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# *special libraries*

*February 1975, vol. 66, no. 2*

- Continuing Education Method
- Formula Budgets
- Computer Routing
- Deafness Center
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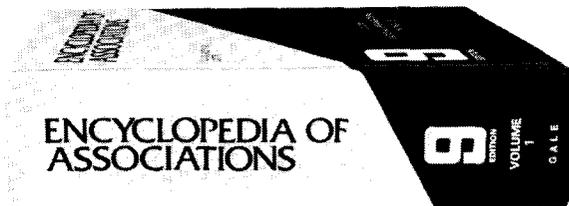
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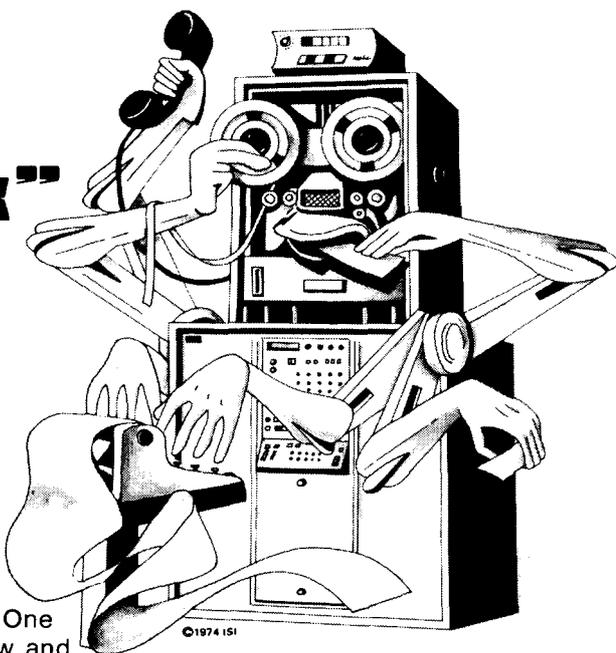
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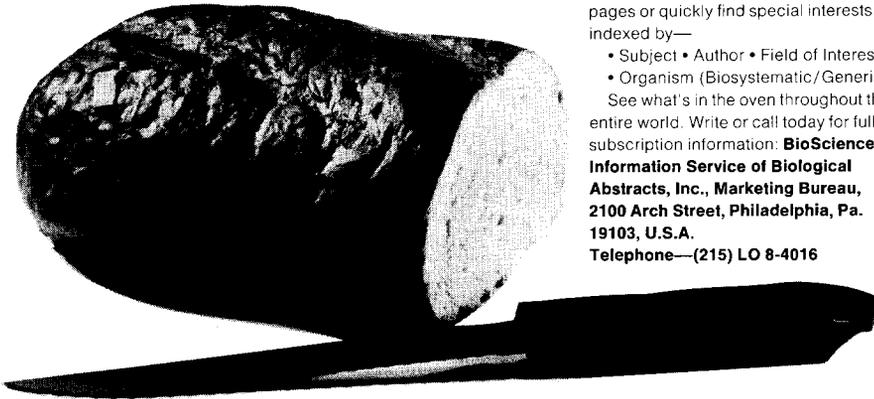
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# *special libraries*

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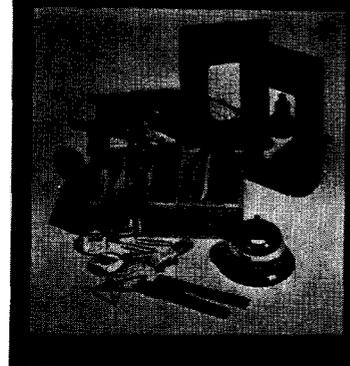
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## LETTERS

### *FAO Channels Open?*

Since August 1973, I have been engaged in organizing and acquiring materials in the marine resource field, with particular attention to fisheries. The emphasis has been less on the scientific and more on the statistical and practical aspects of utilization since the objective of this organization is to assist developing countries in maximizing usage of their marine resources.

One of the extremely important sources for such reports and data is the Department of Fisheries of the Food and Agriculture Organization of the United Nations. I have become increasingly frustrated in my attempts to obtain material published by FAO, be it recent or past. Much of the valuable work consists of working papers or conference proceedings which are not normally distributed through publication channels. A successful search may involve such a period of time that when the material is received it is no longer needed by the researcher.

I wonder if others have had similar problems and could make suggestions. It appears to me that a need exists for a committee to discuss this situation and perhaps work with FAO. I would appreciate any suggestions on this topic.

**Jacqueline P. Alexander**  
**International Center for Marine**  
**Resource Development**  
**University of Rhode Island**  
**Kingston, R.I. 02881**

### *A Library in Need*

In lieu of the continuing financial crisis at the American Geographical Society in New York, I urge SLA and its members to support the Society in any way they can. The present situation may lead to eventual storage of the library in another location or, worse yet, an auction of some of the rarer materials to keep the Society financially solvent.

As one who has used the Society's library, I cannot emphasize the importance of its collections to historical research in a variety of fields. Its unique geographical library classification, maintained by an equally unique and qualified staff, is especially useful for those interested in geographical research.

As a collection whose reputation is known world-wide, it would be unfortunate to have its collections dissolved in any way. As a special library, we should all be concerned with its fate.

**David A. Cobb**  
**University Library**  
**University of Illinois**  
**at Urbana-Champaign**  
**Urbana, Ill. 61801**

### *Materials Requested*

We are writing as librarian and education clerk for special housing unit X-wing at the correctional training facility, central. "SHU X" is a maximum security, protective custody unit, completely isolated from the main prison's population, as well as its educational and library facilities.

We are trying to build, from scratch, a library and education center with materials from the elementary through the collegiate level for the men housed here. In our efforts to provide resources and reading materials, we must of necessity ask organizations, publishers, etc., for their help. The few books that we have are old and rather beaten up from hard and extensive use.

We were hoping that your association members would donate some books, of any type available. The men here have diverse reading preferences and very little to read.

We hope that you will be able to help us. Thank you for your time and consideration.

**E. L. Richardson**  
**A. F. Secada**  
**Soledad, Calif. 93960**

*Materials may be sent in care of Mr. A. Christensen, CC-I, C.T.F.-Central, P.O. Box 686, Soledad, Calif. 93960.*

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# Continuing Education in a Problem Solving Model

**Patrick R. Penland**

University of Pittsburgh, Graduate School of Library and Information Sciences,  
Pittsburgh, Pa. 15260

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■ The continuing education of librarians is under critical examination. Patterns of internship and in-service training are being supplemented by the simulation of operational systems within which professionals can begin to apply the principles of lifelong learning. One such simulation, with both on- and off-line

roles, is described as a model for inducing interpersonal and persuasive behavior in a "real life" environment. The model and its behavioral outcomes are presented for those planning integrated training programs in the resource specializations of media, library and information science.

---

**A** PROGRAM of life-time study should be evident on the part of librarians in order to meet their leadership role in society. More often than not, however, the librarian promotes the continuing self-education of patrons, but in the process gives little if any attention to his own recurrent education. In fact, it was not until mid-1971 that some evidence appeared which would indicate any serious consideration of the need for continuing education among librarians (1). This situation may be symptomatic of a profession immersed as it is in a subject orientation to knowledge rather than primarily to the problems of people (2).

## **Motivation**

Any librarian's personal motivation for continued learning will in the last analysis result from a highly individual

mixture of such elements as social responsibility, desire for advancement, an interest in supplementary professional training, and the need to keep abreast of new knowledge and technology. But most of all, the librarian as a leader among equals will have to demonstrate more clearly than in the past the viable nature of recurrent education to the various participants in his client system. Lifelong learning has, of course, been involved with a number of familiar forms, but the inadequacy of these methods soon becomes evident when faced with the question of larger social accountability.

The library profession, if not media and information science, has always aimed at encouraging the patron to employ the leverage of control in his "real life" experiences. Personal development emphasizes the processes by which the

individual reconstructs and reorganizes the reality around his own personality and emotional life. The intrapersonal organization of the individual affects his relationships with the environment and his own interpersonal communication. Self-concept and self-image are explored in order to develop a reality-oriented viewpoint of self, social relations, and information processing ability. Personal development is the mainspring of continuing education in its efforts to solve developmental and professional tasks.

### Approaches to Continued Education

Various communication approaches present significant opportunities for the individual concerned about his continuing education. Team project work, large/small group instruction, simulation and games as well as remote and individualized instruction, for example, cannot be ignored with a supercilious remark that they tend to "dehumanize" library science, whatever that means. On the other hand, these innovative instructional practices cannot be considered as a complete answer to the problem of recurrent education. Recurrent professional development should be carefully evaluated in the context of its role within the total process of professional and continuing education, as well as for in-service staff development. The following may serve as innovative examples of the use of technology in the processes of staff development.

- Videotape recording for the analysis of group and micro instruction as well as other types of clinical experiences.
- Expand simulation and gaming techniques to include a variety of career field training programs.
- Experiment with remote access to individual computerized instruction as well as other types of programmed instruction.
- Provide mediated learning environments equipped with modern electronic aids for individualized as well as group study and project work.
- Develop computerized and mediated resource networks for search and retrieval of various data files whether in media, library, or other community information centers.

### Classroom Simulation

An agency-community encounter simulation has been developed to provide a learning environment so programmed as to require the development of problem-solving skills by participants. The simulation functions as an experimental encounter system, where the entropy reducing components of the cybernetic model operate in a simulated social system. This system has been developed at the Graduate School of Library and Information Sciences, University of Pittsburgh, for research and instructional purposes. Demographic, land use, and legal data of Allegheny County (metropolitan Pittsburgh) serve as the cold-start constraints before fifteen weekly cycles carry the encounter system fifteen years into the "future" of the county's library system.

All of these data describe the activities of an urban community, and provide the environmental matrix within which the participant is involved. The on-line/off-line model is cybernetic in terms of its response to input (man or machine) and can cause new interpretations of the response by those receiving the input for the next cycle (man or machine). The computer presents legal and financial information to the participants, such as: demographic characteristics and personal income; federal and regional economic accounts; industrial development and output; local labor accounts; county program expenditures and revenues.

The simulation is so large and complex that a computer is necessary to handle the data manipulations and the complex calculations involved. The agency-community encounter consists of a computer simulation which provides the statistical and spatial data to describe the characteristic assets and liabilities of an urban area. In addition, the participants assume role positions common to public and private sectors of urban society. Their responsibility is to determine and solve a limited scope of problems existing within the simulated community in a context which approximates real situations.

The participants are free to experiment by modifying existing governing institutional structures, administrative procedures and interpersonal-intergroup behavioral patterns. The participants are assigned, or are elected to roles which are typically found in an urban community, such as: governmental bodies including county commissioners; county agencies including education, libraries, and welfare; business and industrial groups; labor unions; real estate and town planning; citizen groups both traditional and activist.

Because of the "discovery" structure of the self-learning environment, the participants are motivated to modify legislation, reduce restrictions or encourage new solutions to urban problems. As a whole, the participants are charged with the responsibility of analyzing the data output in order to determine problem areas within the simulated community. Once problems are identified, the participant (playing his role) develops plans and programs which have to be implemented by restructuring legal, political, institutional and fiscal activities.

For enrolled students in the Graduate School of Library and Information Sciences, the simulation continues for 15 weeks. Each week represents one simulated year in county development. Participants meet 2-3 times each week and make legal and financial decisions about county affairs. In the following week, participants have to "live with" these decisions and make new ones. At the end of each week a "debriefing," or "awareness development," session is held. During this session, participants and instructors help each other discover learning progress by discussing salient aspects of that week's activities.

### Other Uses

Besides this classroom use of the simulation in "formal" instruction, it has been used for short-term institutes—a pattern particularly relevant to continuing and recurrent education. The first major use of the simulation for continuing education occurred in 1970. A de-

tailed description of the training model is presented in the publication, *Floating Librarians in the Community* (3). This discovery-learning simulation was used again in 1971 for another group of 24 practicing librarians. The library-related component was enlarged; and the training model was described in the publication *Discovery Management for Librarians* (4).

Typically, twenty-five practicing librarians have been involved in the simulation for one or two weeks. They inject themselves "en masse" into one or two weekly cycles of an already on-going simulation, and interact directly with the other participants either in on-going roles (e.g., labor union) or in newly "created" positions, such as library director, library planner, or community information specialist. These practicing librarians have been able to participate in the simulation based upon an orientation session including videotape demonstrations.

A research psychologist has been employed to conduct pre- and post-tests of participant involvement and self-development. The instruments employed include: attitude rating scales, semantic differential, goal checklist, tolerance of ambiguity, narrative diaries. These instruments were designed to measure both affective and cognitive characteristics about the content and the process of the simulation experience. Major results which stand out among others include:

Simulation learning is equal to or better than classroom instruction or peer group learning experiences.

Simulation is most influential in understanding community structure and dynamics, as well as the processes of decision-making especially as they affect the librarians' professional role.

A well designed simulation is capable of giving the participant an understanding of the complex interactions involved in any real system, without defining these interactions explicitly. This is important because many participants expe-

rience difficulty in understanding the complex equations required to describe a real system. The simulation participant gains an overall "feel" for the structure of complex social situations. There is also an increase in confidence in his own ability as a decision-maker; because decisions can be made and the results immediately experienced to an extent which is impossible in "real life" situations.

Librarians concerned about their continuing education cannot be expected to attain an overall grasp of the variety of behavior in a system merely by reading or listening to lectures in which basic principles are taught. A way has to be found to bring these principles together into a coherent, well-balanced and recognizable form. While librarians may flounder upon a direct approach to the complex transactions, simulation participants can inductively learn how to work with them. The simulation is a "natural" motivator for participants who lack the spontaneous inclination to investigate behavioral interactions. In fact, on-line behavioral environments overcome the limitations of reality as a learning environment, by giving enough structure to reality that the leverage of self-control is placed squarely in the hands of participants.

A simulation is a systematic approach to the interaction of structure and process in transactional environments. Agency structure and process are reciprocal and cannot be studied separately from the environmental factors which impinge on organizations. Growth and change processes are just as important as structure and knowledge because feedback is a critical output of the dynamic interplay of the components in the system. In a simulation built for that purpose it is possible to manipulate variables and try on a number of roles to a degree that is simply impossible in most special library settings.

### Some Prototypes

The features of a simulation are different from the exercises which lead up



to it and upon which it is in part based. Simulation overcomes the limitations of the case study method, even though the case study forms a preliminary step in the design of most simulation models. The following exercises often employed in problem-solving and continuing learning formats may be considered as prototypes of the computer-assisted simulation:

- The case study is not a dynamic representation but a descriptive study of the state of a system at one or more points in the past. The participant is required to analyze and discuss the system as presented; there is no possibility of the system being modified by participant action. No matter how realistic the case study may be, the decisions have already been made and can only at this point in time be discussed.

- The in-tray exercise is an extension of the case study and the participant is expected to play one specific role. Usually a time limit is set and under pressure, the participant must deal with a problem and make the decision demanded by the role. The roles can include a number of management imperatives, or be grouped around one theme such as a career ladder. Depending upon previous decisions, the participant is to some extent constrained in future decision-making.

- The incident process exercise is a further development of the case study. The exercise restricts the amount of information given to the participant at the beginning of the process, and this obviously forces him to assess his information requirements before making a decision. Such exercises orient the participant to demand information on

which to base decisions and force a realization of the difficulty of determining exactly the information required.

- Role-playing carries the learning exercise process one step further toward greater sophistication. A group of participants take part interactively in a situation taken from life. When terminated by the leader-trainer, participants discuss and "evaluate" the behavior generated.

The more complex simulations involve equipment and human beings in competitive situations with rules and regulations. Although simulated role-playing may provide an opportunity for the fostering of interpersonal relationships among participants, computer-based simulation games are probably more effective in nurturing the problem-solving and decision-making competencies of continuing learners. Variations in simulations occur, but the design procedure remains basically similar: the process in consideration is analyzed; a mathematical model is developed; a human player analog of the model is designed; the original analysis and model are refined through trial.

### Guidelines and Assumptions

Involvement within the parameters of the simulation allows for the evaluation of feedback. Participants can observe the effects of their own decisions and those of others, and can individually assess personal satisfaction over their continuing professional development. A number of dimensions constitute the environment within which individual transactions occur:

- Degree of fidelity to the real situation must be determined between complete realism (at the cost of ease of playing) and oversimplification (at the cost of intellectual validity).

- Activities range from intuitive role-playing to wheeler-dealer gaming; and the optimum mix of win/loss motivation versus unstructured or undirected participation must be determined and expressed in rules and a code of ethics.

- Learning content varies from the abstract knowledge-comprehensiveness so typical of librarianship to the action informa-

tion so relevant to transactional "real life" environments.

- Designer bias in systems analysis and model building is mediated by participant skills, competencies and involvement so as to realize the purpose and integrity of the learning enterprise.

- Innovation and change occur as a result of a relation between the constraints of a highly replicable situation which tends to reduce realism and a low replicable situation which tends to deny participants the feedback necessary for self-evaluation.

- In a situation which approximates real life, the criteria and evidence of success may range from performances based on self-determined goals to the position that it is necessary to win at any cost.

Conceptually, the model is simple; but the matrix of observable activity within the simulation can be exceedingly complex. Fundamentally, involvement is dichotomous—information access *vs* political power. The more widely accessible the information is, the less centralized is political decision-making. The following assumptions underlie the computer-assisted learning environment:

- The understanding of participants toward their professional roles varies directly with increased information and communicative contacts.

- Social power varies directly with the ability to supply information for decision-making and with the number of communicative contacts.

- The complexity of the decision-making processes varies directly with the amount of information available and the number of communicative contacts.

- The explication of social issues and problems is a function of information. Without information, people could not move from informal through formal to technological awareness of social concerns and interests.

- Issue awareness and problem identification varies directly with citizen involvement and the monitoring of governmental decision-making.

Behavior is shaped by immediate consequences. Only those consequences which a professional person perceives will shape his behavior. The change takes effect by altering the concepts, habits and skills which made that in-

stance of behavior necessary. Basically involuntary, professional development or socialization occurs whether the person is aware of it or not. If awareness accompanies the shaping, it can make behavior more deliberate. Behavior modification will occur or be precipitated only to the extent that perception and conceptualization took place. Consequently, it is difficult if not impossible to effect behavior only in general ways or achieve behaviors that are stated in broad goals such as the ability to make wise decisions.

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# Formula Budgeting: An Example

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■ A formula has been developed for the projection of book fund needs and public service, technical service and administrative staffing in academic and research libraries. The formula-produced projections are related to the concept of the "weighted user" where quantitative measures are applied to users of the li-

brary at different levels of sophistication. Inflation/deflation factors, increases/decreases in the user population and other workload measures are taken into account. The formula appears to be applicable to smaller collections including business and industrial libraries.

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**T**HE USE of formulas to prepare budgets and budget estimates in academic and research libraries has a certain allure just as it does in other more specialized collections. It is a rare librarian who has interest or training in the preparation of budgets and budget forecasts. The apparent ease, economy, and simplicity of plugging in a few figures and getting a completed budget instantly is hard to resist. Furthermore, it can give you a budget that seems realistically defensible rather than one that is more impressionistic and less amenable to a ready defense.

Budget preparation by formula in academic libraries is a relatively recent phenomenon. Arthur M. McAnally (*1*) reviewed the state-of-the-art in 1963. He identified three basic approaches to formula budgeting then in use as well as some of the more important variations.

Perhaps the simplest approach then in use was the application of an arbitrary percentage of the institution's gen-

eral fund or instructional budget to the support of the library. The figure most often suggested was 5%. A major drawback to the application of this formula on a state-wide basis if we are speaking of formulas applicable to all public supported institutions of higher learning in a given state is that no allowance is made for differences in graduate program size. While it allocates a gross sum to the library, it is no help in determining the internal distribution of funds.

A variation on this approach which applies only to book funds was the application of a fixed percentage growth rate to the size of the collection usually 4% or 5%. A unit price was then applied to the number of volumes to be added. The objection here is that no distinction is made between new and rapidly growing institutions which will necessarily have high growth rates and older, stabler schools with more modest growth rates. The setting of the unit price is likely to be highly arbitrary and inflation may not be taken into account.

**Table 1. Clapp-Jordan Formula for Estimating the Size for Liminal Adequacy of the Collections of Senior College and University Libraries (2)**

	Books		Periodicals		Documents	Total
	Titles	Vols.	Titles	Vols.	Vols.	Vols.
To a basic collection, viz:						
1. Undergraduate library	35,000	42,000	250	3,750	5,000	50,750
Add for each of the following as indicated:						
2. Faculty member (FTE)	50	60	1	15	25	.100
3. Student (graduate or undergraduate in FTEs)	...	10	...	1	1	12
4. Undergraduate in honors or independent study programs.	10	12	...	...	...	12
5. Field of undergraduate concentration—"major" subject field	200	240	3	45	50	335
6. Field of graduate concentration—Master's work or equivalent	2,000	2,400	10	150	500	3,050
7. Field of graduate concentration—Doctoral work or equivalent	15,000	18,000	100	1,500	5,000	24,500

A second major type of formula budgeting was the application of a set dollar figure per student to arrive at a gross library budget figure. A commonly used figure ten years ago was \$30. Today it would probably have to be in the range of \$100 to \$150. A formula of this type, if applied on a state-wide basis, again makes no allowance for the variation in costs of library service to various categories of students.

A third major approach was the application of cost analysis to the budgeting process. The actual cost in time of all library operations is carefully computed. A book budget is established so that units to be processed can be calculated. Circulation and reference workloads are estimated. It is then possible to arrive at a very detailed budgetary statement for the library. This approach is clearly the most detailed and useful but it is also the most complicated and expensive to administer.

### Clapp-Jordan Formula

In 1963 relatively few academic libraries used any of the budget formulas suggested above. It was not until the publication in 1965 of the so-called Clapp-Jordan formula (2) that formula budgeting began to make inroads on more traditional budgeting systems. Remarkably enough the Clapp-Jordan formula was never intended by its inventors to be used as a budgeting device. It was, in

fact, intended to be a rough approximation for "estimating the size for liminal adequacy of the collections of senior college and university libraries." There is nothing in Clapp-Jordan that is of assistance in determining required staffing.

Not the least of the dangers of using Clapp-Jordan as a way of estimating the number of volumes which should be acquired is that once you reach liminal size you presumably need no more books. Furthermore, if the enrollment declines or doctoral fields are eliminated, the collection size should, presumably, decrease.

What Clapp-Jordan did introduce that has had an impact on formula budgeting was the concept of "weighting." A faculty member was assumed to have a greater impact on library requirements than an undergraduate. A doctoral field was assumed to have a greater impact than a field of undergraduate concentration. It is this weighting concept which permits the same formula to be used for a liberal arts college and for a major university that has given formula budgeting its present impetus.

By 1970, when the Washington State Formula was adopted, a number of states had adopted or were considering adopting Clapp-Jordan or some variation of it. Weighting had also been applied to some of the earlier forms of formula budgeting, e.g., some states were using a graded scale of dollars per stu-

dent depending on their academic level. The tables presented in this paper show the variations of Clapp-Jordan and the weighting factors used at various locations. (The weighting factors have been converted so that freshmen/sophomores are in all cases scaled at 1.00.)

The Washington State Formula (3) is so far the most elaborate formula in actual use. In addition to basing book requirements on Clapp-Jordan, the formula adapted a proposed staffing formula from California (4). Florida and the California State College system have adopted similar formulas.

Kenneth S. Allen (5), Associate Director at the University of Washington, has written a long critique of the Washington formula which emphasizes a number of deficiencies of that formula. For anyone considering the adoption of the Washington State Formula, Allen's critique is essential reading.

### A New System

The State of Michigan has been gradually working its way toward a program budgeting system for institutions of higher learning. Under the system as proposed, library costs, ideally, would be "charged" to specific academic units. That is, the library would not be considered to be a "program." The accounting systems, operating procedures, the whole library organization made the process of budget preparation for the library a frightening prospect. In seeking solutions to the problems the library turned to the possibilities of some form of formula budgeting. It should emphasize that the formula presented here has not been officially adopted as yet by the University Library, the University, or the State. In any case, some possibilities of using formula budgeting as a way to rationalize internal budgeting operations were seen.

Early on in the investigations we established that the budget should be made up of five components: book budget; public service personnel budget; technical services personnel budget; administrative services staffing; and "cur-

rent expense," i.e., telephones, supplies, equipment, travel, etc.

In addition we made some assumptions and set some arbitrary guidelines. For example, because we wanted to be able to measure the impact of new or enlarged programs of teaching and research on the library, we wanted book funds to be a function of the size of the clientele: faculty, students, and research staff. We knew from previous budget projection work in the library that technical services staffing could be handled best if it were a function of either the book budget or of the number of units to be processed in the department. We thought that public service staffing would, like book funds, be a function of the user population.

The first step we took was to develop a series of weighting factors. The development went as is shown in the following list:

- (1) Let  $a$  = weighting factor for 100/200 level students  
 $b$  = weighting factor for 300/400 level students  
 $c$  = weighting factor for graduate, graduate professional students, research staff and professional/administrative staff  
 $d$  = weighting factor for faculty
- (2)  $a < b < c < d$
- (3)  $a = 1$

From circulation data in the Undergraduate Library and from current observations in the divisional libraries where the concentrating juniors/seniors start using the collections, we could estimate that

- (4)  $b = 2a = 2$ .

We also found out from circulation data that faculty used the collections on a per capita basis about 2.5 times the student use and similarly that graduate students, per capita, used the collection 2.5 times more heavily than undergraduates. With this data we were able to develop the weighting for graduate stu-

dents and faculty:

$$(5) c = \frac{2.5(a + b)}{2} = 3.75 \sim 4$$

$$(6) d = \frac{2.5(a + b + c)}{3} = 5.81 \sim 6.$$

We have chosen then to use the series 1—2—4—6.

### Acquisitions

Acquisitions were taken to be, for a given academic unit, the product of the number of weighted users in the unit and the average number of monographs and serials, considered separately, required to furnish a research level collection. It was necessary to separate monographs and serials because of both acquisition patterns and cost factors. The sciences simply acquire more serials per user than the humanities. The cost of monographs in fine arts is likely to be higher than those in library science.

The book budget for any unit then became the sum of the product of the average cost of a monograph in the subject area and the product of the number of weighted users and the average number per user of monographs to be acquired plus the similar products for serials acquisitions.

### Technical Services Staffing

The technical services staffing formula used was borrowed from the Washington State Formula adapted to very large research libraries. The basic formula is:

$$\text{Technical Services Staffing} = \frac{(cs)(up)}{a + b(cs)(up)}$$

where *cs* is the collection size in millions and *up* is the number of units to be processed during the year. Factors *a* and *b* vary depending on the size of *cs* and *up* and are intended to reflect both the added difficulty of entering a new item into a large system and the economies of scale.

$a = 300(cs)$ , with *cs* expressed in millions.

and

$$b = \frac{up - 300 \text{ FTE}}{(up)(\text{FTE})}$$

where *up* is the total units processed during the past year and the FTE (Full-Time Equivalents) is the current technical services staffing.

The units to be processed include not only items purchased as determined in the acquisitions formula but estimates based on a three-year moving average of the gift and exchange materials received and the number of transfers and withdrawals which can be anticipated.

Once the number of FTEs required to process the units acquired by any given unit is determined, the technical services budget is calculated by multiplying the FTEs by the average FTE cost.

### Public Service Staffing

Public service staffing has been conceived as the sum of the requirements placed on a unit by 1) the necessity of keeping the doors open and providing minimum security and service; 2) providing necessary circulation service including overdues, fines, holds, hold credits, etc.; 3) serving the clientele of the service unit, including reference services; and 4) maintaining the collection. The formula for public service staffing does not provide an immediate response to new services, but it is sufficiently flexible that such requirements could be met over a period of a few years.

A service point can be defined as a place in a library where a person must be stationed at any time the library is open. In divisional libraries, for example, a person must be at the circulation desk whenever the library is open to the public. In the Undergraduate Library, somebody must be at the door to provide security, somebody must be at the circulation desk, and somebody must be at the reserve circulation desk. At the University of Michigan it was assumed that, on the average, all service units of the University Library should be open 90 hours a week. The total number of FTEs required to keep one person in a

library at all open hours is then 2.45 and the first term in the public service staffing (PSS) formula becomes 2.45*n* where *n* is the required number of service points in a given library.

Over and above the requirement that somebody must be present any time the library is open, there are other circulation duties. Somebody must collect fines and account for money. Overdue notices must be prepared and sent. Holds must be placed on books for those patrons who have requested them. Hold credit notices must be sent on those students who have not returned books overdue at the end of the term. Books must be placed on reserve. We have determined that approximately 2,000 of these transactions can be handled each year by an FTE staff member of any labor grade level. This figure may seem low, amounting to little over one an hour, but the complexities of the total circulation operation seem to demand this kind of attention. The second term in the equation becomes then 0.05*c* where *c* is the projected circulation in thousands.

The final term of the equation relates to both service to the clientele, which would include reference work, and stack maintenance. The volume of activity in these areas is seen as the product of the weighted users (in thousands) of the collection and the size of the collection (in thousands). This product (weighted user-volumes) is then divided by the number of such weighted user-volumes as can be serviced by an FTE.

The final equation for determining public service staffing has been chosen to read:

$$PSS = 2.45n + 0.05c + \frac{(wu)(cs)}{a}$$

where *n* = service points, *c* = circulation, *wu* = weighted users, *cs* = collection size, and *a* is a variable related to the use of the collection. The determination of the value of *a* has been rationalized. It is a hyperbolic function and is related to the activity of the collection. Larger collections tend to have a greater

proportion of lesser used materials as would be expected. The value of *a* then is found by the following formula:

$$a = 160 + \frac{e^x - e^{-x}}{2} = 160 + \sinh x$$

where *x* is collection size/circulation [*cs/c*] (in thousands).

### Administrative and Administrative Services Staffing

The projection of administrative and administrative services staffing covers the directors, the heads of the Graduate and Divisional Libraries, the Personnel Officer, Budget Office, Current Expense Office and other units not covered by either public service or technical service staffing projections. Our experience is that this group makes up 6% of the total FTE staffing.

### Current Expense

Based on recent experience, "current expense" can be calculated as 10% of the total materials and personnel costs. Current expense covers data processing costs, telephone service, travel, equipment and supplies.

### MEASURING THE IMPACT OF NEW PROGRAMS

The formula which has been developed here can be used to estimate the impact on the university library of a projected new instructional or research program. For purposes of illustration here we have projected a new "Center for American Indian Studies." We have assumed that a basic collection of monographs and serials exists. If it did not, we would have to make an estimate of the one-time retrospective purchases which we would have to make.

Let us suppose that the center is to start with 100 graduate students and a full-time equivalent faculty of 10. We will also assume that the already existing basic collection numbers 10,000 volumes. If it can be assumed that collecting in the area of American Indians is a cross between anthropology and sociology, we can project the number of

**Table 2. Volume Entitlement**

	Clapp-Jordan	Wash. State	Florida	Calif. State
Basic or "opening day" collection	50,750	85,000	85,000	75,000
Per FTE faculty	100	100	100	...
Per FTE student	12	15	15	*
Honors undergraduate	12	0	0	0
Undergrad. major in subject field	335	0	0	0
Per master's field (terminal)	3,050	6,100	7,500	3,000
Per master's field (with PhD)	0	3,050	**	0
Per PhD	24,000	24,500	15,000	5,000

\* California State Formula provides for increasing of collection for each 200 students over a floor of 600 by 10,000 volumes.

\*\* Florida eliminated the recommended resources for non-terminal masters programs. It was thought that where the doctorate was the terminal degree, the resources provided could support the lower level program.

**Table 3. Weighting Factors**

Class Level	Washington	Texas	Ontario	Florida	Ohio
100/200 Freshman-Sophomore	1.00	1.00	1.00	1.00	1.00
300/400 Junior-Senior	1.80	...	...	1.76	1.30
500 Master's	4.30	2.00	2.00	2.05	2.30
600/700 Doctoral or Graduate Professional	6.00	8.56	...	4.76	3.00

monographs and serials we will need to purchase:

$$\text{Monographs per weighted user} = 0.744 \left[ \frac{0.618 + 0.870}{2} \right]$$

$$\text{Serials per weighted user} = 0.465 \left[ \frac{0.453 + 0.477}{2} \right]$$

$$\text{Weighted users} = 100 \times 4 + 10 \times 6 = 460$$

$$\text{Monographs} = 460 \times 0.744 = 342$$

$$\text{Serials} = 460 \times 0.465 = 214$$

If the average cost of a monograph in this area is \$10 and the average serial cost \$20, then the required book funds for a year's operations would be:

$$\$10 \times 342 + \$20 \times 214 = \$7,700.$$

Binding costs would be approximately 107 volumes @ \$2.90 or \$310. (We would assume little or no gift and exchange transactions the first year.)

Public service staffing can be calculated assuming any level of circulation that seems reasonable. We have chosen 20,000 as an estimate. If this center were to have a separate library, the staffing

costs would be:

$$\text{PSS} = 2.45(1) + 0.05(20) + \frac{0.46 \times 10}{160.52} = 3.48 \text{ FTE.}$$

The technical services staffing would be:

$$\text{TSS} = \frac{556 + 107}{1003.8} = 0.66 \text{ FTE.}$$

Administrative and administrative services staffing would be calculated as 6% of the combined public and technical services staffing, or 0.25 FTE.

The costs of public and technical services staffing would be:

$$4.14 \times \$7,847 = \$32,487.$$

$$\text{The administrative costs would be: } 0.25 \times \$10,503 = \$2,626.$$

The total personnel costs would be \$35,113.

Current expense would total:  $0.10 \times \$35,113 = \$3,511.$

The total cost of the operation would be \$46,634.

### Conclusion

We are confident that the proposed formula will be of use at the University

of Michigan with some small refinements. As pointed out earlier it is not presently being used. In the preparation of budgets since its completion, we have run it in parallel with our traditional budgeting procedures and, as expected, it has demonstrated certain inequities in the allocation of funds. We hope to continue experimenting with it until it becomes acceptable to all units of the University Library.

### Synopsis of Formula

1. Total Budget = Book Funds + Public Service Staffing + Technical Service Staffing + Administrative and Administrative Services Staffing + Current Expense.
2. Book Funds = (Weighted Users  $\times$  Monographs Needed per Weighted User  $\times$  Average Cost per Monograph) + (Weighted Users  $\times$  Serials Needed per Weighted User  $\times$  Average Cost per Monograph) + (Volumes to be Bound  $\times$  Average Cost per Volume to be Bound).
3. Public Service Staffing = (Average Cost per Full-Time Equivalent)  $\times$  [(2.45  $\times$  Number of Service Points) + (0.05  $\times$  Projected Circulation [in thousands]) + (Weighted Users [in thousands]  $\times$  Collection Size [in thousands])  $\div$  a] where  $a = 160 + \sinh x$ , and  $x = \text{collection size [in thousands]} \div \text{circulation [in thousands]}$ .
4. Technical Service Staffing = (Average Cost per Full-Time Equivalent)  $\times$  [(Collection Size [in millions]  $\times$  Units to be Processed)  $\div$   $\langle a + (b \times \text{Collection Size [in millions]} \times \text{Units to be Processed}) \rangle$ ] where  $a = 300 \times \text{Collection$

Size [in millions] and  $b$  is a factor related to the units processed and current staffing.

5. Administrative and Administrative Services Staffing = (Average Cost per Full-Time Equivalent)  $\times$  0.06  $\times$  (Full-Time Equivalent Public Service Staffing + Full-Time Equivalent Technical Service Staffing).
6. Current Expense = 0.10  $\times$  (Book Funds + Public Service Staffing + Technical Service Staffing).

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# Computer-Generated Routing Slips

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■ A small corporate library evolved a computer system that generates routing slips to send 180 periodicals to 310 persons according to their individual and changing requests. The process by which the system came into being is presented,

along with a description of the administration of the system and the operational perimeters and versatility of the computer program. Benefits that have accrued to the library as a result of this program are touched upon.

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**F**IVE years ago, before a formal library was organized within the company, a large segment of the staff received periodicals paid for by the company. These periodicals were usually ordered by department heads, most of whom routed their publications within their departments. The total periodical list at that time numbered between 70 and 80 titles with much duplication. For example, 35 copies of *Electrical World* were ordered. Today that number has been reduced to five.

When the library was set up, it was decided that 1) the staff should begin turning to the new library for all information needs, 2) a repository of periodicals for reference should be established, and 3) the library should have the ability to control the duplication of periodicals. Each person receiving periodicals was persuaded to turn his subscription over to the library for administration

and routing. One of the most convincing points in favor of this plan was the early purchase of the best available indexing services within our fields of interest.

## The First Routing System

Once the library took over the existing periodical subscriptions, a good many subscriptions thought necessary to broaden the company's information base were added. A list was compiled and a copy was sent to most of the staff with the request that they check those periodicals they wished to have routed to them. We then hand-posted these routing requests for each publication. The immediate benefit was that we could see the total number of persons wishing to see each periodical and were able to adjust our purchases accordingly.

Our hand-posted routing slips were typed and printed on 3 in. × 5 in. paper. In about a year and a half the wrinkles had been ironed out of the system and acceptance was good. However, we were becoming conscious of a number of

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drawbacks. First, the hand-posting was becoming increasingly cumbersome as more staff members signed up for more magazines and our periodical list grew. Second, human error crept into both the posting and typing. Third, since we printed a six- to eight-month supply of routing slips at a time, changes were necessarily made in writing which increased the possibility of error.

### **The Computerized Routing System**

To solve these problems a computer program was designed to generate the routing slips. Through the years the original program has been broadened. Presently 180 periodicals are routed to 310 staff members according to individual and ever-changing requests at a total expenditure of two man-hours per day. This includes logging in the periodicals, affixing the correct routing slips, and keeping the data base current.

No attempt is made to limit the service to technical or professional staff, although such persons do comprise about 210 out of the group of 310, nor to limit the number of periodicals routed to each person. Some people wish to see as many as 30 magazines, while some request only three or four. The average is 15.

To facilitate the routing operation, the number of persons on each routing slip is limited. Multiple copies of a number of periodicals are still purchased.

Ten copies of the updated periodical list are produced each time the routing slips are run and new staff members check off the periodicals they wish to see on these lists.

The routing slips are printed by the computer on 3 in. × 5 in. check weight paper in three-month supplies. The slips are then filed alphabetically (and numerically if multiple copies are required) to await receipt of the periodicals. The program produces the routing slips, plus the updated periodical lists, in approximately 15 minutes of running time on an IBM 370, Model 145 computer.

### **The Functional Details of the System**

The data base is kept on three different types of cards, which are identified by a card control number punched in columns 1 and 2. This card control number defines the format of the data to the computer. In the following description of the functioning of the program, reference is made to the control card number as the most efficient way to describe the details of the program.

#### **Card Control No. 10**

Figure 1 shows the top of a work sheet for card control No. 10. Card control No. 10 indicates to the computer that this card contains data about the person and his or her requests. Field 3-6 holds the code number for each individual. Code numbers for individuals are assigned by the computer in increments of five, so that input for new staff members may be inserted with a code number that maintains the alphabetical integrity of the list. The computer reassigns these code numbers and punches a new data deck every two years, or as needed, for both persons and periodicals.

Field 8-10 contains the hierarchy number of the individual, which corresponds to his position in the company. The corporate president has been assigned the number "1." Ascending and separate numbers have been assigned to each person on the management staff. Supervisors, reporting to managers, are classed as "70s" and all others as "80s." The name of the person appears on the routing slip as ordered by his or her hierarchy number, subject to certain exceptions that are described in the discussion of card control No. 30.

Field 13-40 contains the person's name and field 41-44 shows a code indicating the physical location of that person. Field 45-48 is for a code describing the field of interest of the individual. We used about 10 broad codes, such as ENG, DP, BUS, ECOL, NUCL, etc., which are most likely identifiable by the reader as to meaning. The following fields contain spaces for a listing of up to eight codes per card for the periodical.



cals requested by that person. A person requesting 24 periodicals will have three cards, each containing all the information described above. Currently, the program is written to limit the publications per person to 48.

### Card Control No. 20

In Figure 2 the fields assigned to control number, code number of periodical, and the name of the periodical are shown. Field 63-66 contains the same code as described in the preceding paragraph to identify the field of interest of the publication. Fields of interest identical for both persons and periodicals are used to arrange names on the routing slip when two or more persons with the same hierarchy number appear on one slip. In such cases compatible fields take precedence.

Field 69-70 will show the number of copies of a publication received. If we receive three copies, three separate routing slips will be produced, numbered 1, 2, and 3. The computer accomplishes this by collecting the names of all the people requesting a given periodical, arranging the names by hierarchy number (subject to the exceptions described in the next section), and then choosing the first name on the master list for the top of the first routing slip, followed by the fourth name, then the seventh, then the tenth, and so on. The second name on the master list will top the second routing slip, followed by the fifth name, etc., till all three lists are complete. To prevent an alphabetical arrangement of the names within the 70 and 80 categories of hierarchy, a random sort of the names within these categories is made before further sorting operations are carried out.

Field 73-75 indicates the total number of issues of a periodical received in one year, whether the publication is a weekly, monthly, quarterly, or other. The computer thus determines how many copies of each routing slip will be needed during the three-month period. Some periodicals appear often in parts that require separate routing slips. Such

a magazine is, therefore, here specially coded to produce 100 routing slips annually, which number has so far met our needs.

### Card Control No. 30

The card with control No. 30 produces all the exceptions we have found to be necessary to satisfy the special requirements for individual attention to the staff members. By using a variety of codes in field 4 we may: a) Queue up to 18 persons on a list following a specified person who will fall on the list according to his or her hierarchy; b) Queue up to 18 persons on a list following a specified person who is placed first on the list regardless of his or her hierarchy; c) Have a periodical returned to a specific person; d) Assure that two or more specified persons will not appear on the same list, but will be distributed among the available routing slips for a given periodical; e) Produce a routing slip with only specified persons on it (see Figure 3).

In each case described herein the periodical number must be punched in field 41-44 of control card No. 30 and must also be shown for that person on control card No. 10. A more detailed description of the above functions is given below.

a) The queuing operation is done when someone has a priority need for information, or when a number of persons have such a need relative to each other. It is also done to keep a periodical circulating within a geographic location, such as within a certain building or on a certain floor.

b) A person's name can be forced to the top of a list. Another 17 persons can be listed behind the person placed at the top of the list.

c) Ordinarily, as shown in Figure 4, the first two copies of a periodical are returned to the library and all other copies are marked to be discarded by the last person on the list.

It sometimes happens that someone wishes to maintain a collection of a certain periodical for a given period of

Figure 3. Work Sheet for Card Control No. 30

CONTROL NUMBER	EXCEPTIONS										PERSON'S NUMBER FIRST ON ROUTE LIST	PERSON'S NUMBER SECOND ON ROUTE LIST	PERSON'S NUMBER THIRD ON ROUTE LIST	PERSON'S NUMBER FOURTH ON ROUTE LIST	PERSON'S NUMBER FIFTH ON ROUTE LIST	PERSON'S NUMBER SIXTH ON ROUTE LIST	PERIODICAL NUMBER	EXCEPTION TO NORMAL HIERARCHY		THESE PERSONS NOT ON THE SAME ROUTING LIST																																																											
	PERSON'S NUMBER	PERSON'S NEW HIERARCHY NUMBER	PERSON'S NUMBER								PERSON'S NUMBER	PERSON'S NUMBER	PERSON'S NUMBER																																																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80

Figure 4. Routing Slips

ELECTRICAL WEEK

PLEASE ROUTE TO:

J.W. ELLIS  
 J.H. KING  
 L.E. HALL  
 W.E. WATSON  
 B.M. HOLM  
 R.C. WOOD

RETURN TO LIBRARY

COPY (1)

ELECTRICAL WEEK

PLEASE ROUTE TO:

R.M. DAVIS  
 R.F. WHALEY  
 D.H. KNIGHT  
 E.L. BUSH  
 R.H. SWARTZELL  
 A.E. HOWARD

RETURN TO LIBRARY

COPY (2)

time for reference. If there are two copies of the periodical, one can be returned to the library and the other coded to be returned to that person. If there is only one copy, it can be coded to return to the specified person. As long as we know where the periodical is kept, it is not lost to the rest of the staff.

d) In certain instances, when the library receives multiple copies of a publication, it may be best for two or more persons *not* to appear on the same list. This will most often happen in avoiding unnecessary delays in the receipt of a periodical going to two persons who are on or near the top of a list, although it can be used for persons anywhere on the list.

e) The option of placing a number of persons on a "unique" routing slip is available. This option is called "unique" because no other persons are added to this routing slip, even though they may have requested the periodical. To satisfy the people not specified for the unique routing slip at least one more copy of the periodical must be available.

### **The Auxiliary Program**

We also have an auxiliary program that will print out for each person a list of the periodicals that person is receiving. This can be done with or without a letter as part of the print-out that invites the individual to review his or her list and put in any additions or deletions in the boxes provided. This is sent out with an updated list of the periodicals that includes the code numbers of the periodicals. Without the letter the list can be used by each individual to check on what he receives.

### **Conclusion**

Today the routing system is considered one of the most useful functions of the

library in the dissemination of information. Reaching out to the staff in this manner has been helpful in establishing the function of the library in the corporate consciousness and an invitation to the staff to turn to the library for their other information needs.

### **Acknowledgment**

The author gratefully acknowledges the invaluable contribution of Merle B. Buchanan, who did the programming and trouble-shooting in connection with our system of computer-generated routing slips. Mr. Buchanan normally conducts computer simulation studies on the electrical network in the Systems Planning Section of Puget Sound Power & Light Company.

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# Deafness Information Center

**Kieth C. Wright**

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■ Gallaudet College's special collection on deafness consists of historic materials from the 16th century to the present. Over a 30 year period it has grown to include publications and papers of schools, agencies, and professional groups related to the deaf. The scattered extent of the collection and the administrative procedures followed to focus the

collection on specific, unique information services which will transform the library into a functional, user-oriented special library are described. Establishing priorities, rationalizing procedures, and broadening the support base for the library are highlighted. Various inter-agency cooperative efforts are described.

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**T**HE Edward Miner Gallaudet Memorial Library is the college and research library for Gallaudet College, the only liberal arts college for hearing impaired individuals in the world. In 1876 the library started with 1,021 books which were moved from a primary building to the new College Hall which was completed that year. A basic part of that collection consisted of five hundred titles purchased in 1874 from the estate of Charles Baker, who was headmaster of Yorkshire Institution for the Deaf in England from 1829 until 1874. His library covers the years from 1546 to the Civil War and contains many famous publications connected with the history of the education of the deaf. This historical collection has been added to until the library owns approximately one thousand titles published prior to 1900.

The library serves as the information resource center for 1,200 students and

180 faculty on campus, including a graduate school with majors in education and audiology and counseling. The Special Collection on Deafness has always attempted to preserve and make available not only historical sources but also fugitive literature (pamphlets, reprints, annual reports, school papers, association papers, and technical reports), literature about the deaf or by the deaf, as well as major collections of PhD dissertations and masters' theses having to do with deafness.

The Special Collection on Deafness also serves as an archives for the college. It holds the historical papers and correspondence of the three previous presidents, as well as a record of the college's official institutional life and the organizational papers of several professional groups in the field.

The value of the collection has received national recognition as a research source. In 1970, G. K. Hall Company

published a two-volume "Dictionary Catalog on Deafness and the Deaf" containing approximately 4,800 entries from the Dictionary Catalog of the Special Collection. In addition, University Microfilms has filmed most of the collection prior to 1900 and made this available in a low-cost format to scholars and schools throughout the world (1). In addition, the library also contains an extensive clipping file. A file of people working in the area of deafness and of worthy hearing impaired individuals is maintained. This file now contains between 5,000 and 6,000 names. In addition, a vertical file on topics related to deafness is maintained as part of the collection.

### **A Master Plan**

In the fall of 1972, the Special Collection on Deafness was analyzed during a campus-wide master planning effort. The present operation of the Special Collection on Deafness reflects a basic change in overall philosophy for that collection, and is articulated in the library's master plan for the Deafness Information Center:

By July 1977, the library will open a Deafness Information Center to meet the needs of teachers, researchers, and students in the field of hearing impairment. The following is the schedule as it was outlined. By March 1973, an informal advisory research group will be formed to plan a model deafness information center. The library will develop an operations manual for the "D Collection," defining policies and procedures for selection, processing, archival management, and utilization of resources by July 1973. By July 1974, the library will produce a model deafness information center proposal to be presented to foundations for grant requests. Following this schedule, September 1974 will see reference services to be provided to the specific user groups related to deafness information defined. By January 1975, planning will be completed for a seminar to be held in conjunction with the Congress of the World Federation of the Deaf scheduled for

Washington, D.C., during the summer of 1975. The seminar will be concerned with enhanced utilization of materials related to deafness. Plans will include a list of persons to be invited, funding proposals, and information resources and media production to be used. Before September 1975, the recommendations of the seminar will be translated into specific resource selection policies, designs for user services and requests for necessary budget allotments. And by July 1976, the Deafness Information Center will hire its first full-time director to give specific supervision to the establishment of that center.

### **Opening the Collection**

As a part of that effort, the major components of the Special Collection (books, microfilm books, periodicals) were moved into a central area on the basement floor of the library. At the same time the entire collection was opened for circulation by dividing the collection so that copy 1 of any item is shelved in an archival storage area and all other copies are on open shelves arranged according to the Special Collection classification (2) which was planned as a practical arrangement based on a sizable collection of books rather than a theoretical organization of knowledge.

The periodicals which are related to deafness are arranged alphabetically by title around the "D" Collection study area.

A study of acquisitions costs over a three-year period showed that the library could not afford to acquire or process multiple copies of each item. For this reason, the library now acquires only two copies of all monographs and technical reports. Periodicals and dissertation microfilms are collected singly. These items do not circulate. Where possible, copy one of any item is acquired in microform so that archival storage space can be saved. As the acquisition program has been limited in volume, the focus of the collection through a new selection policy has been sharpened. The basic understanding of that selec-

tion policy is that the Special Collection on Deafness, or the Deafness Information Center, exists to support the instructional program of Gallaudet College, and the goal of the College as a national center on deafness.

Since all information related to deafness in all subject fields cannot be obtained, the collection takes seriously the liberal arts status of the college and the present graduate programs of the college. Insofar as possible, the collection solicits exchange copies of publications and serials of organizations of the deaf, government agencies, and private foundations. Due to the broad scope of social science research, the collection attempts to maintain an increasing number of fugitive materials such as newsletter, broadsides, research papers, pamphlets, correspondence, pictures, and artifacts. The collection does not attempt to cover all medical literature related to deafness as extensively as the National Library of Medicine or its units. Medical publications are collected in areas related to the Department of Audiology and Speech, its course work, and the research interests of the members of that department and its affiliated programs. Specifically, the library collects all House and Senate Hearings related to Gallaudet, the Education of the Deaf, standards of environmental quality that affect hearing, and legislation on the handicapped. Also collected are books and publications that have deaf characters or which are written by hearing impaired authors, when possible. Studies, papers, research reports on education of the deaf, the rehabilitation of the deaf, and organizations in the deaf community are collected routinely.

When possible, the MEDLARS computer service will be made available to graduate students and faculty in order to open up the facilities in the National Library of Medicine.

### Computerization

On the basis of the last two years of reference service in the Special Collection, the library has initiated a contract

with Lockheed Information Systems for use of their DIALOG system, thereby opening up the computer tape files of ERIC, *Psychological Abstracts*, and NTIS, for reference works. This library service is also intended to serve the research needs of other faculty and specialized research projects on campus.

As the Special Collection moves toward a Deafness Information Center, steps have been taken to make information retrieval more effective for our college and nationwide users.

The Deafness Information File is a preliminary step in that direction. All additions to the collection since the publication of the G. K. Hall Dictionary Catalog on Deafness and the Deaf in 1970 are being tagged in the catalog by the library staff. These bibliographic items will be entered into the computer file.

Programs have been developed in SNOBOL-IV Programming Language which allow for clerical entry of bibliographic entry into a file. The format for a file follows the format of the cards for the collection including the following items: call number, author, title, publication data, including place, publisher, and date, pagination data, series notes, notes and added entries. Because of the special interest in agencies and people who work with the deaf or who themselves have a hearing impairment, the note section of the bibliographic entry often includes additional annotations about the particular institution or individual so that the user of the catalog will know the specific relation of that individual to deafness.

The program for data entry is interactive asking for each item in turn. This allows the individual to enter one field at a time, using a teletype machine connected to the computer and the SNOBOL-IV program.

**CALL NUMBER?**

D D A34Y

**AUTHOR?**

Samuelson, John D.

**TITLE?**

THE DEAF IN AMERICA

## **PUBLICATION DATA?**

London, Miller & house [c1973]

(underlined lines are entered by the operator of the Teletype, who strikes the RETURN key after each entry.)

Entries may be longer than a single line in all fields except the call number field. All fields are variable in length. Fields are separated by nonprinting ASCII Code 28. Following the entry of each item, the program produces a directory which shows the length of the entire entry and a serial number. This directory is added to the beginning of each entry. The first four digits of the directory show the length of the entry including all the directory but those four digits, and the 6 digit accession number.

This master entry file is used as input for several other programs. One program produces Wilson type indexes for the collection. This author, title, and subject index has its roots in experimental work done at Columbia University by Theodore C. Hines and Jessica L. Harris (3). This program produces a shelf-list arranged by the special classification numbers of the system.

A search program tied into the teletype capacity of the PDP-10 is under development. This program will allow the user to access a SNOBOL-IV program which will search in any of the fields of the master entry file and print out appropriate citations without their directory field. The search program may be limited to a particular field by responding to program queries in the initial phase of the program. Once the user is connected to the program through the teletype, our first question from the computer is "Limited Fields?" If the teletype user responds with "Yes," the program lists the fields available asking for an "X" after each one wanted. The program utilizes this limiting factor in manipulating the master entry file directory to isolate and search only relevant fields. Naturally, such field limitation will have to be used with care.

In this initial phase, the computer-based file capacity has *not* replaced the manual catalog for the collection. A year long "dual-track" project is planned so that the computer-based file and entry's own index or "book catalog" can be used as well as the card catalog. Once all of the information resources which do not appear in the G. K. Hall publication have been added to the file, and the "bugs" worked out of the system, the Deafness Information Center will become a "book catalog" information center utilizing the G. K. Hall book catalog for historic purposes and the computer produced index for current purposes. This book catalog will be updated on a quarterly basis with the current quarter on deafness available for teletype or CRT retrieval. The Master Entry File on disc (with backup-master tape) will be available for searching on a daily basis.

## **Conclusion**

It is hoped that work with the Special Collection on Deafness will produce guidelines for more general library information file automation for the libraries on campus: The Edward Miner Gallaudet Memorial Library, the Learning Resources Center of the Model Secondary School for the Deaf, and the Learning Resources Center for Kendall Demonstration Elementary School, as well as information resources now located in other special research facilities on campus.

It should be stressed that computer programs and file management systems are still in a very experimental stage. However, it is the goal of the Deafness Information Center to make information resources available to all interested persons—professionals, teachers, schools for the deaf, research organizations, and families.

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# Case Study in Successful Library Computerization

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■ The U.S. Environmental Protection Agency's National Environmental Research Center in Cincinnati, Ohio, has set up a computerized service system following low-cost guidelines. The collection's catalog has been taped and literature searches are now available.

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**T**HE U.S. Environmental Protection Agency's National Environmental Research Center in Cincinnati, Ohio, consists of about 650 personnel concerned with the engineering and applied technological aspects of a wide variety of environmental problems concerning water pollution, air pollution, solid waste management, environmental toxicology, and nuclear engineering. This center, like the three other National Research Centers in the country, carries out these research programs through in-house and extramural projects and interagency agreements.

This library provides services to local staff members, other EPA employees, contractors, and consultants. There are 30 other EPA libraries which service

their local organizations. Personnel ceilings and budgetary limitations keep most of these libraries from performing many routine functions.

From the beginning it was planned that the Cincinnati library would provide computerized services to the other EPA libraries as they became available. The Washington, D.C. headquarters library provided the systems support. Any effort benefiting one library would help the others—an approach that was extremely successful by every measuring standard.

## Start-Up

The Cincinnati library had 12 people in two separate buildings originating from separate agencies now forming EPA who had to be brought together to work as a team. A crash training program on automation was started. The level of skepticism and "show me" attitude was high and had to be overcome through training and orientation.

The most difficult job was winning over the staff not only to accept the new ideas but also to help participate in the planning and conversion operations. There is a higher direct correlation between staff attitudes and failure or success than with any other aspect of an automation system. There was no way to predict how automation would affect staff members' attitudes. The system stimulated a part-time cataloger so much that she became a considerable ex-

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pert on information retrieval; two others, however, resigned after trying hard to make sense out of the "new library," to no avail.

The next problem was funding. The Cincinnati library had to live within a budget established before this project. A minimal effort approach to cost was developed in order to produce maximum benefit. It was necessary to decide what could be accomplished in-house, contracted out or purchased.

### **In-House Systems**

Washington agreed to provide the programming effort to develop a computerized cataloging system, a journal holdings system, a circulation system and a reports system. These systems were discussed in a recent document published by EPA (1, 3). The National Institutes of Health Computer facility was utilized with the WLYBUR software system and with IRS report generator (similar to the BALLOTS system at Stanford). Every program is in the public domain and available to all other EPA libraries, federal government libraries and others with the appropriate hardware configuration and software support.

The Cincinnati retrospective card catalog was edited in-house and the 20,000 entries were entered onto magnetic tape by a contractor using an optical character recognition system at a cost of about \$.50 per title. The NIH computer processes each title and produces on hard copy or microfiche, using Computer-Output-Microform (COM) equipment, a monthly accessions list, a quarterly, semi-annual, and an annual cumulation as part of the new accessions system. Most other EPA libraries are now sending their accessions data to Cincinnati for cataloging and entering into the computer. When cataloging information is needed from a local college, the OCLC (Ohio College Library Center) terminal at Xavier University is used. Present needs for cataloging are fulfilled with one full-time cataloger, limited part-time help and a full-time

input terminal operator permitting the phase-out of the card catalog by gradual obsolescence. Presently there are 11,000 titles representing 17,000 holdings in 28 libraries. It costs \$250.00 for a comprehensive run. It costs \$60.00 for a six month subject, author, and title run. We average 400 new entries a month and produce a complete listing for \$18.00 per run.

The journal holdings system required much less effort but produced an equally successful product. All the EPA library's holdings were input in-house and an annual cumulated book catalog produced. In this system, the titles were entered in Washington with new entries added as required during the current year. Presently there are almost 3,200 titles representing 6,800 holdings in the 28 EPA libraries. The annual cumulated run costs \$16.00 with individual library outputs costing an average of \$1.30. Updating will cost \$300.00 to \$400.00 per year and require six weeks of a clerk's time.

### **Guidelines**

These systems are not beyond the scope of a medium-sized library as long as access to an appropriate computer facility is available. There were certain guidelines that were adhered to in the development which made the quick start-up operation possible. Briefly they are as follows:

1. On-line systems are to be avoided whenever possible. There is almost no operation in a library that requires on-line access. Our system permits terminal access for setting up a run in batch mode. If 24 hours, or more, turnaround time is acceptable, then a cost savings of about 200% over on-line operations is possible. Thus costs are brought under control—so much so that only \$300.00 will produce an author, subject, and title main entry combined union catalog. Our biggest cost is in the printing of copies.

2. Use microforms for output whenever possible. COM is so inexpensive that complete files that contain relatively stable information are almost as

accessible as on-line files at a fraction of the cost. Microform output costs about 10% more than hard copy printouts. At 24× reduction, 200 pages are on one microfiche. Each microfiche can be duplicated for \$.25. The savings come with the duplication. For \$400.00 we provided the staff at Cincinnati, a large number for the other librarians with personal copies of the catalog on microfiche, as well as give-aways to fortify our public relations efforts. The printing of the equivalent set in hard copy would have cost more than \$5,000.00. Additional copies could be prepared in the library for \$.10 per fiche or a hard copy of a page on our reader-printer for \$.05. Readers for microfiche cost from \$100.00 to \$150.00 and are in enough locations, offices, and laboratories to make the fiche catalog easily readable. Within six months of issuance, and some adaptability of the staff, the circulation of books increased 100%.

3. Fixed length records instead of variable length permits lower computer operation costs. It also means a far easier coding job for the programmers which in turn means fast debugging and a shorter time span for the program to become operational. It also makes it possible for the programs to be fixed or modified by lower level (and less expensive) programmers if necessary.

4. The last, and most important, guideline is "don't reinvent the wheel." If a system that can do the job is available, then consider acquiring it. EPA is cooperating with several other government agencies to share in-house developments so that more libraries can be successfully automated in a shorter period of time.

Attached is additional cost information for the systems discussed and other operational systems (Appendix I).

### **Extramural Services**

The use of a computerized literature search service was introduced in order to upgrade reference capabilities. The use of computers for this activity had a

most profound effect on the library. As part of the library's responsibility to the scientific and technical center, literature searches were provided for every EPA employee.

Because of the framework of EPA, data bases in all areas of scientific and technical literature had to be available. By contracting through vendors, the costly alternative of acquiring tapes was avoided. With a short training session from each source the two librarians responsible for these searches quickly developed a highly successful understanding of computer access. When the program began, only 20 searches were run the first month. As of this writing, about 360 searches can be run. User evaluation forms show a continuous rise in positive user response. In fact, the librarians have become accepted as part of the research staff and not the administrative group because of these searches.

Some searches are run on-line by using terminals in the library connected by telephone line to the vendor's computer. Other searches are run off-line where necessary due to the large number of records involved. Current awareness searches are run only on the latest additions. There are about 15 million documents on the data bases presently available.

However, it is expected that several other data bases will be added and some off-line systems may be converted to on-line in the future.

After the search the necessary documents are found in the library where they are usually stored in microforms—microfiche for reports and microfilm for journals. The space savings of microforms permit a comprehensive search service to be accomplished in a relatively small space. Only a library can provide this complete level of service.

On the average a librarian spends about 15 minutes talking to the requestor, planning the search strategy, administrative tasks, and record keeping for each search. About 10 minutes are spent at the terminal. The average search costs about \$20.00 for computer time.

Appendix 2 is a list of 25 computerized literature search services and a breakdown of some of their characteristics (2).

### Conclusion

The computerization of a medium-sized library has made the library the leading source for information services. With the staff now providing access to our holdings on literature searches, the entire library is filled with enough activity to keep all the librarians busy all day in a professional capacity. The library is not just an overhead item but has gained a high degree of visibility and respectability which has resulted in greater support by the administration. Thus staff and budget are not subject to the cuts experienced by other groups.

Finally, the automation of this medium-sized library proved not only that a library is a valuable research tool but also that it can offer librarians an opportunity to work at as high a level of professionalism as they are capable.

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### Appendix 1. System Comparisons.

Some of the common aspects of the library systems are compared. The operation cost comparisons are based on the execution of a computer program that generates a standard report. In all instances, the hardware is NIH's IBM 370/165's and the software is the Inquiry and Reporting System language.

The System	System Development Time*	Computer Program Executed	Execution Time (CPU SEC)		Type of Storage	
			Dollar	Cost/ Turnaround		
The Journal System	160 Working Hours	Generates a journal inventory report for a single library—HQ's library in this execution.	4.84 sec/\$7.25/	2 hr turnaround**	Journal holdings file—6262 120 ch ‡ records/ Journal title file—2656 120 ch records	On-line Disk †
Hard Bound Book System	360 Working Hours	Generates a subject report for the total library network.	19.65 sec/\$32.68/	2 hr turnaround**	Book holdings file of 9098 130 ch records/ Book title file of 2667 130 ch records.	On-line Disk †
The Circulation System	120 Working Hours	Generates a daily report (alpha by title) of all library material on loan.	2.31 sec/\$3.12/	2 hr turnaround**	Circulation master containing 589 120 ch records.	On-line Disk

The System	System	Computer Program Executed	Execution Time (CPU SEC) Dollar Cost/		Size of Master File	Type of Storage
	Development Time*		Turnaround			
The Pesticides Literature Search System	360 Working Hours	Generates an author report representing all citations to date.	10.53 sec/\$15.36/	2 hr turnaround**	Single Master file containing 1000 900 ch records. (This is a sample of the total file.)	Magnetic Tape
The Ecological Air Pollutant Literature Search System	280 Working Hours	Generates an author report representing all citations to date.	3.82 sec/\$4.52/	12-14 hr turnaround	Single Master file containing 500 1080 ch records. (This is a sample of the total file.)	Magnetic Tape
The EPA Reports Reporting System	560 Working Hours	Generates an abstract report for the total master file.	17.06 sec/\$18.95/	12-14 hr turnaround	Single Master file containing 1231 4800 ch records.	Magnetic Tape
International Environmental Reports System	280 Working Hours	Generates a multiple subject index (with abstracts) for the total master file.	9.54 sec/\$11.53/	12-14 hr turnaround	Single Master file containing 518 1600 ch records.	Magnetic Tape

\* The total combined time of the functional and technical staffs necessary to develop the application to an operational status using test files.

\*\* Under normal conditions, a lower job class priority would have been used (12-14 hour turnaround). A 20% discount would have resulted.

† The permanent storage used is magnetic tape. The cost of on-line storage is approximately \$.012 to \$.02 per day per track depending on whether public or private disk space is used.

‡ "ch" is an abbreviation for "character."

## Appendix 2. Selected Characteristics of 25 Computerized Literature Search Services Used by EPA.

Supplier	Type of Search	Search Mode	Number of Bases	Years Covered	Number of Searches (Apr-Sep 1973)	Initial CTL Use**
Analytical Methodology Information Center	Retrospective	On-line	Single	1969-	70	12/72
Air Pollution Technical Information Center	Retrospective	Batch	Single	1967	24	12/72
Biological Abstracts	Retrospective and Current Awareness	Batch	Multiple	1959	54	12/72
CIRCOL	Retrospective	On-line	Single	1964-	4	9/73
ENVIRON	Retrospective	On-line	Multiple	Current Only	17	11/72
*Environmental Bibliography	Retrospective	Batch	Single		1	9/73
*Environmental Science Index	Retrospective	Batch	Single		2	9/73
Fish and Wildlife	Retrospective	Batch	Single		4	Purchase Order
IFI/PLENUM	Retrospective	Batch	Single	1960-	4	Purchase Order
Illinois Institute of Technology Research Institute	Current Awareness	Batch	Multiple		31	Purchase Order
ISI	Current Awareness	Batch	Single	1973-	162	Purchase Order

Supplier	Type of Search	Search Mode	Number of Bases	Years Covered	Number of Searches (Apr-Sep 1973)	Initial CTL Use**
Lehigh University	Retrospective	On-line	Multiple		25	10/72
Lockheed Corporation	Retrospective	On-line	Multiple		3	9/73
MEDLINE	Retrospective and Current Awareness	On-line	Single	1971-	432	11/72
National Technical Information Service	Retrospective	Batch	Single	1964-	31	Deposit Account
Oak Ridge National Laboratories EIC	Retrospective	Batch	Multiple		7	Deposit Account
ORNL Nuclear Safety Information Center	Current Awareness	Batch	Single		12	6/73
Ohio State University Mech. Information Center	Current Awareness	Batch	Multiple		54	Purchase Order
*Pollution Abstracts	Retrospective	Batch	Single		2	9/73
Science Information Associates	Retrospective	On-line	Multiple		117	6/73
Smithsonian Science Information Exchange	Retrospective	Batch	Single	Current Rsch. in Progress Only	45	Deposit Account
Solid Waste Information Retrieval System	Retrospective	Batch	Single	1964-	6	10/72
TOXLINE	Retrospective	On-line	Multiple	Varies for Each Base	120	10/72
University of Georgia	Retrospective and Current Awareness	Batch	Multiple		231	11/72
Water Resources Science Information Center	Retrospective	Batch	Single	1968-	47	10/72

\* Used on an experimental basis only.

\*\* CTL = Central Technical Library, National Environmental Research Center, Cincinnati.



## Workshop Strategy:

### A Survival Guide for Planners

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■ Guidelines for planning and organizing a workshop are set forth based on the authors' experience in giving a one-day workshop for Kansas hospital librarians. Steps such as determining partici-

pants' needs, deciding dates and location, funding and scheduling as well as the basics of reservations, registration, and materials are discussed. A time schedule for carrying out these steps is included.

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**WORKSHOP** planning was not the authors' forte. Neither had ever been involved in organizing a workshop and did not know where to begin. However, there was definitely a need to give one for the Kansas hospital librarians. The State Services Section of the University of Kansas Medical Center Library was the obvious sponsor, and the librarians should be the ones to give it. Not realizing what would be involved, the authors accepted the challenge, blundered through, and with good planning and luck, gave a successful workshop. Now that success has removed the sting from mistakes made in the process, some suggestions on workshop planning might be in order. In case a workshop ever looms in front of you, this advice might make *your* planning easier.

#### **Define Prospective Audience**

State Services is part of the reference section of Clendening Medical Library, the library of the University of Kansas Medical Center. As the successor to the Kansas Regional Medical Program Library Services, the section serves medical and allied health personnel throughout the state of Kansas. Besides document delivery, traditional reference services such as literature searches and quick reference and consultations to hospital libraries are provided. Although some of our requests come directly from users with no access to a health related library, many requests are channeled through hospital librarians. These librarians (with a wide divergence in experience, library training and size of library) would be our prospective audi-

ence and a master list of 55 possible participants was composed.

Researching the library literature, it was found that there is little information on the mechanics of planning a workshop. One brief article contained some useful guidelines and could serve as a helpful synopsis to planners.<sup>1</sup> Except for this article, however, we were without guidance.

### Define Needs To Be Met

The most important factor in planning is recognizing the needs to be satisfied by giving the workshop. This is the basis of the entire event, as the following scheme illustrates:

PRINCIPLE	ACTION
Recognizing needs	Decide to give workshop to fill needs
Defining specific needs	Determine areas to cover at workshop
Planning to meet needs	Plan program
Filling needs	Present information at workshop
Determining whether needs were met	Participants evaluate workshop

Only by realizing which needs must be filled can you later judge whether or not your workshop was successful and accomplished its purpose. So, much thought must go into this stage of your planning.

A combination of your needs and the participants' needs insures that both planners and audience will gain from the workshop.

Your needs are usually easier to determine: you know what you want. In this case the workload was becoming too heavy due to an influx of incorrect citations. More complete and correct information in article requests was needed from the librarians and, therefore, one topic had to be verification. We were also having trouble working on poorly

defined search requests and realized that we needed to cover interviewing techniques.

The needs of the participants may not be as easy to ascertain. In addition to the needs they may voice, others may become apparent by careful listening to their questions and responding to their problems. When a librarian asked us for order information which could have been located in his/her library, we realized that there was a need to review the scope and uses of certain reference tools. When they had problems determining what information we required for a computer search, we knew they needed a guide for collecting this information. And when a librarian would call, saying, "The book I want is at the National Library of Medicine. Do I have to go through you to get it," we could see that there was a call for an explanation of the Interlibrary Loan Network.

### Decide on Topics to Cover

After perceiving needs, you must decide on the general areas to cover in the program. These topics should concentrate on the problem areas uncovered by your examination of needs. At this stage, query the potential participants about their interest in attending a workshop on these and any other topics they might suggest.

### Choose Date and Location

Before questioning them, you must have a tentative date(s) and location chosen. Do you want to have a one-day workshop or one that covers several days? For several reasons we opted for a one-day workshop. The most important consideration was that we felt the material could be handled adequately in a one-day presentation. And since most of the hospital libraries are one person operations, it would be difficult for most participants to arrange a longer stay. Financial considerations also led us to determine that limiting the event to a single day would be most economical (in terms of rooms, meals etc.) and

<sup>1</sup>Lindsey, Elizabeth / ABC's of Workshop Planning. *ALA Adult Service's Division Newsletter* 8:25-26 (Winter 1971).

would be more convenient for more participants. To avoid schedule conflicts select a date away from holidays and any other dates of activities they might also want to attend.

The best location is one close to the center of your potential audience. We chose one toward the eastern half of the state (where most of the population of Kansas resides) but still central to the populous areas and no more than a five hour drive. Our location was also desirable because the city had no hospital librarian who would act as "host" and it was, therefore, neutral. Keep in mind while deciding on the location that the location itself may very well alter the time schedule proposed here. If you choose a resort area, you will need to reserve earlier during the tourist season than during the "off-season." The prices may vary as well.

### Send Query

The query mailing is also a good opportunity to obtain any pertinent information from participants for slanting your presentation and making it more meaningful to them. A simple questionnaire on the size of the library and scope of reference collection was included with this "feeler." The responses helped determine the type of libraries and experiences that would be represented and aided in planning the specific topics. The inquiry also identified from our master list of all possible participants the 30 persons who did express an interest in attending the workshop.

### Check Funding

At this point, check all possibilities for funding. Can your institution finance it? Is there a related organization which will help fund? Will you charge participants a fee? In our case funding came from the MCRML (Midcontinental Regional Medical Library) which expressed an interest in helping resource libraries give outreach programs such as our workshop. If an institution or organization agrees to finance the workshop,

by all means get the agreement and the limitations in writing. As Ms. Lindsey states and we (now wiser) agree, "Never depend on word only" (1, p.25). Because of a time limit imposed on us, we relied on telephone communications with the funding institution. The resulting misunderstandings about their expectations would have been avoided by a written agreement to which we could have referred.

### Decide on Speakers

Contingent on the funding, you can now decide on whether you want—and can afford—outside speakers. If you do, you will have to give them a date, the format and areas to be covered at the workshop. Ask for an outline of their presentation by a certain date. Because ours was to be a one-day event and we were the most familiar with the mechanics of State Services, we decided to be our own speakers.

### Schedule Program

When the matter of speakers is settled, it is time to structure the program. Schedule lectures and other types of presentations, as well as rest and meal breaks. Be sure to save time for informal discussion between participants. One highlight of the day for many people at our workshop was the chance to talk with hospital librarians from all over the state. Since people tend to concentrate better in the morning, we planned lectures with breaks in-between for the morning session and saved our main attraction, the demonstration of the MEDLINE<sup>2</sup> terminal, for the afternoon. We expected MEDLINE to be the climax of the day's activities and we didn't want to "follow a good act."

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<sup>2</sup> MEDLINE is the acronym for **Medical Literature Analysis and Retrieval System On-Line**. The information system hooks up to the National Library of Medicine through telephone lines and retrieves journal citations from health periodicals.

## Time Schedule

<b>4 Months Before</b>	Define needs to be met Decide on general topics Ask participants for suggestions and send out questionnaires Check on funding Decide on speakers Choose a date and location
<b>3 Months Before</b>	Preview possible A-V material Firm up program (Get speakers' outlines) Devise alternative programs Make up schedule (Night-before activity?) Begin gathering material to hand out Begin work on presentation (if applicable)
<b>2 Months Before</b>	Reserve room and make arrangements with hotel/motel Print schedule Decide on whether to have folders printed Continue collecting material to hand out Continue work on presentations
<b>2 Weeks Before</b>	Reserve A-V material and equipment Confirm room reservation Arrange for own lodging, meals, coffee Buy or gather pencils, paper, nametags, etc.
<b>Day/Night Before</b>	Put on night-before activity (if so decided) Check room, supplies and necessary arrangements Make sure there is a directional sign
<b>Day of</b>	Check last minute supplies: water, handouts, etc. Set up registration check-in table Arrange seating Collect evaluation forms

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This proposed schedule best serves as model for the various planning steps. Factors such as type of workshop, the funding requirements, the location of the meeting, the policy of the hotel selected, the number of participants and the schedule of other events that will affect this timing must be taken into account when planning your event.

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While you are structuring the program, it is wise to make plans for alternative presentations. If, for example, a speaker must cancel at the last minute or you have problems with the equipment, be able to substitute your emergency presentation. Since we have often experienced problems using the terminal, we planned an alternate program for the afternoon. The topic would still be MEDLINE, but we would have to rely on more traditional explanation techniques instead of the demonstration.

## Gather Printed Materials

You can now start thinking about whether you want to provide participants with materials. When there is a lot of new information being presented, it is often desirable for people to have material for later use. We recognized this as an effective learning tool and gathered any applicable material for handouts—anything dealing with our services or with any of the workshop topics. Don't forget that other institutions, especially your funding institution, may have materials they would like distributed to your group.

Procuring materials took several weeks. We thought of new ideas for handouts, had to send away for some, and had to copy or print others. The appreciation of something tangible from the day is worth the work involved—and the participants are apt to remember something they might otherwise have forgotten. You might consider whether or not you want a folder for these handouts for each person. We bought red folders and had the name of the workshop, the sponsoring institutions, the location and date printed on the cover. It was a "professional" touch, but one which resulted in a good-sized printing bill.

## Make Hotel Arrangements

Two months before the workshop date (see the schedule above) reserve a room for the workshop. We found our most useful information for our needs in tour books. Check to see if the hotel has a policy of dispensing with the room rental charge if you agree to have them cater meals. Several places we checked—including the one we chose—had this arrangement and it saves money. When calling for reservations, check to see that the room has the necessary outlets, telephone, and equipment you will need. Also check to see if coffee can be served in your meeting room.

Should the group eat their meals as one group? We think this is a good idea since it gives even more time for the informal talking that everyone enjoys. Of

course, if you make arrangements for the free room, you will *have* to eat together. It's easiest for you to select the menu and have everyone eat the same meal. You can't please everyone but choose a fairly benign meal and you will satisfy most. We had no problems with our menu and the motel even allowed a substitute meal for the one person who requested it. We had separate checks and passed a tray for the collective tip, so we didn't have to bother collecting money.

### **Contact Participants About Registration**

Write a cover letter to your group informing them of the date and location selected, costs, etc. You should also enclose a printed schedule of presentations and speakers as well as a registration form with a deadline no later than two weeks before the event. We had outside funding, so we did not require a registration fee. However, it has been suggested that a fee will usually solve the problem of "no shows." People are sure to attend if they have made a financial commitment, no matter how small. (In our case, 22 out of the original 30 interested persons actually attended.)

This information should go out at least two months before the workshop. Many librarians had problems and red tape in obtaining travel money and time off and could notify us of their attendance only at the last minute. Avoid rushing your participants.

### **Collect Equipment and Supplies**

In the last few weeks before the workshop, be sure to reserve any needed audiovisual material and equipment. Consider taping the presentations for future reference and as an evaluation aid. At this time you will also need to buy and/or gather the paper, pencils, nametags, etc., that you will use that day.

### **Confirm Hotel Arrangements**

After your deadline for registration has passed, call the hotel again to con-

firm your reservation, choose the menu, inform them of the number of meals to prepare and make arrangements for the coffee to be served during breaks.

If you are arriving from out-of-town, plan to stay in the same hotel/motel as the workshop. It is not only more convenient, but it also guarantees smoother hotel personnel relations. A "night before" activity depends on you—and your stamina. We had not planned such an activity and were sorry we missed the opportunity to introduce ourselves to the early arrivals who were also staying at the same motel.

### **Check Room and Supplies**

The night before, check the room, equipment and necessary supplies. Be sure not to omit this step, because the next morning might be too late to make alterations in the arrangements. Locate the drinking fountains and rest rooms. Confirm the eating arrangements. Is there a sign in the lobby so the participants will know where the workshop is being held?

### **Set Up Room Early**

That morning arrive early at the room. People start arriving at least one-half hour early, so be well organized by then. Arrange the registration sign-in table with pencils, nametags, and hand-out material. Arrange the seating for the participants, put up displays, have water ready for the speakers.

Last minute reminders: Don't forget to hand out evaluation forms (see our example) and ask for feedback from the audience. This and your tape will help you make the next workshop even better.

Now, relax: your enthusiasm and planning should make it a good day. Have a good time.

### **Summary**

Planning a workshop for the first time can be a very difficult experience. Although your circumstances will necessitate some modifications of our sug-

gestions, the guidelines set here as well as the time schedule should serve as a useful starting point for your planning.

Here are some hints to keep in mind:

- Do everything as early as possible.
- Make display aids large enough for all to see—or photocopy the information and give them as handouts.
- Plan well but keep the tone of the workshop casual and informal.
- Don't lecture—keep it conversational and allow for interruptions. You can learn from their questions and comments.

- Stick to the schedule as closely as possible.
- Be enthusiastic—their response will match yours.
- Ask for evaluations from the participants and incorporate suggestions into your next workshop planning.

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### EVALUATION FORM

1. In your opinion, what has been the most **OUTSTANDING** experience of this program?
2. How **VALUABLE** has your experience at this program been?  
Useless 1 2 3 4 5 6 7 Very Valuable
3. How well **ORGANIZED** was this program?  
Unorganized 1 2 3 4 5 6 7 Well Organized
4. How **RELEVANT WAS THE INFORMATION** presented during the program?  
Irrelevant 1 2 3 4 5 6 7 Very Relevant
5. To what extent did this program meet the objectives?  
Not at all 1 2 3 4 5 6 7 Completely
6. To what degree did this program maintain your **INTEREST**?  
Boring 1 2 3 4 5 6 7 Very Interesting
7. Was there ample time for **DISCUSSION**, both formal and informal?  
Definitely No 1 2 3 4 5 6 7 Definitely Yes
8. The **LEVEL** of material presented during the program was:  
Too Simple 1 2 3 4 5 6 7 Too Advanced
9. What was the greatest **SUCCESS** of the program?
10. What was the single greatest **FAILURE** of the program?
11. What is your **OVERALL EVALUATION** of the program?  
Poor 1 2 3 4 5 6 7 Excellent
12. How **USEFUL** will the material presented be to you?  
Useless 1 2 3 4 5 6 7 Very Useful
13. How **INTERESTING** were the lectures?  
Boring 1 2 3 4 5 6 7 Very Interesting
14. How much **NEW** knowledge did you gain?  
Insufficient 1 2 3 4 5 6 7 Extensive
15. What **ASPECTS** of the course were most effective in helping you learn?
  - (1) Lectures
  - (2) Question sessions
  - (3) Individual activities
  - (4) Visual aids (If any used)
  - (5) Discussions outside of sessions
  - (6) All of the above
  - (7) Other

16. What ASPECTS of the course hindered your learning?
- (1) Poor presentations
  - (2) Poor audiovisual
  - (3) Too much distraction
  - (4) No interest in subject
  - (5) Too fast
  - (6) Sitting for too long periods
  - (7) Individual activities
  - (8) None of the above
  - (9) Other
17. What ASPECTS of library training apply to you?
- (1) Working experience only
  - (2) Working experience plus some formal courses
  - (3) Bachelor's degree with no library classes
  - (4) Bachelor's degree with emphasis in library science
  - (5) Master's degree in library science
  - (6) Other
18. How would you describe your library? (Please check any that apply)
- (1) One of several activities within my office
  - (2) A separate room with up to 500 volumes
  - (3) 500-1999 volumes
  - (4) 2000-5999 volumes
  - (5) 6000 or more volumes
  - (6) I am a part-time librarian
  - (7) I am working alone full-time
  - (8) I have \_\_\_\_ clerks full-time and \_\_\_\_ clerks part-time
  - (9) Other
19. Suggestions of specific topics for your attendance at future workshops, meetings, and seminars:

**COMMENTS**

Was your transportation/meals paid by your employer? \_\_\_\_\_ Yourself? \_\_\_\_\_  
 Was this considered a workday? \_\_\_\_\_



**DAVIS**

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**LEVENE**

## *Commentary on* **Proposing a Special Library**

THE TERM PAPER assigned to a class in special librarianship at the Graduate School of Library Science, University of Texas at Austin, precipitated a change in the traditional course structure and proved to be a highly rewarding experience for both students and professor.

### **Altering the Course Requirements**

After preliminary lectures and exercises pertaining to management, budgeting, and space planning, we were advised that the term paper would be a project encompassing the design and development of a special library; supplementing the written report would be a polished oral presentation. We were not to develop a stereotyped library using Formula "X" and Theory "Y"; rather, we were to find an existing organization which had either no library facilities or inadequate ones and then plan and propose a library specifically designed to meet its information needs.

The most general approach was first to consult the course text (*I*) for help in outlining the project; this, for a number of us, was the first indication of the extensive scope of our assignment. The text delineated six major areas of concern in establishing and maintaining a special library: reader services, technical processing, budget, physical layout, collection development, and personnel management. Within these broad areas, such small details were included as the hours of operation, job classification, and brands of furniture. Further research revealed many other considerations and

problems—for example, a surprising scarcity of relevant and specific information in professional library literature, and a lack of prior experience for guidance.

As a result of meeting with our professor, the course was adjusted to focus almost entirely on our term projects. In lieu of the originally proposed midterm exam, it was decided that we were to present extensive progress reports, including outlines of our proposals and major problems encountered. The usual final exam was not to be an exam at all; rather, it became an exercise which synthesized the critiques we were to write of each other's oral presentations. The instructor condensed our individual remarks and added his own observations which were then passed on to us. In criticizing our classmates, we gained insights applicable to our own proposals. The thorough review, criticism, and defense of every aspect of our oral and written presentations highlighted for us the invaluable administrative asset of alertness to the strengths and weaknesses of the various reports—in content and form. In retrospect, more guidance in critical techniques would have improved our evaluations.

### **The Project**

After some faltering beginnings, the sequences of approach began to unfold. The first step consisted of identifying and selecting an appropriate host organization for our special library. Although at first this seemed undemanding, it was probably the most important phase of the project.

Our selection was governed by two factors: 1) choice of subject field and 2) choice of an organization representative of that field. The limitation of subject area was generally influenced by our current interests, undergraduate major, or a combination of both. Organizations were chosen on the basis

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The authors of this paper were students in the course "Special Libraries" taught by Professor E. B. Jackson during the Spring 1974 term at the University of Texas at Austin.

of prior knowledge and/or perusal of reference tools (2). In several cases, a student's first choice had to be rejected because of lack of apparent need, organizational cooperation, or appropriate information.

We became increasingly aware of how "special" special libraries can be as the presentations proceeded. As an example, a media library designed for retarded and handicapped children and adults bore little resemblance to the media library proposed for an active growing television station.

### Sources of Information

The next stage involved establishing contact with appropriate personnel within the given organizations. We were seeking specific information crucial to the legitimacy of the proposals, including space available, potential user population, and special needs and interests. Though idealized in some respects, each resulting library was based on a solid foundation of fact and demonstrable need or desirability. Personal contact also provided an opportunity to gauge reactions and assess the various aspects of the organization's operations.

Managerial responses varied. Some contacts received the idea enthusiastically, and a few even made requests for specific inclusions; some did not react optimistically, but were cooperative about providing information. A few class members reported that the attitudes of people with whom they worked had reversed by the end of the project—some for and some against it. Several organizations evidenced great interest and requested either copies or summaries of final versions. We suffered one casualty; that student felt compelled to drop the course because the group with which he was working became increasingly uncooperative.

Actual design and development of the libraries imposed further complications. Some students had specific parameters within which to work; for example, some were provided with space allocations. Those who were asked to include special features of various sorts concurred that this made planning somewhat easier. Few libraries had acquisition standards to meet; consequently, study of representative models combined with personal judgment formed the basis for

**Table 1. Sources Found To Be Most Helpful**

Persons in the subject field .....	13
Other librarians .....	9
Class lectures, handouts, etc. ....	6
Monographs .....	5
Professional subject field literature .....	4
Textbook .....	4
Professional library literature .....	3

\* Some students rated more than one category "most helpful."

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many policies. Several persons incorporated planned growth and expansion stages.

Details were carefully designed, taking into consideration such questions as whether the library would be strictly a support unit, or whether it would have inherent public relations value; was it created for the staff, the public, or both; if a computer was desirable, which model, and why? The furnishings of a brewery library carried out the color scheme of its beer cans; teakwood furniture was installed in the library for a pulp and paper manufacturer; company logos were effectively displayed on floor plans. Such minutiae contributed to effective proposals.

The search for resources taxed our ingenuity, since models were practically nonexistent (3). Persons in the subject field and other libraries proved of primary assistance.

### Results

Some flexibility was afforded in the distillation of the final paper. Mandatory items included a written proposal addressed to the appropriate authorizing body, a scaled floor plan, and a budget reflecting both installation and operating costs. Within that framework, areas such as user services, personnel management policies, operational policies and procedures could be defined. Addenda included such items as an equipment and furnishings expenditures list, a sampling of journal and monograph holdings, and classification symbols.

Latitude was the characteristic feature of the oral presentation, too. The only rigid requirement was that it should be no shorter than twenty minutes nor longer than twenty minutes [sic]. Most students chose to present their findings to the class in a casual, informative manner, but a few chose to make their presentations as if the class mem-

bers were actually the governing body of the organization. All exhibited floor plans.

Visual display techniques included use of overhead projectors, slide shows, poster board sketches, architectural models, and watercolor renderings. Some techniques proved more successful than others, and our skills and experience with visual materials varied; however, all efforts yielded valuable insights into the great importance of visual displays.

An important test of the assignment's validity is contained in student assessments. Of the 18 students polled, all but one considered the project to be more a synthesis of professional training than an academic exercise; all were glad they had done it (Can that be said of most academic papers?). Most of the students would like to see their projects become a reality, though several recognized the need for modifications; only one expressed reservations concerning the actual need for her proposed library. It appears that there are strong prospects for at least two of the libraries materializing in the near future.

Students exhibited a self-confidence at the end of the course not initially apparent; the relative freedom of execution was found to be stimulating, and the respect shown us by our professor and those with whom we worked was rewarding. We could do no less than recommend a thorough investigation of

this approach to all special library educators. The course culminated as a total learning experience, which many of us will remember as the major contribution of our library school careers.

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3. However, *Profiles of Special Libraries*, synthesized by Ruth S. Leonard in a pamphlet reprinted from *Special Libraries* 57(no.3):179-184(Mar 1966); 57(no.4):227-231(Apr 1966); 57(no.5):327-331 (May-Jun 1966), was found to be invaluable.



## Students and Members

### Everybody Is a Winner

"Library school students are not students very long! In fact, they are, in some cases, students one day and librarians the next."

"Most students lack financial security so stipends and monetary aid, in some instances, would be greatly appreciated, especially if it means attending an Annual Conference."

"But students do not want a free ride; they want a chance to learn and that means they want responsibilities assigned to them so that they may play an important part in the professional organization."

These comments were made by members of the audience at the Science/Technology Division sponsored Student Session held at SLA's 65th Annual Conference in Toronto, June 12, 1974. This Student Session served as a step toward strengthening the link of communication between the Special Libraries Association and library school students; by all indications, the effort was successful.

The impetus for the Sci/Tech sponsored program stemmed from a student rap session held in June 1973, at SLA's 64th Annual Conference in Pittsburgh. There was considerable discussion at this informal gathering about the lack of student-related activities at SLA Conferences and what could be done to alleviate this apparent void. The Toronto program was a study of this problem.

### The Panel

Mary Rydesky, a May 1974 graduate of the Graduate School of Library Science at the University of Texas at Austin and a member of the SLA Student Group, spoke on student attitudes toward SLA and professional organizations.

In polling student attitudes toward professional organizations, she noted that most cited personal advantages as reasons for joining. When compiling résumés, membership and participation in many groups aid beginning librarians who do not possess

much experience in library work and activities. Also, meeting practicing professional librarians and learning the resource potential of each individual is an immeasurable bonus. Rydesky also suggested that perhaps a package plan or reduced rate program for students who would like to join several professional organizations be implemented.

The second presentation was given by James Matarazzo, associate professor of library science at Simmons College (Boston, Mass.), faculty advisor for the SLA Student Group at Simmons College and SLA Student Relations Officer for 1974/76. Matarazzo explained that Simmons Student Group activities include lectures by special librarians, field trips to special libraries and projects that include helping with local SLA meetings and compiling job placement information. He noted that during recent years, special funds provided by SLA Chapters and Divisions have helped to defray expenses incurred by students who attend local SLA meetings and Annual Conferences.

Lucille Whalen, SLA Student Relations Officer (1971/74) and associate dean, School of Library and Information Science, State University of New York at Albany, was the third speaker. She discussed the role of the students in SLA and the role of the Student Relations Officer. Students are the new blood in the veins of the professional organizations; their role in professional organizations, therefore, should be to help themselves to learn the responsibilities of becoming librarians and to help the organizations through enthusiastic participation. To learn these responsibilities, Whalen suggested, students should be given duties to perform.

She also commented that the Student Relations Officer provides a special link of communication between SLA Student Groups and the Special Libraries Association. The officer supplies information to library schools about forming new Student Groups, coordinates student activities at Annual Conferences and distributes portions of the financial assistance provided by various SLA Divisions and Chapters among the many well-qualified students. Several SLA Divisions and Chapters have provided as

sistance in the form of meal tickets, transportation fees, and/or room expenses to students who attend the Annual Conferences. Also at past Conferences, several SLA Divisions have provided attending students with a sponsor-for-a-day, i.e., a member of the sponsoring Division spent the day with the student. This program was considered helpful in acclimating students to their first professional organization meeting.

The fourth presentation was by Patricia Oyler who was completing doctoral work in library science at the University of Pittsburgh and is now assistant professor of library science at Simmons College. She explained that participation in professional organizations is the best instrument through which a student may express his feelings and opinions concerning special librarianship. Chapters and Student Groups are the starting points to learning more about the profession on a practical level instead of at the theoretical level of the classroom. Students need to get in on the ground floor of the organization and learn the responsibilities and duties which are inherent in the special library field. Through participation, they gradually become integral parts of the organization, and begin to feel that their ideas are important; consequently, they gain confidence through involvement.

Linda Bien concluded the panel presentation with a discussion on how she joined an SLA Student Group, found a job, padded her résumé and met Edythe Moore. She was a charter member of the C. W. Post SLA Student Group and now is a reference librarian at Roosevelt Public Library (Long Island, N.Y.).

The SLA Student Group provided students with many opportunities for practical work experience and continuing education. One project of the C. W. Post group was the compilation of a loose-leaf placement notebook to aid in finding employment after graduation. The members gained valuable experience working on student group activities which proved beneficial when looking for jobs. Another advantage was the opportunity to meet librarians in the field and to develop friendships and contacts with these librarians.

#### **Question/Answer Period**

The question/answer/discussion period that followed the panel presentation was lively and continued well beyond the time limit originally scheduled for the session. The main topics of discussion were 1) stu-

dent financial aid and sponsorships by the SLA Divisions, Chapters, and Student Groups; 2) student involvement in SLA Divisions, Chapters and Student Groups, and 3) the liaison officers appointed from the Chapters to the Student Groups.

Many favorable comments were made by SLA members and students concerning financial assistance and sponsorship by SLA Divisions, Chapters and Student Groups. The Association will be reimbursed for its financial assistance many times through the work and efforts of the students they have helped. A recommendation to establish these programs in more of the Divisions, Chapters and Student Groups was presented.

Most students felt that they have a better chance to participate in the activities of the Student Groups and Chapters because these groups are usually smaller and more intimate than the Divisions. SLA members suggested that students should join the smaller Divisions at first so as not to feel overwhelmed by the size and complexity of the larger Divisions. Some students commented that in the past no detailed information had been given to them concerning the SLA Divisions, and thus recommended that a descriptive list of the Divisions be distributed to aid them in their selection.

It was suggested that Student Groups volunteer their services to help the Chapters with activities, projects, programs or even odd jobs when necessary. This would aid the Chapters and would provide experience for the students. Several SLA members also mentioned that they would be interested in the programs and activities planned by the Student Group in their area; they proposed that the Group notify them when an event was planned.

The possible appointment of liaison officers between Chapters and Student Groups was discussed. Several advantages appear possible. First, the liaison would be in contact with the Student Groups and attend their meetings if possible. He would thus know what activities were planned in both groups and could coordinate the programs. Second, the liaison officer would recommend solutions concerning possible conflicts between the groups.

Special thanks are extended to the panel members and all those who attended and supported the Student Session in Toronto. The participation and enthusiasm helped make the program a success and proved that there are a sizeable number of SLA members and students who are interested in strengthening the links of communication. The Spe-

cial Libraries Association is an organization renowned for its superior membership and activities; from the pool of library school students, potentially active SLA members will soon emerge. To maintain its high standards, therefore, SLA must help library school students. In return, library school

students, who soon become librarians, will help SLA. It is a give-and-take situation for both groups; nobody loses and everybody involved is a winner.

**Mina A. Brees**  
**Legislative Reference Library**  
**Austin, Texas**

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## From the Student Groups

Beth Mikkola, President of Western Michigan University SLA Student Group, reports her group has attended several Michigan Chapter meetings; visited the Whirlpool Information Center; and, with funds donated by the Michigan Chapter, were able to subsidize a trip to the Information Center of J. Walter Thompson.

Tess Midkiff, President of the Simmons SLA Student Group notes two meetings held in the Fall of 1974. The one on Federal Libraries featured M. "Jims" Murphy, chief of the Technical Library at the U.S. Army Materials and Mechanics Center. A subsequent meeting on NERMALS—New England Regional Medical Service—was delivered by its Director, Betty Feeney.

Cynthia Bell, President of Columbia University's School of Library Service SLA Student Group, reports that the Group's petition for recognition was approved Nov 15, 1974. Professor Theodore C. Hines is the faculty advisor.

### From the Student Relations Officer

Two meetings especially planned for students are well under way in terms of planning for the 1975 Chicago Conference. "Special Libraries Association: An Introduction" is an explanation of SLA replete with slides, organization charts and guest speakers. Planned to attract students as well as new members and first conference attendees, this meeting is scheduled for Monday, June 9 from 10 a.m.—12 noon. Edythe Moore (President of the Special Libraries Association), Connie Ford and Joe Dagnese (both Directors of SLA), and Richard Griffin (Manager of the SLA Membership Department, and *the* person in charge of the job clearing-house) have agreed to speak at this meeting.

Under the sponsorship of the Business and

Finance Division, the Science/Technology Division, and the Student Relations Officer, a student paper competition is now planned. "A Model for Continuing Education—A Five Year Plan" is the subject of the competition and the winning paper in the judgment of members of each of the Divisions will receive a \$100.00 cash award and an opportunity to present this paper at the conference on Tuesday, June 10. Faculty advisors to the student groups have more information and complete instructions on the contest.

An expanded program of Division sponsored student guests to ticketed events is planned for students who find they are able to come to the Conference in June. Through the interest and generosity of the Divisions a significant number of students will be guests of the Divisions at the ticketed events and at the Annual Banquet. This offers students the opportunity to meet and spend a day, a luncheon, or whatever at Conference with Division members. To date the following Divisions have agreed to sponsor students: Aerospace, Public Utilities, Education (provisional), Social Science (including the Urban Affairs and the Social Welfare Sections), Geography and Map, Picture, Science/Technology, Chemistry, Business and Finance, and Food Librarians.

The list of student groups and advisors is printed (p.98) with the hope that communications between student groups will be facilitated. Similarly, student groups and student members who wish to share their activities with the membership through this journal, should submit material to me as soon as possible.

**James M. Matarazzo**  
**Student Relations Officer**  
**Simmons College**  
**School of Library Science**  
**Boston, MA 02115**

## DIRECTORY OF SLA STUDENT GROUPS AND ADVISORS

The following SLA Student Groups have been approved by Special Libraries Association:

### *Northeast*

Abdul Huq  
Department of Library Science  
St. John's University  
Grand Central and Utopia Parkways  
Jamaica, NY 11432

Prof. James M. Matarazzo  
and Miss M. "Jims" Murphy  
School of Library Science  
Simmons College  
300 The Fenway  
Boston, MA 02115

Dr. Irving Klempner  
School of Library and  
Information Science  
State University of New York—Albany  
Albany, NY 12222

Dr. Joseph N. Whitten  
Graduate Library School  
C.W. Post Center  
Long Island University  
Greenvale, NY 11548

### *Southeast*

Dr. Marion Taylor  
Division of Librarianship  
Emory University  
Atlanta, GA 30322

### *Midwest*

Prof. George S. Bonn  
Graduate School of Library Science  
University of Illinois—Urbana  
Urbana, IL 61801

Gwendolyn Cruzat  
School of Library Science  
University of Michigan  
Ann Arbor, MI 48104

Dr. R. M. Ballard  
School of Librarianship  
Western Michigan University  
Kalamazoo, MI 49001

SLA Student Group Faculty Advisor  
Graduate Library School  
Indiana University  
Bloomington, IN 47401

SLA Student Group Faculty Advisor  
Department of Librarianship  
Emporia Kansas State College  
Emporia, KN 66801

### *Southwest*

Dr. Paul Kruse  
School of Library and Information Science  
North Texas State University  
Denton, TX 76203

Prof. John Minter  
School of Library Science  
Texas Woman's University  
Denton, TX 76204

Prof. Eugene B. Jackson  
Graduate School of Library Science  
University of Texas at Austin  
Austin, TX 78712

### *West*

Dr. Robert Berk  
School of Librarianship  
University of Oregon  
Eugene, OR 97403

Betty Rosenberg  
School of Library Science  
University of California—Los Angeles  
Los Angeles, CA 90024

Doris Banks  
Division of Library Science  
California State College  
Fullerton, CA 96231

### *Canada*

Prof. Olga B. Bishop  
Faculty of Library Science  
University of Toronto  
Toronto, Ontario M5S 1A1



## Proposed Dues Increase for 1976

Each year the Fall Meeting of the Board of Directors is primarily concerned with the Association's budget for the next year. As part of this discussion, the Board and Finance Committee are also concerned both with the current year's income and costs, and with projections for future years.

The Association's income in FY74 is at an all-time high partially because of the continuing increase in membership (now at 8,826). Improved income has been more than offset by the continuing increases in costs of all services and materials; for example, monthly charges for electricity have almost doubled. One of the worst increases has been in the successive increases in the cost of paper for our periodicals. In 1974 there has been an increase of 37%, with predictions of another 13%–17% early in 1975. It therefore now appears that at the end of FY74 there will be a deficit.

The budget adopted by the Board for FY75 anticipates a deficit of \$900.00. In spite of such a budgeted deficit, the Board unanimously approved the increase in allot-

ments to be paid in February 1975 (\$3.25 per member to Chapters, and \$2.25 per member to Divisions). The Board has recognized that the Chapters and Divisions were also subjected to the greater costs.

Reluctantly, the Board decided that an increase in dues will be necessary for 1976. This Board decision is, of course, subject to approval by the members at the Annual Business Meeting during the June 1975 Conference in Chicago. The proposed increase is from the present \$30.00 to \$40.00 for Members and Associate Members, and from the present \$100.00 to \$200.00 for Sustaining Members, effective January 1, 1976. There is *no* proposal to increase the dues of Student Members or Retired Members.

Presentations are planned for the March, April and May/June 1975 issues of *Special Libraries* to explain, in more detail, the need for a dues increase.

It is hoped that this serious and important matter will be discussed during Chapter meetings in the coming months.

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### SLA Authors

**Avakian, Anne M.**, comp. *Armenia and the Armenians in Academic Dissertations*; a bibliography. Berkeley, Calif., Professional Press, 1974. 38p. \$3.00. Available from compiler at 2727 Parker St., Berkeley, Calif. 94704.

**Marks, Geoffrey and William K. Beatty.** *The Story of Medicine in America*. New York, Charles Scribner's Sons, 1974. \$10.00.

**Bobick, James E.** "Medical Periodicals of Rhode Island: Part I. Transactions of the Rhode Island Medical Society." 1859-1912. Reprinted from *Rhode Island Medical Journal* 56:500-506 (Dec 1973).

**Budington, William S.**, ed. *Library Trends: Library Services in Metropolitan Areas*. Urbana, Ill., University of Illinois Press, Oct 1974. 138p. \$3.00.

**Dosa, Marta L.** *Libraries in the Political Scene: Georg Leyh and German Librarianship, 1933-1953*. Westport, Conn., Greenwood, 1973. \$12.50. LC 72-5218 ISBN 0-8371-6443-5.

**Ellenberger, J. S. and Ellen P. Mahar**, comp. *Legislative History of the Securities Act of 1933 and Securities Exchange Act of 1934*. So. Hack-

ensack, N.J., Fred B. Rothman & Co. for Law Librarians' Society of Washington, D.C., 1973. 11 volumes. cloth: \$350.00; 16mm or 35mm microfilm \$125.00.

**Fern, Alan and Mildred Constantine.** *Revolutionary Soviet Film Posters*. Baltimore, Md., Johns Hopkins University Press, 1974. \$12.95.

**Georgi, Charlotte.** "The Arts and the World of Business." Suppl. 1. Los Angeles, UCLA School of Management, Publications Division, 1974. 64p. \$4.00. Management in Research Program Research Paper 23.

**Graziano, Eugene.** *Language-Operational-Gestalt Awareness*. Tempe, Ariz., LARC Press, 1974.

**Keaveney, Sydney S.** *American Painting; A Guide to Information Sources*. Detroit, Gale Research Co., 1974. 260p. \$18.00.

**Koch, Michael S.** *Biomedical Thesaurus and Guide to Classification*. New York, CCM Information Corporation, 1973. 181p. \$12.95.

**Strain, Paula M.** "Hiking on Library Shelves; or Give that Backpacker a Book!" *Wilson Library Bulletin* 48(no.9): 748-758 (May 1974).

# Systems and Networks: *A Synergistic Imperative*

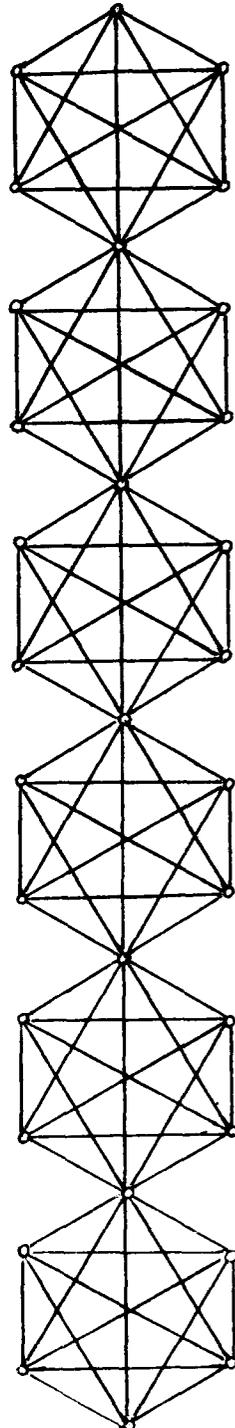
Special Libraries Association—66th Annual Conference  
Chicago, June 8-12, 1975

The Illinois Chapter has set "Systems and Networks: A Synergistic Imperative" as the theme for the Annual Conference in Chicago. We will explore the national trend toward organized cooperation and resource development and the role of special libraries in these efforts.

## **Why Systems and Networks? Why Synergy?**

The challenge of this Conference is to stimulate special librarians' awareness and involvement in what is happening. To begin with, simple random cooperation between similar libraries is evolving into systems and networks including many types of libraries, providing full access to the broadest possible spectrum of information. These organized programs are identifying common needs and purposes, identifying resources and establishing the basic concerns, commitments and communications. Library systems have, in the past, generally been based in the public and academic library sectors. Participation by special libraries is needed and is overdue—to obtain benefits, to extend our unique services and professional capabilities, and to have a voice in system design and management. Synergy is a concept adapted from physical phenomena: the effect of two or more elements working together exceeds, by an unpredictable order of magnitude, the sum of their effects achieved separately. And it is imperative that all information services and resources be brought together in working relationships, for the magnitude of the information problem is critical, in acquisition, organization, and retrieval.

The opening general session (to be held on Sunday, June 8, at 4:00 P.M.) will set the framework for develop-



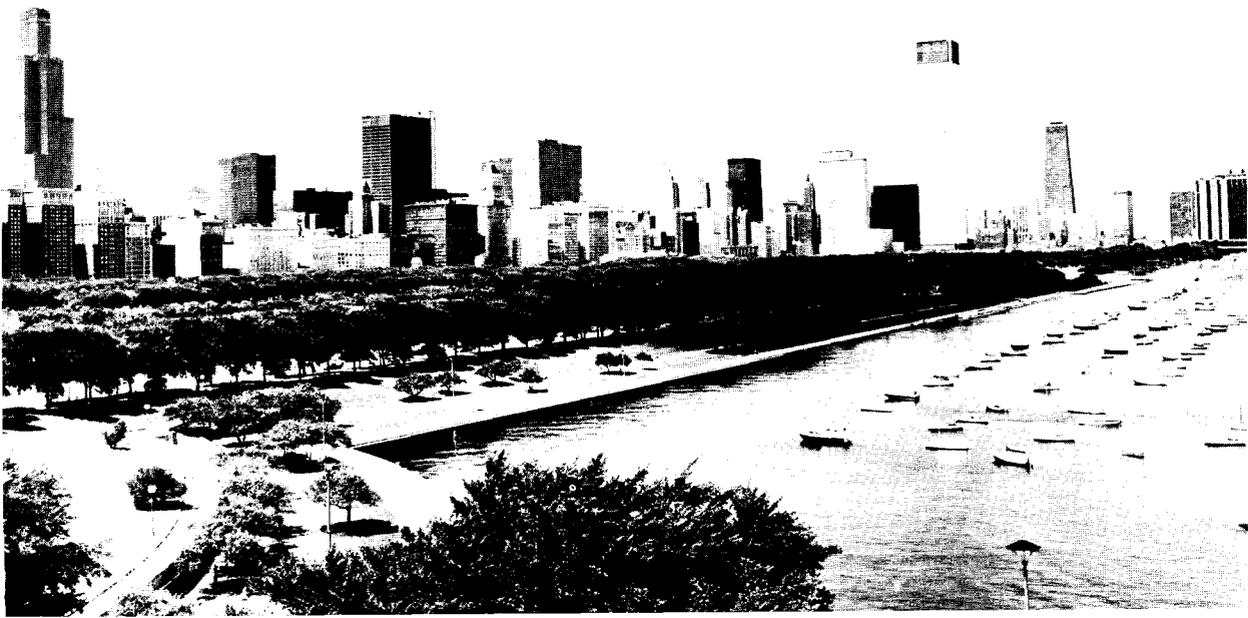
ment of the theme: today's world literally lives on information, required for changing corporate structures and markets, social and environmental adjustments, political and human management. This societal demand will be discussed by Dr. Edwin Parker, noted authority from the Institute for Communication Research, Stanford University. Responding to this demand, information and library systems and networks have begun to evolve during the past fifteen years, in variant forms, encountering numerous political, institutional and human barriers—and finding ways to bridge these barriers. Special libraries have, to some extent, participated, but more is needed. These changes will be reviewed by the new Executive Director of the National Commission on Libraries and Information Science, Alphonse Trezza. Finally, the third general session will get the message from our own President, Edythe Moore. This will be no presidential report, but a challenge to us, carrying the distillation of her Chapter visits and a concern long felt in her own professional career. And then, of course, the Division programs will take up the theme at the working level. A huge variety of specific, pragmatic reports and proposals are in store, as speaker after speaker “tells it like it is” in advertising, in chemistry, in museums and so on down the roll!

\* \*

### Something New This Year

A welcome to Chicago program for everyone! Sunday evening, 9:00–10:00 P.M., just before the open houses. A little music, a few pictures of Chicago's landmarks, human and otherwise. And best of all—Jory Graham, Chicago's Preeminent Expert on Chicago. Jory is author of the two most important Chicago guidebooks—*Chicago: An Extraordinary Guide* and *Instant Chicago: How to Cope*. She regularly keeps Chicagoans up to date on where to go and what to do in her column in the *Chicago Sun-Times*. Jory will tell SLAers “How to Make the Most of Your Free Time in Chicago”—a warm welcome to the best aspects of the city—a critic's choice of cultural events and special exhibitions, worthwhile restaurants and entertainment, shops, ethnic adventures and the like. Plan now to include “The Chicago Program” on your Sunday evening schedule.

\* \*



## MEMBERS IN THE NEWS

**Donald C. Anthony**, formerly associate university librarian, Columbia University . . . appointed director of libraries, Syracuse University.

**Lester Eugene Asheim**, professor of library science, University of Chicago . . . named William Rand Kenan, Jr., professor of library science, University of North Carolina, Chapel Hill.

**Jean Ashman**, librarian, Law School, Washington University, St. Louis, Mo. . . . retired.

**Lois Bebout**, formerly head of cataloging, Humanities Research Center Library . . . appointed associate director of the general libraries, public services, University of Texas at Austin.

**Estelle Brodman**, librarian and professor of medical history, Washington University School of Medicine, St. Louis, Mo. . . . awarded an honorary Doctor of Science, University of Illinois.

**Gerald Brown**, formerly chief librarian, *Akron Beacon Journal* reference department . . . now assistant librarian, *St. Louis Post-Dispatch* reference department.

**S. Kirk Cabeen**, librarian, Engineering Societies Library, New York . . . named acting treasurer, Engineering Index, Inc., 1974-1975.

**John E. Creps, Jr.**, executive director, Engineering Index, Inc., . . . appointed convenor of the Ad Hoc Working Group on Copyright.

**Anita B. Dichter** . . . appointed English bibliographer, Syracuse University.

**Miriam Drake**, formerly assistant professor, library science and research librarian . . . named assistant professor of library science and head, research development unit, Purdue University Libraries/Audio Visual Center, Lafayette, Ind.

**Anita W. Farber**, formerly education/psychology reference librarian, University of Houston, . . . appointed serials cataloger, University of Texas at Austin.

**Jacqueline W. Felter**, director, Medical Library Center of New York . . . retired.

**Arthur L. Gamson** . . . named librarian, Gillette Research Institute, Rockville, Md.

**Mary Gibbs**, home economics librarian, Audio Visual Center, Purdue University, Lafayette, Ind. . . . named assistant professor, library science.

**Nelson J. Gilman**, librarian, Norris Medical Library, School of Medicine . . . appointed di-

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rector of libraries, University of Southern California School of Medicine and Los Angeles County/USC Medical Center.

**Angela Giral**, librarian, Princeton University Library . . . elected vice-president, president-elect, Council of Planning Librarians. She is conference chairman for the 1975 Conference of the National Association of Planning Librarians, Vancouver.

**Jon S. Greene**, administrative manager, *Academic Media* . . . appointed head, Architecture and Urban Planning Library, University of California, Los Angeles.

**Audrey Grosch** . . . named associate professor, University of Minnesota Libraries Systems Division, Minneapolis.

**Marion Dillon Hart** . . . elected corporate librarian, by the board of directors, United Virginia Bankshares, Inc.

**Phoebe Hayes**, director, Bibliographic Center for Research, Denver, Colo. . . . retired.

**Mildred Hogan**, librarian, Transcontinental Gas Pipe Line Corporation, Houston, Texas . . . was the subject of an article in *Transgas*, the company's magazine, commemorating 23 years of special library service at Transco.

**Jeanne M. Holmes**, chief, Analysis Division, National Agricultural Library . . . presented the Superior Service Award, U.S. Department of Agriculture.

**Margaret B. Horacek**, librarian, Medical Center Library, University of West Virginia . . . appointed associate reference librarian.

**Eugene B. Jackson**, professor of library science, University of Texas at Austin . . . reappointed to the board of directors, Engineering Index, Inc.

**Josephine Johnson**, chief librarian, *Louisville Courier-Journal* (Ky.) . . . retired.

**Roy T. King**, head, reference department, *St. Louis Post-Dispatch* . . . retired.

## Washington Letter

December 11, 1974

"Analysis of Costs and Impact of User Charges on Services" was the subject of a seminar held in Washington, D.C. Nov 13 under the auspices of the National Science Foundation as the first in a series on significant issues facing federal information managers.

*OMB Circular A-25.* Kenneth Sprankle, Office of Management and Budget, opened the discussion with a general statement on OMB Circular A-25 which instructs agencies to recover full cost for providing certain government services and property. In his comments he pointed out that a recent Supreme Court decision on cable TV had cast some doubt on this policy. The Court ruled in *National Cable Television Association, Inc. vs. U.S., et al.* (Supreme Court decision no.72-948, Mar 4, 1974) that it is not proper for the Federal Communications Commission to set fees which recover the full cost of providing service, that FCC must determine what portion benefited the general public and what portion represented value to the direct recipient.

This could be a chink in the armor. How does one determine what benefits the general public? Any service the government provides, in some way or at some time, benefits the general public. In the light of the Supreme Court decision, OMB is currently in the process of reviewing Circular A-25. In the meantime the circular remains in effect and all policies contained therein remain in effect.

*Impact on Services.* The seminar concluded with a panel discussion on the impact of service charges on the transfer and use of technical information. The moderator, Hubert Sauter, Defense Documentation Center, observed that in a number of cases service charges have been set without a clear understanding of their goals, requirements, philosophy, or impact. Since OMB Circular A-25 does not clearly address all of the problems or answer all the questions related to service charges, he noted, some now vary from token charges to those aimed at full cost recovery and, in some cases, even

seek to be revenue-producing in an effort to offset losses in other areas.

Panelists Peter Urback, National Technical Information Service, and Joseph Leiter, National Library of Medicine, summarized data which had been collected by their respective agencies in an attempt to determine the impact of charges. Hilda Moore, University of Maryland (Baltimore), discussed charges for MEDLINE services within the university library community. Ruth S. Smith, Institute for Defense Analyses, presented the results of a questionnaire which the Committee on Information Hang-ups had sent to some of its members in an effort to quantify and determine the impact of service charges on technical libraries and their end users.

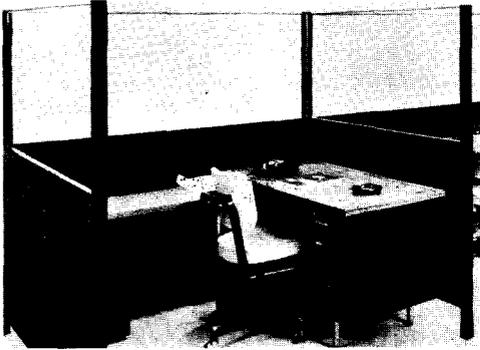
Analysis of the responses to the questionnaire indicates that cost is a significant factor in the purchase of documents. Libraries are ordering less and it is costing them more. To cope with the budget squeeze, libraries are obtaining hard copy from source, when possible, borrowing rather than purchasing, encouraging researchers to borrow from each other, curtailing library selection of documents, eliminating the routing of *Government Reports Announcements* (GRA) and the *Index* (GRI) or dropping the subscription altogether.

From the responses of both libraries and end users, it is quite evident that the present policy of recovering full costs through service charges is effectively curtailing the dissemination of technical information, especially the kind of information that is the breeding ground of new ideas and research.

Dr. Burchinal closed the seminar with a summary of the varying opinions presented by the participants and offered some conclusions of his own. User charges, he said, are going to be with us. They are a basic part of the philosophy of providing services today. No doubt they will help us be more effective in our management but they have been applied without regard to the kind of changes which are required elsewhere in the whole system. Information systems are being stretched to bear the accommodation to these changes and there may be real losses in the availability and use of information.

Ruth S. Smith, chairman  
SLA Government Information Services  
Committee

## HAVE YOU SEEN ?

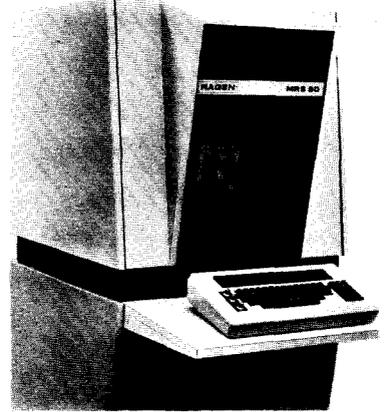


Movable **Partitioners** come in a variety of colors and heights. Top inserts differ and are interchangeable. Functional accessories, sliding glass windows, office planters, and book shelves are also available. For more information write Rockaway Metal Products Corp., Dept. F.S., 175 Roger Ave., Inwood, N.Y. 11696.



**Video Cassette Storage Cabinets**, model CVT-150G, hold 150  $\frac{3}{4}$ -in. videotapes in containers. Cabinets come with 10 color coded, index dividers and clips; double doors; key locks; tamperproof hinges; and master index. Made by Neumade Products Corporation, 720 White Plains Road, Scarsdale, N.Y. 10583.

The **Ragen MRS 90 Graphic Communications System** can store up to one million pages of written pictorial, printed or COM data. It can search this data, retrieve, dis-



play, and copy any one or a series of pages. The material is stored on 16mm rolled microfilm. The unit consists of a random access storage and retrieval segment, a computer controlled memory, and a copier, plus an alpha-numeric keyboard. The unit is available for rent at \$2,000.00 per month or may be bought outright. Contact R. Glassberg, Shaw Elliott Public Relations, Inc., 9 E. 40th Street, New York, N.Y. 10016.



**Michael Electric Knife Sharpener** is a product of Michael Business Machines Corp. It has a one arm grinding wheel swing which allows paper cutters to be sharpened without removing the blade. The sharpener aids in prolonging the life of cutting blades. For use on all paper cutters of 18 inches or longer. For further information write Michael Business Machines Corp., 145 West 45th Street, New York, N.Y. 10036.

## HAVE YOU HEARD ? . . .

### Buttonpower

A set of 14 buttons, one set for librarians, another for media specialists, is available from the Instant Buttons Company, 18 Selden St., Woodbridge, Conn. 06525. Designed to encourage participation in and promote use of the library, each carries a message and a "clever design." Cost: \$4.95 plus \$.50 postage and handling (add sales tax in Connecticut).

### Display—Uniquely



"Display 6 Pack" includes an idea booklet, six, 11 in. x 14 in. cartoons; six, 5 in. x 22 in. captions; three, 4 in. x 11 in. signs; and a sheet of numbers and symbols. The package was created by M. Garvey, MSLS, who is presently a display consultant. Price: \$10.50 until December 31, 1974. Write: M. G. Associates, 1815 Cardinal Drive, Waukesha, Wis. 53186.

### Statement on Declassification

The Department of State has reprinted a statement discussing, ". . . Recent Steps To Improve Its Declassification Programs." The statement was made by Carol C. Laise, assistant secretary for public affairs to the Subcommittee on Intergovernmental Relations of the Senate Committee on Government Operations, on May 30. The reprint can be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The document is Department of State Publication 8771, General Foreign Policy Series 288. Released July 1974.

### Federal Micrographics Council (FGMC)

Consisting of system designers, users, and managers and formed under the sponsor-

ship of the General Services Administration, the National Archives, and the Records Service, the FGMC is meant to serve as a "continuing forum for the interchange of information regarding micrographic systems and program management." All full-time employees of the federal government and the District of Columbia government involved in the use of micrographics technology are eligible for membership. Write: John P. Sheffield, General Services Administration (NRP), Washington, D.C. 20408.

### Health Science

The American Medical Association, in cooperation with the Medical Library Association Committee on Surveys and Statistics, has completed a second comprehensive survey of health sciences libraries. The result is the *Directory of Health Sciences Libraries, 1973* which reviews statistics and compares data for a five-year period. Write: American Medical Association, 535 North Dearborn Street, Chicago, Ill. 60610. \$15.00 prepaid.

### 6th Year Program Instituted

The University of Illinois, Graduate School of Library Science, is offering a certificate of advanced study for librarians desiring additional study in a specific area of library science. For further information: Graduate School of Library Science, 329 Library, University of Illinois, Urbana, Ill. 61801.

### Proceedings Available

The proceedings of the IBI-ICC symposium held Sep 16-20, 1974, in Mainz, Germany, are available from IBI-ICC Headquarters, 23 Viale Civiltà del Lavoro, P.O. Box 10253, 00144 Rome, Italy. Topic: Economics of Informatics. A. B. Frielink, editor.

### Microfilm Source

The 1974-1975 *Microfilm Source Book* has been distributed by Microfilm Publishing, Inc. It was prepared by Mitchell Badler, editor of the *Microfilm Newsletter*. Price: \$26.50. Contact: Irene Neuvelt, Microfilm Publishing, P.O. Box 313, Wykagyl Station, New Rochelle, N.Y. 10804.

## New Library Schools Accredited

ALA has accredited six more library education programs. They are offered at the University of Alabama, University of Denver, University of Hawaii, University of Iowa, Rutgers University, and the University of South Carolina.

## COMING EVENTS

**Feb 10-14. Pacific Northwest Regional Librarianship Training Institute . . .** at the University of Washington, Seattle. Theme: The Information Needs of Urban Residents: A Strategy for Public Library Change. Write: Dr. I. Lieberman, School of Librarianship, University of Washington, Seattle, Wash. 98195.

**Feb 25-27. 10th IEEE Computer Society Conference . . .** at Jack Tar Hotel, San Francisco. Theme: Computer Technology to Reach the People. Write: Advance Program, COMPCON 75 Spring, P. O. Box 639-P, Silver Spring, Md. 20901.

**Mar 4-5. 1975 Annual Conference of the National Federation of Abstracting and Indexing Services . . .** at Hospitality House, Arlington, Va. Theme: Information Interfaces. For information: Ben H. Weil, c/o NFAIS, 3401 Market Street, Philadelphia, Pa. 19104.

**Mar 10-14. EDP-V . . .** in Stockholm, Sweden. An exhibition of Electronic Data Processing and Related Equipment sponsored by the Department of Commerce. For information: James W. Lamont, Northern Europe Division, Office of International Marketing, U.S. Department of Commerce, Domestic and International Business Administration, Washington, D.C. 20230.

**Mar 17-19. 1st Annual Conference and Exposition American National Metric Council . . .** at Washington Hilton Hotel, Washington, D.C. For registration forms write: ANMC, 1625 Massachusetts Ave., N.W., Washington, D.C. 20036.

**Mar 19-22. 15th Meeting of Arbeitsgemeinschaft der Spezialbibliotheken E.V. (ASpB) . . .** in Düsseldorf. Theme: Technical Information and its Retrieval: Centers and Systems. Write: ASpB, Deutsches Museum, 8 Munich 26, West Germany.

**Apr 2-5. 62nd Annual Conference of the Texas Library Association . . .** at Convention Center, Dallas. Theme: Measuring Performance. Write: Mrs. M. D. Lankford, Instructional Center, 820 O'Connor, Irving, Texas 75061.

**Apr 8-11. 24th Annual Conference and Exposition, National Microfilm Association . . .** in

## New Index Available

Infodata International Inc. has published an *Index to U.S. Government Periodicals*. It is a computer-generated guide to selected titles by author and subject. Write: Infodata International, Suite 4602, 175 East Delaware Place, Chicago, Ill. 60611.

Anaheim, Calif. Write: William J. McGlone, Jr., NMA, Suite 1101, 8728 Colesville Rd., Silver Spring, Md. 20910.

**Apr 14-18. Fifth World Congress of the International Association of Agricultural Librarians and Documentalists . . .** Mexico. Contact: Lic. Pablo Velasquez, Director, Biblioteca Agricola Nacional, Apartado 6-882, Mexico 6 DF.

**Apr 24-25. Serials Standards, Automated Systems, and Shared Data Bases Institute . . .** at the Center for Continuing Education, University of Georgia, Athens, Ga. Write: Don L. Bosseau, Director of Libraries, Emory University, Atlanta, Ga.

**Apr 27-30. 12th Annual Clinic on Library Applications of Data Processing . . .** at the Graduate School of Library Science, University of Illinois at Urbana-Champaign. Theme: The Use of Computers in Literature Searching and Related Reference Activities in Libraries. Write: Brandt Pryor, Office of Continuing Education and Public Service, University of Illinois, 116 Illini Hall, Champaign, Ill. 61820.

**May 8-10. Educational Media Spring Conference . . .** in Portsmouth, New Hampshire. Sponsor: New England Educational Media Association. Write: Joseph F. Giorgio, Fairfield Public Schools, Fairfield, Conn. 06430.

**May 15-17. 5th Annual Conference on Library Orientation for Academic Libraries . . .** at Eastern Michigan University, Ypsilanti, Mich. Write: Hannelore Rader, Orientation Librarian, Eastern Michigan University, Ypsilanti, Mich. 48197.

**May 18-30. 9th Annual Library Administrators Development Program . . .** at College of Library and Information Services, University of Maryland. Write: Mrs. E. T. Knight, Library Administrators Development Program, College of Library and Information Services, University of Maryland, College Park, Md. 20742.

**May 22-23. Minicomputers in Libraries Institute . . .** at the Mayo Clinic, Rochester, Minn. Write: Jack D. Key, Mayo Clinic Library.

## REVIEWS

**Government Publications Review.** SEBD Publications, Inc., 380 Saw Mill River Road, Elmsford, N.Y. 10523. Quarterly.

With growing concern over access to government information, the inadequacies of the Government Printing Office, persistently rising prices, and just the challenge of keeping abreast of what is available from government sources, this new journal is certain to hit a "ready" market.

It proposes "to provide a forum for the publication of current practice and new developments in the production, distribution, processing and use of government documents . . . produced by all levels of government: Federal, State, and Municipal, UN and international agencies, as well as national governments throughout the world." Emphasis is on the growing importance of these sources of information. An ambitious undertaking.

One thing it has going for it is Bernard M. Fry, dean of the Graduate Library School at Indiana University, the managing editor. However, he appears to be relying heavily on input from the ALA Government Documents Round Table. Even in his editorial he completely overlooks other established groups, such as SLA Government Information Services Committee, NELINET's Government Documents Task Group, and the Federal Statistics Users Conference, among others, which also have been actively concerned with "the need for undertaking dramatic improvements in the conditions of government publications as information materials." Most of the executive editors, for example, whose function it is to solicit and review papers, are GODORT people. Four of the ten major articles in this first issue are based on papers presented at the 1973 ALA Conference in Las Vegas before Task Forces of GODORT. This leads one to expect an emphasis on depository libraries, and, indeed, the lead article does reflect that point of view.

However, this first issue contains a goodly mix of articles. Topics range from acquisition of international documents to the status of government publication courses as taught in midwestern library schools. One particularly good article is by Terry L. Weech on the characteristics of state publications. Another covers Canadian official publishing. Two are from Great Britain, about documents in the social sciences and the State Paper Room of the British Museum. Also of particular interest are the added features in the back—an excellent critical review of Andriot and government statistics, book reviews, what is new in documents, and a current check list of state publications.

If this new journal can continue to get good articles from a variety of knowledgeable sources—including the information industry and pro-

fessional associations which process or repackage government information, as well as non-English speaking countries—and can avoid the pitfalls of relying too heavily either on a limited point of view or the government's own version of what it is doing and how well, it will achieve a balance and fulfill its promise.

I recommend this new journal to anyone faced with the problem of handling government documents or trying to administer an information service which is dependent (in any degree) on these as sources of information.

Ruth S. Smith  
Institute for Defense Analyses  
Arlington, Va. 22202

**Librarianship: An Introduction to the Profession,** by Frank Atkinson. Hamden, Conn., Linnet Book (Clive Bingley, U.K.), 1974. 112 p. \$7.50.

Extraordinary as it seems, a book entitled *Librarianship: An Introduction to the Profession* is not only informative—which one is entitled to expect—but witty and refreshingly readable. To be sure, Frank Atkinson's approach is unashamedly subjective—these are his opinions and no one else's—but then neither does he pretend to be totally objective. He makes no bones, e.g., about his conviction that "information work" and librarianship are only aspects of one unified field of endeavor, or that "cooperation cannot be decreed." There is nothing new about these ideas but novelty is not the purpose of an introductory work.

Briefly, Atkinson addresses himself to such topics as the varieties of types of libraries, library buildings, the various media librarians must deal with, and provides an entire chapter on public relations and another on the library user. In others he deals with national libraries, professional library associations, publications on librarianship, and education for the profession.

The emphasis is undeniably British, but American practices are included as well. His contributing authors do not write as interestingly as he but are equally informative.

Recommended for introductory and pre-professional courses—which is not to say that those in the field would not find much of interest in Atkinson's views. Indexed.

Helen J. Waldron  
Rand Corporation  
Santa Monica, Calif.

## PUBS

(75-018) **Computers and Early Books.** J. W. Jolliffe, project director. London, England, Mansell Information/Publishing Ltd., 1974. viii, 131p. \$12.00 LC 74-76872 ISBN 0-7201-0444-0

This is the report of a project investigating means of compiling a machine-readable union catalog of pre-1801 books in Oxford, Cambridge, and the British Museum.

(75-019) **Bibliography of Bibliographies in the DDC Collection.** Alexandria, Va., Defense Documentation Center, 1974. 448p. paper: \$9.00; microfiche: \$1.45. DDC-TAS-74-20 AD-780-700/PS

(75-020) **Directory of Federally Supported Information Analysis Centers.** 3d ed. Washington, D.C., National Referral Center, 1974. 65p. paper: \$3.75; microfiche: \$1.45. ISBN 0-8444-0128-5

(75-021) **Guide to Traffic Safety Literature.** v.17. Chicago, National Safety Council, 1974. vi, 84p. \$2.65. LC 60-41456.

Lists sources indexed in 1972 and 1973 dealing with the technical aspects of traffic safety and the development of traffic safety programs. The *Guide* is divided into descriptive, keyword, name, and cross-reference lists.

(75-022) **North Carolina Architect Index.** v.1-20. Snow, Helen M. Raleigh, N.C., North Carolina Chapter, The American Institute of Architects, 1974. 300p. \$12.50

Indexes the publication *North Carolina Architect* from 1954-1973 in one alphabetical listing of persons, places, purposes, and topics.

(75-023) **Readings in Descriptive Bibliography.** Jones, John Bush, ed. Kent, Ohio, Kent State University Press. xii, 208p. \$9.00 LC 74-76529 ISBN 0-87338-153-X

A collection of fourteen papers some of which have been presented here or abroad.

(75-024) **Annotated Publications List: 1969-1974.** rev. ed. Worsham, Mark P., comp. Montgomery, Ala., Alabama Development Office, 1974. Report number: ALA-ADO-X 996-1054-04

Subject index included.

(75-025) **Business Information Services: Some Aspects of Structure, Organisation and Problems.** Campbell, Malcolm J. London, Clive Bingley Ltd., 1974. 174p. (available from Shoe String Press, Inc., Hamden, Conn.) \$8.50. ISBN 0-85157-174-3

The author discusses the opportunities and scope for business library service by a public librarian.

(75-026) **The International Federation of Library Associations. A Selected List of References.** Cambio, Edward P., comp. Washington, D.C., Library of Congress, 1974. iii, 14p. individual copies free. LC 74-23954 ISBN 0-8444-0144-7

A listing of 183 items published by or under the auspices of IFLA, and selected works about the organization. Available from the Library of Congress, GR&B UCIO, Attn: IFLA, Washington, D.C. 20540.

(75-027) **Introduction to Technical Services for Library Technicians.** 2d ed. Bloomberg, Marty and G. Edward Evans. Littleton, Colo., Libraries Unlimited, Inc., 1974. 253p. \$8.50 LC 74-82181 ISBN 0-87287-103-7

Volume details three major functions, acquisitions, serials, and cataloging. Emphasizes terminology, bibliographic tools, and general procedures.

(75-028) **Index to Tradition.** Jennerich, Edward J. 1973. vii, 14p. \$3.95

This volume indexes the *Journal of the International Society of Military Collectors* nos.1-36. It is available from Dr. E. J. Jennerich, 5100 Hawthorne #1010, Waco, Texas 76710.

(75-029) **Directory of Health Sciences Libraries in the United States 1973.** 2d ed. Crawford, Susan and Gary Dandurand, comps. and eds. Chicago, American Medical Association, 1974. xxii, 196p. \$15.00. LC 74-14292.

(75-030) **Devices & Diagnostics Letter.** v.1 (no.1) (Nov 15, 1974). Swit, David, ed. weekly. \$175 per year.

This newsletter contains information about government regulations in the medical devices, instrumentation, and diagnostic products industries.

(75-031) **Electrocomponent Science and Technology.** v.1(no.1)(1974). Campbell, D. S., ed. London, Gordon and Breach, Science Publishers Ltd. quarterly. \$60.00 (libraries and institutions), \$21.00 (individuals).

This journal incorporates the journal *Thin Films*. Available from Gordon and Breach, Science Publishers, Inc., One Park Avenue, New York, N.Y. 10016.

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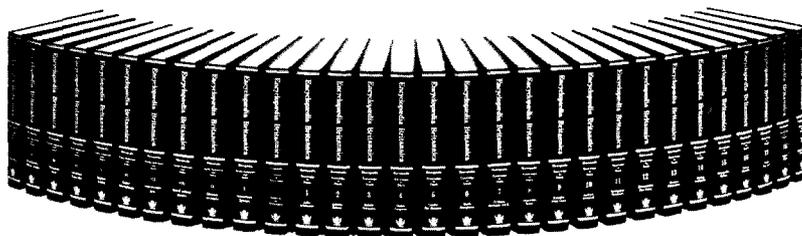
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