copying service is provided. The Western Council acts as a supplier of copies of U.S. patents on deposit at the Buffalo & Erie County Public Li-

brary. It receives orders by patent number on coupons sold by the Rochester Council to customers in the Rochester area. Western Council staff photocopy the patent and mail the copy to the customer. The Rochester Council charges \$1.50 per coupon which entitles the customer to a copy of one patent up to 50 pages long. \$1.25 of that amount is paid to the Western Council for labor, copying and postage costs. The \$0.25 is used by the Rochester Council to print a brochure and the multi-part coupon order form, and for advertising. This program is self-supporting through the sale of some 4,000 coupons each year, yielding an income of \$6,000.

Rochester Council Contracts

Services for which the council acts as a contractor are limited.

State Aid. The council has a contract, renewed annually, with the State Education Department to implement the program for improvement of reference and research library service in the five county area. In consideration for such services the state agreed to pay the sum of \$92,000 in 1974-75, by far the largest portion of our income. This contract is obviously the crucial one of the lot.

Literature Search Service. The first step in providing technical and business information services to those organizations and individuals who need them is the literature search service. Lacking the funds to set up a staffed service, we initiated the project by coordinating a group of unemployed librarians with experience as literature searchers. These persons perform literature searches on a free-lance basis. In this case the contract is the written instrument used to confirm the terms of the assignment between the customer and the searcher. No search activities are initiated until the search request agreement has been signed by the customer, specifying the topic, search terms, estimated cost, and confidentiality requirements, if any. The searcher's fee is \$15 an hour, of which \$1.50 is a use fee paid to the library the searcher has used to do the work. The council provides the brochure advertising the service.

Contracts and Special Libraries

All of the contracts benefit special libraries, though, because of the variety of types of libraries in this network, it is not always possible to isolate special library benefits to the exclusion of the others.

Delivery is provided on a daily basis to the Research Libraries of Eastman Kodak and Xerox, expediting all interlibrary communications. During the calendar year 1974, 40 special libraries initiated 21,553 requests for interlibrary loans and photocopies; 85% of those requests were filled. These items came not only from Rochester area libraries but also from the nine major research libraries in New York State which also have contracts with the State Education Department to supply research level materials to the entire state. The Rochester regional interlibrary loan network is linked to the statewide network.

Special libraries make minimal use of the films and the American Chemical Society's Chemical Abstracts slide-tape program. During the center's first year, 1974, 4 films were booked for 4 special libraries from a film collection of only some 70 titles. As the film collection grows and becomes more diversified, it is expected to be more useful to more libraries.

The union list of serials is by far the most useful publication to the special libraries. This was proven when trying to raise enough money to produce the first edition in 1969. The council did not have quite enough, therefore, through company librarians, that modest extra amount was sought from industry which would make the project possible. They came through with \$5,800 from 6 companies.

Only one special library participates in the teletype network; this participation is funded by the library itself. The benefit to that library is the capability of rapid communication with the public and academic libraries similarly equipped through council funding. So, in an indirect way, this special library is benefited.

The fast patent copying service is used primarily by the corporate special libraries and their parent firms. Its greatest appeal is speed: copies of U.S. patents are

supplied in two or three days, versus the two to three week delays on orders placed with the U.S. Patent Office. When time is of the essence, and the information needed is in an issued U.S. patent, the response is quick.

State aid is by far the ingredient most helpful to special libraries, since it makes the council's existence possible. It also funds the other services such as continuing education seminars and workshops, the translation service, and the gifts and exchange program. During 1974-75 our total income was \$124,780, \$92,000 of which was state aid. The rest was from membership and service fees, and one scant federal grant of \$4,000.

The literature search service benefits special libraries and their users, as well as would-be users of special libraries, if they had one they could use. Many organizations have frozen positions, many small organizations have no library service at all, yet persons associated with them have information needs which can be satisfied by an on-demand information service. Thus

do we help by providing literature searchers on demand, to be paid only when needed, a sort of rent-a-librarian service.

After seven years of operation and sixteen contracts, the council has found contracting effective. The procedure is simple: the first draft of a contract should be drawn up by the library services expert, who has the knowledge required to write the specifications for the service; then schedule a conference with legal counsel to brief him so that he understands the details of the agreement. The attorney then completes the instrument to insure maximum protection for the library organization and to make the document legally binding.

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Acquisitions in the Field of Art in the Library of Congress

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■ Acquisitions activities are discussed as these pertain to the field of art in the Library of Congress. The goals of the Library, the methods of acquisition, and the funding of the program are described.

THE Library of Congress is an active participant in the field of visual arts. It not only collects monographs and periodicals but also fine prints and historical prints, master photographs and documentary photographs, architectural drawings and original cartoons, posters, music covers, advertisements, ephemera of great diversity.

In the field of books and serials, the Library of Congress is building a comprehensive collection encompassing the most significant contributions of the world. The holdings of art books are not equal in depth for each continent. The old centers of European art scholarship still contribute a larger share of research materials than other areas of the world. The collections emphasize a thorough coverage of American art in order to complement the visual collections of the Prints and Photographs Division and to interpret the American experience from the earliest settlements to the present day. Publications on the graphic arts, architecture, and photography are collected in depth because the library owns collections of significant original work in these areas.

Nonbook Collections

A 1909 bequest by Mrs. Gertrude Hubbard allows the Library of Congress to add older fine prints to the collections in the Prints and Photographs Division. The Pennell Fund of 1936 is used for the purchase of prints created in the last 100 years by artists of all nationalities. At present, contemporary prints are selected from the *National Exhibition of Prints*, a biennial started in 1941 by the Library of Congress. Other prints are chosen by the Pennell Committee from works recommended by the staff, noticed in exhibitions and galleries by the committee members, or submitted by artists or dealers.

Historical prints were first deposited at the Library of Congress in 1846 when a new law entitled the library to one copy of all U.S. copyrighted materials. The prints received—while not numerous, for the law had no enforcement provision—document historic events, popular pastimes, city views long since vanished, early transportation, and western expansion. The 1870 copyright law required that two copies of each item for which copyright was sought be deposited in the Library of Congress. This caused the historical print collection to expand rapidly. Historic prints, with an emphasis on American themes, are continuously added to the collections. These are discovered in sales catalogs, offered as gifts by private citizens, or acquired on exchange with institutions and dealers.

The photographic acquisitions in the library fall into two major categories:

master photographs and documentary photographs. The emphasis in the master photographs is on the artistic merit of the image. The documentary photographs are acquired to record and capture a specific time and place. A third function of the photographic collections is to show the development of photography from its beginnings to the present. The library has particularly comprehensive collections covering the Civil War, the early years of newspaper photography, the Washington political and social scene between the two World Wars, and the depression years. With the addition of the *Look* collection of photographs, there exists now a picture magazine file which covers notable personages and events in the past 40 years. The Prints and Photographs Division is interested in documenting in photographs, whenever possible, the same significant events which the other divisions of the library cover in manuscripts, periodicals, recordings, maps and charts, as well as books.

The Historic American Buildings Survey (HABS) is a significant government project in the field of art history. It is growing continuously on the basis of a tripartite agreement among the American Institute of Architects, the National Park Service, and the Library of Congress. This unique collection includes photographs, architectural measured drawings, and data pages; the research materials are produced by the National Park Service, but the collection is housed and preserved in the Library of Congress. It has recorded, in the past 40 years, over 20,000 individual structures. The recently established Historic American Engineering Record is an outgrowth of the earlier successful venture. The objective of the library in preserving this architectural documentation is to provide accurate information to architects in restoration work, to advise laymen in their preservation efforts, and to foster general awareness in the field of historical study and restoration of significant buildings. In addition to the HABS, the division has in its custody original drawings by notable architects, and other items of primary documentary significance in this field.

Figure 1. This Russian Chapel in Fort Ross, Sonoma County, California, was built between 1812-14 and is now owned by the State of California. The photograph is among the records of the Historic American Buildings Survey, Library of Congress.



The library's collections also contain original cartoons. The earliest cartoons in the collections describe the rising conflict between England and its American colonies in the prerevolutionary period. After the Revolution cartoons portray presidential contests and national struggles between competing political parties.

In addition to political cartoons and caricatures, the library is also building a collection of social cartoons to interpret the fads and foibles of the 20th century. A large collection of *New Yorker* magazine covers and cartoons allows readers to follow social trends. Many of these original cartoons have reached the library as gifts from the cartoonists. The Library of Congress is interested in adding significant American editorial or social cartoonists' work to its collections. Picture searchers know that a cartoon frequently succeeds in pinpointing a complicated historical event which would take several pages to explain in words.

Posters serve visual documentation in a fashion similar to cartoons and caricatures. The poster collection in the Prints and Photographs Division is international in scope, consisting of over 60,000 items. It is expanding rapidly through interna-

tional exchanges with similar collections in other countries, through gifts and government transfers, and by purchase of significant rarities.

Posters have been recognized as valuable historical documents because they reflect the ideology and social preoccupations of a nation. Posters are popular as full-page book illustrations in modern publications using color plates because they are revealing social documents.

Music covers, pictorial advertisements, stone rubbings, and product labels are additional sources for visual material. These have been copyrighted since the 19th century, and have been preserved and classified in the Prints and Photographs Division.

Thus, the library increases its art holdings through copyright deposits, exchange agreements, gifts, and purchases. By approaching new acquisitions from many different points of access, recommending librarians attempt to keep informed about new publications from around the world.

Copyright Acquisitions

American trade publications in the field of art generally reach the library through copyright deposit. Books and periodicals are registered for copyright and chosen for the Library of Congress by a book selection specialist.

The Prints and Photographs Division of the Library of Congress receives from the Copyright Office a few artists' copyright entries. The majority of items listed in *Works of Art, Reproductions of Works of Art, Scientific and Technical Drawings, Photographic Works, Prints and Pictorial Illustrations* remain in the custody of the Copyright Office. These collections include reproductions of syndicated comic strips, designs for jewelry, greeting cards and commemorative plates, textile patterns, and architectural renderings. Copyright entries of 1976 can be used by future social historians to study popular culture and applied arts of the period. A representative selection of typical patterns and designs will be preserved to document the life of our times. In many cases foreign publishers register art

publications for U.S. copyright when they desire commercial protection in this country.

Although the Copyright Office registers a major part of U.S. publications, recommending officers still must be alert for U.S. publications from limited edition publishers or from learned societies in order to obtain art annuals, guides, and art sales catalogs which may never reach the Copyright Office.

Art exhibition catalogs, important tools for art research, are an example of material that is not always registered for copyright. To fill this gap, efforts are made by the Processing Department's Cataloging in Publication (CIP) Office to enroll 80 of the largest United States museums in the CIP program. When CIP information appears in future exhibition catalogs, these entries will reach a wide audience of proofsheets and MARC tape subscribers. This will enable libraries to track down formerly hard-to-collect catalogs. The Library of Congress receives gift copies of publications carrying CIP information for its collections, by agreement with participating publishers.

Domestic and Foreign Exchange

Domestic exchange of art monographs is not an important acquisitions source since most American publications are received by copyright. There exist, however, many exchange agreements between the Library of Congress and other institutions or dealers interested in historical prints, posters, photographs, and fine prints. The library continuously weeds its duplicates setting aside possible exchange materials for partners interested in specific materials or subject fields. Exchange partners visit the library, study the materials, and choose items suitable for their collections. When the library has chosen items of identical value from the dealers, the exchange takes place.

The international exchange of art publications is an important acquisitions tool. National museums, large universities, and learned societies maintain continuous exchange relationships with

the library. Sources range from the Royal Swedish Academy Library to the Tokyo Institute of Art Research. A continuous flow of exchange lists passes between the Library of Congress and its far-flung exchange partners. The international exchange of posters is another active program in the Library of Congress.

Gifts

Currently the Library of Congress receives relatively few expensive art publications as gifts. During more prosperous times the library received many art periodicals as gifts from publishers. With the increase in publishing costs and steeply rising mailing charges, the library has been forced to subscribe to most of the periodicals it used to receive free of charge.

The library accepts gifts which complement its present collections and fill gaps in the pictorial documentation of American life. The vast collections of portraits and views of the American scene and life in America are augmented yearly by gifts from private citizens, historians, and collectors. Such diverse media as stereographic views, woodcuts, and advertising art all contribute some added feature to the already rich Americana files. Gifts from cartoonists, printmakers, and photographers, to preserve their work and to increase the holdings of the library, are always welcomed, although the provisions of the 1969 tax law revisions have made such giving less attractive for the creator than it was once.

In 1974 Milton Kaplan established a gift fund for the purchase of historical prints relating to the United States and its development. This newest gift fund complements the Hubbard and Pennell funds used for print purchases.

Overseas Acquisitions by Purchase

Overseas art publications are purchased through blanket order dealers in over 100 countries, through subscriptions and standing orders, and as part of the National Program for Acquisitions and Cataloging [NPAC], established under Title II of the Higher Education Act of 1965, and the Public Law 480 program.

Blanket order dealers follow detailed instructions from the Library of Congress to guide them in their book selections. If a publication exceeds the established price limit, the dealer sends a prospectus for the book to the library and the decision for purchase is made by a specialist in the field.

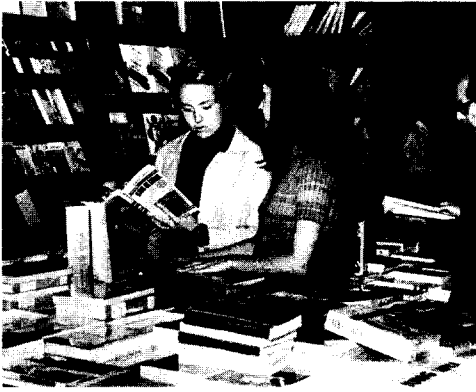
Subscriptions to scholarly periodical publications and standing orders for reference books and monographic series of worldwide surveys absorb an even greater percentage of available funds every year. Scholarly serials in the art field continue to proliferate. New ones are born while old ones are forced to cease publication. A recent Library of Congress order list included 45 Italian art serial titles and three times as many West German titles.

In art research as well as in other scholarly fields new trends and discoveries are first discussed in periodicals. Usually a cluster of articles prompted by some significant event*, such as the exhibition of archaeological finds of the People's Republic of China, is published during a peak period of interest. It is at this point that results of newly generated research work has to be recognized and acquired. Several years pass before scholarly research reaches the book stage and moves from the specialized art publications to the popular book market.

Although it does not provide subscriptions to serials, the shared cataloging aspect of the National Program for Acquisitions and Cataloging, which in 1976 encompasses 33 countries with national

*Chung-hua jen min kung ho kuo ch'u t'u wen wu chan lan kung tso wei ylan hui. The exhibition of archaeological finds of the People's Republic of China: [exhibition dates in the United States, National Gallery of Art, Washington, Dec 13, 1974-Mar 30, 1975, the Nelson Gallery-Atkins Museum, Kansas City, Mo., Apr 20-Jun 8, 1975] / text provided by the Organization Committee of the Exhibition of Archaeological Finds of the People's Republic of China.—[Washington: National Gallery of Art, 1974] 2 v.: ill. Vol. 2 has added t.p.: The Chinese exhibition: an illustrated handlist of the exhibition of archaeological finds of the People's Republic of China.

Figure 2. Library of Congress' Rio de Janeiro staffers purchasing new Brazilian books from one of the many bookstores located in downtown Rio de Janeiro. (Library of Congress, Information Office.)



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bibliographies and an organized book trade, has helped the Library of Congress and other large research libraries search out and purchase monographs of research significance. It has speeded the cataloging of foreign monographs and the distribution of catalog cards to research libraries. These libraries continuously report foreign book acquisitions for which no printed cards are available from the Library of Congress. The Library of Congress may then purchase the books and distribute the needed catalog cards.

The major European countries publish the bulk of literature in the arts. But even the smaller countries and lesser known languages provide us with publications documenting their own archeological excavations, their ancient and medieval architecture, manuscript illumination, icons, and national forms of applied arts. Some publications considered of marginal interest as recently as 30 years ago have kindled new research based on the interrelationship of cultures.

Our historic interests have widened and at the same time we are reaching further into the past as a foundation for present work. This has caused an avalanche of scholarly reprints to burst on the art book market to fill the gaps in the holdings of many libraries.

Newly founded art libraries around the world, and old European libraries destroyed during World War II, need publications from the 300-year period of 1500-1800 which cannot be procured except by the purchase of reprints. If reprints are published by conscientious firms, they include new prefaces which tie traditional material to new research. This additional information makes them more valuable research tools for the modern art historian.

The acquisition of art publications from individual countries depends to a large extent on the accuracy of entries in national bibliographies. Among these are publications of international congresses which may meet in different countries, commercial sales catalogs, annuals of museums, non-trade publications of small art societies, and doctoral dissertations. Sometimes new and enlarged editions of basic reference works remain unlisted because publishers do not realize that national bibliographies are primary acquisitions tools for librarians. Sometimes, also, bibliographies are so slow in being printed that the information reaches librarians when the book is no longer on the market.

The Library of Congress publishes accessions lists† for certain countries covered by NPAC or by the PL 480 program. This latter program, which was first funded in 1961, is authorized to buy publications abroad with United States-owned foreign currencies for the Library of Congress as well as other libraries in the United States. Although these countries, compared to those in Europe, do not publish great quantities of art books, each accessions list includes publications in the field of archeology, sculpture, painting, or applied arts. Nonbook materials are also received through the PL 480 program. These acquisitions consist of theater, film, and travel posters, picture folders of local arts and crafts, and postcards of famous tourist attractions.

†Brazil, East Africa, India, Indonesia/Malaysia/Singapore/Brunei, Sri Lanka, Middle East, Nepal, and Pakistan.

Retrospective Acquisitions

Up to this point we have discussed primarily current art acquisitions. An important duty of any acquisitions specialist, however, is to be sufficiently knowledgeable about the holdings in his own field that he knows the weaknesses of his collections as well as its strengths. This forces him to study the need for retrospective acquisitions.

The art book holdings of the Library of Congress consist of about 230,000 titles. It would not seem easy to discover gaps in this vast collection. Missing titles are, however, discovered daily through reader requests, bibliographic searches triggered by reference letters, advertisements sent in by publishers or sales catalogs of out-of-print dealers and auction houses.

When retrospective art books are needed, special funds reserved for this purpose are used. Since these funds are never sufficiently large, priorities have to be clearly stated and purchases justified by proving the scholarly importance of the needed titles. Sometimes gaps can only be filled by microforms.

Foreign doctoral dissertations in art history, whether current or retrospective, are collected by the Center for Research Libraries. The Library of Congress adds these to its collections only if they are sold as trade publications. Because American art dissertations can be found through *Dissertation Abstracts*, these are not acquired as separate publications, but are included in a large microfilm series.

Numerous catalogs from American and foreign auction houses are circulated to recommending officers. The Library of Congress occasionally bids on pictorial material. The library has also bought old and recent artist's prints and posters at auction. These purchases are not a common mode of acquisition because it is seldom practical to inspect the items before purchase.

Sources of Funds for Acquisitions

Funds for books for the general collections are obtained by direct legislative appropriations to the Library of Congress. These funds are used for publications

Figure 3. Books from Pakistan leave the American Libraries Book Procurement Center in Karachi. (Library of Congress, Information Office.)



needed for reference collections and for multiple copies of frequently consulted directories, biographic indexes, and annuals. Although encyclopedias and art periodicals are registered for copyright, two available sets do not suffice to fill the needs of readers and the reference staff.

Funds for the National Program for Acquisitions and Cataloging have been appropriated directly to the Library of Congress since fiscal 1971. These funds were initially authorized by Title II-C of the Higher Education Act of 1965 to aid the Library of Congress in fulfilling its crucial role to the American research library community as the central agency for the acquisition and cataloging of foreign scholarly books.

The Public Law 480 funds exist as foreign currency credits and through congressional action are made available in specific amounts for the collection and distribution of library materials from countries where the special foreign currency program is in effect.

The Library of Congress does not have any gift funds specifically designed for the purchase of art publications. The Hubbard, Pennell, and Kaplan funds are intended for print purchases but may be used for books chiefly important for their illustration with original prints.

The future of acquisitions in the field of art will be determined by appropriated funds, by world publication trends, by the aggressiveness of the library's worldwide efforts at locating publications, by the level of gifts, and by the interest and dedication of the recommending staff.

Materials too expensive or too specialized to fit into the Library of Congress' acquisitions program are brought to the attention of the National Gallery of Art or the Freer Gallery. Certain very costly research materials in American art will be acquired by the National Collection of Fine Arts/National Portrait Gallery Library, or by the Library of Congress, but not by both.

The National Gallery of Art has particularly rich art collections dealing with the Italian Renaissance and French

Impressionism. The Freer Gallery, on the other hand, concentrates on Oriental art. It is thus appropriate for the Freer to acquire rare or costly publications in the field of Oriental art if the Library of Congress cannot afford them or finds them specialized in appeal. By informal networking and regular exchange of information among these government libraries the available acquisitions funds can be used to the greatest advantage for all users of art research materials.

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Continuing Education as a necessity to maintain one's professional qualifications has become a topic of increasing importance to librarians. Many professions have long recognized the importance of continuing education to their fields. Myriads of courses are available to the practicing librarian. NCLIS has sponsored a study which has resulted in a proposal called CLENE—Continuing Library Education Network and Exchange.

The question is: "What can librarians do to emphasize the importance of continuing education and to help make more opportunities for such education available to professionals everywhere?"

The two articles presented here propose models for continuing education for special librarians. They are published simply as "food for thought." It is hoped that they will at least engender some discussion on this timely and important topic.

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A Model for Continuing Education for Special Librarians

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■ The need for continuing education for special librarians, in particular, and the opportunities currently existing for the implementation of individual study for continuing education are discussed. Based on the needs that exist and the scarcity of

programs in this area, a model for continuing education for the Special Libraries Association through which its members can arrange an educational program to suit their particular needs is proposed.

CONTINUING EDUCATION, it is generally agreed, implies any effort, structured or unstructured, on the part of an individual to upgrade his knowledge and capabilities in his field of work or study. Implicit also is that to continue education means to build upon a previously established base of learning, without a view toward termination.

It is not the intent here to argue definition, but for purposes of the model to be

proposed, the author will accept what is called an andragogical method of education: namely, helping adults to learn—not in a content-oriented program of study, but rather, in a process-oriented program, which would provide "procedures and resources for helping learners acquire information, understanding, skills, attitudes, and values" (1). Flexibility and individuality must be the keys to any viable continuing education model, and minimizing the importance of content for process is a beginning approach.

It is imperative to realize that this model will not plan curricula for the

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general or particular study of special librarians; but instead, in acceptance of the andragogical method, will allow each individual to select a series of educational events for his unique needs, as he determines them.

To ask why continuing education is important to the special librarian in particular may open the lengthy and sometimes tiresome discussion of what should be added to or deleted from the basic library school curriculum. Special librarians, however, need to continue their education for several critical reasons:

1) Very often a librarian becomes a special librarian without being "prepared," in the academic sense. Continuing education would serve as a deficiency filler, in this case supplementing the library school curriculum with studies particularly relevant to the librarian's work.

2) Those librarians who know in advance that they will be special librarians still may not have had certain courses which would be of unquestionable use to them; indeed, the courses themselves may not even be offered in library schools. The consensus among those who have surveyed education for special librarianship is that personnel management, administration, automation of library procedures, and systems analysis are the subject most uniformly needed; but few special librarians realize it until they are actually on the job (2, 3).

3) It is the nature of the fields which special librarians serve to change. As fields advance, so too, must our knowledge of them (4, p. 26). Librarians must see to it that they are not merely keepers of collections, but disseminators of information (5, p. 731)—*current* information.

Whose Responsibility Is It?

It has been proposed that, since continuing education is a national concern among librarians, the responsibility for it must rest with a national organization, such as the American Library Association or the American Association of Library Schools (6). To this effect, the National Commission for Library and Information

Science has sponsored the Continuing Library Education Network and Exchange, or CLENE. CLENE's study group has derived a model to function within a national program of continuing education (7). In addition, the AALS has prepared a position paper on continuing education (reprinted in *Special Libraries*, December 1973).

Nevertheless, it is ultimately the librarian himself who will determine the course of continuing education in his life, and that he alone must assume the responsibility for seeking it. He does, however, need guidance and support, and in this aspect, others must contribute. The author accepts the notion, therefore, that continuing education is a responsibility *shared*—by the individual librarian; by the organization for which he works; by the library schools; and by the professional library organizations, both national and regional (8).

When World War II forced a reduction in materials and manpower available to public and private organizations, methods were derived to utilize to the fullest extent possible their existing personnel and resources, and to project the long-range needs of the organization. This was the beginning of what became known as organization development, or OD (9). As OD evolved, there was a reciprocal emphasis upon the individual, whose skills would be improved through training, and upon the organization, whose purposes would be furthered by those improved skills.

From OD, one can extract the principle that it is to the benefit of the individual to engage in continuing education for his own personal and professional reasons; and it is to the benefit of the organization to sponsor and support him. The organization, then, must provide an environment conducive to learning, and must allow its personnel to apply what has been learned to their jobs. It might even become the focus of programs to develop human resources. Naturally, a special librarian should be given the same encouragement to pursue his education as any other professional within the organization (10).

The library schools and professional associations must investigate the needs of

member librarians and see to it that they can be met, through formal or informal work. One of Elizabeth Stone's numerous studies has shown that nothing will make a librarian participate in a program of continuing education, unless he feels that the content will be useful to him (11). Availability of relevant programs and educational resources, then, should be the concerns of library schools and of professional organizations.

Finally, however, one returns to the individual, who must motivate himself. Favorable environment and stimulating programs notwithstanding, the librarian *must* accept that portion of responsibility for continuing education which deals with himself. Without motivation for study and goals for achievement, an individual will derive little benefit from any program, and in turn will offer nothing new or advanced to his work.

Current Availability of Continuing Education

It can be generalized that educational opportunities are readily available to the persistent librarian, at every stratum of his professional contact.

- Most employers may not have a large enough staff of librarians to warrant periodic in-house seminars of only library interest; but they do offer training programs or topical conferences which explain the functions or the progress of the organization, and which most personnel are encouraged to attend. Opportunities of this nature are invaluable to the librarian, not only for his personal edification but especially for the improvement in service he will ultimately provide.

- Many schools of library science offer advanced degree programs for librarianship. Other schools have programs designed specifically for their graduate librarians, and tailor the duration and scheduling of the classes to meet alumni specifications. The short seminar, week-long institutes, and regularly scheduled conferences are the offers of still other library schools. Often the proceedings and papers that result are published.

The lamentable feature of post-graduate education, however, is that while

some schools offer splendid programs, even more schools offer nothing at all. The implication is that the need for continuing education has been acknowledged only partially.

- Every library association sponsors at least one yearly conference, with regional or divisional meetings held more frequently. The special conferences, lectures, or workshops planned in addition are always reported through the association's periodicals. Furthermore, all have an education committee, whose activities are reported to a varying degree, depending upon the strength of the group. The American Library Association, for example, incorporates a Library Education Division (LED) that has on occasion met with other ALA divisions to attempt to solve mutual problems; it has also exchanged representatives with the education committee of the AALS. However, the LED newsletter is so inaccessible to the nonmember that it is virtually impossible to ascertain what recommendations for continuing education, if any, have been made to the ALA.

The Special Libraries Association has avoided the ALA accessibility problem by providing a standing committee on education, and an identically structured education committee for every Chapter. Thus, the potential exists for a well-organized program of continuing education, directed nationally and administered locally.

- The individual librarian has as his most immediate recourse the journals of his professional membership, and the journals in his particular fields of interest, that would contribute to a self-styled design of unstructured learning. He can read, not just to discover what might be available to him in formal work, but also to gain information from articles and reports. A popular concept that coincides aptly with the reading approach is the "backyard" or "invisible" college, in which colleagues meet to share their views with each other. An individual may become knowledgeable about anything through his private readings, but occasionally one needs to have his opinions reinforced or challenged by stimulating discussion with equally well-informed

people. The invisible college provides the ideal medium for the informal, yet meaningful, exchange of information.

A foil to the approach of self-education through the literature, however, is the impossibility of reading everything which might be of potential interest. Moreover, the literature is not always consistent with itself, and may renege, intentionally or inadvertently, on the information it promises.

This brief survey of the present-day resources in continuing education pointedly illustrates a paradox: while a great many educational opportunities exist across the country, very little is actually accessible to the potential consumer, either because he is unable to determine what is going on that would be of use to him; or because, once determined, he is restricted by location, time, money, or all three. There is, of course, nothing to prevent a librarian from pursuing his interests exclusively through his readings; but there are circumstances in everyone's professional career when group interaction, even for a short duration of time, becomes refreshing, stimulating, and thus, necessary. For such times, which will occur at different intervals for each individual, a centrally coordinated continuing education information depository ought to be available, so that everyone may review the alternatives and plan for himself.

The Proposal

The term "model" has perhaps been used inaccurately in this discussion, for we offer no paradigms for continuing education. Rather, a structure is proposed, within which any individual's self-directed attempts at continuing education will work. A definitive, mandatory model is not offered for two reasons: first, because people's learning desires and comprehension rates rarely, if ever, coincide; and second, because it is impossible to assign a value to the type of continuing education one undertakes. What information one librarian might learn in a semester-long course might be learned as extensively by another in a two-week seminar.

Essentially, it matters little what *kind* of continuing education a special librarian

elects to undertake; the important thing is that he do *something*, and with consistent regularity. For this reason, it is suggested that a file, recording the educational activities of each member, be maintained by every SLA Chapter Education Committee. It must be emphasized that the file is not an evaluation of the course(s) of study that the librarian chooses; rather, it is a record of what things he is doing to advance his knowledge in his profession.

This proposal is for the unique consumption of the Special Libraries Association, because the SLA structure inherently accommodates the proposal, and because it is concomitantly tailored to the structure.

SLA's Education Committee has as one major mission, to "plan Association-sponsored seminars and institutes for the continuing education of those [librarians] already in the field, in cooperation with Chapter Education Committees whenever feasible . . ." (12). The mission can be met only through a highly coordinated network of member librarians, Chapters and Divisions, and the Education Committee. The need to coordinate is acute, since even the most self-motivated librarian will relinquish his objectives if a disorganized mass of unusable information is listed at random in his journals.

The proposal divides itself among the three-level hierarchy of the Special Libraries Association; the member librarian; the Chapter; and the Education Committee.

The member librarian. This individual identifies his needs and goals, and attempts to isolate the type(s) of continuing education activities that will satisfy them, at least temporarily.

The Chapter. The *local* Chapter to which the individual belongs will have an information specialist/consultant, whom the librarian can approach to ascertain what resources, programs, or readings are available to him locally to implement the librarian's plans. Working for the consultant would be several members of the Chapter Education Committee, who will have assembled a data base of continuing education possibilities—gathered from local universities, library schools, chapters

of other library associations, business conferences, institutes, and the like—which the consultant will review constantly. Crucial to the data base is the input of activities from each SLA Division in the area, and from special librarians themselves, whose places of business may offer something of interest to a prospective student. With a well-organized collection of materials of this nature, arranged by subject and by place, the consultant can offer far more opportunities from which to select than the librarian ever could have discovered for himself. The Chapter Education Committee would record the educational events of its members in their files, and would maintain the files until transfer to another Chapter.

The *SLA Education Committee*. The committee will serve as a depository of the activities of each Chapter and Division, which the Chapter information specialist can consult when the user's needs cannot be met locally. It will have several other more important functions, however.

It would maintain catalogs of information on the national programs of other library and professional associations, library schools, and academic institutions, which the members of the Education Committee will collect. A base this large will require automation, or an exceptionally large and well-informed staff.

It would prepare and forward to Chapters for distribution a questionnaire to determine the continuing education needs of each member librarian. A model might be adapted from the excellent questionnaires prepared by James Kortendick and Elizabeth Stone (13). The nationally analyzed results will indicate the types of educational subject matter deemed desirable by individuals. The data can also be rearranged to reflect the needs of particular groups, such as librarians of a given area, or of a certain type of library.

On the basis of the needs expressed in the questionnaire results, the committee would prepare and provide continuing education programs that would be available to any special librarian, irrespective of time or place. This can be accomplished through the nation-wide circulation of videotaped lectures, correspondence

courses, or even traveling institutes; through lectures via closed-circuit TV; through commuting "group leaders" to stimulate the invisible colleges; through whatever means the imaginations of the Education Committee can devise.

The committee would assist in the preparation of a journal for continuing education, in cooperation with the education committees of other library associations. The journal will not exist solely to publicize continuing education events, but also should serve as a medium for articles to supplement a librarian's continuing education program.

The proposal, though perhaps an energetic one, is not beyond the scope of possibility, for the structure already exists within the Special Libraries Association. Furthermore, other organizations have proven that the coordination of educational programs can be accomplished. The headquarters of ASIS, for example, "maintains a current collection of information science course descriptions, catalogs, syllabi, [etc.] concerning education for information science" (14). Continuing education is too important a responsibility for library schools and associations to force solely on the individual librarian. Conferences can no longer be relied upon to fill the void, for too many activities occur simultaneously, and too few special librarians can now afford the time and money to attend. An effective program can be produced without an unreasonable amount of difficulty, as long as the three-level hierarchy accepts its share of the workload.

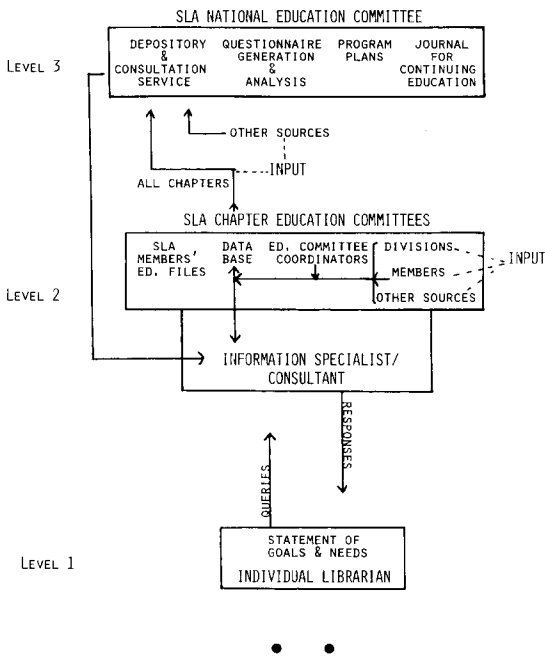
Results

Several long-lasting objectives can be expected from a program of continuing education.

For the individual: self-improvement, especially, preventing obsolescence (3, p. 256). His ultimate objective is better service to his patrons. Remunerative benefits from his employer—such as released time, tuition reimbursement, or even salary increases—may follow.

For the Organization: the furthering of its goals through better service from its

Figure 1. Schematic of Continuing Education Model



employees; and the security of having an intellectually satisfying environment in which its employees may work.

For the Schools of Library Science: a closer liaison with its practicing librarians and their professional library organizations. The library school will become aware of the actual needs of the employed special librarian and, after investigation and evaluative study, will determine what the school itself might be able to offer for continuing education, or what might even be changed in the MLS curriculum.

For Special Libraries Association: the managerial, though not tutorial, objective of an educational program for *all* special librarians. Its goal should be, ultimately, to make continuing education desirable and easily accessible for every librarian, regardless of time, funds, professional resources or programs. Special Libraries Association should strive to make it impossible for a librarian to offer *any* excuse, except indolence, for not engaging in continuing education.

Finally, for the Profession: a chance for librarianship to establish itself solidly

alongside all other professions which do demand high standards and constant upgrading of their members (15). With increased respect for the profession, library schools will be more critical of their curricula and admission requirements. Library associations will be more selective and evaluative of their programs. Business organizations will support and respect the educational needs of its library staff. And the individual librarian will not atrophy through obsolescence, because his profession will not allow it.

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A Model for Continuing Education: A Five Year Plan

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■ A five year plan for continuing education for members of the Science-Technology Division of the Special Libraries Association is considered. The milieu in which the problem exists is

described. An approach to the problem is given. A review of other approaches within and without the profession, internationally and at home, is made. The essential features of a specific proposal are prescribed.

BEFORE DECIDING how to put a puzzle together, it is a good idea to look at the framework and surface you are building from. Before considering a plan for continuing education, the milieu in which it exists should be examined. Growth and change are the ironic constants common to planner's frameworks. The increase in population, mobility, and educational diversity in the work force, the age and employment of minorities and women has exploded in complex intensity. Predictions of these trends enduring are legion (3, p. 3-17).

Another familiar explosion, booming away at a seemingly exponential rate, is the growth of information, particularly in the fields of science and technology (18). The roar is reflected in more than sheer numbers; the increase in specializations and in the languages science uses creates a communication thunder clearly heard by all information workers in this field (19, p.68). This new knowledge has a twofold implication. Not only has the bulk of paper increased the librarian's burdens, but the media of information have grown more diverse and augmented the li-

brarian's tools. Computers, microforms, cable television and other technologies, the approaches of communication theory, systems analysis, information science, etc., all add to the complexity of library education and work. This is a situation demanding both the specialist and generalist and futuristic thinking using all the experience in librarianship's tradition.

Background—The Need

Turning to the historical framework, the context for the continuing education of the Science-Technology Division can be examined in light of some general trends in library education.

Changes in library education have been influenced both by changes in the concept of education and in the concept of the profession. The image of the librarian has changed from the ancient priest-scholar-librarian to the efficient young woman with sturdy shoes and a pencil in her bun to a fluctuating kaliedoscope of information scientists and sensuous or revolting librarians (20, p.195-196). Library education has also grown from informal ex-

perience in the "cathedrals of knowledge" to a multiplicity of formal and informal educational situations. The establishment of Melvil Dewey's School of Library Economy at Columbia University in 1887 and the doctoral program of the Graduate Library School at the University of Chicago in 1926 was early recognition of the need for formal preparation at different levels and a special concern for advanced education (21, p.38). The recurring tension between theory and practice in library education has reflected the tension between affective and cognitive education in learning theory (15, p.8-9). The importance of purpose; of setting goals and planning is a commonplace, yet crucial at this time when life-long education for the whole individual in every position is a felt need. Lawrence A. Allen, in the SLA State-of-the-Art Review no.3, *Continuing Education Needs of Special Librarians* said last year,

"Continuing professional education is becoming recognized not only as a force for self-development but also as a viable means of assisting professionals by providing them with the changes rather than fighting them. . . . Any profession not entering into a well planned continuing education program for its members risks extinction in this new world."

But, "Just saying continuing education is important is not enough. There are a whole battery of questions that must be explored" (7, p.201). How will this exploration be conducted, what questions must be asked, what resources are available, how can the proposal design be implemented?

A learning model is necessarily based on a theory. Malcolm Knowles (15, p.92-121) has clearly outlined the options available to the decision-maker. If theory is ignored, decisions are made haphazardly, and "you will end up with a hodgepodge. You will use different theories in different situations, or conflicting theories for different decisions in the same situation. You won't know why you are doing what you are doing." If a decision is going to be made, the organizational assumptions must be understood so that an appropriate theory or theories will

be selected. Another way of saying this is that the educational process must respond to learning needs. What is the educational process, what significant features in it have been isolated in planning "The Design of Education?" Cyril Houle (13, p.47) mentions the following decision points in the planning flow-of-control: 1) A possible educational activity is identified. 2) A decision is made to proceed. 3) Objectives are identified and refined. 4) A suitable format is designed (resources, leaders, methods, schedule, sequence, social reinforcement, individualization, roles and relationships, criteria or evaluation, clarity of design). 5) The format is fitted into larger patterns of life (guidance, life style, finance, interpretation). 6) The plan is put into effect. 7) The results are measured and appraised. (Return to 1.)

These components are implicit in the decisions of an individual self-directed learner, or the designs of a large organization. As Houle has said, "The themes . . . have long been central to the theory and practice of education. . . . It is assumed . . . that this symmetry is to be found in the interconnection of coexisting components, none of which is invariably more fundamental nor prior in time to the others" (13, p.132). It is not surprising then, that many of these points occur in other writers, if not always in the same order.

How have librarians and other information workers considered this process? Where does current research and practice stand in regard to this model?

In the broadest sense, we do not need to *identify* a "possible educational activity," for it has been thrust upon us by change. The need for continuing education for librarianship has been identified in the early studies and actions considered by Berelson. He refers to (2, p.208-213):

"The major documents: Williamson, Reece, Munn, Wilson, Carnovsky, Pierce, Metcalf-Russell-Osborn, Wheeler, White, Danton. [He goes on to specify,] . . . the transmission of certain professional knowledge and techniques is one reason for advanced training in librarianship . . . The other traditional reason is the need for a critical approach to librarianship. . . . The third reason . . . stems from the growing professionalism of the

profession . . . the profession was proclaiming, through the establishment of advanced training, that it had reached a new state, that it was sufficiently important and complex and knowledgeable to support—nay, require—a refinement and an extension of its educational program.”

More recently, in his essay on “Continuing Education for Librarians,” (6, p.145) Kortendick has noted,

“Although the ultimate responsibility for continuing education rests with the individual, the library profession has a corporate responsibility to society to provide opportunities easily available to all librarians who are motivated to a lifetime of learning. As knowledge in every discipline advances, the public has a right to expect librarians to advance with it and to supply the maximum information service in the most efficient manner possible. The rapidity and technical complexity of new knowledge and technical advances soon overwhelm a librarian who does not develop a continuing system of study.”

Commitment to Objectives

With the need for some kind of continuing education activity clearly indicated, the *decision* of the Science-Technology Division to examine and plan for their special needs is timely and appropriate. The success of the decision-making process may depend on some of the following generalizations of group dynamics, “Each person tends to feel committed to a decision or goal to the extent that he has participated in determining it. A group is an effective instrument for change and growth in individuals to the extent that: Those who are to be changed and those who are to exert influence for change have a strong sense of belonging to the same group. Information relating to the need for change, plans for change, and consequences of change is shared by all relevant people. The individual is provided a means for measuring progress toward the change goals” (15, p.87).

Houle defines an objective as an “intended result of an educational activity . . . the effect sought by [the decision] to take action” (13, p.139). Objectives are rational, practical, pluralistic, hierarchical, discriminative and can change dur-

ing the learning process. What *objectives* have been identified in education for information workers, especially relating to the members of the Science-Technology Division? How have these objectives been isolated? How should they be refined?

In reviewing the literature of continuing objectives and needs analyses, the impact of learning theory on a determination of significant goals becomes evident. This is the dichotomy Allen noted (1, p.22), i.e., the split between “content needs, wherein knowledge is the primary need, and people needs which are primarily process rather than content oriented.” The difference is *not*,” as Knowles puts it (15, p102-3), “that one deals with content and the other does not; the difference is that the content model is concerned with transmitting information and skills whereas the process model is concerned with providing procedures and resources for helping learners acquire information and skills.” There is considerable evidence to support the appropriateness of a process orientation to adult education (15). This model responds to the individual within a continuum of competencies, subject backgrounds and motivations.

As early as 1964, Dr. Hitt of the Battelle Memorial Institute made a preliminary report of major educational needs isolated in the National Science Foundation project, “A Study Plan for a Survey of Science Information Manpower in the Fields of Engineering and the Natural Sciences” (12, p.53). His survey of a sample of ten “management personnel” and twenty “operating people” revealed a concern for training in communications, computer technology, development of language systems, library techniques of indexing, abstracting, searching, etc., and training in systems analysis and design. “Refresher courses in science were also suggested a number of times.” (12, p.53) Practical linguists and “people who can market the services of science information” were mentioned as areas of need.

While these conclusions are limited to a study of science information workers in the U.S., similar findings have been reached abroad. A British study published

in 1968 reported a need of foreign language competency among science and technology information workers, particularly in combination with subject competence (19, p.68-69). Again using survey techniques, their conclusions emphasized the interdependence of library and scientific information work; those qualities and personality were valued over subject competence.

In contrast to a concern for formal, fulltime study in the British study, the Director of the Interamerican School of Library Science of the University of Antioquia, Colombia, describes the "very effective" short courses and seminars as having a "primary importance" in reaching distant librarians who cannot leave their work for very long (5, p.155-156).

In Taiwan, the need has been described generally as an "obvious dearth of trained library workers in all levels and in all types." Workshops are designated a "first aid" measure (5, p.64)

In Europe, a need for educational flexibility is stressed; the inclusion of clerical staff in the library training system, as it is done in Denmark and Sweden, is considered "especially important" (4, p.48). Consistent with that concern for flexibility, the *Proceedings* of an international conference on training for information work held in Rome, 1971, summarized the following conclusions:

"Support was forthcoming for the point made by Dr. Zefferino Ferreira Paulo that the extension of formal education by continuing education was an absolute necessity, that a broad range of approaches to user education is essential and that the selection of educational mechanisms in particular situations (institutions, countries) should respond to given needs and characteristics in these situations. . . . It was recognized that traditional discipline-bounded structures are static, failing to respond rapidly and flexibly to the objectives and processes of contemporary science, whereas modern education requires the development of programmatic and administrative mechanisms which are adaptable to the dynamic, multifaceted structure of science and knowledge in general. . . . In view of the increasingly international nature of information and its systems, governments should bear in mind the need to achieve some degree of stan-

dardization or at least co-ordination of national information policies and practices" (14).

Setting general guidelines for the "Role of Continuing Education in Professional Development," Houle elucidates the following needs of the practicing profession: To keep up with new knowledge related to his profession. To continue his study of the basic disciplines which support his profession. To grow as a person as well as a professional [cited in McGlothlin, from *ALA Bulletin*: 259-261 (Mar 1967)].

Plans

At the SLA meeting in 1968 entitled "Continuing Education for Special Librarians: Where do we go from here?" (23), planners sought an answer to this puzzle of disorganized fragments and generalities. Even at that meeting, matching resources at the national level and the largely unknown needs at the grassroot through mediation by committee athletes was an apparent problem (See comments by Suzanne Cross and Mary Quint). A suggestion was made to look at other models of continuing education. Since well-researched and related proposals have subsequently been developed, their approaches will be reviewed before examining what directions are open specifically to the Science-Technology Division.

After an historical review of the available literature, Kortendick, in the above-mentioned essay on continuing education for librarians (6, p.150) concludes,

"The basis of criticism of the present state of continuing education of librarians is seen to be the lack of long-range cooperative planning based on research of actual needs and optimal ways of meeting these needs."

He proposes a "blueprint for equal, coordinated educational opportunities with the ultimate goal the establishment of a national center for continuing library education." Echoing McGlothlin's address at the 1972 AALS conference, "If continuing education is considered the responsibility of the professional organization alone, the schools may not benefit from the analyses of need that have as much validity for pre-service applications as for continuing

education, and they may not, therefore, modify their curriculum to become more significant for the profession," Kortendick incorporates the resources of library schools into some phase of each proposal. For every proposal, he includes specific objectives, manpower needs, and related studies.

The proposals are: 1) A feasibility study of a national program of continuing education for librarians. 2) A national survey of continuing education needs of librarians: A study for educational needs, job dimensions, and professional and personal characteristics. This would include a survey of librarians' self-perceived educational needs, as well as a determination of job dimensions—"what the librarians actually do in their jobs." 3) A study of motivational factors related to participation in continuing education activities. 4) Development of a model for continuing education and staff development in libraries. 5) Development of a comprehensive model for managing and evaluating short-term institutes and workshops for the continuing education of librarians. 6) The development of a communication and research information exchange in library science. 7) The development of model packaged programs of study in selected, defined areas pertinent to the needs of in-service librarians for updating and expanding their knowledge of advances in the field. 8) Evaluation of the potential capabilities of various media for use in the continuing education of librarians: A feasibility study. 9) Toward closer reciprocal relationships between library science professors and practicing library administrators: an exploratory study. 10) Post-graduate internships and trainee programs in librarianship: An evaluation of existing programs and a proposal for development of the internship concept in continuing education for librarians. 11) A study of attitudes and responses to participation of mid-career librarians in community affairs as stimulators and effectors in continuing professional growth (6, p.151-162). Kortendick's comprehensive proposals are noteworthy for their emphasis on research-based objectives, their national scope, and a wide-reaching

eclecticism of methodology, resources and target groups.

In 1975 a mammoth project on continuing library and information science education was completed under the direction of Dr. Elizabeth Stone and the auspices of the National Commission on Libraries and Information Science (25). This study was built on a massive analysis of the literature (including Kortendick's proposals) as well as intensive original research involving hundreds of people. This impressive effort resulted in a "proposed service and resource facility" christened the "Continuing Library Education Network and Exchange" and acronymed, CLENE. CLENE is intended to provide professionals, paraprofessionals, aides and trustees with "easy access to leadership expertise, and program and resource assistance." The ultimate goal "looks beyond practitioners in librarianship and information science to . . . the improvement of services to users" (25, p.xvi-xvii). CLENE's objectives are incorporated in the following four processes: 1) Needs assessment and problem definition; 2) information acquisition and coordination; 3) Program and resource development; 4) Communications and delivery.

These processes, in turn, are a response to criteria identified by "research as necessary for a successful nationwide program."

To actively encourage widest participation possible by all levels of library personnel in every aspect; participation at the grass roots is vital.

To involve those being served by the continuing education program in the decision-making process.

To establish flexible working relationships between participating individuals and groups—national, regional, state and local.

To provide for the continuing assessment of needs.

To acquire, process, store, retrieve, and disseminate information about existing programs, resources and services.

To produce and disseminate materials, and resources and programs to meet specific high-priority needs of individuals and groups.

To concern itself, through activities and policy statement, with current issues affecting libraries and continuing education.

To maintain liaison with other professions for the purpose of promoting and exchanging continuing education ideas. (25, p.XXIII-XXIV)

The Issues

The two kinds of issues the Science-Technology Division must contend with in refining objectives should now be apparent. Objectives based on increased research into the needs of the Division's members would seem prerequisite. The methodologies available are many and include management by objective; context, input, process and product evaluation; program evaluation and review technique; planning, programming, budgeting systems (respectively, MBO, CIPP, PERT, and PPBS); and the Delphi Technique (22, p.2-3, 19).

Assuming that objectives have been identified and refined, what formats can be designed, and what factors must be considered in choosing a suitable format? Abroad the situation ranges from the benefits of informal work experience alone to a Continuation School for Librarians of Public Libraries in the Scandinavian countries, to a system of "more or less" compulsory continuous training in Czechoslovakia and East Germany (4, p.52).

At home the Continuing Library and Information Science Project referred to earlier (25, p.2-25, 2-4454) emphasizes a multiprofessional, or interdisciplinary approach, using media carefully chosen from a wide array of learning modes. Of critical importance is the statement, "the choice of mode must be based upon the desired objectives, as well as on the make-up of the target population. . . Modes and methods must be flexible enough to accommodate students with different learning styles and to encourage students to 'learn how to learn' so that they will be more able to pursue their own continuing education efforts throughout their lifetimes." These students are not children and the pedagogy of children is not appropriate to their needs and abilities. One

bold concept in the proposal is "Individual Needs Assessment Facilitated by Means of Linkage Agents" (25, p.3-29). Linkage agents scurry around the interface between the individual, the larger educational system, and the available resources. The agents serve such functions as helping the individual in periodic appraisals of needs, helping develop and evaluate program materials and methods, making the needs at the grassroots level known to the national organization and keeping the local level abreast of current resources at the national level. An innovative device such as this is needed to bridge the "weakest link" in the chain which tries to stretch from the isolated individual to a multiplicity of resources.

The Next Step

Where do we stand now in the process of the design of education? A possible educational activity has been identified: the continuing education of the members of the Science-Technology Division. A decision is made to proceed and the need to identify and refine objectives is clearly established. Once a consensus to act has been achieved, the process of setting objectives is paramount. Everything depends on that process. Design, implementation, and evaluation are intertwined in the determination of needs and the formulation of steps to meet those needs.

The large task now can be ameliorated if broken into concrete steps built on the work that has been done already. The research of the profession here and abroad, the work of other professional organizations and other disciplines cannot be ignored.

In the next five years, the first step will be to establish an effective decision-making mechanism, a planning body appropriate to the member's needs. In the first year, begin to study needs, evaluate resources, set objectives, schedules and sequence, and make public existing opportunities available to self-directed learning members. A timetable cannot be estimated at this time. It is clear that model programs established on the basis of the study will need to be tested. Only after evaluating those models, can a com-

prehensive program responsive to the individuals needs of the profession be planned.

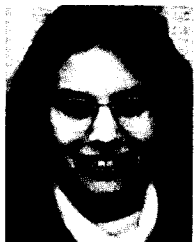
This particular field has an innate strength; confronted by the dearth of scientific information in this field (1, p.22), it would seem science and technology information workers will naturally abhor the vacuum!

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Evaluation of Excerpta Medica On-Line

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■ The *Excerpta Medica* on-line test data base of 181,653 records was found to be supplementary to MEDLINE and TOX-LINE but especially responsive to searches on drug products. A number of

improvements are suggested concerning RECON IV command language, the on-line thesaurus, searchable fields, and output format.

THE Upjohn Company Technical Library participated in a recent user evaluation of *Excerpta Medica* on-line. This data base is now commercially available through Informatics Inc., Rockville, Md.

There were several reasons why the study of *Excerpta Medica* (E-M) on-line was undertaken. The author liked E-M's coverage of the pharmaceutical literature in *Drugdoc* when it was available from 3I Company. The scope of E-M's international biomedical titles was especially good and supplemented *Index Medicus*. Indexing in E-M was known to be different from MEDLINE (1) and the availability of an on-line thesaurus (MALIMET: Master List of Medical Terms) was appealing. Overall, the E-M study fit in nicely with the data base evaluation program at the Technical Library.

The objective was to test E-M's response to demand searches in the biomedical field and to searches on pharmaceutical products.

Test Conditions

The test data base covered three bi-monthly periods of E-M approximately May to October 1974 and contained 181,653 records. These corresponded to cita-

tions and abstracts derived from approximately 3,500 biomedical journals indexed at Amsterdam.

Records were searchable on-line via the Informatics computer Monday through Friday 8:00 a.m.-9:00 p.m. and Saturday 8:00 a.m.-4:00 p.m. (Eastern time). Throughout the test, phone calls were made to the WATS numbers provided by Informatics. All searches employed RECON IV command language and were performed on a Computer Devices Teleterm 1030.

Informatics provided a two-day training session for searchers. This included an orientation to E-M, the uniqueness of E-M's indexing, the search capabilities of RECON IV, actual on-line searching, and experience with the on-line thesaurus. Three kinds of search manuals were made available: "RECON IV User Manual," "Excerpta Medica On-Line Users Manual Vol. I," "Excerpta Medica On-Line Users Manual Vol. II: Classification Descriptors."

The test period on the six-month data base began Dec. 13, 1974, and continued until Feb. 15, 1975. During November the data base was being built up; however, it was available for searches or for practice.

Informatics personnel were available for help if difficulties were encountered in making on-line searches.

Command Language

The RECON IV command language proved to be easy to use. It was not necessary to master all 18 RECON commands applicable to E-M. As a practical minimum a searcher needs to know how to do the following: 1) Log in, 2) SELECT, 3) COMBINE, 4) Use proper Boolean operators, 5) EXPAND (to see dictionary) or EXPAND TS/(to use thesaurus), 6) TYPE or PRINT, and 7) BYE.

A fairly recent change in RECON now permits the searcher to type in search words and Boolean operators without using SELECT and COMBINE commands. This is a welcome simplification but it does not eliminate the usage of SELECT and COMBINE which are still needed on occasion.

More development of RECON IV is likely to occur. For example, one of the optional commands to start a search is BEGIN. When BEGIN is initiated, Search Title, Date/File, Search By, Requestor, and Address are recorded. This is fine except BEGIN is not frequently employed. The data acquired are really needed in identifying an off-line print. It would be helpful if these data could be entered by the searcher when the PRINT command is initiated.

Unit Record

A brief description of the E-M unit record would be beneficial. Figure 1 displays a typical E-M record with abstract. One can initiate the complete record by using the TYPE or PRINT commands employing FORMAT 2.

The E-M number is useful in determining currency of the record. In our example, digits 4 and 3 before X indicate that the record was added to the file during the third bimonthly period of 1974. Production number on the other hand is virtually useless to the searcher.

A standard bibliographic citation consists of English title (TI), author (AU), journal title (JT), publication year (YR), and reference (RE). The printout may be

Figure 1. *Excerpta Medica* On-Line Unit Record

```
EXCERPTA MEDICA: 43435871
PRODUCTION NUMBER: 074024076
ENGLISH TITLE: CYTOSINE ARABINOSIDE TREATMENT OF VARICELLA ZOSTER
AUTHOR: HALL T.C.I DOUGLAS P.G.I HOLTON C.
AUTHOR ADDRESS: DIV. ONCOL., UNIV. ROCHESTER MED. CENT., ROCHESTER,
N.Y.
JOURNAL TITLE: POSTGRAD.MED.J.
PUBLICATION YEAR: 1973
REFERENCE: 49/572 (429-436)
CODEN CODE: PGMJAENC
LANGUAGE: ENGL
COUNTRY OF ORIGIN OF AUTHOR: USA
ABSTRACT: OVER THE PAST 4 YEARS THE AUTHORS TREATED SIXTEEN ADULT
PATIENTS AND 4 CHILDREN WITH DISSEMINATED VARICELLA AND ZOSTER USING
CYTARABINE, INCLUDING TWO WITH POST HERPETIC PAIN FROM ZOSTER, WITH
ENCOURAGING RESULTS IN MOST. IN ADDITION 3 PATIENTS WITH NEONATAL
DISSEMINATED HERPES SIMPLEX INFECTION WERE TREATED WITH IUOR WITH GOOD
RESULTS.
SECTION CLASSIFICATION: 8.18.1 11.1.1 13.32.5.1 13.44.3.1 30.20.7.1
37.15.4.1 38.43.1 39.1 47.9.1 47.21.3.
PREFERRED TERM: ANTIVIRUS AGENT; CHICKENPOX; CYTARABINE; HERPES
SIMPLEX; HERPES VIRUS; HERPES ZOSTER; LEUKOPENIA; PAIN;
POSTHERPETIC NEURALGIA; THROMBOCYTOPENIA; VARICELLA VIRUS; VIRUS;
VIRUS ENCEPHALITIS; IDOXYRIDINE; ADVERSE DRUG REACTION
SECONDARY TERM: SACYTOSARI $BUPJOHI; 20 CASES
ITEM INDEX: TREATMENT; CLINICAL STUDY; INTRAVENOUS
```

limited to these elements or any combination of elements in the complete record by using FORMAT 4.

The first five letters of the coden code are useful in identifying the full title of an unfamiliar journal. Letters 6 and 7 indicate the country of journal. If letter 8 is an A,C,E, or G it represents "the best 50%" of those journals covered by E-M.

An abstract may or may not be in the record. The data base supplier claims an overall abstract rate of 40%-60%. Generally older records have a higher occurrence of abstracts than newer records.

The last four elements in the record constitute the detailed indexing used by E-M: Section classification, Preferred Terms, Secondary Terms, and Item Index. Section Classification (EM-CLASS) is a hierarchical arrangement of subjects within the 48 sections of E-M. Each subject category is identified by a unique number. Preferred Terms (MALIMET) are about 220,000 (2) in number and are related to twice as many synonyms by means of the thesaurus. Secondary Terms are uncontrolled but frequently consist of drug trademarks (\$A), company names (\$B), and other free terms. The Item Index is made up of nearly 130 general categories such as review, clinical, drug administration routes, and epidemiology.

Search Results

Of the 40 searches performed during the test period, 21 were demand searches for users. The remaining searches

Table 1.

Time	Searches
8:00 AM	6
9:00	4
10:00	4
11:00	2
12:00 Noon	2
1:00 PM	5
2:00	1
3:00	5
4:00	3

• •

concerned Upjohn product literature or explored aspects of E-M on-line. Because E-M was available throughout the work day, demand searches could be made just about any time rather than be restricted to a particular time.

The chief frustration in conducting searches was the communication link between our terminal and the Informatics computer. Many times it was necessary to dial 2 or 3 times to get through on the 800 numbers. Often a search would be cut off. Fortunately the RESTART capability saved the search or if there was any doubt the HISTORY command would review the details. Slowness in computer response was another frustration. This varied considerably but typically response was faster at the beginning of the work day. Fortunately this coincided with the period of minimal phone difficulties. Success in the afternoons was sporadic (Table 1).

Users were pleased with an E-M search as long as it retrieved what they wanted. Often unfamiliar journal titles appeared in the printouts. These articles have in some cases been difficult to obtain via interlibrary loan from our usual sources. Abstracts when available were both informative and helpful to users; however, the frequency of abstracts (about 21%) in our searches was much lower than expected. In some demand searches the small size of the test data base was a handicap. On the other hand there were situations where we found items for users in E-M which we could not find in MED-COMP, MEDLINE, or TOXLINE. This was especially true for certain medical syndromes and relatively new drugs.

Currency of the retrieved citations was hard to measure. Most publication dates were 1974 and 1973 with some in 1972. Searchers felt that currency appeared to be similar to Ringdoc and MED-COMP/MEDLINE.

Search Characteristics

Searchable fields were limited in the Informatics test to Section Classification, Preferred Terms, and Item Index. For this reason searches in E-M had to be subject oriented. The Section Classification numbers were not utilized much because our preference was for usage of terminology. Another difficulty with Section Classification numbers was that they generally must be looked up. Alphabetical access in addition to Section access would be much more convenient in the "E-M On-Line Users Manual Vol. II."

The vocabulary of E-M seems to be well adapted to the jargon of biomedical personnel. With "hands on" experience a searcher begins to guess better and better whether a term will be in the dictionary and thus part of the Preferred Terms or the Item Index. EXPAND is helpful in checking the dictionary for variant entries and spellings. EXPAND TS/enables the searcher to consult the thesaurus. On occasion EXP TS/yields the display "not in the dictionary" when in reality the desired term is present. In spite of this present deficiency the thesaurus is a necessary component of E-M on-line searches.

In searching drug names, the thesaurus was specifically helpful. Drugs are ordinarily indexed by generic name rather than by trademark. One can therefore enter the thesaurus with a trademark and usually end up with the corresponding generic name. Using Upjohn trademarks it responded 43% of the time. If generic names were entered for the same products the response increased to 67%. More development work on the thesaurus would likely improve these percentages. Another approach would be to make drug trademarks (\$A) directly searchable.

Overall, the searchers wanted to have the added capability of searching by author. This capability is considered a

basic bibliographic search parameter. In addition, many scientists and physicians associate the names of prominent investigators with certain research areas. Secondly, our searchers preferred a shorter output format: English title, author, journal title, publication year, reference, and abstract (optional). This could be "FORMAT 5." A third desire was to be able to select English language articles if the user made this request. This can be done partially with the SORT command but SORT takes too long; at least 45 seconds. Finally, there was consensus among the searchers that a list of E-M journal title abbreviations is needed like those abbreviations used in the search output. The coden code does not help out too much here because codens are not preferred in the shorter format nor are codens normally used in citations.

Drug Literature Coverage

Drug literature coverage appeared to be especially good although most of the searching concerned Upjohn products. A sample of product searches is displayed in Table 2. In most cases an E-M search retrieved a significant number of new references. A new reference was one not in Upjohn product literature files. Ordinarily Upjohn coverage of the drug literature includes *Chemical Abstracts*, *Biological Abstracts*, Ringdoc, MEDCOMP, MEDLINE, and TOXLINE. Coverage by these sources is extensive, so the author was somewhat surprised by the high number of new references.

Upon analysis of these references several things were established. A small percentage of the references were false drops. These contained some inaccuracies in the unit record such as the wrong data or indexing which did not match the reference. Less obvious false drops became a bit of a nuisance when the reference was later found to be incorrect or the article to be irrelevant. No doubt these false drops are file errors of some nature which can be purged and corrected by the data base vendors.

A much higher proportion of the new references were found to be already

Table 2.

Search Subject	References Retrieved	New References	False Drops
Fluoxymesterone	29	15	1
Heparin	12	7	3
Prostaglandins	108	15	1
Tolbutamide	346	189	5

Table 3.

Total Journal Titles*	Data Base	Top 200 Productive Journal Titles†
3,500	Excerpta Medica	95%
2,300	Index Medicus	92%
1,000	International Pharmaceutical Abstracts	88%
427	de Haen Information Systems	81%
361	Ringdoc	72%
140	FDA Designated Journals	70%

* Source: Ref. (4). † Source: Ref. (3).

covered by *Index Medicus*. In this case they were not indexed by our search subject. How were we able to retrieve them through E-M?

Part of the answer lies in the indexing in E-M which is thesaurus controlled. Also E-M employs what might be called multiparametric indexing where an array of classification descriptors and several arrays of indexing descriptors are used to identify each reference in the file. In contrast, *Index Medicus* uses a smaller set of controlled vocabulary terms (MeSH). Assuming that a given article is included by both data bases, the probability is much better that the article will be retrieved through E-M's indexing.

Another aspect which should not be overlooked is E-M's inclusion of journal titles which are likely to contain articles about pharmaceutical products. In a study conducted by Katherine Owen (3) data were obtained from fifteen libraries in the pharmaceutical industry to identify and rank journal titles which account for 90% of the citations on drug product bibliographies. Of the secondary sources *Excerpta Medica* had the highest percentage coverage. Table 3 is a comparison based on Owen's data showing the relationship

between number of journal titles (4) in each data base and the percent coverage of the top 200 productive journal titles. Our on-line experience with E-M tends to support Owen's findings.

Conclusions

Overall, E-M on-line appears to have considerable potential and supplements usage of MEDLINE and TOXLINE. The coverage of the biomedical literature seems to be complete and worldwide. In-depth indexing of E-M enables the user to retrieve journal articles also covered by *Index Medicus* that might otherwise be missed. Literature coverage of drug products is especially good.

The improvements suggested by this study concerning RECON IV command language, the on-line thesaurus, searchable fields, and output format will enable easier and faster retrieval of information from this new on-line data base.

Acknowledgments

The author wishes to thank Donald Galow, Marvin Guthaus, Nettie Mehne, and Sandra Springer of The Upjohn Company for their contributions to the *Excerpta Medica* on-line study.

The *Excerpta Medica* unit record displayed in Figure 1 is used with the kind permission of Informatics, Inc.

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Presented at the Pharmaceutical Manufacturers Association, Science Information Subsection, Excerpta Medica Round Table, Mar 12, 1975, during the PMA 5th Annual Meeting in New Orleans, La.*



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The Cape Cod Canal Special Collection

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■ The initial steps taken to gather and preserve all available information and to develop a collection of historical value concerning the Cape Cod Canal are reviewed.

THE Massachusetts Maritime Academy is establishing an historical collection of information and artifacts regarding the Cape Cod Canal. The academy is a four year college specializing in marine engineering and nautical science and is a member of the state college system of Massachusetts. The 55 acre campus is located at the west end of the Cape Cod Canal in Buzzards Bay. The location and facilities of the academy make for an ideal location for this specialized collection. This project is designed to gather and preserve all available information and to create a collection worthy of display to the public.

In order to create a center of information designed to serve scholars and students in their study and research, and to display to the public those important documents and artifacts which illustrate the development of the canal, all published and privately held documents, papers, reports, notes, correspondences, pictures, maps, blueprints, artifacts, plans, charts and surveys will be collected and arranged for use.

The major portion of the collection thus far established consists of various documents, publications and reports obtained from the National Archives and Records

Service. These records have been reproduced for the Academy in 35mm microfilm format and consist of two reels of microfilm. The records include the following:¹

1. *Operation of the Cape Cod Canal* (Washington, D.C.: Government Printing Office, 1920), 94 pages, a transcript of a hearing before a committee of the House of Representatives.
2. *Atlantic Intracoastal Canals*. (Washington, D.C.: Government Printing Office, 1918), 139 pages, a Department of Commerce publication prepared in the Bureau of Foreign and Domestic Commerce.
3. A file of correspondence from captains and owners of vessels which have passed through the canal from 1914 to 1917.
4. The 1907 and 1909 editions of *Cape Cod Canal, Reports Acts, Orders, Contracts, Letters, and Other Documents Relating to Undertaking*.
5. Typescript, "Notes on the Cape Cod Canal, December 14, 1921," by Charles Maass, Secretary, Boston, Cape Cod and New York Canal Company.
6. Miscellaneous correspondence, in excess of 1,000 pages.

In addition to the National Archives information the academy has obtained through University Microfilms, Dissertation Division, the microfilm copy of Dr. William J. Reid's doctoral dissertation: *The Cape Cod Canal* (2). This study was presented to the Boston University Graduate School in 1958 by Mr. Reid in partial fulfillment for the PhD degree. Dr. Reid subsequently prepared a book based upon his work entitled: *The Building*

Figure 1. Cape Cod Canal



of the Cape Cod Canal (3). This project was done at the request of Mrs. August Belmont, widow of the builder of the canal, and privately printed in 1961. Dr. Reid has also written an article on the military importance of the canal for the *United States Naval Institute Proceedings* (4).

The U.S. Army, Corps of Engineers, 16mm film: *The Cape Cod Canal Story* adds an informative and entertaining document to the collection. The Corps of Engineers are presently busy on producing an up to date version of this 1965 film.

In July 1973 a letter to Mrs. August Belmont requested that the August Belmont papers be donated to the academy. Mrs. Belmont replied that she had unfortunately already donated her husband's papers to the Historical Society of Massachusetts in Buzzards Bay.

The near miss of having vital original documents at so early a stage in the development of the collection was a set back. However, through the encouragement of various individuals the momentum was reestablished and contact was made with Mr. Stephen T. Riley, director, Massachusetts Historical Society, in January of this year. Mr. Riley agreed to reproduce the August Belmont papers for the Academy in 35mm microfilm format (6). These papers add substantially to the existing material.

An original document that we are fortunate to have in the collection is a publication issued by the Boston, Cape Cod and New York Canal Company in

1916. This document was donated to the academy by a local resident. The publication is entitled *Cape Cod Canal; General Information and Regulations June 1, 1916* (7) and is 19 pages long with fold-out maps. The document contains the regulations, plans, maps, light list, navigational aids of the canal, and the toll fare schedule. This information was especially prepared for the navigator who had to use the canal, whether it was for pleasure or business.

Another original document in the collection is an 1826 document issued by the House of Representatives regarding a survey conducted by Major P. H. Perreault, of the Topographical Engineers (8). This document is in excellent condition and is of importance since it is one of the original route surveys for the proposed canal and advocated the use of adjacent ponds to provide a water supply for the proposed double lock canal.

There are many sources of information both privately and publicly held in addition to what is in the academy collection. The privately held collections are for the most part in the safe keeping of responsible individuals who know the importance of preservation of primary documents. However, there is a danger that much of this material will be lost, damaged, stolen, or auctioned off with the passing away of the individuals involved. To counter this the academy is prepared to microfilm, and reproduce these collections so that they will be preserved for posterity.

Publicly held records can be found in a variety of locations, among which the more important locations are the Massachusetts Historical Society, the Massachusetts State House Library and the large and small public libraries in the area of Cape Cod and across the state.

With the permission of the individuals responsible for the documents, a bibliography of the holdings of the privately and publicly held sources of information will be established. This bibliography will be in effect a union catalog of all material available and known to exist and the location(s) of each item. The list will be printed for distribution to the major research libraries and institutions

throughout the country for purposes of publicizing the existence of material as well as to make the academy collection as useful as possible.

The building of the Cape Cod Canal was a project which spanned the time period from 1623 to 1914. The building of the canal is a story of human drama having many aspects. The whole story has yet to be told in its entirety. The collection and organization of known documents is the first step in preparing for the telling of this story.

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A Union List of Books on Toxicology

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■ The rationale and methodology for preparing a union list of books are discussed. Use of a mail questionnaire is described and results, including probable reasons for disinterest, are presented. The compilation of union book lists by either SLA Chapters or Divisions is worth consideration.

WHEN COMPARED to union lists of serials, union lists of books have received little attention. A recent survey showed union lists of serials as valuable tools for special libraries. Of ten Chapters of the Special Libraries Association which have sponsored the preparation of such lists, four are currently planning or already have new editions in progress.* What about union book lists? Such lists, especially those dealing with specific topics, are useful to small libraries with limited shelf space and to libraries confronted with requests for out-of-print books. Librarians are often asked to get a book "right away." One way to satisfy impatient patrons is to borrow from neighboring libraries.

Dynapol, a company formed in Jul 1972, is conducting research on food additives which are nonabsorbable in the human gastrointestinal tract. Since toxicological

*Betz, C., C. Bissel, and B. Sherwood/Survey of Union Lists of Serials Sponsored by SLA Chapters. *Special Libraries* 65 (no. 8): 337-341 (Aug 1974).

Figure 1. Predetermined Responses

- 1. We are very interested. You are welcome to use our library and include our books. When completed, send us a copy of the bibliography.
- 2. We are very interested. We will send you a list of our books on toxicology. When the project is completed, send us a copy of the bibliography.
- 3. The idea is good. However, we do not wish to have our library's books included. Send us a copy of the bibliography.
- 4. We are not interested. Thank you.

• •

aspects of food chemicals are of major interest to Dynapol, the library staff decided to compile a union list of books on toxicology. The planned list would include bibliographic information as well as names of libraries in the San Francisco Bay Area which have the books.

A questionnaire consisting of predetermined responses (Figure 1) along with a cover letter was mailed to librarians at 40 libraries affiliated with chemical companies, pharmaceutical firms, food processing companies, research institutes, hospitals, and medical centers.

Results of the Questionnaire

As indicated by Table 1, 13 libraries were interested in participating in the union list. Twelve libraries had no interest in the project and six others failed to respond to the questionnaire. The results were not disappointing since all of the libraries thought to have the greatest number of toxicology books were among

Table 1. Number of Replies

Predetermined Response	No. of Replies
1	3
2	10
3	9
4	12

Table 2. Affiliation of Participants

Library Affiliation	No.
Chemical co.	2
Food processing co.	2
Medical center—hospital	2
Pharmaceutical co.	3
Research center	4
	<hr/> 13

• •

the participants. Affiliations of the participating libraries are shown in Table 2.

We conjectured that lack of interest among nonparticipants was due to one or more of the following reasons: 1) Insufficient books in a library which justify preparation of a list. 2) Users of a library would not be interested in the union book catalog. 3) Librarians do not want to be bothered by requests for books by "outsiders." 4) Librarians do not need a formal directory of available books.

Preparation of the Union List

Within two months, lists of books were received from the 13 libraries. Titles of the

books covered the following subjects: chemical and drug induced allergy, carcinogenicity, mutagenicity, teratogenicity, chemical induced occupational diseases, drug interactions, poisons, and poisoning.

Based on the book lists, a bibliography of 300 citations was prepared. Titles, regarded as the most informative part of the citations, were capitalized and presented ahead of authors and other bibliographic information for each of the 300 entries. At the end of each entry, code letters were added for the one or more Bay Area libraries which possess the listed book.

Although the union list covers a technical discipline and the participating libraries are relatively proximate, the methodology is suitable for nontechnical fields and is adaptable for use by either Chapters or Divisions of the Special Libraries Association.

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James H. Schwartz is manager, library services, and Helen D. Swanson is library assistant, library services, Dynapol, Palo Alto, Calif.

SLA Employment Clearing House at Conference

The SLA Employment Clearing House will be available to SLA members and to employers registered at the Conference in Denver. The Clearing House will be open Sun., Jun 6 (1-4 p.m.); Mon., Jun 7 (9 a.m.-4 p.m.); Tues., Jun 8 (9 a.m.-4 p.m.); Wed., Jun 9 (Noon-2 p.m.).

Résumé forms for members can be obtained from the Membership Department, Special Libraries Association, 235 Park Avenue South,

New York, NY 10003. The completed résumé forms must be returned by May 28. The Clearing House will arrange interviews at the Conference.

Employers with vacancies may request "Job Opening" forms from the same address as above; the deadline for their submission is also May 28. Job descriptions for the vacancies will be posted at the Clearing House.

The 1976 SLA Annual Business Meeting Jun 9, 1976

As required by Article VII, Section 3 of the Association's Bylaws, notice is hereby given that the Annual Business Meeting of Special Libraries Association will be held at 9:00 a.m.

on Wednesday, Jun 9, 1976, at Currihan Hall, Denver, Colorado, during the Association's 67th Annual Conference.

Concerned about YOUR Association?

Propose a future SLA officer.

The Nominating Committee for Spring 1977 Elections requests YOUR assistance in its search for the best qualified candidate to represent YOU as future officers of YOUR Association. This means that YOU, as a member of the Association, must be concerned with the calibre and abilities of these officers who will be leading YOUR Association. We need YOUR recommendations for those members who are most knowledgeable of all phases of Association activity, who have shown a dedication to the goals of the Association, who are representative of its diversified professional interests and various geographical areas, and who would be willing and able to accept nomination.

Candidates are needed for the offices of President-Elect, Chairman-Elect of the

Chapter Cabinet, Chairman-Elect of the Division Cabinet and two Directors.

Please submit your suggested names by letter with a brief note giving qualifications. Contact a member of the Committee whom you know best or the Chairman of the Nominating Committee, Anne C. Roess, Institute of Gas Technology, 3424 S. State Street, Chicago, IL 60616. *This must be done prior to the Denver Conference, June 6-10, 1976.*

*Rod Casper
Eugene Jackson
Mary M. Grant
Joan Toeppe
Anne C. Roess, Chairman*

INFORMATION: THE UNLIMITED RESOURCE

Special Libraries Association—67th Annual Conference
Denver, Colorado, June 6-10, 1976



The 1976 Special Libraries Association Conference in Denver, Colorado, will focus on the quality of information, one of our most valuable resources. Some of the questions to be explored: Is repetitive or poor-quality information polluting this natural resource? Is the retrieval of desired or specific information hindered by the sheer volume of information available? How can the special librarian and the information professional participate in resolving these problems? These questions must be resolved, for information is essential for the effective evaluation and utilization of all our other natural resources.

To introduce you to the Conference and its participants, and to Denver and Colorado, the Conference Committee has planned a "Wild West Welcome" for Sunday afternoon. This informal introduction to the history, sights, and lore of Denver and Colorado will feature Western entertainment, a slide show on Colorado, Division program information, drawings for prizes, and potables.

The General Sessions begin the next morning. Monday's Keynote Address is by Russell L. Ackoff, of the Wharton School of Business, University of Pennsylvania. A Micrographics Seminar is the second general sessions planned. It will begin with a "state of the art" session, to survey the impact on special libraries of current technology and future trends in the micrographics industry. Three concurrent sessions will follow: an introduction to micrographics for those selecting and planning for micrographics systems; a review of indexing and retrieval systems, for those in the setting up stage; and a session on Computer Output Microfilming and its applications in the special libraries environment.

The Office of Science Information

Services is sponsoring a colloquium scheduled for Thursday, to be moderated by Joseph Becker of Becker and Hayes. Five speakers will be on hand to discuss their research-in-progress. This session, co-ordinated by Joel Goldhar, Program Director for User Requirements of OSIS, is seen as a way for the Office to make information on the research they sponsor available before the final report is out.

The Divisions, of course, are planning their own programs, everything from a session on information delivery as opposed to information retrieval, to a "fly-by" look at a proposed new town to be developed within Denver. We're sure you'll want to sample many of these programs and field trips, from other Divisions as well as your own.

Save either Monday, Tuesday, or Wednesday night, for this year there are three separate Scholarship events. All give you an opportunity to see some of Colorado's spectacular mountain country. On Monday and Tuesday evenings buses will leave Denver for a trip through a mountain canyon to Central City, one of Colorado's old mining towns. Victorian buildings abound in Central City, making it easy to envision what this town was like when it was known as "the richest square mile on earth." Museums, gold mines, and a narrow gauge locomotive add to the historic atmosphere, not to mention the old-time—still operating—saloons, including the one with the famed "Face on the Barroom Floor." Wednesday night's Scholarship event is a trip to Estes Park, high in the Rockies, and surrounded by Rocky Mountain National Park, 405 square miles of natural wonder. Here we'll stop for a chuckwagon supper and some Western entertainment. So register for a Scholarship tour which will take you back in time for a few hours in the Old West.

Of course there will be ample opportunity for socializing at the Conference: luncheons and cocktail parties and get acquainteds, time to make new friends and look up old ones. Take time to examine the Exhibits and see the new publications and equipment. This year the Exhibit area will surround a food and drink bar, The Four Corners Cafe. There will be table space nearby so you can lunch or snack quickly and conveniently, and tour the Exhibits as well.

The Contributed Papers sessions are always a good way to hear of new developments in the field. This year a different communication technique, the Poster session, will be utilized along with the usual oral presentations. Individuals using poster sessions will arrange their material (charts, graphs, photos, text, etc.) for display on poster-board space assigned to them for concurrent time periods. This will allow a mobile audience to interface with several authors in a single session with a high level of flexibility.

When you come to Denver for the Conference, we hope you'll plan to stay awhile and see something of Denver and Colorado. Denver has many buildings of historic interest (Molly Brown, the Unsinkable, lived in Denver, as did Horace Tabor, Colorado's Silver King); as well as modern skyscrapers. The University of Denver is here, an art museum, a natural history museum, a zoo, one of two United States Mints, and many fine restaurants. And the mountain country of Colorado is only a half hour's drive from the city. You may visit a mining town or a ghost town, go hiking or camping, picnicing or fishing. So bring your camera and hiking boots and enjoy the attractions of Denver and of Colorado, as well as the stimulation of an SLA Conference.

—Denver Conference Committee

If you want a vacation packet to make your trip to Colorado more enjoyable, write to: Hal Haney, director, Colorado Department of Travel Marketing, 602 State Annex, Denver, CO 80203.



1976 Denver Conference Program

The preliminary Conference Program for the 1976 Denver Conference will not appear in *Special Libraries* as in the past. It will be printed in a Conference Program Brochure to be mailed with the pre-registration materials to all members on approximately April 1, 1976.

CHAPTERS & DIVISIONS

Mid-Missouri—The Nov 17 meeting was held at the Supreme Court Library, Jefferson City. Librarian D. A. Divilbiss explained the computerized LEXIS system. Jim Parkinson demonstrated the operation of the computerized scheduling of court cases.

Minnesota—The joint SLA/ASIS meeting began with dinner on Sep 17. The program was concerned with "Information as a Commodity."

The topic "Let's Stop DE-Motivating Our Employees" occupied the October meeting.

The Chapter also sponsors a continuing education series. Topics include: Library Management Problems; Job Descriptions and Performance Appraisals; and Budget Planning, Presentation to Management and Implementation.

Montreal—The guest speakers at a dinner meeting held on Oct 1 were Paul Kitchen, executive director of the Canadian Library Association, and Lu Rider, senior reference librarian at McGill University. Mr. Kitchen discussed "librarians as a pressure group, the process of influencing public policy." Ms. Rider explained the functions of the recently formed Committee on Bibliographic Services for Canada. Awards were presented to winners of the Chapter's special libraries prize.

The *Directory of Special Libraries in the Montreal Area*, eleventh edition, is now available for \$5.00 prepaid. Checks should be made out to Montreal Chapter, Special Libraries Association, and sent to Eleanor MacLean, Blacker-Wood Library, McGill University, 3459 McTavish St., Montreal, Quebec H3A 1Y1, Canada.

New Jersey—The Chapter visited the information facilities at the Picatinny Arsenal in September. Col. E. Hein explained the purposes and functions of the installation following dinner and a brief business meeting.

New York—This year two Elizabeth Ferguson Seminars were held. One was on weeding library collections; the other concerned Bureau of Labor Statistics publications and their uses.

In January a Janus Seminar was held with ASIS on the topic of legal aspects of information.

New York, Social Sciences Group—The fall meeting on Oct 7 convened at the NYU Bobst Library. The guest speaker, from Wildcat Service, presented a movie about their vocational rehabilitation program for ex-convicts and drug addicts. Some area libraries are making use of individuals in the program.

North Carolina—The year began with a worthwhile experience at Appalachian State University. Forty-five people met at a joint SLA/ASIS symposium Sep 19–20 for a session on organization design focusing on the human elements of management. Twenty-nine enrolled in two continuing education courses: Human Factors in Medical Library Administration and Systems Analysis.

Oklahoma—The fall meeting and dinner was held in Norman on Nov 20. The afternoon program was a panel discussion "on the 'workings' of special libraries." Questions from the membership were answered after the initial presentations.

Oregon—A colloquium described as "an educational and social program" was held at the Northwest Regional Educational Laboratory on Nov 15. The subject of the meeting was on-line information. Included in the discussions were the Dialog and Orbit systems.

Pacific Northwest—Health sciences information services and networks occupied the afternoon on Nov 8. A panel discussion was followed by a visit to the University of Washington Health Sciences Library.

The Chapter has compiled a listing of special information resources in King County, Washington. Items include special libraries and unique or obscure subject collections. The cost is \$3.00 (prepaid) to Pacific Northwest Chapter members or libraries included in the directory and \$5.00 (prepaid) for nonmembers. Checks should be made out to Special Libraries Association, Pacific Northwest Chapter and sent in care of Pat Van Mason, 1611-30th Avenue West, Seattle, Wash. 98199.

Pittsburgh—Justin T. Horan, executive vice-president of the Greater Pittsburgh Chamber of Commerce, was the guest speaker at the September meeting. He discussed the organization's plans to acquire the New York Times Data Bank and the Inter-Active Data Resources of the Chase Manhattan Bank. It is the aim of the Chamber of Commerce to make these data base services available to member companies at a fraction of the cost of individual rental.

The Chapter gathered for a buffet dinner and a trip to the Old Post Office Museum of the Pittsburgh History and Landmarks Foundation. A member of the foundation lectured on the acquisition and restoration of homes in the Mexican War Streets district.

A panel discussion with representatives of medical, financial, legal, and retail sales information organizations considered the question of "Data Banks vs. Invasion of Privacy" Nov 18.

Rio Grande—The Lovelace Foundation for Medical Education and Research was the host for a visit Sep 19 to the Inhalation Toxicology Research Institute. The institute investigates the effects of airborne noxious particles and gases on man and his environment.

An Oct 31–Nov 1 meeting took place at the University of Arizona Graduate Library School. The Friday session included background on the school, current and future programs. The second session was used to explain general curriculum areas as they applied to special librarianship.

In January the Chapter visited the Albuquerque Public Library.

San Francisco Bay Region—A banquet in Chinatown began the meetings for 75/76. David Gavreaux, San Francisco Consumer Action, advised attendees of various avenues open to those who have been victimized by unscrupulous businessmen.

Kevin Starr, city librarian for San Francisco, expressed his views on how the role

of the city librarian relates to the special libraries in the Bay Region after a dinner meeting on Oct. 21. A visit to the Naval Regional Medical Center in Oakland was also organized for October.

A joint SLA/ASIS group met Nov 19 in Sacramento. The panel discussed the California Library Authority for Systems and Services.

South Atlantic—A *Directory of Special Libraries in the Georgia-South Carolina Area* is complete. Included are special libraries and special subject collections in the area. The price is \$6.50. Prepaid orders should be sent to Mary Slack, Library, Northwest Georgia Regional Hospital, Redmond Rd., Rome, Ga. 30161.

Southern California—Miriam Tees visited the Chapter Oct 18–22. During her stay she addressed a dinner meeting of the Chapter and visited several area library schools.

The program for Nov 20 was addressed by Richard Ayer, research officer, Security Pacific National Bank, on the topic of the California economy. A tour of the bank library was also included in the evening.

Texas—The focus of the first Chapter meeting of the year was on micrographics and was co-sponsored by the Southwest Chapter of the National Micrographics Association. The session was aimed at increasing general knowledge of the field and to aid individuals in selecting microforms and equipment. The second day was filled with a business meeting and a discussion of bibliographic control of microforms and the storage, preservation, and restoration of microforms.

Texas State documents was the topic under discussion at the November gathering. Six panel members spoke and answered questions from the audience. This session was preceded one day by a continuing education seminar on "... Identifying Funding Sources and Writing Grant Proposals."

Toronto—The September meeting was held at the Craven Foundation. John McCormack, program director, gave the history of the Canadian auto industry. Lois Watson lectured on the reference library for antique cars. Lloyd Brown spoke about the collections. A tour of the museum followed.

The October gathering was at the Ontario Institute for Studies in Education. The information referral experiment of the National Research Council's Scientific and Technical Enquiry Service was explained.

Professor R. F. Garrison explored "The Scientific Case for Life on Other Worlds" at a November session at the David Dunlap Observatory.

Upstate New York—The restoration of a flooded library with slides of before, during, and after was the subject of John Martin's address at the Sep 27 meeting. Dr. Martin is on the administrative staff of the Corning Museum of Glass Library.

The Chapter celebrated its 30th anniversary at a luncheon Nov 8th. The speaker, Robert C. Weber, patent attorney, considered recent developments in the copyright laws in his address. A tour of the Craft Museum followed.

Virginia—There was a sizable turn-out for the September meeting. The speaker for the evening was John E. Molnar, library planning coordinator, State Council of Higher Education for Virginia.

A tour of the Health Sciences Library, University of Virginia, Charlottesville, occupied the morning of the November meeting. The luncheon topic was new gadgets for libraries. Optional tours of other UV libraries were available in the afternoon.

Illinois Reports

The Illinois Chapter of the Special Libraries Association conducted a pilot project last spring with social sciences students from George Williams College.

Four student interns spent one day each week from April through May in four special libraries to learn about corporations, how they operate, and the responsibilities of special libraries in business.

"To my knowledge this is the first program of this kind for undergraduate students . . . not interested in becoming librarians," said Janet Heiner, chairman, education committee, Illinois Chapter and manager of the library at Continental Illinois National Bank and Trust.

The Chapter board of directors approved the project based on a previous experience with a student who had interned on an independent study basis. Dr. Marilyn Domer, chairman of the college's social sciences division, conceived of the project as a way for students to gain exposure to and understanding of business through experience and research for a final paper.

For Mary Ann Peterson, who interned with Edward Strable, vice-president and manager of

Washington, D.C.—A series of continuing education seminars is being sponsored throughout the year. The first was held Oct 8. Dr. Eva Chindler-Rainman, consultant, Los Angeles, discussed effective public relations.

Washington, D.C., Documentation Group—The "International Referral System for Environmental Information Sources" and a report on EPA Library system developments were covered by Sarah Thomas Kadec, chief, Library Systems Branch, EPA, on Sep 25.

Washington, D.C., Picture Group—A tour of the Smithsonian's Archives and Picture collection was conducted by James M. Goode.

Washington, D.C., Social Sciences Group—The topic of career management was taken up by Jinx Melia, a career consultant, at the Oct 1 luncheon.

Washington, D.C., Transportation Group—A cruise up the Potomac on the *Dandy* was scheduled for Sep 28.

A joint meeting with the Geography and Map Group was held Nov 13 at AAA Headquarters in Falls Church.

information services, J. Walter Thompson Co., "It's been a real opportunity to see how a complex organization operates. I could test out what the textbook says against what happens."

For Margie Trumbull, the contacts with people were most valuable.

Gloria Worrill is interested in specializing in law in the medical field. Her exposure to a labor law firm with Marion McGregor, librarian for Seyfarth, Shaw, Fairweather and Geraldson, "makes [her] a more rounded person."

Mary Beverly gained experience in the library, the editorial "morgue," the archives department and the "Action Line" group with the *Chicago Tribune*, where Mable Johnson, manager of library services, was her host. The experience might seem far afield for her anticipated employment in medical casework. But she found valuable research material and talked to reporters who have written features on subjects of papers she was writing.

Each student discovered that, "The library is a window to the organization and is called on for help from almost every office because of its information service." These students gained a business experience they would not have had any other way.

Washington Letter

Jan 12, 1976

James Madison Memorial Library Building

Consternation spread through the library world in mid-November, when the leadership in the U.S. House of Representatives proposed taking over part or all of the new Library of Congress James Madison Memorial Building for use as office space for House members or their staffs. The new library building is scheduled for occupation in early 1977.

A bipartisan group of four Representatives led the fight to prevent the conversion of the library building to office space; it appears as though their efforts have been successful. The four are Reps. Lucien Nedzi (D-Mich.), John Anderson (R-Ill.), Richard Vander Veen (D-Mich.), and Joel Pritchard (R-Wash.).

In a "dear colleague" to their fellow House members, the bipartisan group urged opposition to the proposed takeover. They noted that LC currently has staff and collections housed in 10 different locations outside its two permanent buildings. Staff members are crowded into book stack areas, in marble halls surrounded by temporary partitions, and in cellar space designed for storage purposes.

The letter went on to note that the James Madison Building has been designed for the Library's needs, with special humidity control, large areas (rather than individual offices) designed to provide efficient work space for technical operations, and the majority of the area without windows. Even the plumbing and air conditioning facilities would need to be redesigned should the building be used for office space.

The House leadership seems to have backed away from its proposed takeover of the library building, at least for the time being.

Library Services and Construction Act

The Library Services and Construction Act (LSCA), which with its predecessor legislation, the Library Services Act (LSA), dates back to 1956, is scheduled to expire Jun 30, 1976. On Dec 15, 1975, Rep. John Brademas (D-Ind.), chairman of the House Subcommittee on Select Education, held a hearing on extension of LSCA.

Alphonse Trezza, Director of the National Commission on Libraries and Information Science, Allie Beth Martin, President of the American Library Association, Ervin Gaines, Executive Director of the Urban Libraries Council, and a battery of officials from the U.S. Office of Education all testified during the course of the hearing.

The Office of Education witnesses expressed the Ford Administration's opposition to continuing LSCA, while all other witnesses strongly supported its extension for three or more years, with a number of amendments proposed to tighten up the administration of the program and increase the amount of funds available for local libraries.

Rep. Brademas made it clear in his opening remarks that LSCA has strong bipartisan support in Congress. Brademas said, "the problem is between this end of Pennsylvania Avenue (the Capitol) and the other end (the White House)." The House Education and Labor Committee is expected to take action on LSCA shortly after the 2nd session of Congress convenes, probably in mid-January.

The future of the Administration's proposed Library Partnership Act seems very much in doubt. During the hearing on LSCA, Administration spokesmen discussed the partnership proposal somewhat gingerly, using a rather curious "past conditional" tense to describe their proposal. (The library partnership act "would have focused" temporary project grant support on innovative library practices, and "would have led" the federal government out of categorical service support it now has with respect to library programs.) It almost seemed as though the Administration itself no longer supported its Library Partnership Act.

It should be noted in this connection, however, that the nongovernmental library witnesses at the hearing supported the goals of the partnership proposal (improved interlibrary cooperation, development of innovative and more effective delivery systems, etc.), although none supported the precise terms in which the Library Partnership Act has been proposed.

Sara Case
Washington, D.C.

HAVE YOU HEARD?

Computer Circulation Control

Gaylord has a new computer-sharing circulation control system requiring minimal equipment in the library. The computer handles daily transactions, prints overdue notices, and weekly, monthly, and annual statistical reports for each library. For information: Gaylord Bros., Inc., P.O. Box 61, Syracuse, N.Y. 13201.

Doctor of Arts Program

Simmons College School of Library Science is now offering a program for managers who wish to advance in public, academic, special library administration, and school media administration. Preliminary credentials should include a background of several years of library or media center supervisory or administrative experience, a master's degree from either a graduate program in library science—accredited by the American Library Association—or in educational media from an accredited institution. In addition, prospective students should offer evidence of quality academic performance and professional competence, and have earned a second relevant subject master's degree, or its equivalent, from an accredited institution. Contact: Administrative Assistant, School of Library Science, Simmons College, 300 The Fenway, Boston, Mass. 02115.

Microfiche Evaluation

The Council on Library Resources has published William R. Hawken's *Evaluating Microfiche Readers: A Handbook for Librarians*. This kit is meant to supply the information necessary for a nontechnically trained person to evaluate microfiche readers and reader-printers. The *Handbook* is being distributed free to libraries. Write on your library's letterhead to the Council on Library Resources, One Dupont Circle, Suite 620, Washington, D.C. 20036. Include a self-addressed mailing label.

Conservation Proceedings Available

The proceedings of the Boston Athenaeum/New England Document Conservation Center 1973 Seminar on the theoretical aspects of the conservation of library and archival materials and the establishment of conservation programs is available. Write to the New England Document Conservation

Center, 800 Massachusetts Ave., North Andover, Mass. 01845. Cost: \$12.00.

ERIC

The Educational Resource Information Center has a brochure available for those who wish to use its resources or teach others about them. The paper is entitled "ERIC: What It Can Do for You/How to Use It." Price: \$3.75 prepaid. Write to: Box E, School of Education, Stanford University, Stanford, Calif. 94305.

NY Personnel Manual

The New York Library Association has published a revised *Outline of a Personnel Organization and Policy Manual*. It is available at \$2.00 each for 1-9 copies, \$1.50 each for 10-49 copies, and \$1.00 each for over 50 copies. Send prepayment to: New York Library Association, 60 E. 52nd St., Suite 1242, New York, N.Y. 10017.

Double Masters in Archival Administration

The School of Library Science, Case Western Reserve University, has a new degree program leading to an MS in library science and an MA in history or American studies. Forty-eight credit hours are required. For information inquire of the Admissions Office, School of Library Science, Case Western Reserve University, Cleveland, Ohio 44106.

Metric Education Guide

The American National Metric Council has an in-service training guide for companies converting to metric. Single copies are available at \$6.00 each prepaid; there are discounts for larger quantities. Write for the *Metric Education Guide for Employee Training* to ANMC, 1625 Massachusetts Ave., N.W., Washington, DC 20036.

Library Education

Five MLS candidates (Alvarez, Canning, Chien, McDivitt, and Rock) at the University of Maryland have compiled a *Report on Library and Information Science Education in the United States: 1975*. The *Report* supplies data on 542 institutions of higher education in the U.S. and in Canada, if accredited by the American Library Association. This volume is available from the Student Supply Store, University of Maryland, College Park, Md. 20742, at \$5.00 per copy.

New in Engineering

On Jul 18, 1975, a new Bibliographic Division was authorized for Engineering Index, Inc. Among its many responsibilities are the study and evaluation of Ei's current system of bibliographic control, the establishment of standards for bibliographic description of all primary materials and the descriptive cataloging of nonjournal materials, and assisting publication of *Publications Indexed for Engineering*.

Canadian Business Information

A specialized index of Canadian business information provides comprehensive coverage of business events in Canada. It will be published

monthly with an annual cumulation. Plants include coverage of approximately 100 industrial and trade magazines. Price: \$350.00 annually. Write to Information Access, c/o Micromedia Limited, Box 34, Station S, Toronto, Canada MNM 416 concerning the *Canadian Business Periodicals Index*.

Periodicals Directory

The Tehran Book Processing Centre of the Institute for Research and Planning in Science and Education announced the publication of *A Directory of Iranian Periodicals, 21st March 1974-20th March 1975*. The compiler is Poori Soltani. Price: U.S. \$8.00. Write: Tehran Book Processing Centre, P.O. Box 11-1126, Tehran.

Alphabetically Cumulated 10-Year Microfile to Engineering Abstracts

The ALPHA-DEKA Microfile incorporates 10 years of transdisciplinary engineering abstracts, published in Ei Annuals (1974-1965), alphabetically assimilated on individual cartridges or reels. All engineering main headings (as listed in Ei's "Subject Headings for Engineering"), beginning with "A" (arranged year by year), are on separate cartridges or reels.

One can utilize the ALPHA-DEKA Microfile in conjunction with a reader/printer for printing out desired abstracts on a specific topic and, by advancing the film using the rapid traverse, printing out abstracts for this topic for successive years.

One can also use ALPHA-DEKA in conjunction with on-line search services such as Ei's COMPENDEX. Using the on-line interactive services, the librarian may request search output in the form of abbreviated surrogates (i.e., references reflecting subject heading, title and document number). The searcher may then review the complete references, including the abstracts, with ALPHA-DEKA. Thus, the microfile can provide savings in time (waiting for off-line printouts), as well as savings in the cost of printing search output off- or on-line.

The ALPHA-DEKA Microfile is available on 16mm cartridges or 35mm reels to meet all reader/printer specifications. Both microfilm forms are shipped in Princeton Micro-Shelf units (free of charge) for compact storage. Samples of ALPHA-DEKA are available on a 30 day loan basis for evaluation. For information: Engineering Index, Inc., 345 East 47th St., New York 10017.

POWER PLANTS—Contd.

Costs See NUCLEAR POWER PLANTS—Costs.

Earthquake Resistance See NUCLEAR POWER PLANTS—Site Selection.

Fuel Economy See FUEL ECONOMY—Operations Research.

Fuels

005014 ENERGY IN EAST EUROPE THROUGH 1980. Presents the results of a factual and comprehensive study of the potential of energy industry in East Europe and its longrange objectives. The report sites development of past and future interaction between domestic sources of energy. It also discusses dependence of East European communist countries on foreign sources of fuels and power. This study is an endeavor to present in more comprehensive form than any available, heretofore, a current analysis of the energy industry of East Europe, together with forecasts of probable future developments. 32 refs.

Strishkov, V.V. US Bur of Mines, Washington, DC; Markon, G.; Murphy, Z.E. *ASME Pap n 74-Pwr-A* 1974, 15 p.

Geothermal Energy

005015 CIVIL ENGINEERING FEATURES OF GEOTHERMAL POWER PLANT. Geothermal power is harnessed by releasing steam from a geothermal reservoir through bore holes and conducting it through a heavily insulated pipe system to a turbine-generator unit. Low magnetic readings, a negative gravity anomaly, elliptic topographic expressions, and recent nearby volcanism indicate the heat source is intruded magma at relatively shallow depth. Selection of a plant site is determined by: (1) proximity to producing steam wells; (2) esthetic blending with the environment; (3) competent foundation material; and (4) the optimum economic overall site development evaluation. A plant consists of a turbine-generator building and an induced draft cross-flow type cooling tower. The structures are designed to use corrosion-resistant materials. Seismically,

COMING EVENTS

Mar 10-12. Processing and Automation at the Library of Congress, Institute . . . Library of Congress and Old Town Holiday Inn, Alexandria, Va. Sponsor: American Library Association. Contact: Donald P. Hammer, Executive Secretary, Information Science and Automation Division, ALA, 50 E. Huron St., Chicago, Ill. 60611.

Apr 3. Information Broker/Free Lance Librarian, Workshop . . . School of Information Studies, Syracuse University. Purpose: to identify and discuss alternative information services.

Apr 26-27. Hospital Librarians' Section, Association of Western Hospitals, meeting . . . San Francisco, Calif. Contact: Mrs. P. Hamilton, Peninsula Hospital, 1783 El Camino Real, Burlingame, Calif.

Apr 27-30. National Micrographics Association, 25th Annual Conference and Exposition . . . McCormick Place, Chicago, Ill.

Apr 29-30. Maryland Library Association, Annual Meeting . . . Pikesville, Md. Contact: Jean Barry Molz, Program Committee Chairman, Maryland Library Association, c/o Baltimore County Public Library, Administrative Offices, 320 York Rd., Towson, Md.

Apr 30. Elizabeth Ferguson Seminar . . . YWCA, New York. Sponsored by the New York Chapter, SLA and the YWCA, City of New York. For and About Business Libraries. Contact: Tessie Mantzoros, Business Week Library, 2112 Avenue of the Americas, New York, N.Y. 10020.

May 2-6. Acquisition of Latin American Library Materials, 21st Seminar . . . Indiana University, Bloomington, Ind. For information write: Rosa Abella, Acquisitions Department, University of Miami Library, P.O. Box 248214, Coral Gables, Fla. 33124.

May 3-7. Association for Educational Data Systems, 14th Annual Convention . . . Phoenix Arizona. Contact: Rick Meyer, Phoenix Union High School District, 2526 W. Osborn Rd., Phoenix, Ariz. 85281.

May 6-8. New England Educational Media Association, Spring Conference and Exhibition . . . Portsmouth, N.H. For information: Joseph F. Giorgio, Fairfield Public Schools, Fairfield, Conn. 06430.

May 9-21. Library Administrators Development Program . . . Port Deposit, Md. Sponsor: College of Library and Information Services, University of Maryland. For further information write to Mrs. E. T. Knight, Library Administrators Development Program, College of Library and Information Services, University of Maryland, College Park, Md. 20742.

May 13-15. Library Orientation for Academic Libraries, 6th Annual Conference . . . Ypsilanti, Mich. Sponsor: Center of Educational Resources, Eastern Michigan University. Theme: Library Instruction in the '70s: A State of the Art. Registration: \$55.00. Contact: Hannelore Rader, Center of Educational Resources, Eastern Michigan Univ., Ypsilanti, Mich. 48197.

May 25-26. National Micrographics Association, Computer Image Processing Division Seminar . . . Peachtree Center Plaza, Atlanta, Ga.

May 27. Trends and Applications 1976: Micro and Mini Systems . . . National Bureau of Standards, Gaithersburg, Md. Sponsored by the IEEE Computer Society and the National Bureau of Standards. Contact: Marvin V. Zerkowitz, University of Maryland (301) 454-4251.

May 31-Jun 5. International Federation of Library Associations, Open Seminar . . . Seoul, South Korea. Theme—Eastern Publications: Their Control and Use by East and West. Contact: Secretary, IFLA, P.O. Box 9128, The Hague, Netherlands.

Jun 1-4. On-Line Retrieval Workshop . . . Urbana, Ill. Sponsor: Graduate School of Library Science, University of Illinois.

Jun 6-10. Special Libraries Association, 67th Annual Conference . . . Denver, Colo. Theme—Information: The Unlimited Resource. Contact: John Rock, SLA, 235 Park Ave. So., New York, N.Y. 10003.

Jun 6-12. Educating Library Users, an advanced reader service course . . . Brooklyn, N.Y. Sponsor: Graduate School of Library and Information Science, Pratt Institute, Cost: \$314. 3 credits.

Jun 6-19. Intercultural Processes in Libraries, an institute . . . University of Texas at Austin, Austin, Texas.

Jun 7-10. National Computer Conference, 1976 Annual Conference . . .New York. Write: Dr. Stanley Winkler, IBM, 18100 Frederick Pike, Gaithersburg, Md. 20760.

Jun 18-20. Institute of Information Scientists, 7th Biennial Conference . . . Saint Andrews, Scotland. Contact: L. Corbett, University of Stirling, Stirling FK9 4LA, Scotland.

June 20-24. American Association of Law Libraries, Annual Meeting . . . Sheraton Boston Hotel, Boston, Mass.

Jun 22-25. Library Association, Library Management Course . . . Easthampstead Park, Wokingham, Berkshire, England. Write: David Baynes, 61 Crossways, Crawley, West Sussex, U.K.

Jun 28-Jul 1. International Codata Conference, 5th Biennial . . . Boulder, Colo. In the Western Hemisphere and Japan, write to Dr. H. Van Olphen, National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, D.C. 20418, U.S.A. Others contact: CODATA Secretariat, 51 Boulevard de Montmorency, 75016 Paris, France.

REVIEWS

Library Operations Research: Computer Programming of Circulation, by Robert J. Daiute and Kenneth A. Gorman. Dobbs Ferry, N.Y., Oceana Publications, 1974. 368p. \$25.00.

From the standpoint of a systems person, this book is well organized and well documented. It begins with a 29-page summary that is both non-trivial and fairly readable. This is followed by an eight-page introduction and four major sections on sampling theory, a description of a research project on in-library book use, the rationale of computer methods employed, and an overview of selected problem areas of library operations. There are 100 pages of appendixes, 74 of which are given over to complete listings of the FORTRAN IV programs that were actually used in the study. The book is also indexed.

From the standpoint of the average librarian, the subtitle will be misleading, the subject matter will seem abstruse and technical, and the price will be deemed exorbitant.

The subtitle *is* unfortunate, because it implies a study of automated circulation systems to most people familiar with library literature. In reality, the authors mean to imply a computer-based, quantitative study of the use of library materials. The subject matter will not be bothersome at all to those already familiar with inferential statistics; the authors have used the student *t*-test and the chi-square test in their work. However, most librarians' training is limited to descriptive statistics, thus making the reading more difficult than it would be for a different population. With respect to price, it *does* seem high considering

the fact that the book was plainly prepared from double-spaced, typewritten copy, with hand-drawn radical signs and other figures often awkwardly spaced on the pages.

These factors are likely to turn off the very people who need the book's message the most. There is a clear need for more books dealing with quantitative methods in librarianship—for better research, particularly in the social and behavioral science areas, where statistics can hardly be avoided, and also for better management and administration, where decisions are all too often made on the basis of intuition alone. On this latter point, the authors have the following to say:

Quantitative standards serve to supplement the judgment of professional librarians. Statistics cannot (repeat cannot) be used independent of the competent librarian's judgment. Where there appears to be a conflict between judgment based on professional experience and what is suggested by the results of the quantitative analysis, the two must be integrated. The librarian, himself, must integrate the two.

The proper inference to be drawn from this would seem to be that operations research and statistics are not a panacea, but that more librarians must familiarize themselves with quantitative methods of analysis such as those described in this book.

Charles H. Davis
School of Library Science
University of Michigan
Ann Arbor, Mich.

Continuing Library and Information Science Education: Final Report to the National Commission on Libraries and Information Science, by Elizabeth W. Stone, Ruth J. Patrick and Barbara Conroy. Washington D.C., G.P.O., May 1974. \$5.05. Stock # 5203-0045

For anyone with an interest in continuing education (*not only* for librarianship), this book is more than worth the price for the bibliography alone. In 83 pages it covers a wide range of materials: books, chapters, articles from journals; many elusive materials such as mimeographed papers, unpublished doctoral dissertations, university published reports, etc., that are often made retrievable through the Office of Education identifying numbers; even one or two news releases are listed (*but* always so identified!) Difficult-to-find reports are extremely well documented. No attempt was made on the part of this reviewer to find the "earliest" citation listed but there were many as recent as 1973. For a book dated May 1974, that is extremely timely.

There are four chapters (each separately paged) and five appendixes as well as the bibliography. The appendixes include: Survey Instruments; Questionnaire Survey-Tables and Analyses of Data (which is a gold mine of information); List of Persons Interviewed; Alternative Models; and AALS-CLEN Position Paper on continuing library education for submission to other relevant and interested groups.

Chapters 1 through 4, with six figures and 40 tables make a well-organized, explicit plan of the study with clear and descriptive headings to help the reader return to the section wanted (there is no index).

Chapter 1, entitled "A Nation-wide Plan to Meet the Information Needs of the Public" gives the background of the study and details of the research methodology. It is here that the philosophy (to involve as many people as possible in order to build on their expertise and experience) and the three survey instruments are described. These include a questionnaire sent to representatives of all national libraries, all state, regional and national library associations, all accredited library schools and all state library agencies (a total of 201). There was a response of 139 or 69%. Regional associations and state library associations had a response of only 57% but state library agencies and accredited library schools responded 76% and 78%, respectively, national library associations only 63% (24 of 38), but national libraries responded 100%.

A partial sample of academic, public, school and special libraries and unaccredited library

schools made up the balance of the audience to which questionnaires were sent (271 total, of which 12 were sent to special libraries). The survey had a 74% response rate but only 70% were received in time for tabulation. The special libraries had a 67% response rate. If 12 libraries seems like a small sample of special libraries, one should note that there were only 12 academic libraries, 13 public libraries and 13 school libraries.

In addition to the questionnaire, over 100 people were selected to be interviewed either in person or by telephone. (Interview guides for interviewee and interviewer with probe directions are included in appendix A).

The third instrument was a mini-charette. A "charette" is described as taking a week or longer; "mini" implied one day or evening. The mini-charette format calls for gathering experts to react and "brainstorm" to come up with ideas for designing a conceptual and practical plan. Suggestions for the mini-charettes and instructions were included as well as forms to be used to report. A bibliography with extensive abstracts of some ten citations was also included. This package was sent to members of the CLEN (Continuing Library Education Network) of the Association of American Library Schools.

Persons from other professions were to be invited to these mini-charettes. There were 12 held in time to be used, including one of 25 people over a telephone network.

An Advisory Board of 10 persons was used. While only one person officially represented SLA, several others on this Board are members of SLA. The board's purpose was to guide and counsel the project team in every phase of the project, including development of the models.

Chapter 2 describes "A View from the Field" interweaving information from the literature as well as data gathered through the survey instruments. In 88 pages it defines continuing education incorporating six broad concepts, discusses priorities that were articulated, and identifies major issues underlying a national plan for continuing education. In addition to examining areas of librarianship (medical libraries, law libraries, etc.), other professions were also examined in relation to continuing education: medicine, engineering, architecture, banking and education, among others.

Chapter 3, "The Continuing Library Education Network and Exchange (CLEN)—A Service and Resource Facility," presents the basic recommendation of the report and describes the components: an assembly, a

steering committee, an administrative board, a panel of review and evaluation, a CLENE executive director and a small central staff to carry out the four processes: needs assessment and problem definition, information acquisition and coordination, program and resource development, and communications and delivery.

Chapter 4, "Implementation Plans," describes the five stages of implementation with four alternative plans regarding responsibility. Several alternative institutional environments are discussed with the recommendation that CLENE be organized as a nonprofit corporation.

Five different possibilities for housing are discussed with pros and cons for each and funding possibilities are presented.

Appendix A gives complete details of the questionnaire, the interview schedules and instructions for conducting the mini-charettes. Appendix B covers the questionnaire survey and presents tables and detailed analyses. Appendix C lists all the persons interviewed.

Appendix D includes for each of the three alternative models: the rationale, the picture (a diagrammatic plan of how it would work), a verbal explanation of "how it works" with examples, and finally a critique of the models.

Appendix E is a position paper by AALS-CLEN and finally there is the excellent bibliography, which covers continuing education in dental, dental hygiene, medical, nursing, legal, engineering, teaching (on all levels, including graduate teaching), banking, public accounting, psychology, paramedical, business administration, clergy, and library professions as well as in adult education in general, continuing education for military personnel, government employees and mid-career retraining.

As a well planned, scholarly study written in a clear manner, it is of tremendous importance to the entire library field and of great importance to special librarianship.

This is an historic document that will be widely quoted. It should be in every library; but, more importantly, it should be read by every librarian.

Pauline M. Vaillancourt
State University of New York at Albany
Albany, N.Y. 12222

Computer-Based Information Services in Science and Technology: Principles and Techniques, by Michael F. Lynch. Stevenage, England, Peregrinus, 1974. 96 p. \$9.20.

For the first three-quarters of this book, Lynch talks about computers and their characteristics as they relate to information systems. I felt that this introduction to the computer has been done much better in books by Lancaster, Vickery, Becker and Hayes, and others.

In addition to my feeling that other books had done better than Lynch in terms of content, I also felt the same about writing ability. The four authors I mentioned are, in my estimation, better with the English language than Lynch. I also felt it difficult to understand why we need one more book in the already crowded area of information retrieval.

In the last thirteen pages of this book, Mr. Lynch describes the various data bases available for computer manipulation. This portion of the book is no match for the latest effort by Lancaster in his *Information Retrieval On-Line*. From the title of Lynch's book, I thought these last thirteen pages contained the meat of the book. But packaging this portion in only fifteen percent of the book does undermine its emphasis.

All in all, I was not impressed. There are other books which cover the same ground and do it with more depth and with greater interest for the reader.

Masse Bloomfield
Hughes Aircraft Company
Culver City, Calif.

Indexing Languages and Thesauri: Construction and Maintenance. by Dagobert Soergel. Los Angeles, Melville Publishing Co., 1974. xliii, 632 p. \$29.50

Vocabulary Control for Information Retrieval. by F. W. Lancaster. Washington, D.C., Information Resources Press, 1972. xiii, 223 p. \$17.50

The Thesaurus in Retrieval. by Alan Gilchrist. New York, Chicorel Library, 1972 / London, ASLIB, 1971. viii, 184 p. \$18.75

Guidelines for Thesaurus Structure, Construction, and Use. Z39.19-1974. New York, American National Standards Institute, Inc. 1974. 20 p. \$4.50

The past decade has seen many and varied forms of thesauri, vocabulary lists, and subject headings lists for both generalized and specific areas of study. As a topic of interest, the informal history of the subject proves enlightening.

In the early sixties, COSATI was established as the model format for thesaurus

development; then came the ERIC guidelines, essentially similar although one was for science and the other education. These two provided the basic rules of entry, but lacked the careful, considered reasoning behind the choice and decisions that governed the final rules. The newest equivalent is the American National Standards guide (New York, 1974) which sets the rules to be followed while constructing a thesaurus, with a brief explanation for the beginner. In effect, this is like reading the AACR rules without a basic cataloging text in hand or a long-term memory from the cataloging workshop. It provides only a rudimentary help for the beginning thesaurist (one who develops a thesaurus—author's term).

During the later sixties, numerous articles appeared, directly or indirectly concerned with vocabulary control, primarily for indexing and automatic information retrieval systems. Sometimes these articles were theoretical, some pragmatic, usually limited in scope to the particular type of subject literature being indexed by the author. Several treatises on classification and indexing also were published, but seemed to be tangential to thesaurus construction.

It was not until the seventies that the problems of thesauri were defined *per se* and promulgated for discussion by both experts and novices. The latter, by this time, were the ones usually called upon to perform the actual work involved in making the actual thesauri for the individual or societal information retrieval systems being developed all across the world. (By 1972, it seemed to have become a fad rather than a serious attempt to develop a tool for retrieval). But from all this activity, mostly un-coordinated by either professional librarians or information scientists, some good thesauri did result, thereby testing the theoretical guidelines under 'real' conditions of use. Where these results were published, or the actual thesauri were published, they helped illustrate which guidelines were important and which were really relicts of traditional cataloging, once necessary—or maybe still necessary in a manual system—but inadequate or unnecessary for thesauri construction.

Alan Gilchrist (New York, 1972 / London, 1971) issued the first text suitable for use in a novice class to explain the purposes and problems of thesauri construction. His emphasis is on automated retrieval systems, with examples, especially chapter 8: "Case Studies." As usual, his thesauri examples dealt with the subject languages for "hard sciences" which already had a fairly standardized vocabulary. Hence his explanations for term selection are rather general. More important to the novice is

chapter 9: "Query formulation and Venn diagrams." Otherwise only chapter 2: "The Thesaurus and Its Terms" and chapter 4: "Recall Oriented Devices" deal with the theory needed for the decision-making processes at the construction level of thesauri commitment.

F. W. Lancaster (Washington, D.C., 1972) issued a parallel effort at vocabulary control about the same time as Gilchrist. Although it was not written specifically for thesaurus construction, its first twelve chapters deal with problems encountered in development of the thesaurus, as the most rigid of controlled vocabularies in present information activities. His illustrations of those areas of decision-making and choice guidance are very well written. The rules governing the linguistic application in English are extremely lucid. As is to be expected, Lancaster uses the American schemes of retrieval as examples, contrasted to Gilchrist's European ones. Probably this book is the best one to use with novices who have a background of indexing or subject cataloging, but lack experience in term development.

Dagobert Soergel (Los Angeles, 1974) provides an advanced text to Lancaster's work. He covers many of the same topics, but in much greater detail. Moreover, as an active thesaurist, he has included many comments on the personal level which help define areas of potential problems—often leading to major revision of the novice's work. Designed to be utilized at several levels of learning, this text fails to cover the beginning level adequately. The introduction, parts I and II, are presented as beginning material, but the average beginner may find them a little difficult to follow. They seem to be a logical introduction for the intermediate student, one who has already had experience in developing and using controlled vocabulary of some sort. Parts III and IV are the advanced part of the text, containing the pragmatic concerns involved in large-scale, complex thesaurus construction and its subsequent maintenance. Soergel does not include cost figures as part of these sections (Lancaster includes some costs in his chapter 24) nor the administrative structure necessary to coordinate the activities and purposes of the thesaurus project, but otherwise he deals with the major problems of long-term thesaurus maintenance quite admirably. None of the authors mentioned deal with the administration structure adequately, but then neither has any of the current thesaurists written articles dealing with it adequately either. (I now refer to costs, stress-lines and personnel changes within the parent or supporting administration sponsoring the thesaurus project.) A

comprehensive study of MeSH would be a good example of a "real" thesaurus project within the U.S. National Library of Medicine's activities and mandate for information dissemination. Lancaster has done some work within this area, but it has not been adequately included in his vocabulary control work. Perhaps this aspect of thesaurus construction is better listed in the works about management rather than the intellectual problems of thesaurus development.

Using these books as a set, one can follow the progress of knowledge from the beginning level (Gilchrist or Lancaster) to the advanced level of our current state of thesaurus develop-

ment and construction. The organization of knowledge will never be either complete or encompassing (UDC and Dewey notwithstanding), but retrieval remains specific to the system. And thesauri or other controlled vocabulary modes seem to be the most efficient retrieval tools for a specific area, at least in the opinion of the reviewer. Hence it is well, for the benefit of those dealing with retrieval, that thesaurus construction can be taught and developed with good texts available.

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SLA at '76 NCC

Special Libraries Association is again sponsoring a program at the 1976 National Computer Conference to be held June 7-10, 1976, at the New York Coliseum. The session, the theme of which is "Enhancing Library Services Through Computer Technology," was organized by SLA's NCC Coordinator Carol A. Johnson (director, AFCRL Research Library, Hanscom AFB, MA).

Recent advances and cost reductions in computer and information technology now make it possible to extend the library's basic role of helping its users. This improvement can be expected in the following ways: increase in the amount of information available; greater variety in packaging; more power of information selection for increased efficiency of access from a large variety of data bases by the individual; improved information processing capability through computer aided scanning of text; improved feedback communication to originator of information; improved interpersonal communication. Much of the computer application in libraries has been concentrated

on "housekeeping" operations, which may or may not benefit the library user directly. The intent of this session is to focus attention on ways of employing the computer, telecommunications, and associated technologies to deliver products and services which improve information acquisition for individuals.

Vivian S. Sessions (associate professor, Center for the Advancement of Library/Information Science, City University of New York, NY) will speak on "On-Line Information Services for Users in the Special Library Environment." The respondent will be Gordon Randall (librarian, Research Division, IBM, Yorktown Heights, NY). Murray Turoff (associate professor of computer science, New Jersey Institute of Technology, Newark, NJ) will discuss "Interpersonal Communications for Special Library Users." The respondent will be Donald King (associate dean and associate professor, Graduate School of Library Science, Rutgers University, New Brunswick, NJ).

PUBS

Single photocopies of articles listed in this section are available from the SLA Library for the noncommercial purpose of scholarship or research. Articles up to four pages in length are available at no charge. There is a charge of \$0.50 per page for articles five pages or more in length to cover the costs of duplication, processing and postage.

Monographs

(76-024) **Handbook of Special Librarianship and Information Work.** Batten, W.E., ed. 4th ed. London, Aslib, 1975. 430p. SBN 85142-073-7

Series of essays providing an analysis of information service.

(76-025) **Manual of Business Library Practice.** Campbell, Malcolm J., ed. Hamden, Conn., Linnet Books, 1975. 186 p. \$10.00. LC 75-20223. ISBN 0-208-01359-8

Basic work on business and commercial librarianship in the United Kingdom.

(76-026) **Micrographic Systems.** Costigan, Daniel M. Silver Spring, Md., National Micrographics Assn., 1975. 228p. illus. (NMA Reference Series No. 16). \$16.50 (\$12.50 NMA members). LC 75-29532

Introduction to micrographic systems planning. Glossary and list of published micrographic standards included. Available from: NMA, Publication Sales, 8728 Colesville Rd., Silver Spring, Md. 20910.

(76-027) **A Glossary of Indexing Terms.** Buchanan, Brian. Hamden, Conn., Linnet Books, c1976. 144p. \$9.00. LC 75-20312. ISBN 0-208-01377-6

Expansion of a list used at Loughborough School of Librarianship. Includes definitions, examples and listing of related terms.

(76-028) **Library Planning Institute, June 23-27, 1975, Proceedings.** Sponsored by the California State Library. Sacramento, Calif., California State Library, 1975. 222p.

Available from: California State Library, Public Information Office, Sacramento, Calif. 95809.

(76-029) **Libraries in Higher Education; the User Approach to Service.** Cowley, John, ed. Hamden, Conn., Linnet Books, c1975. 163p. \$11.50. ISBN 0-208-01371-7

Compilation of essays primarily concerned with library services in polytechnics.

Periodicals

(76-030) **Indian Journal of Library Science.** Vol. 1 (Nos. 1 & 2) (Mar/June 1975). Changdar, K.G., ed. Calcutta, India, Institute of Librarians. Quarterly.

(76-031) "An Analysis of the Demand for Librarians." Cooper, Michael D. *The Library Quarterly* 45(4): 373-404 (Oct 1975).

Examination of some of the variables affecting the future demand for librarians. Among those examined are: population growth; retirement rate; hiring patterns; and, the growth of industry in education, health, and local government sectors.

(76-032) "The Status of Women in the Administration of Health Science Libraries." Goldstein, Rachael K. and Dorothy R. Hill. *Bulletin of the Medical Library Association* 63(4):386-395 (Oct 1975)

Results of a survey of 140 large health science libraries in the United States indicate that they are most likely to be administered by men. The percentage of women directors has declined radically since 1950.

Standards

(76-033) **Microfilm Package Labeling.** National Micrographics Association. 1975. ANSI PH5.19-1975. NMA MS6-1975. National Micrographics Assn., Silver Spring, Md. \$2.00 (\$1.50 NMA members).

Approved Aug 20, 1975, as an American National Standard. Available from: NMA, Publication Sales, 8728 Colesville Rd., Silver Spring, Md. 20910.

(76-034) **Dimensions and Operational Constraints for Double Core (Bi-Axial) Cassette for 16-mm Processed Microfilm.** National Micrographics Association. 1975. ANSI PH5.22-1975. NMA MS16-1975. National Micrographics Assn., Silver Spring, Md. 10p. \$4.00 (\$3.00 NMA members).

Approved Oct 16, 1975, as an American National Standard. Available from: NMA, Publication Sales, 8728 Colesville Rd., Silver Spring, Md. 20910.

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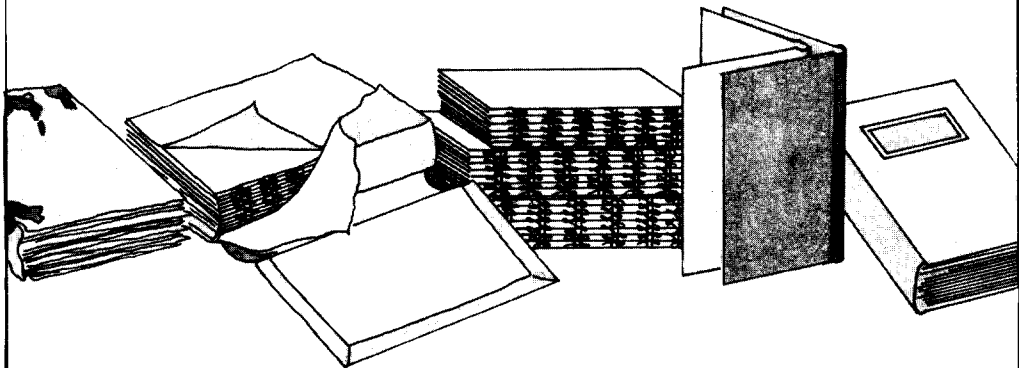
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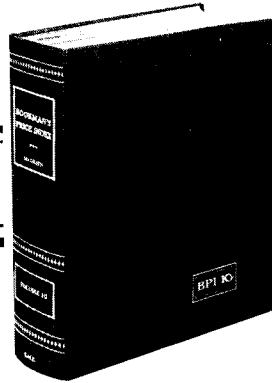


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