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Special Libraries, January 1973

Special Libraries Association

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January 1973, vol. 64, no. 1

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SPLBA 64 (1) 1-60 (1973)
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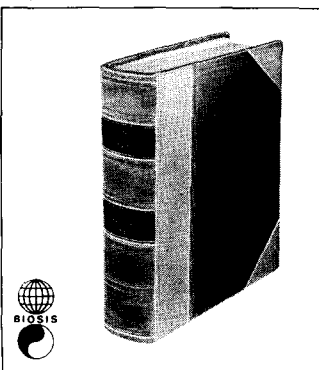
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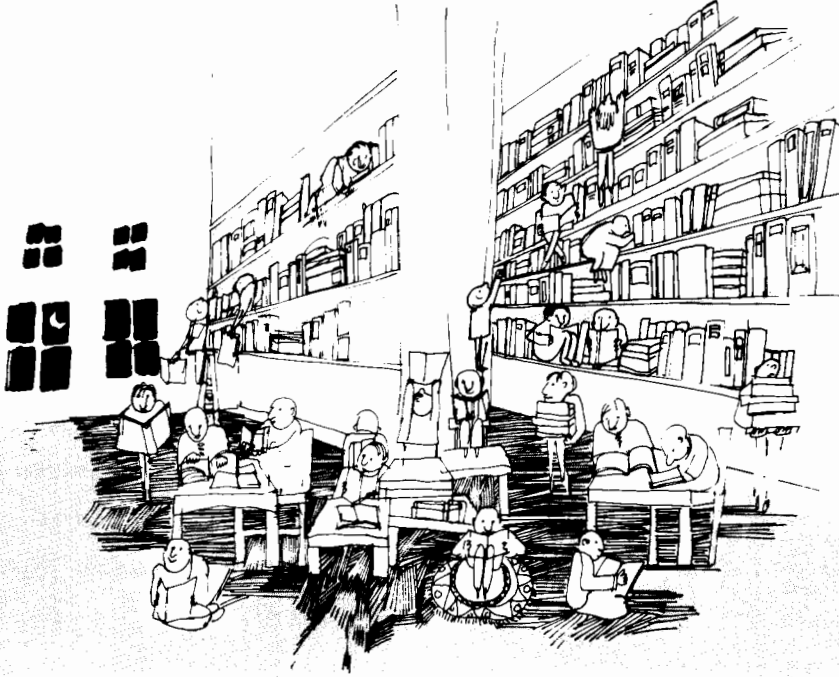
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A Journal for Research in Psychiatry and the Allied Sciences

**The Contents of the November 1972, Volume 2, No. 4,
issue of this journal are set out below**

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Freud and medicine in Vienna: George Rosen

A feasibility study for a controlled trial of formal psychotherapy: J. Candy, F. H. G. Balfour, R. H. Cawley, H. P. Hilderbrand, D. H. Malan, I. M. Marks, and J. Wilson

Relationship between physical and psychiatric disorder: M. R. Eastwood and M. H. Trevelyan

Changes in rating behaviour during the learning of a standardized psychiatric interview: M. von Cranagh and J. E. Cooper

Active muscular relaxation in desensitization of phobic patients: S. Benjamin, I. M. Marks, and J. Huson

Skin melanin concentrations in the affective disorders: possible relationship to the catecholamine hypothesis: Ashley H. Robins

Metabolism, anticholinergic effects, and therapeutic outcome of demethylimipramine in depressive illness: D. C. Watt, J. L. Crammer, and A. Elkes

Comparison of amantadine, orphenadrine, and placebo in the control of phenothiazine-induced Parkinsonism: R. H. S. Mindham, R. Gaine, B. H. Anstee, and Lorna Rimmer

Catecholamine-containing neurones and electrical self-stimulation 1. a review of some data: T. J. Crow

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WHO International Pilot Study of Schizophrenia: N. Sartorius, R. Shapiro, M. Kimura, and K. Barrett

Changes in glucagon level associated with anxiety or stress: S. R. Bloom, P. M. Daniel, D. I. Johnston, Olivia Ogawa, and O. E. Pratt

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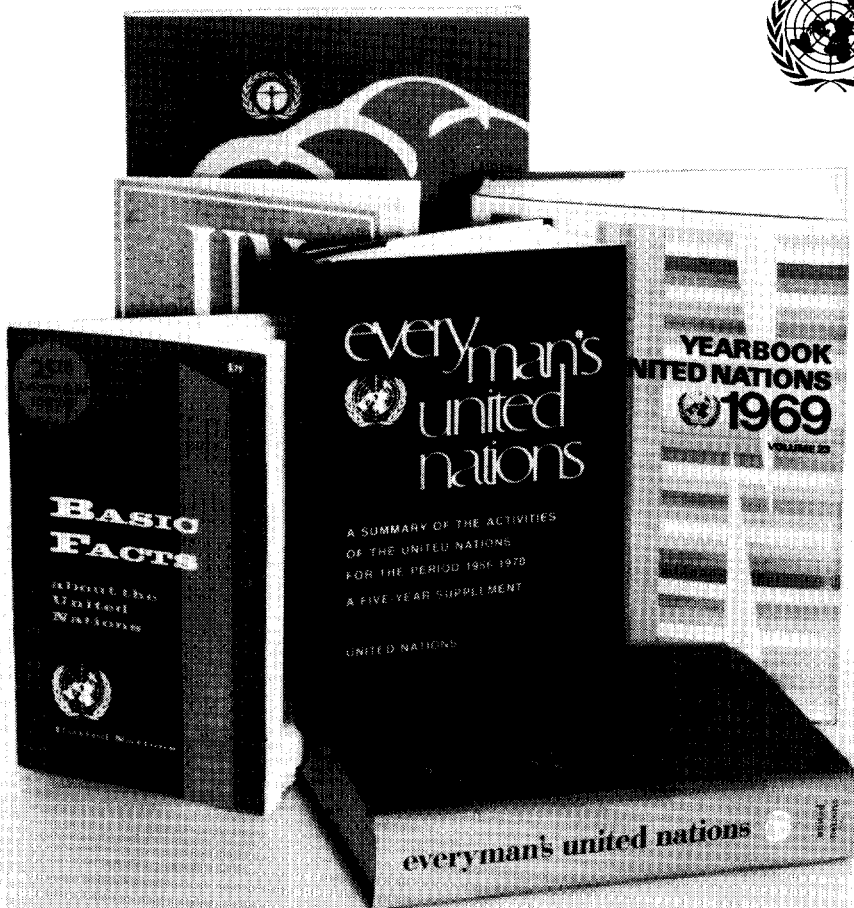
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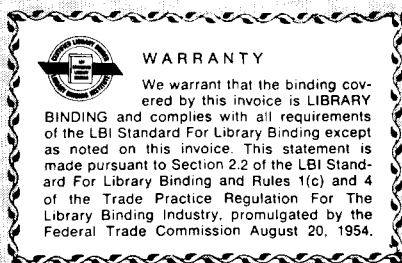


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LETTERS

Undergraduate Librarianship?

The July 1972 issue of *Special Libraries* lists one of the scholarship recipients namely, Miss Pamela Sexton, as having a B.A. in Chemical Librarianship from Texas Women's University.

The reason for this letter is to enquire how many universities there are in the United States who are offering a three or four-year undergraduate course in Librarianship. There is a certain segment of the librarian population in Canada who are very interested in this aspect of library training. There is no Canadian university giving an undergraduate course in librarianship leading to a library degree, and many of us are interested in seeing this established. It would be very informative to hear from readers who have information on this subject.

Emily A. Keeley
Environment Canada
Ottawa, Canada K1A 0H3

F Y I

In answer to the concern expressed [Symposium on error control, 151st American Chemical Society Meeting, J.Chem.Doc. 6(3), 1966], "that errors occur in the chemical literature, that their economic consequences are incalculable, that they are not systematically corrected, and that there is no program in operation which will change this situation" a citation index to the errata notices has been prepared for the following journals: *Journal of Chemical Physics*: v. 1-55, 1933-71 (13 pages); *Inorganic Chemistry*: v. 1-10, 1962-71 (2 pages); *Journal of Organic Chemistry*: v. 1-36, 1936-71 (9 pages). The index is designed to greatly facilitate the annotation of appropriate articles but can also be used for quick reference.

Since the index will generally be only of interest to libraries, it may be ordered on a standard ALA-ILL form by specifying photocopy.

Dana L. Roth
Millikan Library
California Institute of Technology
Pasadena, California 91109

A Courteous Profession

In response to Ann Loventhal's heated letter in the July 1972 issue of *Special Libraries*, I would like to cite my experiences with job applications.

After several weeks of compiling the necessary information, I sent 118 résumés to a selected group of special and academic libraries across the country. I requested information about possible job openings and asked to be contacted should openings occur within the following months.

Within a month, I had received 90 replies to my inquiries, all of which have been courteous and some of which even included personal advice or suggestions of alternate people or libraries to approach.

Considering the bulk of qualified unemployed librarians on the market today, one cannot expect a library to notify individually every applicant who has been rejected. And a lack of response to the initial inquiry need not be interpreted as a personal slight. Most applicants are willing to send a follow-up letter when a good job is at stake.

Finally, I don't believe that the profession is inconsiderate in its treatment of new library school graduates. I do think, though, that it's the business of the job seeker to establish and maintain the initiative needed to procure a job, and not just any job, but the one desired.

Louise S. Zipp
School of Library and Information Science
SUNY/Albany
Albany, N.Y.

Help for the Résumé Avalanche

Re: Sandra Scott's letter in the October issue of *Special Libraries*, may I suggest two possible solutions to the problem of handling applications for positions:

Applicants desirous of receiving a prompt reply (and able to bear the expense, if sending many applications) might be wise to enclose a stamped, self-addressed envelope with their résumé and letter of application, noting perhaps in the cover letter that the institution may find it a convenience in replying.

Persons in a position to hire, on the other hand, might produce and keep on file a supply of form letters to be used in addressing unsolicited and/or rejected applications. Thus, providing that there is a modest budget for mailing and stationery, even a small and busy library might make some

form of reply. For example, such a letter might read:

Dear

Limited time and the number of applications received by the library prevent me from replying personally. I regret that [circle one]

(a) the library presently has no position available,

(b) the position for which you have applied has been filled,

(c) [fill in as appropriate if either of above does not suffice].

I do, however, wish you success in your quest for employment in the library field.

Yours sincerely,

.....

What with the scarcity of positions and the mounting number of persons seeking employment, one can understand that libraries have been at wit's end to reply to the resulting plethora of applications. It is well to keep in mind, however, that the fact that libraries frequently do not for one reason or another reply to applicants has probably increased the tendency for persons to send Xeroxed letters far and wide in hope that some replies will be forthcoming within a reasonable interval. Thus the frustrating circle completes and perpetuates itself, where a little common sense and compassion on the part of both applicants and employers may ease the pain at both ends.

Harolyn Thogersen
Roosevelt University Library
Chicago, Ill. 60605

Here's a suggestion for Ms. Scott. Instead of typing a reply to the letter of application (and, probably, filing both letter and a copy of the reply), just pen a note at the bottom saying, "Sorry, nothing available. S. Scott" (or, in the case of the one so addressed, "Librarian"). This would dispose of the matter promptly, if somewhat informally.

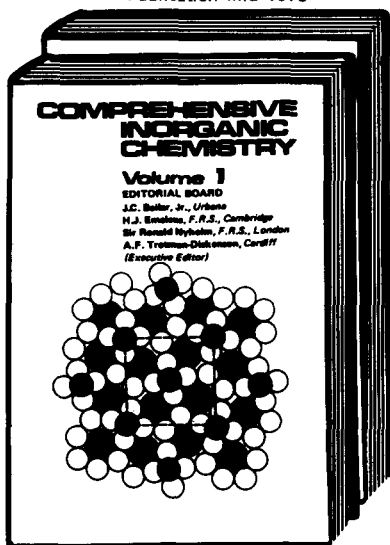
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Dear SLA Members

Let's Talk Together Again

Edward G. Strable, President

Well now, it seems you are there, you do read editorials, you do react and you will write.

Perhaps I shouldn't be quite so carried away by having received, so far, a half-dozen letters from members in response to the September editorial (What About *Our Unserved Population?*) and even one letter in response to the November editorial (From Special Library to Information Center—Move It or Lose It?) which reached me in advance of my own copy of *Special Libraries*. But each of the letters is good, solid, thoughtful, contributing; and since I plan to prepare a consensus, I'll just assume that each one stands for the thinking of a thousand members.

Since last time around on this page, I've visited four chapters in the Midwest, talked with two student groups, attended a consortium meeting and talked informally with scores of librarians—special and otherwise. It is everywhere evident that whenever two or more librarians are gathered together in the name of the profession, the conversation eventually works itself around to the subject of cooperation. And that brings us to this month's question for discussion which might be posed:

Interlibrary Cooperation— What Can We Give?

When special librarians talk about cooperation these days, they usually are not referring to the common, garden variety of informal but effective cooperation we all have been practicing among ourselves at least since 1909. The current emphasis is on *intertype* library cooperation involving formal cooperative schemes between combinations of school, public, academic and special libraries. The schemes are variously named councils, agencies, networks, systems, consortia, etc.—but the major purpose of each is to share resources for the better utilization of information by all segments of society.

It is encouraging to find that special libraries are very much a part of this important movement in librarianship. In some areas special librarians have only moved toward more organizational contacts with other groups of librarians. Elsewhere, some

are discussing the role special librarians can play in statewide and regional library development and the building of information networks. Some are not only studying and endorsing master plans for statewide library development but are helping to develop such plans. And a small percentage of special libraries are planning to join or have joined intertype library cooperatives in order to contribute to the success of the ventures and to improve their own information resources and capabilities.

Thus, by and large, our commitment to cooperation is there, as well as some productive results. But while the action goes on, there are still a good many questions about cooperative activity and the place of the special librarian in it. The most difficult and persistent question, as I see it, goes like this: There is no doubt that cooperative systems increase the availability of resources, and that special librarians will benefit greatly from improved channels of access. But, since most of the collections of most special libraries are relatively small, will we be able to carry our share of the *giving* which is necessary for cooperation to work well? What are the *contributions* which special librarianship can make to interlibrary cooperation? Do we have anything *unique* to bring to the movement?

On the number of occasions that this question has been posed to me, I have attempted answers but I've never been very happy with the results. It becomes evident that all of us in the Association might benefit from a statement which clearly spells out the role which special libraries—all kinds, everywhere—can play in the world of intertype library cooperation.

Will some of you help to develop such a statement? Especially those members who have had a hand in thinking about, planning, or working in cooperatives and networks? Will you draw from your knowledge and experience and identify and describe the relatively distinctive contributions special libraries can make to interlibrary cooperation, write your thoughts down, and send them along to me?

Thanks for keeping those cards and letters coming.



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The Science Fiction Library

Fred Lerner

Columbia University, School of Library Service, New York

■ The recent formation of the Science Fiction Research Association is indicative of increasing academic interest in science fiction as a literary form. There are few libraries adequate to support research in this field. The experiences and resources of private collectors will be instrumental in building science fiction collections for scholarly use.

RECENT YEARS have seen increasing academic interest in science fiction as a literary form. According to a preliminary survey published in May 1971, 61 colleges and universities are offering courses in science fiction; the number is growing rapidly (1). Many high schools are also teaching science fiction courses. Since 1958, the Modern Language Association of America has sponsored a continuing Seminar on Science Fiction; this annual meeting has been joined by a host of other academic gatherings, ranging from the all-embracing Secondary Universe Conference to special sessions on individual authors or particular research problems. The great interest shown by scholars, teachers, and librarians in the new Science Fiction Research Association is perhaps conclusive proof that the academic world has discovered the genre.

But it is not only the academic who is finding reason to take science fiction seriously. Several professions have found

the speculations of SF writers particularly relevant to their own considerations. Religious journals have cited science fictional accounts of other peoples on other worlds in their studies of the theological implications of space travel and contact with nonhuman species. A recent volume on *Law and Public Order in Space (2)* devotes a long chapter to "Potential Interaction with Advanced Forms of Non-Earth Life"; several footnotes refer the reader to SF stories on this theme. Planners in various fields are using science fiction techniques in constructing models of possible future situations.

Neither the academic study nor the professional use of science fiction can be successfully undertaken without access to substantial library resources; but there are few libraries with collections adequate to support research in the field. One of the principal reasons for this lack is the former disregard for science fiction, which dismissed the genre as a form of second-rate pulp literature. As we have seen, this attitude is now obsolete; but there are several other explanations for the inadequacy of library collections in science fiction.

Bibliographical Control

Despite a considerable amount of scholarship and publication by both dedicated amateurs and professional librarians, bibliographical control of science fiction is far from complete. This is only to be expected in a field whose very

definition is a matter of extreme controversy. (Indeed, the name "science fiction" is held by many to be a poor choice of word to describe the genre; and such terms as "speculative fiction" and "fantasy" are preferred by several authorities (3).) A good deal of the bibliographical literature is very difficult to obtain: printed in limited editions, often ignored by library literature and general reviewing media, and distributed by private or semi-professional publishers. Some of the most useful bibliographical information is contained in the catalogs of specialist dealers and in the fanzines—the amateur magazines which have circulated among science fiction fans for forty years. It is probably fair to say that unless one has been active in science fiction fandom for several years, it is impossible to attain a comprehensive knowledge of the bibliography of the genre.

Obstacles to Collecting

Even when one has familiarized himself with the nature of the field and its bibliography, there are several major obstacles to be overcome before a substantial SF collection can be organized. Until the 1950s, there was little interest on the part of trade publishers in issuing science fiction; so the fans set up their own small publishing houses. "In most cases the editorial choices were wildly capricious; the distributing mechanism was non-existent; the editions were minute; and the profit to author and publisher was invisible" (4).

The paperback revolution had an enormous impact on science fiction. Both reprints and originals flooded the newsstands and bookstalls; a larger proportion of science fiction books is available in paperback than in hard covers today. Many of the most highly acclaimed SF books of recent years are not available in hard-cover editions.

The fact that so many science fiction books were, and still are, published outside of normal trade channels poses a great difficulty in acquisitions. It is difficult to order mass-distribution paper-



backs systematically, and next to impossible to obtain those that are out of print. Few bookstores carry the publications of the specialty science fiction houses. And obtaining the address of a specialty publisher is often a difficult matter.

There are, however, bookdealers who specialize in science fiction; many leading private collectors are part-time dealers themselves. They usually handle the books of trade publishers (both American and British), specialty houses, paperback distributors, and amateur publishers; as well as back-issue magazines and second-hand books.

The simplest way to start a specialized SF collection will be to obtain a major private collection in its entirety; this will most likely have to be by purchase, and a five-figure sum will be the going price for such a collection. The days are past when a science fiction collector would gratefully offer his collection to any university that would accept it. Unless there are ties of alumni loyalty, a good science fiction collection will command a high price.

Classification

Once such a collection is obtained, it must be cataloged and arranged if it is to be of any use. There are data relevant to the description of science fiction publications which are not provided on Library of Congress catalog cards; and LC printed cards are not available for most SF books anyway. It will be best to plan on detailed original cataloging. If this is done, the publication of the catalog should be considered. In the present state of science fiction bibliography, the published catalog of a really good collection would be a valuable resource.

The use of such conventional classification systems as Dewey and LC is unsatisfactory for a specialized SF library, because not enough detail is provided for in the schedules. With two exceptions, however, no one has developed and published a classification scheme intended for SF collections. Alastair Cameron's *Fantasy Classification System* (5) is intended for classifying stories, rather than books; it cannot serve as a library classification. Any attempt to classify science fiction on the basis of story themes pits the classifier's ingenuity against the collective imagination of SF writers; and it would be only a matter of time before a story was published which would not fit into the classification system. My own Fantasy Collections Classification Scheme has been developed with regard to the peculiar patterns of writing, publishing, and collecting science fiction; while detailed breakdowns are provided for



bibliographical, historical, and critical material on science fiction, only form divisions and an optional geographic division are provided for the stories themselves. Plans are being made to experiment with the use of this scheme at a major SF collection (6).

A more important problem is that of preserving the material in the collection. The curator of Harvard's Clarkson Collection once wrote of "the atrocious pulp on which all the magazines and most of the books were printed," and said that "we cannot allow the material to be handled because of the extreme fragility"

(7). It is almost impossible to handle a pre-war pulp magazine without the pages crumbling in one's fingers; and few paperback books can stand the ravages of age and frequent rereading. Magazine covers and spines and book jackets fade when exposed to strong sunlight.

The more affluent private collectors rely on the usual library procedures—air conditioning, humidity control, absence of direct sunlight, and care in handling—to arrest the deterioration of their holdings. But, for most materials in their collections, this deterioration is inevitable. At the present state of the art, lamination of pages or similar protective measures would be prohibitively expensive. Thus photographic or micrographic reprinting will be necessary to ensure the survival in usable form of much SF material. Because of the scattered nature of manuscript holdings in the field, libraries specializing in science fiction will have to arrange for the exchange of microfilmed manuscripts and other authors' papers. There exists among science fiction collectors and fans a sufficiently large potential market for microform reprints of old magazines and books to provide a strong possibility that well-chosen reprinting projects would be economically feasible.

The librarian who is striving to assemble a comprehensive science fiction collection cannot restrict his attention to the printed word. Such media as pictorial art, film, radio drama, and even grand opera have been used by creators of science fiction. And let us not overlook science fiction and fantasy maps; J. B. Post has assembled a splendid collection at the Free Library of Philadelphia. Slides of magazine covers and book-jacket paintings; prints and stills of SF movies from *Metropolis* to *2001*; tapes of radio and television programs; the score of *Aniara*—all these have their place in the science fiction library. The problems of bibliographical control, acquisition, cataloging and classification, and housing and preservation will be encountered in all these media, of course. The challenges to our professional ingenuity will be fascinating.

The specialized science fiction library is a challenge to build and a challenge to administer. Much of the ground-work has been laid by private collectors; and we librarians will be working with and depending on the collectors in years to come. But it is our responsibility to make collections of science fiction available to the many who would use them, for literary study, for professional speculation, or simply for personal pleasure. Pioneering librarians at Boston University, the MIT Science Fiction Society, and the Toronto Public Library—to cite three collections that I have visited—have already accepted the challenge; but there is plenty of room left for the rest of us.

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Personal Information Systems

Implications for Libraries

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■ The effects of personal systems on formal library and secondary information services use are analyzed. Conclusions are that personal information systems are not "personalized libraries"; formal library services should concentrate on developing complementary programs.

PERSONAL DOCUMENTATION refers to the acquisition, storage, classification, and/or retrieval of information by an individual for himself (1). It is distinguished from formal bibliographic activity primarily by its acknowledged (intentional) subjective orientation in scope, methodology, and utilization. Recognition of the existence and need for personal information handling systems is noted in numerous user studies while more direct evidence of their existence is given in the actual technical literature of various fields.

Within the published literature, the assumption is often stated that personal files are a universal phenomenon. For example: "Many scientists collect and maintain citations, references, and reprints in diverse forms. Investigators differ in the use, intensity, and breadth of their collections . . ." (2). "A personal bibliography, as a set of references

to some subject, is common enough to be found in most scientists' offices . . ." (3).

Another type of confirmation of the widespread existence of these systems comes from the proliferation of computer-based services designed to allow the user to interact with various information files in a natural fashion. Examples of this type of service are of two kinds: direct user participation such as with **FAMULUS** or **GIPSY** (4) or indirect user participation through services provided to him such as those provided by the Illinois Institute of Technology Research Institute (IITRI) or the Lawrence Radiation Laboratory (LRL) at Livermore, California (5).

Personal information systems provide a combination of unique and non-unique contributions to satisfying user needs. Where another information system or component might duplicate the contribution, it is usually at a higher cost to the user. Furthermore, personal information system activity is a natural outgrowth of information use and should be regarded as another behavioral component to be considered in designing effective information services.

The Study Sample

For this study, thirteen units representing various specialties within the broad field of natural resources research

were selected. Each unit is represented by a collection developed by a single scientist or several scientists working together. Each unit is currently being served by a computer-based service although nearly all began as distinct manual systems.

In spite of their highly variable and not fully predictable nature, as to content, structure, and utilization patterns, personal information systems are effective, and in many cases, efficient components of the general information processing and transfer systems (6). They are accessible and dynamic; they represent the user's synthesis of formal information products and as such contribute constructively to his information use behavior; they provide coverage not fully duplicatable by the formal secondary and tertiary services; they serve an educational purpose by causing the individual to articulate—if only for himself—his rationale for structuring information and to define more closely his needs when he searches the file.

On the basis of the study sample, patterns common to all the files were found: well-defined patterns of input sources with considerable reliance on colleagues and the membership group; concentration of the bulk of the file literature in core (primary) sources; emphasis on post-1957 chronological coverage; use of personalized control vocabulary to express the link between the information item and the individual (i.e. why or how is it relevant). There are also areas where there appears to be no commonality: number of information units included per citation; indexing strategy; growth rate and size of file; type/token ratios—both for indexing vocabulary (user controlled) and titles; and retrieval methodology. Where no pattern was found, it may be due to faulty or incomplete analysis; or it may be possible that no pattern exists. For instance, to expect similar growth rate and size of the files seems unrealistic. Individuals read and absorb information at varying rates; time constraints vary; available sources vary, etc. The user study literature identifies, for different fields, average num-

bers of journals read and time spent reading. But the product of the time spent reading and the percentage of information selected is never averaged and it would probably be meaningless to do so.

The Personal Information System and the Librarian

Who is affected by the personal information system? Obviously, the individual is and, indirectly, his colleagues. However, the librarian trying to serve him and the designers and managers of other information services are also affected.

The personal system hinders, benefits, or at least modifies the individual's ability and approach to finding and using information, and to dealing with his colleagues. A smoothly running system allows the individual to maintain surveillance over a broader range of literature than he could manage with his memory alone, with better recall of what is in his file, and with an improved ability to retrieve desired information. The system provides him with the means to define more closely his areas of interest, to determine gaps or duplication. It also provides him with the capability for easier sharing of information with colleagues. By making more explicit his own behavior patterns, he can better evaluate his behavior and modify it accordingly or seek advice on how to modify it.

The personal system has significant effects on and implications for the librarian serving the user. One obvious possibility—and indeed an actuality—is that the individual will cease to use the library, or decrease his use, if he has a well-developed personal system (7). The implication of this situation is not that if the library were operating ideally, personal systems would not exist. Library malfunctions or incompetencies are not motivators or causes of personal systems although they can certainly become contributing factors as to how personal systems develop.

In earlier work, the author has shown

that personal systems are not simply "little libraries" in the formal sense of the word library. Nor are their developers simply junior or amateur librarians. A negative response by librarians to the existence of personal systems can, in fact, result in serious repercussions to the library. It is interesting to note that with few exceptions, little of the literature on personal information systems has been written by librarians. Many librarians have expressed interest in such systems, but seemingly with the attitude that if they had more money, etc. to provide more service, personal systems would cease to exist. What librarians need to accept and understand is that personal systems can and do cause a change in the way an individual uses the library. The librarian can accept this change, work with the individuals and develop means to aid and augment the personal system; or he can pursue a useless battle to stamp out such systems.

Nearly as damaging as the attempt to stamp out personal files is the often well-meaning attempt to impose the library's methodology on the user. This occurs particularly in attempts to influence cataloging and indexing practices. The overriding objective in developing personal systems is to organize information in a manner most natural to the individual. Consistency of citation and indexing format is important in the personal system only so far as it affects the mechanics of sorting and searching. Computer sorting, by necessity, is far more straightforward than traditional library filing. In general there has been little dissatisfaction on the part of users with this simplification. The message here for librarians should be stressed: Accept the differences in file management and organization practices between personal systems and libraries and resist attempts to substitute one for the other.

An Aid to the Library

One major area in which librarians can aid the personal system concerns input. By strengthening their locating and referral functions, libraries can aug-

ment the individual's efforts. The systems themselves can provide feedback to the library as to subject orientation, popular sources, chronological distribution, etc. Gaps in the library's holdings, unused holdings, and heavily used series can be determined. In turn, the library can incorporate this information into its acquisitions policy. Where the library identifies popular journals, series, etc. which it cannot purchase, it could profitably develop defined interlibrary loan channels, thereby cutting down on personnel effort and decreasing time required to obtain items.

Analysis of personal files could also provide information useful for storage policy. For example, the core journals, proceedings, and other sources revealed by file analysis would be likely items to store in-house when possible (8). Hopefully, such user-responsive policies would result in increased user satisfaction.

The referral or directory function is often performed by libraries in interlibrary loan efforts but could be performed in a librarian-user relationship. That gatekeepers exist has been well-documented (9), but perhaps librarians need to consider themselves as gatekeepers instead of passive data collectors. The referral function could also include an awareness of personal files in existence, their type and breadth of coverage. Here, the private and sometimes proprietary nature of personal systems must be respected. Few scientists will share all the secrets of their in-progress research and the librarian should elicit their willingness to share their files, conduct searches, explain control vocabulary, etc. But a general objective of encouraging reciprocity of information exchange should yield benefits to all concerned.

Control vocabulary, whether derived solely from titles or developed by the individual, can yield a wealth of information useful to both librarians and other information service designers and managers (10). Such vocabulary represents either the actual language of the literature or the working language of the user or a combination of both and as such can shed valuable light on term

usage, growth, variation, etc. Access to this data provides the librarian with the tools to put new life into a stagnant thesaurus or indexing vocabulary or with a partial foundation for building a new one. Use of such vocabulary with existing thesauri can provide the materials for constructing effective search queries and SDI profiles for searching the formally published literature.

One peripheral recommendation deals with clerical support of the personal system. The library is in an excellent position to provide introductory training to the clerks or keypunchers actually processing personal system data. In too many cases, bibliographic data constitutes a foreign body to be avoided whenever possible. By educating clerical personnel to the rudiments of citation format and how to recognize and select data elements from a variety of original forms, the library can take a significant burden off the scientist. Furthermore, by stressing the need for consistency in entering author names, etc., the library could eliminate many of the superficial reliability problems occurring in personal systems.

Servicing the Personal System

Other formal information channels, primarily the secondary and tertiary services, can support or facilitate personal information systems in several ways. Concomitantly, they can obtain useful information from them.

Augmentation of the secondary services by provision of full text copies would eliminate much time-consuming "sleuth" type activity (11). In spite of the high proportion of the personal files which results from colleague input, all of the sample units mentioned they spent considerable time writing for articles or tracking down full text copies. Provision of full text for articles is currently available from some publishers and services such as OATS, but the coverage needs to be extended and to include more foreign and government publications.

Provision of secondary data in a form

economically convertible to personal file input is not widespread, but at the tertiary level, centers such as the Illinois Institute of Technology Research Institute provide such service. Other suppliers of current awareness and retrospective services might consider offering the same service.

In turn, analysis of the patterns of input to such personal files might yield useful data to the centers in determining library or backup support needed as well as actual subject orientation of the users. Also, comparison of the data elements input to the personal files might indicate to tape suppliers kinds of information regarded as useful or extraneous by the user.

Given the trend toward secondary "re-packaging" of information to meet individual needs, personal system vocabulary data could provide valuable information for formal thesaurus design, for determining indexing preferences, and for defining existing subject composition.

Personal information systems are one of the richest sources existing for studying user needs and behavior. They have been ignored too long. It is time that librarians and other information specialists not only acknowledged their existence, but also attempted to utilize and profit from the valuable data they can provide.

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10. "While the disappearance and up-ending of categories and subjects may be erratic, it never stops; and the meaning of this for information retrieval should be clear. Last week's categories, perhaps last night's field, may be gone today. To the extent that information retrieval is concerned with the seeking of *true* or *ideal* or *permanent* codes and categories . . . to this extent, information retrieval seems to be fundamentally mistaken. *The* categories are chimerical (or temporal) and our categorization systems must evolve as they do. Information systems must have *built* in the capacity to accept the new categorization systems as they evolve from, or outside, the framework of the old." T. H. Nelson / *A File Structure for the Complex, the Changing and the Indeterminate*. *Proceedings*, ACM 20th National Conference, 1965, p.97.
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The Computerized File Management System

A Tool for the Reference Librarian*

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■ A file management system can provide a powerful search tool for a library reference group. The system described produces both current awareness and retrospective searches from several diverse data bases. The same query language can be used to interrogate all data bases in either on-line or batch mode.

Searches can be made for any word, word root, phrase, or number in any part of any entry. Citations selected by coordination of terms can be either printed or used to custom-make new machine-readable files. Costs are reasonable; an average batch mode search requires 11 seconds of CDC 6600 time.

FOR THE PAST two years our reference librarians have been using a new tool to search the technical literature for answers to reference questions and to compile literature searches. The tool is a computerized file management system that can operate either on-line or in batch mode. It has been adapted to retrieve information from large, machine-readable bibliographic data bases. These include, in addition to several LLL (Lawrence Livermore Laboratory) data bases, Nuclear Science Abstracts, Chemical Titles, COMPENDEX (Engineering Index), and SPIN (American Institute of Physics). These and other abstract services are produced as an adjunct to computerized typesetting and printing of the abstract journals. Retrieval costs are

reasonable; we can search one issue of NSA with batches of more than 30 questions using approximately 11 seconds of CDC 6600 computer time per search.

Our technical library serves a large nuclear research facility employing more than 1,500 scientists and engineers. While our reference service receives many routine requests, a substantial number of queries require intensive searches of the technical literature. Also, there are many requests to monitor incoming technical periodicals and reports for specific topics. In the past we were forced to limit the number of such time-consuming searches we performed.

Since we adopted the computerized file management system it has been a major aid in providing retrospective searches of recent technical literature. The system is also most useful in making current awareness searches. We are

* This work was performed under the auspices of the U.S. Atomic Energy Commission.

now using it to provide a current awareness service covering Nuclear Science Abstracts and COMPENDEX.

The System

The generalized file management system we use is Master Control, developed at LLL for use on the CDC 6600 computer (1). The system coding is designed to accommodate special characteristics of individual data bases without additional programming. The application of generalized systems to information retrieval has been questioned by de Boer (2) who considers custom-designed programs to be preferable. We have found our generalized system to be efficient and effective in processing both large and small data bases. While some operations may require slightly more computer time on the generalized system, this small penalty is more than offset by eliminating a major reprogramming effort for each data base. Quite simply, we would not now be in operation if we had required reprogramming.

We encountered no difficulty in writing Master Control conversion interfaces for our data bases. In fact, we recently had two of the interfaces written by a librarian with a special interest in data processing, not a programmer. A unique advantage of the conversion to a single operating system is that the same query language can be used to interrogate all data bases, thus eliminating the necessity of learning a new language for each data base. One of the major advantages of Master Control is that the user, by himself, can tailor the system to meet his own requirements.

For bibliographic data the unit record is the citation. Within each citation information is arranged in data elements: author, title, source, keywords, etc. The citations in the data base may be searched by numbers, phrases, words, and word roots. For example, we can search for HOLOGR, which will retrieve such terms as holograph, holographic, holography. We can link terms with the Boolean operators AND, OR, and NOT. The system will match terms according

to the logic used and will select citations satisfying the conditions specified. In one pass we can search any data element in any citation contained in the stored data. This is an unusual capability; many systems can search only a few data elements.

If usage should justify it, we can decrease search time by creating an inverted table for any or all data elements in each record. Briefly, an inverted table consists of each unique word in the selected data elements and the identifying number of each record in which it occurs. The table is in essence a concordance to the data base. The machine searches the concordance faster than it searches full citations. The savings are analogous to those gained from the manual search of a published concordance compared to searching the full text. Master Control can also be used to produce word lists with frequency counts.

Output formats for special needs may be constructed in a matter of minutes. For our large data bases, we have designed a set of these output formats making them part of the conversion interface. We can also call up any record we wish to see. Often this is used in question formulation to determine the terminology used in a pertinent citation.

The output from a search may be retained in the computer, thereby allowing the next question to be addressed to the output of the previous search. This allows progressive narrowing of a search without losing previous information. The system can provide search output on either Hollerith cards or magnetic tape for construction of smaller special-purpose data bases.

Because the Master Control program is available to all computer users at LLL, we furnish custom data bases to those who wish to maintain and search their own data base on a special topic. They may also search the larger data base directly.

Applications

In our daily operations the reference librarians use the retrieval system when-

ever they feel it will be effective. For years, librarians have used the major abstract journals as basic sources. Now they have the machine-readable abstract journals with their special advantages: timeliness (usually 2 to 6 weeks earlier than the printed versions) and quick and accurate scanning by computer. Because the system simply matches words, it cannot analyze the citation. Thus computer output is essentially a selection of citations by an accurate, but indiscriminating, machine. The searcher must carefully analyze the citations for relevance before releasing the output to the requester.

Our reference librarians formulate their own questions for the machine system. To assist in setting up questions, we use all available information about the data base: any formal thesaurus, word frequency counts, word lists, and our experience. Our first step is to phrase the question concisely in natural language. Next we put the question into machine format. While the system permits rather complex logical operations we find we can handle most questions with simple logic. The query language is simple and straightforward with a minimum of special conventions; a sample query is shown in Figure 1. All of our searchers have learned to formulate and input questions without difficulty. Input to the system is keyboarded, with batch mode questions keypunched and on-line work submitted through a Teletype machine.

One of the most beneficial uses of on-line time is in question formulation and testing. When the searcher works at the console, phrasing can be tested immediately. If the phrasing is not right, it can be modified and remodified until it is right. Question formulation can take days when run in batch mode. On-line time is also used when the requester's need is urgent. All routine searches are done in batch mode, which offers economies both in machine and personnel time.

The machine system is especially efficient for current awareness questions. It has greatly increased our capacity for

handling this type of search. Presently we are using it to provide current awareness service to more than 100 scientists and 100 engineers on the Nuclear Science Abstracts and COMPENDEX data bases. As our experience in administering this service increases, we will make the service more widely available.

Thus far we have concentrated on debugging the machine-related part of the operation, with good results. We are looking into improved formats for the output. We are continuing to work on the administrative aspects of handling the operations. For example, we have assigned responsibility for upkeep of the question deck and for monitoring the computer processing of each data base to a reference librarian, who acts as data base manager; this has been very successful, both in expediting the processing of the tapes and in developing the individual.

When the new issue of a tape service is received, we first convert it to Master Control format and generate an inverted table for the most frequently searched data elements. For both NSA and COMPENDEX, these are titles and index terms; different elements have been chosen for other data bases. The questions for each data base are maintained in a punched card deck that contains additionally the interface program and a printout format selector. The converted tape and card deck are submitted to the computer, and the resulting batch mode output is a series of personalized searches in requester mailout format (Figures 2 and 3). Each search is reviewed and edited by the assigned reference librarian (not necessarily the data base manager) before being sent to

Figure 1. Example of Question Formulation

Question: Effects of high energy protons and neutrons on metals, especially aluminum, beryllium, copper, tin, iron, and tungsten.

Query formulation: (DAMAGE or EFFECT) and (HIGH ENERGY or MEV) and (PROTON or NEUTRON) and (METAL or ALUMINIUM or BERYLLIUM or COPPER or TIN or IRON or TUNGSTEN)

Machine language: SEARCH ALL READ DICTIONARY TIKEWI S READ TITLE KEYWORDS FOR SYNONYM ROOT DAMAG*, EFFECT*, S SYNONYM WHOLE HIGH ENERGY, MEV, S SYNONYM ROOT PROTON*, NEUTRON, S SYNONYM WHOLE METAL, METALS, ALUMINIUM, BERYLLIUM, COPPER, TIN, IRON, TUNGSTEN, S S END

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Figure 2. Requester's Part of Typical Personalized Search

• •

Figure 3. Return Portion of Typical Search

NSA, VOL 25, ISSUES 1-6, 1971
2199LF R. BORG L-503 RAD. EFFECTS

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RCPRT (ENWL--1349-2, PP 4.1-154)
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TENSILE PROPERTIES / STEEL-ASTM-A533 / FRACTURES / MICROSTRUCTURE / STAINLESS STEEL-304 /
STAINLESS STEEL-316 / SWELLING /

AUTHOR FARAGAY, BRUCE J.
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the requester. The requester may order documents by returning a marked duplicate copy of the search, which is provided as part of the mailout.

In May 1972, we ran an average of 115 questions each on Nuclear Science Abstracts and COMPENDEX. We are experimenting with the SPIN tapes, using 31 searches. We also provide current awareness service for Chemical Titles. For administrative reasons we are using a specialized program for routine searches of this data base. However, an interface exists that enables us to search Chemical Titles with our generalized file management system, and we do so on request.

Retrospective searches of recent tape issues are extremely valuable, although somewhat more costly than current awareness searches because a number of issues must be processed. Before initiating a retrospective search, the searcher must balance machine system cost against that of other available information sources—the printed index, searching services, etc. We find that the machine search is most valuable in two cases: before the printed index is available and where the printed index will not allow retrieval of specific information. For example, while Nuclear Science Abstracts does not index to "Monte Carlo method," the tape version permits retrieval of pertinent citations.

Acceptance of the service has been very good. Results of a recent survey show substantial approval of our service. Critical comments were directed toward the type of printout paper used—an unconventional, heavily coated paper required by LLL's ultrahigh-speed printer—and the length of the mailout. This is being changed: the Laboratory is phasing out the printer and we are condensing the mailout printout.

The COMPENDEX tape service includes the Engineering Index abstract with the citation. Although we do not search the abstracts in our current awareness production runs, we have included them in the printout sent the requester. Our engineers and scientists have been uniformly enthusiastic about having the additional information.

As of May 1972, searches require approximately 11 seconds each of CDC 6600 time, when run against one issue of NSA (average, 2,500 citations) in batches of 30 or more searches. The time includes getting the data base on and off the computer. It should be emphasized that we are using a system still under development; in January, such searches averaged 17 seconds each. We expect future programming improvements which will result in still faster operations. It is difficult to discuss comparative dollar costs, since methods for costing computer time vary widely. To approximate dollar costs, let us hypothesize a time cost of \$300/hour (an average of on-line, production batch mode, and standby time). On this basis, our current 11-second search would cost 91 cents for computer time. Even if we used 2 minutes for a retrospective search, our time cost would be only \$10.00. We feel these are moderate costs for the rapid, high-quality results we get.

Conclusions

While much has been said about the usefulness of interactive systems to the casual user, we have found that special knowledge of the data base and above all, experience in searching it are essential to full exploitation. Just as the reference librarian's stock in trade has been his knowledge of the content of each abstract journal and how to use it, so will become his understanding of the best use of the magnetic tape version.

Much of the value of the file management system in our reference service derives from our ability to adapt the system ourselves, to our needs. We have just begun to realize its capabilities. While our major use is in retrieving information from bibliographic data bases, we have a number of other applications. Crow and Elchesen (3) have reported a computerized management information system for the reference group. We have begun experiments in word frequency studies to determine trends in technology. And, we are working on studies of the relative value of

titles and indexing terms, alone and in combination, for retrieving information (4). We feel that the computerized file management system has an important place in the technical library's reference service.

Today we are retrieving citations to documents. We believe that tomorrow will bring increasing emphasis on machine manipulation of extracts and whole text for retrieval of data—not just citations to documents that may contain pertinent information. File management systems can handle this kind of processing and the equipment for massive data storage is becoming less expensive. Our reference librarians are looking forward to providing these new services to our customers.

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Reproducing Maps in Libraries and Archives

The Custodian's Point-of-View

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■ Three problems of map reproduction from the custodian's point-of-view are reviewed: photographic reproduction, map accessibility, and map handling. The first considers the problems imposed by map format, legibility, color, and physical composition. This is fol-

lowed by a discussion of the copyright issue and the "fair use" doctrine, donor and agency restrictions, and national classification procedures. Finally, the need for improved map handling by readers, map custodians, and photographers is emphasized.

MORE THAN 100 years ago, in a lecture delivered at the Smithsonian Institution, Johann Georg Kohl, the great German geographer and cartographer, called for the establishment of a "cartographical depot" in the United States in which all maps pertaining to America were to be collected and preserved. Many of the maps which were to comprise this national map collection were to be based on Kohl's personal collection of maps he had handcopied from original sources in Europe. Although Kohl's plea for a national map collection went unheeded for another 40 years, the United States Government recognized the value of Kohl's collection by purchasing 474 of his handcopied maps (1).

Map reproduction has changed radically these past 100 years. Maps are now published in great numbers by both commercial firms and public agencies and are relatively easy to obtain, while numerous types of inexpensive copies are available for manuscript and out-of-print maps. The basic objective of map

reproduction, however, remains the same today as it did in Kohl's day, and that is to reproduce a map as accurately as possible at a minimum cost with the minimum amount of external interference. In pursuance of this goal, the map curator is confronted with at least three basic problems: 1) the problem of photographically reproducing the physical elements of a map; 2) the problem of map accessibility; and 3) the problem of map handling. The first is technical in nature and concerns primarily the photographer and the map custodian; the second, which deals with forces generally outside the control of the map custodian, is of paramount interest to the map user; the last concerns all three parties—map custodian, map user, and photographer.

Photographic Reproduction

Beginning with the technical problems, photographic copies of maps are made to preserve and transmit informa-

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Reproducing Maps in Libraries

The Photographer's Point-of-View

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■ The photoreproduction of maps poses a variety of problems. Factors of size, format, color combinations, type size, etc. not clearly understood by the client can lead to poor bibliographic service and financial loss. Only the special skills of an experienced color photographer can devise the combination of methods likely to produce the best re-

sults possible. Advances in techniques for everyday production of high-resolution colored map copy have not achieved their desired goal. Film and camera improvement is imperative. A look to the future may well envisage the creation of ANSI standards to produce maps fit for filming.

THE PHOTOCOPYING of maps in libraries poses a variety of problems—perhaps greater than any other type of library material. Some of the problems are resolved quickly under the guiding hand of a skillful laboratory supervisor, while others offer a high level of resistance to ordinary solutions. It is worthwhile to identify and evaluate these factors.

The obvious sources of trouble lie in the physical characteristics of the original material: large sizes, unusual formats, wide range of type size, and the juxtaposition of odd color combinations.

Communication

It is our conviction, however, that the most significant factor in problems of map reproduction lies somewhat concealed, but is not really so mysterious when once dragged into the light for a close examination. This problem is a lack of adequate communication be-

tween client and copying agency. The client, in many instances unaware of the photographic pitfalls in map reproduction, fails to describe the exact photoreproduction to be made from the original material, and the copying agency fails to ask the questions needed to elicit the correct response. If client and photoduplication representative are face to face, with the material to be copied between them, a satisfactory decision on appropriate techniques and method will probably result. If, however, there is no such personal exchange of ideas, much can go wrong. A written request which lacks sufficient information (if available) concerning dimensions, color, range of type size, method of reproduction desired, specifications of the finished product may make necessary the exchange of several letters with a consequent delay. The copying agency may also wander from the straight and narrow in furnish-

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tional content or to preserve and transmit artistic value. These may take the form of photoprocessed facsimile or microfilm copies for preservation purposes in map repositories, or photostatic copies for the personal use of individual readers. The unique qualities of maps which make them useful both as research documents and as works of art unfortunately make them difficult to reproduce. From the map custodian's viewpoint, some of the problems that must be considered are the large and irregular format of most maps, legibility, color, and physical deterioration.

Most reproductions of maps generally involve some reduction from their original size. This of course reduces the original map scale and thereby the usefulness of the copy. Photographic copies made for preservation and security purposes must be more accurate in relation to scale and detail distortion than copies made for public use where informational content may be the prime consideration. In either case, the addition by the photographer of a small ruler or straight-edge marked in inches and fractional parts of inches placed along two sides of the map before it is photographed will greatly aid the map user by indicating the degree of vertical and horizontal reduction and distortion.

Irregular map formats also pose problems. Photocopying can be done most rapidly and efficiently (and therefore inexpensively) when documents to be copied are uniform in shape and small in size. Sectional photographs then become unnecessary, reduction is not excessive, and a fixed reduction ratio can be employed and camera adjustments kept to a minimum. The larger and more irregular the format of the map being copied, the more time consuming the photography becomes, and the less satisfactory the copy. In the National Archives, the oldest and most valuable maps, such as the records of the Office of the Chief of Engineers and the General Land Office, are extremely heterogeneous with respect to size and shape, and therefore

are the most difficult to copy satisfactorily. Yet these are the maps that are most frequently used and are subject to most severe wear.

Legibility is determined by such factors as scale, the density of detail, the clarity of the lettering and symbols, and the condition of the ink and paper. It obviously is impossible to produce satisfactory copies of maps that are not clearly legible in their original form. In general this is a problem with early manuscript maps. The use of poor compilation and drafting techniques, the fading of inks, and various kinds of physical deterioration make many of these early maps difficult to read. Normally, legibility is not a problem in modern printed maps, particularly those published in uniform series, such as topographic quadrangles and aeronautical or hydrographic charts. But maps of this kind are highly detailed, and are drawn so that the details will be legible at the published scale. The photographer, therefore, must be certain that all cartographic details are picked up on the reproduction.

Color is seldom a problem in copying textual documents, most of which are monochromatic. When color does occur it usually is not essential to understanding the documents. In maps, however, color is frequently used as a means of depicting information, and in many cases the loss of color in a reproduction seriously impairs the value of the map. Since color reproductions are currently too expensive for most purposes, map users and map curators must rely primarily upon black and white reproductions of color maps. This requires close cooperation between the map curator and the photographer in order to determine the optimum film to be used. Some films exclude certain colors while emphasizing others. High-contrast film, for instance, is designed to make faint lines more legible. Unfortunately, some high-contrast film does not distinguish between various shades of red so it cannot always be used on fading maps that in-

clude red line work. The map curator must therefore rely upon the photographer for advice on film type. At the same time, the curator must inform the photographer about any specific color that must appear on the reproduction.

While problems arising from map format, legibility, and color often can be alleviated by photographic techniques, the problem of map deterioration is not so easy to solve. Tears can be mended but missing pieces cannot be replaced nor, in most cases, can fading inks or discolored paper be improved. Another problem arising from deterioration concerns map repair. Not only are maps withdrawn from reference circulation for long periods of time, but some methods of repair, such as lamination, may permanently hinder copying. During lamination one or two sheets of cellulose acetate are placed over the face of the map. While cellulose acetate is generally transparent it still has some effect upon light and will slightly diminish and diffuse it. In some cases, where there is a tendency for pieces of the original map to flake or fall off, a sheet of reinforcing tissue paper may have to be added to the cellulose acetate on the face of the map, thereby strengthening the map but making an accurate reproduction more difficult.

Accessibility

While the physical reproduction of maps poses one set of problems, their accessibility for reproduction poses a completely different set. Map accessibility is controlled by various external factors such as copyright laws, agency and donor restrictions, and national security classification restrictions, and has always been closely related to the problem of map reproduction.

It has been a basic principle of American law since the inception of the copyright system in 1790 that information prepared by government officials is within the public domain and therefore not subject to copyright. Most of the

maps in the National Archives are in this category and can be reproduced for publication without permission of either the author or originating agency. Maps prepared by private individuals or commercial firms which embody both originality and creativity, however, are copyrightable and any reproduction of them for profit falls within the scope of the Copyright Act (2). This is not to say that maps which have a copyright cannot be reproduced for personal study, research, or scholarship. While the U.S. Copyright Statute (Title 17, United States Code) "does not expressly permit the use of copyrighted material, . . . without the permission of the copyright owner," the Copyright Office of the Library of Congress points out that "the courts have recognized certain limited uses of copyrighted material . . . where the use is reasonable and not harmful to the copyright" (3). This "rule of reason" as Verner W. Clapp has called the "Doctrine of Fair Use" has been broadly interpreted to allow the single copying by scholars of copyrighted material in order to carry on personal research. Furthermore, the "Doctrine of Fair Use" has the official sanction of the American Association of Law Libraries, the American Library Association, the Association of Research Libraries, and the Special Libraries Association. The Joint Libraries Committee on Fair Use in Photocopying, which represents the above associations, has recommended that "it be library policy to fill an order for a single photocopy of any published work or any part thereof" (4). The "Doctrine of Fair Use" has been questioned, however, by the U.S. Court of Claims. In a recent report, Commissioner Davis of the Court upheld Williams & Wilkins in its copyright infringement suit against the National Institute of Health Library. Davis' recommendation overrules the "fair use" principle. If his report is adopted by the U.S. Court of Claims and sustained on appeal to the Supreme Court, then royalty charges can be collected for photocopying for personal use (5).

While the copyright law does not apply to maps produced and published by local, state, or federal governments, their accessibility is also at times limited either because of restrictions imposed by the originating agency or because they bear national security classification markings. In either case, they may be used under certain conditions or they may be completely closed to examination and reproduction.

Agency-restricted maps are "closed on the grounds that confidentiality is still essential to the efficient operation of that particular department or agency or on the grounds that their availability could constitute an invasion of citizens' privacy" (6). Current federal maps in this category include all maps and drawings of the Executive Mansion and grounds and all maps of foreign areas at scales larger than 1:500,000 produced by the Defense Mapping Agency and its predecessors. The latter are also subject to third-nation restrictions. This restriction limits the distribution of maps of a friendly foreign nation produced or held by the Defense Mapping Agency in accordance with the desires of the nation concerned (7). In spite of these restrictions, many of the maps under discussion may be examined and reproductions of them may be obtained with the permission of the respective agencies. Moreover, the Freedom of Information Act has somewhat curtailed agency-imposed restrictions. In reaction to this directive, for instance, the National Park Service recently lifted its 29-year restriction on maps and land records pertaining to the Chesapeake and Ohio Canal.

Security classified maps are maps that pertain to national security. They are marked "Top Secret," "Secret," or "Confidential" and are "closed or restricted under the terms of either a statute of Congress . . . or executive orders issued by the president" (8). As in the case of restricted material, the Federal Government has also moved to reform its classification and declassification system for Government documents relating to

national security. Executive Order 11652 (37 F.R. 5209, Mar 10, 1972), which became effective Jun 1, 1972, has shifted the burden of proof "upon those who wish to preserve the secrecy of documents, rather than upon those who wish to declassify them after a reasonable time" (9). In addition to tighter rules for classifying documents and the reduction of the number of agencies in the Government authorized to classify information and material, the following significant features are included in the new order (10):

1. Timetables ranging from 6 to 10 years have been set for the automatic declassification of documents . . .
2. Any document exempted from automatic declassification will be subject to mandatory review after a 10-year period. Thus, for the first time, a private citizen is given a clear right to have national security information reviewed on the basis of specified criteria to determine if continued classification is warranted . . .
3. If information is still classified 30 years after origination, it will then be automatically declassified unless the head of the originating department determines in writing that its continued protection is still necessary and he sets a time for declassification.

The last type of restriction is one imposed by a private donor or institution. This also involves an external restriction placed on a map or series of maps by someone other than the map librarian or archivist who has custody over them and whose permission has to be obtained before they can be examined or reproduced. This type of restriction generally involves manuscript material. It protects the donor's property from commercial exploitation yet makes it available on a selected basis for examination by serious students and scholars.

Handling

The final problem of map reproduction from this custodian's viewpoint is

map handling. For map repositories that include old manuscript and published maps which are unique and irreplaceable, the emphasis should first be on preservation and only secondly on service. The researcher therefore may have to accept some constraints upon his use of maps and the type of reproductions he prefers. He may have to be content to view photostat copies rather than original maps. Many of the major map repositories are finding it necessary to withdraw from general circulation their old and valuable maps having intrinsic value. Reproductions purchased by the map user may also have to be made from a negative copy rather than from the original. Charged with the responsibility of preserving historically and legally valuable maps, many of which are literally worn out from handling, the map custodian has to consider his basic responsibility to the preservation of his holdings rather than to the convenience of the map user.

The identification and protection of maps during the copying process can also be a substantial problem for the map custodian. Each map must be tagged in such a way as not to damage it, yet it must be readily identifiable to the photographer and the refiler. To reduce damage to the map, paper clips should not be used and sectional reproductions that require special markings should be discouraged. The photographer, moreover, is usually located in a laboratory apart from the research room. This raises several problems. In addition to reducing communication between the custodian and the photographer, the separation of the two units imposes a burden upon the map user by causing maps to be withdrawn from the search room while copying is being done. The transportation of maps between the two points also increases wear and tear on them.

Just as the user and custodian must exercise consummate patience and care when dealing with maps, so too must the photographer. Photographic equip-

ment is generally not suitable for working with oversized material. It is normally designed for handling relatively small objects. When large maps are photographed, it is frequently under makeshift conditions. The vacuum easel on most photostat machines measures less than 40" x 49". Larger maps hang over the edges of the easel and are easily damaged. If a map is old and brittle or laminated it is likely to tear or crack from the stress. Microfilm and photocopying easels are even smaller in size. Another common handling problem involves securing large maps vertically for copy cameras. Maps must not be tacked or taped to the wall; they must not be mutilated in any manner. If a large copy easel with air suction is not available one should be built. Pin holes and mending tape not only ruin the aesthetic quality of the reproduction but hasten the destruction of the map itself.

Great advances have been made in solving the technical problems of map reproduction since Kohl compiled his collection of handcopied maps from various European archives. But the problems of map accessibility and the phenomenal increase in the use of maps by both laymen and scholars have actually increased the problems of map reproduction. Like the custodial arts in general, it seems as if today the map custodian is caught in the center of a triangle of diverging interests. On the one side is the map user who demands reproductions of maps without delay or interference. On another are future generations of map users who also have a claim upon our historical heritage and therefore an interest in the preservation of contemporary maps, authors who wish to protect their investment in skill and time, and government agencies concerned with national security. On the third side of our triangle of self-interests is the photographer, a technician skilled in reproducing maps, who must perforce be concerned with assembly-line techniques, profit margins, and production quotas. These centrifugal forces are

counteracted only by the harried map custodian who must try to satisfy the demands and concerns of each group.

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ing an estimate of probable cost, if it fails to describe adequately all problems peculiar to the matter in hand, and to present clearly the several options of method and end product available to the customer.

In the reproduction of library material where the financial "break-even" margin is so narrow under the best of circumstances, a protracted exchange of letters to settle poorly defined problems results in fiscal irresponsibility and loss—not to mention an unhappy client and an overworked laboratory where remakes are bad news indeed.

Physical Characteristics

The first group of problems noted above involves the physical characteristics of the material to be copied, and in this group the factor of size is of prime importance.

If the map occupies a page or plate of the same size as the pages of a volume of average proportions and in a good binding the problem is minimal. If the volume is oversize, or if a folded map must be opened, the obvious solution is found by copying the map in sections. When this is necessary, care must be taken that an overlap of one inch, at least, be provided between adjacent sections. Some of the problems inherent in the sectionalizing of a large map may be avoided here if there is an exact knowledge of the client's needs.

In general, the division of a map for sectionalizing under the camera involves these factors: the least sum of parts possible, yet adequate definition to make clearly visible the smallest point present in the original, plus compatibility with the equipment to be used: camera, bookholder or copyboard, reader, reader/printer, etc., and finally, due regard for reduction ratios—all in a single package to afford a satisfactory end product.

Sometimes unusual circumstances dictate unusual solutions; e.g., in microfilming a large map in a volume tightly bound, or a large map which cannot be

folded for sectional copying on account of its fragility, it is expedient to use an intermediate photostat. This entails the obvious liability of some loss of definition, a price sometimes necessary when no other course is possible.

Fragility of the original map always causes additional problems, since it presents peculiar difficulties in providing adequate underside support, an essential for correct focus when such maps must be spread flat in their entirety.

In the case of laminated maps, there is considerable variation in their suitability for photoreproduction, and, in general, no overall solution exists for this dilemma. A good try in the hands of a skilled operator by whatever method, or location of another copy without lamination are the answers.

Another problem especially critical in the photoreproduction of maps is that of color, particularly pastels. Dependence on color to differentiate geographical areas and political divisions is an ever-present factor—above all when map makers with seemingly fiendish skill place blues and greens in juxtaposition, or indicate changes in elevation by delicate shadings in yellow and orange. Solutions here are difficult, more so for some methods of reproduction than for others. In microfilming, the use of a panchromatic film is helpful, along with a careful selection of filters from the wide range available. For photostats of colored maps, experimentation with a variety of papers and filters may solve some problems. Probably the best course to follow consists in a shift of method to avoid the photostat process entirely, especially when reds are found overlaid on black in the original, since a positive photostat will render these in black with a partial or complete loss of all notations and lines. Problems in conventional color photography for maps fall into essentially the same categories as for microfilm, and are susceptible to the same solutions: changes in film types, use of a variety of filters, and variations in processing solutions and procedures.

Methods of Reproduction

References have been made above to methods of reproduction. Several comments are in order about these methods; namely, photostat, Xerox, photograph, and microfilm.

Little can be said further in the matter of photostats, save the suggestion to shift to another method when critical results are essential. Xerox is an even less satisfactory procedure for maps unless they are outline maps with no shadings or tone values. In other words, avoid this method except for originals with single, narrow-line patterns (in sizes generally compatible with sheet sizes available for this process). In the cases of both photograph and microfilm, we are on safer ground, for both methods permit a wider latitude in the procedures possible to solve stubborn problems.

In the matter of the conventional photograph, either black and white or in color, varying combinations of film, filters, solutions, times of exposure, etc. provide a flexibility which should be adequate in competent hands for all standard situations susceptible to present techniques.

In microfilming a map, the flexibility noted above is also present, but certain specialized problems arise. When size of the original necessitates filming in sections, great care in procedure is needed. Filming must be done in sequence and in a pattern so that a reconstruction of the original map is possible by the reassembly of the several sections. The standard sequence for sectionalizing documents as set forth in ANSI PH5.9-1970, "Specifications for Microfiche," should be observed.

Another reduction problem, more precisely associated with the production of microfiche, concerns film resolution which becomes more critical as one resorts to smaller film areas. The problem is aggravated in processing color. Fairly good resolution is possible for color slides and color microfilm, but quality

would be compromised if large-scale blow-ups were attempted, or if oversize maps were reproduced without sectionalizing.

Papers and some films in general use are not sufficiently stabilized to insure an absolutely accurate reproduction of dimensions in a map produced by photocopy. A course laid out on a navigational chart so duplicated might well result in a shipwreck on a charted reef.

Equipment

Although belonging to a category distinct from the characteristics and condition of the original material to be copied, the various types of equipment necessary must not be overlooked in the search of the optimum, or even the satisfactory, in map reproduction. This factor can be a deciding element in the effort to furnish the best possible copies, since the whole "package" from first filming to the end product ready for use must be compatible. Bookholders and copyboards, cameras, apparatus for reduction, projectors, readers and reader/printers—all must be coordinated in the objective of good map copy for whatever purpose was in mind when the photoduplication was undertaken.

Cost

Thus far, cost factors have not been emphasized, but it must be evident that many of the careful, specialized operations in the handling of map reproduction involve substantial financial outlay, not only in equipment, but especially in that very expensive commodity, trained labor. The laboratory supervisor must be particularly conscious of this matter since he is forced into a continuous balancing act between quality and available funds. Some operations of a modern photoduplication laboratory lend themselves to an assembly-line type of production. Unfortunately, assembly-line techniques rarely adapt to map photoreproduction.

Future Trends

In attempting to evaluate the present state-of-the-art and probable future trends in techniques of map reproduction, a variety of factors must be examined. Practical considerations of map reproduction and the only-too-obvious imperfections in present procedures and equipment—all point to color reproduction of maps as the critical problem, especially in microform. It is in this area, therefore, that the most significant research should be undertaken, for it is here that we hope to see substantial progress.

Except on the experimental level, advances in technical methods for color films in everyday production have reached their outer limits and are still wanting. By contrast, however, with such routine production, laboratory research is underway, both at home and abroad. This is the time, then, to reemphasize the line which must be drawn between work on the laboratory level and that produced by the assembly-line of everyday operations under strict conditions of quality control. What is possible on the outer fringes of the art where optimum conditions can be temporarily stabilized for sophisticated photographic refinements with a minimum regard for cost is in a completely separate ballpark from day-by-day activities.

Where small colored maps are the original format, a resolution of 70–90 lines/mm in the film, slide, or microfiche, now possible, can afford a passable definition. Where large color maps are in question, however, these specifications are quite inadequate unless we have recourse to sectionalizing. The whole problem for large magnification is beyond the limits now set by a combination of factors: size, range of type size, color range, resolution, magnification, film, and lenses. With presently available equipment, a greater flexibility of range is possible by the use of 70mm film, but even here lens and film capabilities must be increased, particularly

for second and third generation copies. Reassessment of lens/film combinations will follow in the wake of such improvements.

How to achieve the goal of high production of photographic and microphotographic duplicates of maps is not now evident. There remains the dilemma of the high cost of labor and materials coupled with the uncertain life expectancy of such a vehicle, as well as the further unresolved question of proper storage and handling conditions adequate to enhance the life period of color film to the point where sound decisions are possible.

In closing, a final idea may be useful in the consideration of future cartography. None of the maps discussed has been specifically designed with microfilming in mind. Research has been undertaken, however, on a limited scale directed toward the improvement of maps with this purpose in view. It is conceivable that new ANSI standards may, one day, spell out specifications for this kind of map. New facility in reading and general use, particularly under adverse conditions, may thus be foreshadowed.

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Municipal Publications

Their Collection and Use in Reference Service

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■ Municipalities having bibliographic control and checklists of their publications are the exception rather than the rule. Because of the complexity of the subject, reference librarians encounter major obstacles in locating materials of

interest to their clientele. As a result, they need to understand the benefits of documents, to draw upon a variety of diverse sources, and if necessary to refer patron requests to the appropriate municipal agency.

REFERENCE SERVICE necessitates familiarity with a wide range of materials from the traditional handbooks, directories, indexes, and bibliographies to more specialized items published as documents. Documents add a different perspective or dimension to the collection and represent the historical and current activities of a particular government. Their primary importance to reference service is the detailed statistical data, reports of agencies whose functions and activities are not reported elsewhere, and the bibliographic citations provided. Often municipal publications are the best or only access to municipal activities. In addition, the range of various statistical data and reports supplements the information found in *Municipal Yearbook* and *Book of the States*.

Library literature relating to state and federal documents is quite prolific and covers acquisition, organization, and administration. The area of municipal publications, on the other hand, has received considerably less attention (1).

According to Shannon, concern for bibliographic control, cooperative programs, distribution and publication of municipal publications has been generated since 1910. However, little has been done to implement suggestions by national professional associations into actual programs; bibliographic control remains an illusive dream (2). The following discussion analyzes the complexities of the topic and thereby provides a more comprehensive overview of municipal documents. To help achieve this end, correspondence was conducted with sixty municipal reference and public libraries and the general findings have been included.

Reference librarians often lack expertise or day-to-day experience with documents; competency with documents is usually limited to the federal level. Of course, they need familiarity with publications of their own and/or nearby cities, but what about other municipalities across the nation? How can reference service and documents collections be bet-

ter coordinated, and of what value are municipal documents to reference service? Such questions need answering if reference librarians intend to utilize those resources at their disposal.

Why Municipal Documents?

Librarians need familiarity "with the guides to government publications which exist and must understand the past and present publishing practices of government agencies. A detailed knowledge of the organization of the government is also an invaluable asset" (3). Furthermore they must keep abreast of the latest developments and major resources and tools for the field so that they can better guide patrons to sources. Competent assistance requires that librarians know how to gain, and the likelihood of gaining, access to particular works. If such questions cannot be answered, they need to know where and to whom to refer the query. If the library does not have an extensive collection of municipal publications, the problem of referral becomes more complicated.

Municipal publications vary in content and have appeal for both the generalist and specialist. The items most needed by urban studies and government students include municipal ordinances and codes, council proceedings and minutes, special studies relating to urban renewal and city planning, and the annual reports of all municipal agencies. Documents present statistical images of conditions and provide an access for measuring social, political, scientific, cultural, and economic changes. Consequently they have research value in both the social and physical sciences, education, sociology, business, political science, and law to name a few. For illustrative purposes, representative works will be mentioned for sociology. Miami publishes urban area transportation studies such as *Economic Population and Land Use Factors for Transportation Planning* (1969). Fort Worth, Texas, issues bibliographies on a variety of subjects such as police, rioting, urban planning, urban transit, and public opinion.

Overview

Generalizations about municipal documents are exceedingly difficult to make because there are many exceptions. The number of basic municipal publications varies from city to city. For example, Santa Fe does not publish any, Des Moines is curtailing publication of reports of the various departments, and cities such as Chicago and Los Angeles issue many publications. In addition, local offices keep records but do not always publish them. It is not uncommon for city publications to have limited distribution, thereby restricting access to libraries within the state. Many municipal documents are not priced or are free and must be secured directly from the city issuing agency. They are issued both on a regular and irregular basis depending upon criteria set by the issuing agency and the municipality. As many publications are issued on an irregular basis and as the concept of mailing lists has not been fully implemented, librarians should realize that municipal documents are often difficult, if not impossible, to obtain from municipal agencies and, therefore, comprise special problems for librarians trying to obtain information. A further complication is the impossibility of determining the scope of municipal activities or the publications of the various agencies. At the same time it should be realized that some publications have limited value outside the community.

Libraries often have incomplete holdings of these publications and acquisition depends upon the realization that a particular publication exists. Pittsburgh, for example, does not publish a list of its official publications. It is difficult to learn about them, and the information usually comes from newspaper announcements. From time to time independent bodies such as the Board of Education and Sewer Authority publish studies and reports of interest outside the particular state. Such materials can usually be obtained from the issuing agency at a nominal cost, but the difficulty is to learn of their existence.

If the city distributes publications, public libraries or municipal reference libraries usually acquire the more important ones and can advise on the procedure for establishing contacts. Equally important, public or municipal reference libraries can suggest additional agencies to consult about the acquisition of municipal publications. For example, the Carnegie Library of Pittsburgh suggests that librarians interested in city documents consult the Institute of Local Government, University of Pittsburgh. The Free Library of Philadelphia recommends writing the Fels Institute of Local and State Government in the city.

The New York City Municipal Reference and Research Center coordinates the city's documents collections but also serves as a central distributor and sales agency for municipal publications. Model Cities agencies and Urban Affairs Centers collect municipal publications and patrons can be referred accordingly. For example, the Center for Applied Urban Research at the University of Nebraska at Omaha provides reference service for patrons interested in municipal problems and issues. The Center extensively collects materials relating to the city of Omaha. Helena, Montana, is a Model City area and the Helena Model City Office has carried out studies which should be of interest to students of urban affairs. For example, one study is entitled "Comprehensive Plans."

Sources of Information

Librarians must consult a wide range of sources in order to obtain information. David Beasley's *Bibliography Program of City and County Publications*, sponsored by the New York Public Library, contains a listing of documents furnished by 78 municipal libraries nationwide. New York City issued an *Urban Research Directory* listing research projects in progress at municipal agencies and universities. The *Metropolitan Area Annual* (1969), edited by Illana S. Hastings and Wendell G. Lorang, was formerly published by the Graduate School of Public Affairs, State University

of New York at Albany. This source provided an overview of metropolitan developments through articles such as "Federal Legislative Action on Metropolitan Problems in 1968" and through summary digests of metropolitan surveys (4). *County and City Data Book* and the various publications of the United States Bureau of the Census such as the *Directory of Federal Statistics for Local Areas* and *Directory of Non-Federal Statistics for States and Local Areas* are also helpful.

At present, librarians also rely upon other basic sources to find data about municipalities and their activities. These include local telephone directories; *National Union Catalog*, *Monthly Checklist of State Publications*, *PAIS Bulletin*, and the *Municipal Yearbook*. There are even some industrial directories for cities such as Philadelphia, Pennsylvania; Omaha, Nebraska; Louisville, Kentucky; and Phoenix, Arizona. The Greenwood Press (Westport, Connecticut) plans to make municipal publications available on microfiche by subscription and will issue an index to them. These documents are for cities of 100,000 or more population and for counties of 1,000,000 or more according to the 1970 Census. In addition, the New York Municipal Reference Library published *Municipal Reference Library Notes*, which included publications of New York City and those other cities that furnish data. This has suspended publication and has been replaced by its acquisitions list. Municipal reference libraries in other cities such as Chicago, Seattle, Honolulu, Los Angeles, Fort Worth, and Detroit issue listings of their publications and libraries might want to obtain these checklists. The Municipal Reference Library, a department of the Detroit Public Library, for example, is a depository for all of the city's publications, and each January the library's "MRL Bulletin" lists municipal documents issued the previous year. These publications are free from the issuing agency; however, some are not published in quantity. Detroit participates in a national documents exchange program in effect since

1960 between municipal reference libraries in major American municipalities; some foreign cities are included in the program. Basically the types of documents exchanged are "the budgets, police, city plan, recreation, etc., reports . . ." (5).

Familiarity with state governments and their reports can be helpful. Montana state government, for example, has a major impact on municipal actions and, therefore, researchers should rely on the state checklist for insights into municipal activities. The New York Public Library and the Greenwood Press, depending upon the municipal library in question, will not and do not receive all the documents collected by the various municipal libraries. Consequently patrons can be referred to the resources of the New York Public Library and the Greenwood Press, or to the particular municipal reference library or public library for advice. For example, according to the Phoenix Public Library, the *City of Phoenix; Diagnostic Appraisal of Organizations and Operations* (1969) is a major study of the city's government. The Jacksonville Public Library advises researchers on urban consolidations to consult studies such as Richard Martin's *Consolidation: Jacksonville, Duval County, 1968* and *The Jacksonville Consolidation: The Process of Metropolitan Reform*, a thesis published in 1968 at Princeton University. In addition, the Municipal Reference Library, Fort Worth, Texas, makes available many of its sources on inter-library loan.

Assisting the Patron

Although there are vast and obvious distinctions among municipal, state, and federal documents, their subject matter can overlap. When this occurs and librarians can assist patrons in tracing the pattern, a more comprehensive view of governmental interaction emerges. Persons working for a municipal or state agency operate from a different perspective, and reference librarians need to be aware of how to uncover whether

there is a study by each on a particular topic or of what cooperative programs exist between levels of government.

Reference librarians must become more receptive to documents and stress their importance whenever possible as in reference interviews, class lectures, library tours, faculty meetings, and even discussions with other librarians. The reference interview should probe any lack of sophistication while providing the patron with a background knowledge and appreciation for documents. For example, if the patron seeks information about urban planning for Seattle, the librarian should briefly explain municipal publications and the difficulties involved in locating material. If no information can be located, the patron should be referred to the particular municipal agency involved with urban planning or the municipal reference library or its checklist.

It is not necessary for librarians to collect extensively materials relating to other cities but at least they should know how to guide patrons to the desired information. As a result, they must draw upon many sources ranging from materials within their collection to the resources of other libraries; cooperation through interlibrary loan is often essential. The end product should be a closer working relationship between documents and reference librarians.

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The User Group Technique in Action

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■ By creating a kind of “constructive tension” user groups open channels of communication between users and suppliers of government information. This often leads to a better understanding of the problems and to improvements in services. Specific questions and prob-

lems are posed by SLA members within five subject areas to elicit responses from administrators of several government document services. The success of this technique is tested by what happens in the future and persistent follow-up is imperative.

OVER 200 PEOPLE gathered for breakfast Jun 6, 1972, at the SLA Conference in Boston, to discuss hang-ups they encountered as professional users of government information services. As the information link between these sources and end users (in some organizations the required channel of acquisition), librarians and information specialists explored problems in five broad discussion areas: Scientific and Technical Information, Social Science Information, Medical and Agricultural Information, Automation and Information and Information Across National Borders.

That same afternoon, over 250 attendees heard a panel of government information service administrators respond to these problems. The panelists presented their views, described the magnitude of their own problems, and outlined what users can expect from their services in the future.

Communication was established between the users and the suppliers, and some changes were promised for the fu-

ture. After the Conference was over, the leaders of the discussion groups reviewed the questions, prepared a summary, and asked the administrators for comments on progress toward solutions.

This is a technique employed with a measure of success by the Regional User Groups. Information hang-ups are explored to provide user feedback, a confrontation is arranged with the suppliers, and follow-up steps are taken to pursue improvements and to keep the lines of communication open.

Emergence of Regional User Groups

The regional user group concept had its inception in Jun 1969, when a group of users of the Defense Documentation Center (DDC) met informally to discuss mutual user problems, specifically the impact of changes in DDC policy regarding document services. After three meetings, they identified problems, discussed these in small working groups (sub-committees), and made positive recommendations in a report on “Information

Hang-Ups" (1), which was presented to the directors of the two related services for response. Face-to-face meetings were arranged, and communication was established which led to improvements in the services (2, 3). Encouraged by the apparent success of this kind of communication, the group continues to meet as the Committee on Information Hang-Ups, to explore user problems with other sources as well and to tackle some of the problems through similar action.

In Jun 1970, John Berry, DDC Office of Customer Relations, suggested to a group of Los Angeles area librarians that they organize a user feedback group similar to the one in the D.C. area. "Fresh in the minds of members was the activity of the Washington, D.C. Committee as reported at the 1970 Detroit Special Libraries Association Conference," reported Rocco Crachi, and what is now called the Los Angeles Regional Technical Information Users Council was born. The new organization was spearheaded by Joe Ann Clifton and represented 35 user facilities (4). Recently they issued a report on user problems associated with nine information agencies (5).

DDC pushed the idea of what they called "customer community groups sponsored by the users themselves." Francis Hennessy, DDC Office of Customer Relations, actively encouraged customer contacts in the Eastern half of the country to form groups patterned after the one in Washington, D.C., "to promote the interchange of ideas between DDC and the users." Executive Secretaries, or Chairmen, from the DDC user facilities were appointed to develop user groups in their areas. At the same time, DDC abandoned their earlier program of sponsoring large regional user conferences. By spring 1971, Executive Secretaries had been named for 45 Regional User Groups (called RUGs by DDC). By summer of that year, the list had grown to 59. Additions reported by DDC in the fall brought the total to 66 (6).

Communication with the Regional User Groups was established by the Chairman of the Committee on Informa-

tion Hang-Ups, who also acted as liaison to the Special Libraries Association Government Information Services Committee. This formed an official channel of communication between the groups and SLA (7). In a Letter to the Editor in February 1972, evidence of SLA's further involvement is reported, as follows:

"At least 74 regional user groups have been identified throughout the country. Two SLA Chapters (Dayton and Boston) have begun to coordinate the activities of the user groups in their area, as Chapter projects. The Government Information Services Committee communicates with these user groups and lets them know when feedback appears to be required or is requested by the government agencies. Unfortunately, not all of the groups are responsive. Those who do respond with enthusiasm and add a significant contribution to the weight of evidence which influences policy decisions. In this 'Age of the Consumer' we are finding that the Government will listen, especially when user problems are well stated, reflect a consensus of users, and are based on the actual work situation. What an opportunity this is!" (8)

A few of the original Regional User Groups have died out. However, new ones continue to emerge as long as user problems persist. Many of the regional user groups now have broader perspectives and investigate problems encountered by users in dealing with the acquisition of information in general in addition to problems with DDC.

Recently, DDC has been forced by reduced resources to eliminate their Customer Liaison Staff. John Berry was reassigned to other duties and Francis Hennessy retired to join the Florida Institute of Technology, in Melbourne. However, the DDC Services Division has begun a reduced-scale visit and briefing program with leaders of the established Regional User Groups and they plan to continue to actively support these groups.

The National Technical Information Service (NTIS) is now aggressively seeking the views of the users of its services.

In May and Jun 1972, NTIS scheduled a series of regional meetings on Project SUMSTAT, a proposed new statistical service. An invitation was sent to approximately 70 associations to name "typical users" of federal statistics who could attend one or more of the meetings which were held in 14 major cities. Their purpose was to obtain a broad measure of user reaction before the new service was launched. SLA members participated in most of the meetings.

User groups which are subject oriented are not new. The Federal Statistics Users Council, based in Washington, D.C., was founded in 1956 by a group of business, farm, labor, and non-profit users of Federal data who wanted to do more than complain about the shortcomings of timeliness, geographic and factual bases, etc. They sought a means by which they could work together effectively to help bring about needed improvements and secure economy and effectiveness in statistics programs. As a broadly based organization without obligations to any single group, the Conference is respected by Federal government agencies who seek the views of its members.

The Textile Information Users Council was formed in May 1969, initially to outline the deficiencies of current services and to invite suppliers to discuss these ideas with them. Miss Darlene L. Ball, acting for the Steering Committee, wrote: "Since then, we have had communication with many of the suppliers and are working closely with them to develop services or improve services for information in the textile industry. Suppliers have been most cooperative in working with the Council and we are very encouraged by this effort. In total, 23 suppliers of secondary information to the textile industry have appeared before the group." Contacts also have been established with European suppliers (9).

The real value of user groups is that they provide an opportunity for information users to pool their ideas and opinions about information services and to forge positive suggestions for improve-

ments in these services. Because they are "self-appointed and unofficial" groups, they have the freedom to be objective in expressing their views. Objective feedback is invaluable to the administrators who must make decisions. Further, this is a unique contribution that only the users can make.

A National Network

Some of the problems uncovered by the users of government information services are beyond the power of any one agency to solve. Certain changes require political action or interagency cooperation among competing agencies. Strong evidence needs to be presented that a real problem exists and it needs to be placed in the hands of key people who are in a position to "do something about it." Users can produce this kind of evidence and carry more clout by presenting their views as a united user community.

"To explore the possibilities of forming a national network of technical information user groups which would enable acting in unison to attack obstacles inhibiting the free flow of scientific and technical information," Francis Hennessy (now a regional user group chairman himself) arranged for the Executive Secretaries and Chairmen of the Regional User Groups to meet Mar 22-23, 1972, at the Florida Institute of Technology. Although a relatively small number attended, they organized a National Federation of Government Information Users. A follow-up meeting Jun 4, 1972, was held in conjunction with the SLA Conference in Boston "for those who were unable to attend the Florida meeting and for others interested in forming user groups to look into government information sources in general" (10).

In Boston, the name of the network was shortened to Federation of Information Users, officers were elected, and a further meeting scheduled in conjunction with the annual Conference of the American Society for Information Science in Washington, D.C. in October.

Whether or not the independent spirit

of the regional user groups can be harnessed to "act in unison" is yet to be seen. However, one thing is quite clear. When more than 200 people will turn up at 7:00 a.m. on the third day of a conference to talk about hang-ups with government information services, there *are* user problems.

Persistent User Problems

At the breakfast meeting in Boston in Jun 1972, in all five discussion areas, the services of the Government Printing Office (GPO) emerged as one big information problem. Comments and questions regarding this and other services, some of them written on "feedback sheets" and turned in by the participants at the close of the meeting, were summarized by the discussion leaders, as follows:

SOCIAL SCIENCE INFORMATION (Mrs. Mary Lou Knobbe, Metropolitan Washington Council of Governments, Washington, D.C.): Librarians with questions concerning GPO included all types of facilities—public, federal, municipal, industry, university, law—both here and in Canada. Their problems with GPO could be summarized as service, subscriptions, local bookstores and miscellaneous.

Delays are the real problem. Why a five month lag in receiving orders? Why do subscriptions lapse in the middle of the year? Why are notices of renewals not always sent out?

The bookstores are usually above the fifth floor of a building, stock is not always relevant to the problems of an area, and personnel often is unfamiliar with the stock and not really interested in giving service.

The *Monthly Catalog* indexing leaves something to be desired. Items go out of print before the Catalog is even received. When GPO begins micropublishing, how will one know whether to order microfiche from GPO or NTIS?

SCIENCE AND TECHNOLOGY INFORMATION (Mrs. Joe Ann Clifton, Litton Industries, Inc., Woodland Hills, Calif.): The discussions at the sci-tech tables

were very much to the point. Concern was expressed over ordering (including follow-up and delivery of material, as well as limited documents), rising costs, microforms and public relations programs.

GPO was criticized for the time lag between receipt of order and delivery, subscription problems, handling of claims and credits, availability of depository libraries and adequacy of its bookstores.

Order procedures of other agencies were questioned. Why will ERIC not accept a rush order without a written form? Why does NTIS insist on a multiple order form when experience has taught us that single order forms are so much more efficient?

Limited documents are still too difficult to obtain and progress in this area has been slow. Information analysis centers sponsored by the Department of Defense (DoD) are not well known. Why is there such a difference in their charges and rules for use?

Microfiche continues to be a problem—differing reduction ratios, quality, eye-legible legends, and blow-backs. Are there future plans for standardization?

MEDICAL AND AGRICULTURAL INFORMATION (Mrs. Betty Boyd Brociner, Lincoln Laboratory, Lexington, Mass.): Discussion emphasized the overwhelming need for improvement in services and communications with government agencies. GPO and NTIS were singled out as the worst offenders, but this is probably because they are larger than most other agencies. We *must* help these two giants find ways to improve. Their problems astound the imagination and the solutions will require our immediate understanding and cooperation in finding imaginative, inexpensive solutions to what are really "shared" service problems.

Many of the problems mentioned earlier were discussed here. Also, how can we find out about *all* the documents published by GPO, including those not announced?

Questions aimed at the National Agri-

cultural Library (NAL) related to the turnaround time on interlibrary loans and average response time for items in its own collection. A recommendation was made that NAL expand its public relations program to let the average citizen know this great national resource exists.

Queries concerning the National Library of Medicine (NLM) covered subject headings in MESH, regional medical libraries, and translations services.

AUTOMATION AND INFORMATION (Joan E. McNaught, MITRE Corporation, Bedford, Mass.): Discussion ranged from general observations of service deterioration to specific problems of in-house automated systems, and critical observation of the Government's use of automation in relation to announcement and retrieval.

A critique voiced by many concerned the effort necessary for the purchaser of Government tapes to make the accompanying programs more compatible to his needs. It was emphasized that the program of documentation and the systems should be standardized so that once the material had been purchased, costly in-house programming and adjustments need not be made.

Another general criticism was the increased burden of responsibility being assumed by the requestor. In this day of easily stored and manipulated records the question repeated was: Why must we reorder when stock is depleted, or the item announced but not yet available? Why aren't the back orders stored and queried automatically?

There were, of course, numerous comments concerning the value of rapid announcement when delivery of those same items is unreasonably slow and appears to be getting slower.

The lack of bibliographic control over Government publications also was discussed. The element of overlapping coverage between NTIS and GPO and the ensuing confusion caused some note. In this same vein, the Selective Dissemination of Information (SDI) and Selective Dissemination of Microfiche (SDM) pro-

grams were mildly criticized as not being worth the time and effort. NASA's SDI was singled out as poorly organized. Another area receiving adverse comment was NTIS search capability costing \$25.00 which many had understood to be automated and which turned out to be just a thermofax copy of the NTIS subject index.

INFORMATION ACROSS NATIONAL BORDERS (W. Eric Clyde, National Science Library, Ottawa, Canada): The discussion leader mentioned that a telephone sampling of some Canadian libraries had failed to turn up any major problems in the area of ordering and receipt of government documents. The group demonstrated during a lively discussion that either the wrong libraries or the wrong librarians had responded. As with the other groups, many difficulties had been experienced with orders from GPO (and also from Information Canada).

The NTIS pricing structure for libraries outside the United States came in for a share of criticism. In addition to the prices of the documents, foreign libraries pay an extra per item charge for each hard copy and microfiche. At the National Science Library, the increased cost is estimated to be at least \$6,000 per year.

Other questions concerned customs declaration forms (would suppliers please paste them outside the packages to help speed flow through Canadian customs?), certain types of reports which are not for distribution outside the U.S. but are not so identified in indexes, and the NTIS fast announcements which often are too fast (we wait a month for the microfiche, to the intense annoyance of our own customers).

From all five of the discussion groups, a number of general comments and questions were posed. These touch on the overall government information system or aspects of it which could not be answered completely by any one information source. A selection of them follows:

Telephone books for several government agencies list the internal telephone

numbers—a useless number to anyone calling in from outside. Why can't external numbers be included also?

We have set up several different *deposit accounts* to purchase government documents—GPO, NTIS, ERIC, etc. Can these be combined in some manner, so we can purchase and pay for government publications from any government agency? Can deposit account statements be sent out more often and more clearly define the material being charged?

Can a library *order* government publications directly from an issuing agency, such as the Census Bureau, as they are issued, rather than having to order them from GPO or NTIS when they are frequently out-of-print?

Is there any regionalization in *law*, as in medicine, or any plans for the future?

Any federal, state, or local government-funded research, or any tax exempt foundation-funded research, should have an automatic clause that the results be published (if suitable for publication) in prescribed format through prescribed channels and that the publication be forever exempt from any *copyright* restriction.

The problem of maintaining levels of service, when an increase of users via *networks* is introduced at the same time budgets are frozen or reduced. Why do systems which should give cheaper in-depth service seem to be a factor in forcing a "thinning" of service possible?

Feedback

At the afternoon session which followed the breakfast round table, administrators from GPO, NTIS, the Office of Education (OE), the National Library of Medicine (NLM), the National Agricultural Library (NAL) and DDC willingly appeared as a panel to respond to the feedback. Not all of the questions could be asked. Not all could be answered. However, the discussions brought out some of the problems faced by the administrators, steps they were taking to improve services, and their hopes for the future. A summary of their response follows:

GOVERNMENT PRINTING OFFICE (Robert Kling, Superintendent of Documents, Washington, D.C.): Our problems are relatively easy to identify but, unfortunately, not relatively easy to correct. We have full responsibility in the public documents department for the sale, distribution for Congress and other agencies, preparation of catalogs and indexes, and servicing of federal depository libraries. We are working to improve in all these areas.

By far the most difficult is our interface with the public, the sale and distribution aspect of our mission. The problem of filling so many orders for so many different publications is not an easy one. For example, we receive money and orders and inquiries in 24 different forms, in sizes, shapes, colors and types of communication. Orders are received each day for 10–60,000 items.

Two management firms with glittering credentials in systems analysis conducted preliminary surveys of the public documents department with the view to advising us how to improve our performance. One of them offered to do a complete study within a year's time at the cost of several hundred thousand dollars of the taxpayer's money and the other one said thanks, but no thanks.

We have spent months studying the flow of ordering to bring some order out of controlled chaos in the public documents field. We developed what we call the "grand design." Within 5 to 10 years we will have introduced and installed this system, but we live in the real world of constraints in terms of people, time and money. We have made a start at adapting a practical interim system. About a year ago we placed a contract and we're still waiting for the data base to be produced by the outside contractor. (Author's note: The contractor's role is now completed and GPO has taken this in-house to manage.)

As a step, we have ordered a complete set of microfiche to replace 100,000 file cards so each order clerk has a set on his desk with a reader. Eventually, when the data base is placed on a computer sys-

tem the microfiche will be phased out for an on-line system.

A high percentage of stock is stored in warehouses until needed by departments. This grossly exceeds space at the moment. Recently we acquired 100,000 feet of warehouse space in Virginia. It is scientifically planned so we have a reasonable hope of finding what is stored. This should vastly shorten the order response time. Most of our operations are manual. Basically it is a stock operation. I intend to go back to Congress to ask for an appropriation to duplicate the entire day force on the night side, to double our manpower.

As for subscriptions, we have nearly 500 subscription items, 1,500 separate lists, and $3\frac{1}{2}$ million names. We are a department in transition—half the forces on one side and half the other—astride the river. About $\frac{2}{3}$ of the names on the mailing list have been converted from stencils to magnetic tape. A high percentage of those running on tape are running in parallel in stencils. This has doubled our work. When all names are on magnetic tape we can phase out the stencils. We have tried to retrain those working with stencils to work with OCR typewriters and contractor punched cards. Here again, we are operating with a split system.

In short, we are aware that our deficiencies are mainly in terms of speed and accuracy in filling orders. We are working on these in almost every possible area. Our handling of complaints is poor. We know this, too. We are automating our activities, but hope lies in the fact that additional resources in the form of people, funds and space will be forthcoming.

NATIONAL LIBRARY OF MEDICINE (Harold Schoolman, Special Assistant to the Director, NLM, Bethesda, Md.): The regional medical library program is the model basis for the implementation of a biomedical communication network and the National Library of Medicine is charged with creating, operating and manning it. It is operative in more and more regions with varying degrees of

activity. It has never had as one of its objectives to absorb the costs of inter-library loans. Its main objective is to create the resource through which a more efficient and more cost effective transfer of biomedical information can be effected. Documents were simply the model that was initially used to study the problem and to define the magnitude of the logistical problem of creating the organizational elements with which to deal with it. We will be getting involved with non-print material, with a variety of data bases.

All the regional medical libraries have MEDLINE bibliographic services. All the resource libraries within the regions which are designated as a part of that network will have that potential in the very near future.

Other experiments going on involve the use of other technologies, such as satellites, with voice transmission and machine transmission, and the use of cable television.

More and more, the libraries and librarians will have to contribute their professional knowledge and their investments in creating a national resource which will sometimes put them in conflict with their own institutional objectives or designs. In the long run, however, the institutions also will be served.

NATIONAL TECHNICAL INFORMATION SERVICE (Peter Urbach, Deputy Director, NTIS, Washington, D.C.): NTIS has developed a couple of new programs and has made a number of changes which we feel lay the foundation for a sounder operation in the future. We have made changes to our pricing structure. We have three different pricing schedules based on the kind of document involved. We can divide all our documents into three different groups based on expected demand for the documents. As much as one third of the collection has extremely low demand—below five copies. With these documents it is not feasible for us to consider pre-printing the stock and putting it on the warehouse shelf to wait for the order. We have to blow these back one copy at a time from the

microfiche, leading to some of the quality problems referred to earlier. We expect a higher quality blow-back with new equipment ordered for use with the 24× microfiche. We have re-priced this set of documents on what we call "demand print" which is based on a per-page charge which permits us to fully recover our production costs. The charge is \$0.05 per page with a minimum of \$3.00 for a 20-page document.

The second pricing category continues to be the basic \$3-\$6-\$9 price we have used in the past and the bulk of our collection will fall into this category. The third group, which we are calling the "wide-interest" reports, comprises a very small percentage (in the order of 2%) of the reports that we announce. These are reports which we feel will have interest to a broader community than our regular users. They are specially packaged and promoted and are priced somewhat higher to cover the additional marketing and packaging costs.

In regard to quality control, we have been unhappy with our ability to reproduce halftones. We are creating an "exception" reproduction pipeline which will be used for those documents or documentation which have halftones deemed to be important to the content of the document. Secondly, we are embarking on a formal quality control program in printing and reproduction. We are recruiting quality control people, building a shop in which to do it, and procuring new equipment, which uses an electrostatic process and improved paper, to blow back the 24× fiche.

In regard to the surcharge which is added to documents going to other countries, at the present time we are 82% or 83% self-supporting and the balance of the money is appropriated by Congress. We feel it is inappropriate for the U.S. taxpayer to subsidize documents going to foreign users. The surcharge is added to make those documents self-supporting.

We've added a new service which we call NTISearch—a fee subject search. This service has proved to be very popular and exceeded our estimates in terms of demand. As a result we are now in the

throes of automating that operation. (Author's note: NTIS contracted out for an on-line service which is now operational. Most of the data base has been loaded, back to 1964.)

Another new service is the subject oriented announcement bulletin, a weekly product, which is substantially more timely than any of the announcement products we have used in the past.

We also are developing other new programs: automatic distribution of microfiche in subject categories, announcing and promoting the licensing of government-owned patents by industry, and a program to collect and make available to the public federal summary statistical data in machinable form, both through the sale of magnetic tape data bases and ultimately (perhaps 4 or 5 years hence) on-line access to a large computer base statistical data system.

U.S. OFFICE OF EDUCATION (Harvey Marron, Director, Division of Communication Systems, OE, Washington, D.C.): The problems and the questions raised are not superficial. They are not easily solved. They are very tough problems. They are seldom traceable to a few lazy, incompetent or scheming people who are trying to do the system in. Managers of Government information programs are being pushed, pulled and squeezed. To illustrate the point I wish to make, let's focus on abstracting and indexing services. A few of the problems a manager has to contend with are scope, timeliness, length and depth of abstracts, and cost. Generally he cannot afford a multiplicity of abstracting and indexing services. Scope—some want only final reports of lasting value, others need also documents of a more transient nature. Timeliness—he must choose between timeliness and quality or completeness of service. Abstracts—some like them long, some short, informal or formal, precise with jargon or without jargon. Cost—a manager looks for the least expensive service with quality control. In short, one man's caviar is another man's fish entrails.

We need constructive feedback. All purposes would be better served if when

making suggestions for improvements you try to assess the full impact on the total system and the possible service effects to others.

How do you obtain Rush response for ERIC documents? You don't. We have a contract with an organization to supply ERIC reports. The terms of the contract are stated in their proposal and in it is no obligation to provide rush service. The contract calls for 5-day turnaround time only.

About a regional system vs. a state system, let me correct a misconception. We do not support OE units in every state. The National Center for Educational Communication, of which ERIC is a part, is supporting some prototype information centers in state and local departments of education, also a regional prototype educational center. We are trying to see which serves best.

DEFENSE DOCUMENTATION CENTER (Herbert Rehbock, Director, Technical Services, DDC, Alexandria, Va.): I would like to point out where DDC differs somewhat from most other organizations. We really have a closed community in that the users of DDC services must be registered with DDC through an active contract with either the military department or related government agencies. If you are talking about service problems, one of our biggest problems since the Freedom of Information Act has come into being is we have a tremendous amount of contact with the general public trying to obtain documents which have never been released to the general public. The effort to get a document reviewed by the military department to finally give it to Mr. Rehbock, who says it's too old and nobody wants it except one guy, poses a problem.

We have developed an automatic distribution system on microfiche which is based on what we call a "negotiated profile."

In addition to the bibliographies, with which many people are familiar, searches of the Work Unit Data Bank are available not only to government agencies

but also to contractors. This is a data bank of on-going research.

We have now operational, an on-line information retrieval system which covers from Alabama to California. In the future we plan to extend this to a rather extensive on-line retrieval system.

In regard to magnetic tape distribution, people can get the *Technical Abstract Bulletin* (TAB) on a two-week cycle to use in their own computers. The problem that most people run into is understanding the tape layout for these particular magnetic tapes and how to convert them for use with a computer system which is not necessarily the same variety as that on which the tapes were generated.

Why is the TAB index classified? The limitation statement "not releasable to foreign nationals" was eliminated and therefore the indexes were classified to control them. We will look at parts of the index again to see if they might be released from this restriction.

NATIONAL AGRICULTURAL LIBRARY (John Sherrod, Director, NAL, Beltsville, Md.): People want faster service, higher quality standards, better response to complaints and, of course, they want at the same time lower costs or no costs at all. This simply cannot be achieved. I feel some sympathy for the librarians, some of whom I could hear audibly commenting as the answers were being given, all they want is simply the document within a reasonable period of time. What some agencies have offered are on-line retrieval systems which the librarian does not care about, automatic distribution of microfiche which most of them claim cannot be read, and other fancy systems which simply do not answer the problems that they feel they have at the present time.

There is no question in my mind that we need more people and more funds, and I think this constructive tension that you have started here is an excellent thing. I hope that not many of you will take the tack that one of my friends recently did. A librarian in a distant insti-

tution felt the best way to improve the service of the National Agricultural Library was simply to write to my boss and tell him how bad the service was. Now this might work in some instances, but I explained to my librarian friend when he complained about the indexing that when my boss would look and see that a half million dollars was being spent on poor indexing his alternatives are two: one is that he could add another \$500,000 to increase indexing, but the other alternative (which I have a feeling he would choose) is that he could save the \$500,000 by having no indexing at all. So, I hope you will keep this constructive tension alive. I hope you will continue to make recommendations as to how the quality of the service can be improved, keeping in mind the realities of life and being quite aware of the fact that if more services and products are added, it is very likely that some existing ones will have to be eliminated.

Regarding turnaround time on inter-library loans, we have just instituted a request form which is superior to the one previously used. It should take three days or less, once it gets into the library. If not in the library collection, it takes longer. Mail service delays this. We now have a teletype which saves time. We are substituting photocopy in place of loans for a large number. We are rapidly moving to transfer loans to the land grant network to make material available from a closer location. There are 69 land grant libraries in the country and NAL will pick up a large amount of the tab.

Further Answers

The overall exchange was lively and questions ended only when the room had to be vacated to set up another meeting.

Since that meeting, some answers have been gleaned from representatives of government information services at other meetings and through personal communication, as follows:

Q. Why will there be a change in the

reduction ratio of microfiche at GPO from 20× to 24×?

A. The COSATI standard has been 20× and was instituted when microfiche was in little use. Now commercial use has grown tremendously and the National Microfilm Association standard is 24×. So as not to perpetuate two standards, COSATI adopted the 24× ratio (11). (Author's note: The new Department of Defense Microform Standardization Task Group headed by Raymond H. Gordon recently issued a memo establishing a DoD standard for microfiche at 24× and 48× reduction ratio.)

Q. When will patents on microfilm be less than two months late?

A. NTIS obtains original film from the Patent Office. They have experienced some problems in producing it. This makes it late in getting to NTIS. Currently there are about 130 or 140 subscribers to this film. Commercial firms offer film of the chemical patents only (11).

Q. When does GPO expect to resume "normal" billing for deposit accounts?

A. This is part of our overall problem. We have been authorized a second shift, which will increase the number of people working on it. This will help (12).

Q. Why can't a common thesaurus be used as an authority for cataloging and indexing all government publications? Can we reduce to a minimum mission-oriented abstracts and indexing services and produce a single service, perhaps to be available in sections (subject-wise) for those who prefer?

A. DDC makes a major contribution to such a "single service" in that all its unclassified reports which are also releasable to the public (some 53% of all the documents it accections) are transferred to NTIS for announcement in the GRA and GRI. NTIS also furnishes copies (13).

Q. Why does it take so long to get approvals on DoD limited documents supplied by DDC? Could it be lack of knowledge of what to do on the part of contracting officers? If so, does DDC

have an education program for these "military types"? After an "L" document has been approved for release, does DDC give the request any priority when it is received?

A. Contracting officers tend to be extremely busy people whose many other responsibilities in monitoring all aspects of their contracts leave them little time for the request approval process. DDC has for years given presentations to courses offered to contracting officer types at Wright-Patterson Air Force Base by the Air Force Institute of Technology, specifically designed to acquaint them with their technical-information-related responsibilities. Reaction to these courses has been very favorable. Similar indoctrination has been provided for training programs in the other services as well. The visits and briefings that DDC provides regularly to its users almost always concern requests for limited documents, among other subjects. The Reference Section in DDC (Telephone: 202/274-7633) answers phone and letter inquiries every day related to expediting these requests for limited documents.

After a request for an "L" document has been approved it comes back to DDC for overnight processing. The delays are not in-house in DDC. The mails account for a great deal of time as well as the approval process itself. The whole approval procedure is under review to determine whether it cannot be made more timely and responsive (13).

Q. How are new subject headings developed for MESH? How can a user suggest changes or additions?

A. New subject headings for MESH are developed in response to our own indexing needs and to requests in writing, by telephone, or through the MEDLINE communications network itself. A user wishing to suggest changes or additions should address his comments to the Bibliographic Services Division of the National Library of Medicine (14).

Q. The Regional Medical Library in Brooklyn (N.Y.) can no longer give photocopy service nor sell copy to a com-

pany. Why? How can this service be restored?

A. The Regional Medical Library in the New York area is at the New York Academy of Medicine. It in turn is supported by a number of resource libraries including the SUNY Downstate Medical Center which may serve the company in question. Because of funding limitations, a ceiling has been established for the number of interlibrary loan services at *no charge* by the regional medical library or resource library for an *individual* company. When a company exceeds the quota of free interlibrary loans it can make arrangements, as is the custom, with the resource or regional library to pay to these organizations the loan charges for the additional requests.

If the company cited in the question had exceeded its quota of free interlibrary loans available from the SUNY Downstate Medical Center, and if the Center was unable to accept fees for interlibrary loan services, the company could make arrangements with the N.Y. Academy of Medicine to purchase the additional interlibrary loan services (14).

Q. What is the reason for the delay in distributing *Cumulated Index Medicus* from the Government Printing Office?

A. The National Library of Medicine has been seriously concerned with delays by GPO in the printing and distribution of the 1971 volume of *Cumulated Index Medicus* (CIM). The GPO has assured the Library that the next volume (1972) of CIM will be processed and distributed more expeditiously. GPO has streamlined its distribution procedures for this Index and will increase its print run to preclude reprinting as was the unfortunate case for the 1971 volume (14).

Q. What does the National Library of Medicine offer for translation services? How can a hospital or research service obtain translation information and assistance from NLM? Are government sponsored translations listed with the National Translation Center in Chicago?

A. The National Library of Medicine does not provide translation services.

Translation requestors are referred to the SLA Directory of Translators* or to the National Translations Center in Chicago located at the John Crerar Library. Government sponsored translations are listed with the National Translations Center (14).

Along with the answers to specific questions, the following unsolicited comments were received which testify to the vitality of the user group technique:

Robert B. Stegmaier (DDC) says: "We find the user group technique useful and our liaison program is in part based on it" (15).

Martin M. Cummings (NLM) writes: "We work very closely with the Medical Library Association as an organization, with the medical associations, and with the local library and medical communities to gain continuing user feedback and evaluation. The input resulting from this interaction has been a key element in the ability of our services and products to maintain a high degree of responsiveness to the needs of health care personnel. We intend to continue this practice" (14).

George Drobka (NASA) comments: "Having had the pleasure of attending a number of your user hang-up meetings it is clear to me the intent of your group—constructive criticism. Frankly we in NASA welcome this—we continually ask for it.

"Our suggestions are . . . avoid a series of back and forth questions and answers which aren't truly productive. . . . Show that there has been an effective dialogue between the recipient librarians and the major S&T information producing Government agencies. Such dialogue has provided for a means to isolate problems, offer suggested solutions, and thus generally increase the effectiveness of the already valuable service provided. By setting forth a series of recommendations for consideration by the administrators

involved I think you best serve your purpose. I know such would be welcomed by NASA" (16).

The challenge is clear. To fulfill the obligation created by demanding to be heard and to be respected as a responsible member of the user-supplier partnership, users must now come up with some specific, positive recommendations which will help to solve the problems they have stated. This kind of feedback makes the technique really work.

Summary

The user group technique opens lines of communication between the users and the suppliers of information. It was employed by groups of information users as a means of coping with the impact of changes in policy of government information sources and has been successful in effecting some changes. This technique can be effective at single meetings, such as a Chapter meeting or Annual Conference session, or a series of meetings, such as the continuing Chapter project or the program of a regional user group.

It works as follows: Explore the information hang-ups and pinpoint persistent problems. Provide user feedback based on the work situation. Make constructive recommendations. Arrange a conversation with the suppliers. Follow-up to pursue improvements and keep the lines of communication open. "Constructive tension" creates expectancy on the part of the user and pressure on the part of the supplier, which generates a climate for potential change.

The success of this technique is demonstrated by improvements in the services and/or a greater understanding of the problems of both the users and the suppliers. Persistent follow-up is important. For this reason, representatives of government information sources have been invited again to take part in a meeting to be held at the SLA Conference in Pittsburgh, Jun 11, 1973. Among them are representatives from the Government Printing Office, Atomic Energy Commission, National Technical Infor-

* Ed. Note: Kaiser, Frances E., ed. / *Translators and Translations: Services and Sources in Science and Technology*. 2d ed. N.Y., Special Libraries Association, 1965. 244p. \$14.50.

mation Service, Department of Defense, Environmental Protection Agency, and the Joint Committee on Printing. Users will have an opportunity to meet the administrators in informal face-to-face conversation at an "Off the Record" Reception following the meeting.

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11. Peter Urbach, Deputy Director, NTIS, speaking at the Joint Meeting on "Current Awareness" sponsored by the Federation of Information Users and the SLA D.C. Chapter Sci-Tech Group, Oct 22, 1972, Washington, D.C., in conjunction with the Annual Conference of the ASIS.
12. Jay D. Young, Chief, Sales Planning Section, GPO, speaking at the Joint Meeting on "Current Awareness" sponsored by the Federation of Information Users and the SLA D.C. Chapter Sci-Tech Group, Oct 22, 1972, Washington, D.C., in conjunction with the Annual Conference of the ASIS.
13. Letter to the author from Robert B. Stegmaier, Jr., Administrator, Defense Documentation Center, Alexandria, Va., dated Nov 20, 1972.
14. Letter to the author from Martin M. Cummings, M.D., Director, National Library of Medicine, Bethesda, Md., dated Oct 31, 1972.
15. Letter to the author from Robert B. Stegmaier, Jr., Administrator, Defense Documentation Center, Alexandria, Va., dated Nov 9, 1972.
16. Letter to the author from F. George Drobka, Chief, Acquisition and Dissemination Division, Scientific and Technical Information Office, NASA, Washington, D.C., dated Nov 14, 1972.

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Ruth S. Smith is head librarian, Institute for Defense Analyses, Arlington, Va.; Chairman, SLA Government Information Services Committee; Vice-President, Federation of Information Users; Chairman, Committee on Information Hang-Ups (Greater Washington, D.C. area).

1973 Candidates for SLA Office

Following are the candidates for SLA office 1973/74. Full biographies and photographs will appear in the February 1972 issue of *Special Libraries*. For President-Elect: Mrs. Zoe L. Cosgrove (3M Company, Tape Technical Library, 3M Center, Bldg. 230-1S, St. Paul, Minnesota 55101) and Edythe Moore (Manager, Library Services, The Aerospace Corporation, P.O. Box 95085, Los Angeles, California 90045); For Chairman-Elect of the Advisory Council: Roger M. Martin (Manager, Information Center, American Express, P.O. Box 7650, San Francisco, California 94120) and Clement G. Vitek (Chief Librarian, The Baltimore Sun, A. S. Abell Company, Publisher, Baltimore, Md. 21203); For Treasurer: Janet Rigney (Assistant Librarian, Council on Foreign Relations, Inc., 58 East 68th Street, New York, N.Y. 10021) and Mrs. Dorothy H. Sussman (Vice President-Librarian, Goldman, Sachs & Co., 55 Broad Street, New York, N.Y. 10004); For Directors:

George L. Aguirre (Administrator, Reference Library Service, Standard Oil Company of New Jersey, 1251 Avenue of the Americas, New York, N.Y. 10020) and Robert L. Klassen (Planning and Legislation Officer, Bureau of Libraries and Learning Resources, Office of Education, Washington, D.C. 20202); Marian G. Lechner (Librarian, Connecticut General Life Insurance Co., Hartford, Conn. 06115) and Mildred Mason (Librarian, Executive Office Library, Reynolds Metals Company, Reynolds Metals Building, Richmond, Virginia 23218).

Gilles Frappier (Library of Parliament, Parliament Buildings, Wellington Street, Ottawa, Ontario K1A 0A9, Canada) will automatically succeed to the office of President. Mrs. Mary McNierney Grant (New York Library, Price Waterhouse & Company, 60 Broad Street, New York, N.Y. 10004) will automatically succeed to the office of Chairman of the Advisory Council.

SLA Publications

Revised editions of two SLA out-of-print publications are available from the New York Offices. They are: *A Guide to Scientific and Technical Journals in Translation*, 2d ed. (1972), comp. by Carl J. Himmelsbach and Grace E. Brociner (\$4.50) and *Dictionary of Report Series Codes*, 2d ed. (1973), ed. by Lois E. Godfrey and Helen F. Redman (\$19.00).

A revised SLA publications brochure has been prepared and contains several new and forthcoming titles. A copy will be sent to each member in February.

More on Doctoral Dissertations

As an appendix to the two articles on doctoral dissertations in the May/June and July 1972 issues of *Special Libraries*, it has been brought to our attention that *Microfilm Abstracts Author Index* is available for \$2.00 from Linda M. Johnston, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303. The publication was a 1956 project of the South Atlantic Chapter (formerly Georgia Chapter). The volume is the author index to *Microfilm Abstracts*, the predecessor of *Dissertation Abstracts*. It indexes *Microfilm Abstracts* in its entirety, volumes 1-11 (1938-1951).

Do you know what city is called the Special Library Capital of the World because of its more than 150 libraries with diversified specialties?

new york?

PITTSBURGH. And what city is the biggest inland port in America and handles more tonnage than the Panama Canal?

—uh—Chicago?

PITTSBURGH.

pittsburgh?

PITTSBURGH. And guess what city that used to be called a Steel Town is a University Center, a Computer Center, a Research Center, a Nuclear Center and a Center for the Arts?

pittsburgh?

PITTSBURGH. And what city is headquarters for 44 of the country's best known companies because they like the work force and the nice, liveable size?

pittsburgh?

You're getting the message. And what city has 250,000 trees on the streets, a world famous symphony orchestra, an important museum collection, four national pro teams, a ballet company, opera company, poetry forum, beautiful hilltop views and more big name night club acts than any city outside New York or Las Vegas?

san francisco?

PITTSBURGH.

pittsburgh?

PITTSBURGH. You know, we may be one of the world's best kept secrets!

Get in on the secret! Plan to attend the 64th annual SLA Conference, Jun 10-14, 1973. Full conference program will be published in the February issue of Special Libraries. This message was prepared by Lando, Inc. for radio station WJAS, SLA and PITTSBURGH.



CHAPTERS & DIVISIONS

Baltimore—"What does the young librarian expect from his professional organization" was discussed by Joseph Jensen (assistant librarian of the Medical and Chiurgical Faculty of Maryland) at the Chapter's meeting Sep 20.

Boston—The Chapter's Oct 2 meeting featured a talk by Barbara Spence on "The Librarian and His or Her Social Responsibilities." She has been actively involved in planning and implementing four community sponsored libraries. The slide presentation originally shown at the Boston Conference was also featured.

Business and Finance—A filmed discussion by Robert B. Voight (chief, Data User Services Office, Bureau of the Census) is available from the Division for a \$5.00 shipping charge. For information: Mrs. Judith J. Field, General Reference Department, Flint Public Library, 1026 East Kearsley St., Flint, Mich. 48502.

Cleveland—President Edward Strable addressed the Chapter's Nov 2 meeting. His topic was "Wide Angle View of the Present."

Dayton—Dr. Peter Urbach (deputy director, National Technical Information Service) addressed the Chapter's Dec 4 meeting on NTIS publications.

Indiana—The Chapter met Oct 18 at Lilly Center, Archives and Business Library, for a tour of the Archives and Business Library and Exhibition Area.

Louisiana—In conjunction with the Southeastern-Southwestern Library Associations joint conference, the Chapter met Nov 3 in New Orleans. Richard B. Allen (curator, Archives of New Orleans Jazz, Tulane University) addressed the luncheon meeting. The afternoon session concerned information centers.

Minnesota—The Chapter met Sep 20 for dinner, followed by a panel discussion on INFORM.

The Chapter met Nov 8 for a program and live demonstration of MEDLINE, conducted by Gertrude Foreman (Bio-Medical Library, University of Minnesota).

A Student Rap Session was held Nov 8 at University of Minnesota.

New York, Documentation Group—Mary Covington (Copper Development Association) presented a slide talk and demonstration of computer retrieval with a remote terminal at the Group's Nov 8 meeting.

New York, Museums, Arts & Humanities Group—The Group met Oct 31 at the Metropolitan Museum of Art's Costume Institute. A tour of the Costume Department was followed by a visit to the Irene Lewisohn Costume Reference Library.

New York, Social Science Group—Bertram Gross, professor of Political Science, Hunter College, spoke to the Group Sep 20 on "The Future of Social Indicators."

North Carolina—The Chapter met Sep 29-30. At the Friday evening meeting, held at William Madison Randall Library, University of North Carolina at Wilmington, Edward Foss (chairman of Marine Classroom Instruction, Cape Fear Technical Institute) outlined the Center's program in marine engineering.

Tours were held Saturday morning of the Wilmington Marine Bio-Medical Laboratory and the International Nickel Co. Inc. Marine Laboratory. The luncheon speaker was Harold W. Dubach (oceanographer, Coastal Plain Center for Marine Development Services).

Pacific Northwest—"Certification of librarians" and "Copyright" were the topics discussed at the Chapter's Oct 13 dinner meeting. The group also toured the Group Health Hospital Library.

The Chapter met Nov 18 to hear Helen Strickland (librarian, Seattle Pacific College) speak on her library experiences in Taiwan and Wallace M. Foster (assistant director for highway development) speak on the department's social and environmental responsibilities in developing the state's highway system. A tour of the department of highways library was conducted.

Rio Grande—Dr. John Harvey, new dean of library services, University of New Mexico, addressed the Chapter's Sep 15 meeting. His topic was "Special libraries and documentation centers in Iran."

San Diego—A meeting was held Sep 11 jointly with the National Microfilm Association. Jim Martin spoke on "Micropublishing and the Librarian."

San Francisco Bay Region—Paul Hanson (Lane Medical Library, Stanford University) addressed the Chapter's Sep 21 meeting. He discussed MEDLINE, the nationwide computerized bibliographic service available for doctors for use in diagnosis.

The Oct 25 meeting featured a group of ten librarians from Belgium visiting company libraries in the area. The Chapter was host to the group while they were in the Bay Area. The librarians had received a grant from the National Science Foundation to tour the United States studying private industry periodicals and visiting industrial libraries.

Southern California—"New Techniques in Management—the X Factor" was considered Nov 3. Pat Gerlach (School of Business Management, California State College, Long Beach) was guest speaker.

Southern California—The Chapter has established a 24 hour hotline telephone service for employment opportunities in Southern California. The tapes are changed each Friday between 2:00 and 6:00 p.m. (213/795-2145).

Texas—A two-day meeting was held Dec 1-2. "Microforms: Yesterday, Today, Tomorrow" was presented by Al Nicosia (assistant professor of library science, Texas Women's University) and Bob White (Microfilm Center Inc.). Len Rubin (Information Handling Services) discussed "Document and Catalog Services on Microfilm/Microfiche." John Miniter (assistant professor of library science) spoke on "Acquisitions Problems with Report Literature."

Toronto—A panel of speakers from Information Canada's Inquiry Section and Statistics Canada discussed the variety and scope of services available from government agencies at the Chapter's Oct 19 meeting.

Upstate New York—The Chapter co-sponsored an all day meeting Sep 15 on "Data Bases in the Sciences." The purpose was to provide firsthand information on suppliers of guides to the literature of the sciences, with emphasis on computer tape services.

The Chapter met Oct 14 at Hamilton College, Clinton, N.Y. Tours of the new library were conducted before lunch. In the afternoon, David Y. Sellers (Planning and Budget Officer, Cornell University Libraries) discussed "Approaching the Budgeting Process from the Basic Concepts."

Pacific Northwest Reports

The Pacific Northwest Chapter met with the Washington State Library Commission in October and presented a statement of the organization's goals and proposed legislative program. Part of the statement follows:

"The Pacific Northwest Chapter of Special Libraries Association recognizes the validity of the objectives of the Washington State Advisory Council on Libraries, and supports such proposed legislation as will strengthen all library service areas in the state, and activity of mutual benefit to state, public, academic and special libraries, specifically:

"1. Support funding to enable study of library service to areas without taxing support, and initiation of library service to such areas via telephone service, mail order book catalogs.

"2. Expansion of services to various groups in community, and utilization of special library resources, depending upon organizational approval.

"3. Support of the cooperative network concept and its utilization, and support of study of alternative, effective plans of access.

"4. Compilation and analysis of data on state libraries/media centers with inclusion of special libraries.

"5. Adequate funding of the University of Washington Library, Washington State University Library, the Pacific Northwest Bibliographic Center and major metropolitan public libraries, to maintain service as specialized resource centers, with strong collections and staff.

"6. Development of a uniform state code for Interlibrary loan, applicable also to special libraries.

"7. Insure confidentiality of records in all libraries in the state, including special libraries.

"8. Support inclusion of special libraries which provide services to public libraries in improvement grants.

"9. Implementation of study of cooperative regional storage.

"10. Support study of standards and promoting improved quality of service."

MEMBERS IN THE NEWS

John D. Amend . . . appointed chief of library consultant services, California State Library.

Effie C. Astbury, formerly professor of library science, McGill University graduate library school . . . appointed director.

Katherine T. Barkley . . . authored *The History of the Ambulance*. The book was the subject of a recent newspaper article and a slide presentation on the NBC "Today" show. She had presented excerpts of the history at the International Congress of the History of Medicine in London.

Mary Carol Berger . . . named librarian, Ferro Corporation Technical Center, Independence, Ohio. Previously she was associated with Union Carbide Corp. and Harshaw Chemical Co.

James E. Bobick, recent graduate of the University of Illinois . . . appointed biological and medical reference librarian, Sciences Library, Brown University.

Ann Bognell . . . appointed assistant to the curator of Rare Books and Manuscripts, Samuel Paley Library, Temple University.

Monique Bogojevic . . . appointed assistant librarian, acquisitions department, Case Western Reserve University libraries.

William S. Budington (John Crerar Library), **Mary Huffer** (Office of Library Services, U.S. Department of Interior), **Vern Pings** (Wayne State University) and **James L. Wood** (Chemical Abstracts Service) . . . appointed to National Advisory Committee to the National Serials Data Program.

Elda A. Colombo . . . received plaque from National Society for Preservation of America's Free Library Systems for meritorious service. The award was sponsored by Sjöström USA.

Ethel S. Crockett . . . appointed California State Librarian. She had been director of library services, City College of San Francisco, since 1968.

James A. Damico, previously library systems specialist, University of Dayton Libraries . . . appointed head, Sciences Library, Brown University.

Bernard K. Dennis . . . named chief, information systems research, for Battelle's Columbus Laboratories.

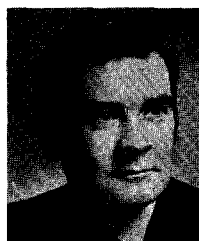
Miriam A. Drake . . . appointed assistant professor of library science and research librarian, Instructional Media Research Unit, Purdue University Libraries.



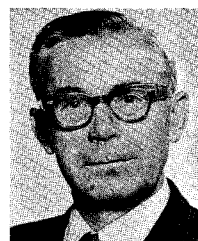
AMEND



FLENER



MAUPIN



SAUTER



VARIEUR



WARD

Patricia Dudeck . . . appointed to the Board of Governors of Rutgers—The State University, to be a member of the Advisory Board of the Graduate School of Library Service as an *ex officio* member representing the New Jersey Chapter.

Laurabelle Eakin . . . promoted to the position of assistant librarian and head of reader services, Falk Library of the Health Professions, University of Pittsburgh.

Robert Fidoten . . . named manager, Glass Information Systems, PPG Industries, Pittsburgh.

Jane G. Flener . . . appointed associate university librarian for public service, University of California library, Berkeley. She had been in charge of the branch libraries, University of Indiana, Bloomington.

J. van Halm, former manager, Library Documentation Services, Bronswerk, N.V., Amersfoort, The Netherlands . . . appointed manager, Documentary Information Services, VMF/Stork-Werkspoor N.V., Amsterdam.

Celia Hukins . . . appointed assistant serials librarian and instructor in library science, Purdue University libraries.

Philip Leslie . . . appointed assistant director of libraries for general services, Smithsonian Institution Libraries.

Irving Lieberman, director of the School of Librarianship, University of Washington . . . to resign. He will continue as a full professor.

Janice E. Linehan, formerly reference librarian, Batten, Barton, Durstine and Osborn . . . appointed business reference librarian, Wallace Library, Rochester Institute of Technology.

Richard M. Luxner, formerly with the library of the IBM Thomas J. Watson Research Center, Yorktown Heights, N.Y. . . . appointed reference/bibliography librarian in theoretical and applied sciences, Ramapo College of New Jersey, Mahwah.

Elizabeth R. Martin, head librarian, Ohio Historical Library . . . retired.

Alfred J. Maupin . . . named chief of state library services, California State Library.

Roy M. Mersky . . . on leave for one year from Tarlton Law Library, University of Texas at Austin to serve as interim director, Jewish National and University Library in Jerusalem.

Charlotte S. Mitchell . . . promoted to position of director—library resources and services, Miles Laboratories, Inc., Elkhart, Ind.

Margaret L. Pflueger . . . named chief, Technical Services Branch, Atomic Energy Commission Technical Information Center. She had served as assistant chief of the Branch since 1967.

Kamala Raghavan, previously science librarian, Tufts University . . . appointed librarian, National Fire Protection Association.

William B. Saunders, formerly education bibliographer and reference librarian, Paley Library, Temple University . . . appointed library director and associate professor, Antioch Graduate School of Education, Philadelphia Center.

Hubert E. Sauter, previously in the Department of Commerce . . . appointed deputy administrator, Defence Documentation Center.

Claire K. Schultz . . . appointed professor of information science and director of libraries, The Medical College of Pennsylvania. The college is one of the first to have a staff member teach information science to medical students.

Agnes Stansfield . . . joined the staff of the Health Affairs Library, East Carolina University, Greenville, North Carolina.

Edward G. Strable was interviewed by the *Cleveland Plain Dealer* while on a Chapter visit.

Normand L. Varieur, formerly head, Books and Serials Section, U.S. Army Picatinny Arsenal Library . . . appointed assistant librarian for collection development and technical services, U.S. Military Academy Library, West Point, N.Y.

Mary C. Ward, . . . appointed head, technical library, Naval Ordnance Laboratory, White Oak, Silver Spring, Md.

F. Eleanor Warner . . . appointed librarian, The Massachusetts College of Optometry, Boston.

Gabriele Wohlauer, formerly supervisor of literature searching and translations, Shell Development Co. . . . appointed periodicals librarian, Eastman Kodak Research Library.

ERRATA

An error appeared in the format of the technical report number in *Special Libraries* 63 (no.11): p.541 (Nov 1972). The Roman Numerals are given in the example as I, II, III. They should have been listed in the reverse order.

SLA Authors

Beatty, William K. and Marks, Geoffrey. *Women in White*. N.Y., Scribner's, 1972, 239p.

Biggert, Elizabeth C. "Federal Government Information Sources." *Chemical Engineering*: p. 103-114 (May 15, 1972).

Biggert, Elizabeth C. "State and City Information Sources." *Chemical Engineering*: p.94-103 (Aug 21, 1972).

Dorrance, Don. "Administration of Research: A New Frontier." *Journal of Irreproducible Results* 19(no.1): p.11-12 (Oct 1971).

Smith, Richard D. "Preserving Cellulosic Materials Through Treatment with Alkylene Oxides." U.S. Patent 3,676,055 (Jul 11, 1972).

Smith, Richard D. "Treatment of Cellulosic Materials." U.S. Patent 3,676,182 (Jul 11, 1972).

Vaillancourt, Pauline M. and Buchanan, Oliver H. "Acronym Compilation by Computer." *Journal of Chemical Documentation* 12(no.3): p.178-180 (1972).

Wood, Frances K. "The Personal Touch: Get to Your Library." *Wisconsin Library Bulletin* 68 (no.2): p.107-109 (Mar-Apr 1972).

In Memoriam

Helen E. Fry, staff librarian, Fifth U.S. Army . . . on Aug 14, 1972. A member of SLA for many years.

Julia F. Olt, librarian, The Engineers Club of Dayton . . . summer 1972. She had been an active member of the Dayton Chapter, culminating in the office of Chapter president. A memorial contribution has been made in her name to the SLA Scholarship Fund. A member of SLA since 1962.

Dr. S. R. Ranganathan . . . on Sep 27, 1972 in Bangalore, India.

Linda H. Morley

Linda H. Morley, formerly library consultant in New York (1941/52), died in early December in Connecticut.

Miss Morley had been active in Special Libraries Association, serving as Vice-President (1924/25); chairman, Publications Committee

(1928/32); chairman, Methods Committee (1932/36); chairman, Professional Standards Committee (1939/40); chairman, Training and Professional Activities Committee (1942/43). Her long years of service to the Association culminated in receipt of the 1959 SLA Hall of Fame Award.

The Newark (N.J.) Public Library was Linda Morley's introduction to library service; she held four positions there (1907/1926) before becoming librarian, Industrial Relations Counselors, Inc., New York (1926/41).

Her activities were many. She was special lecturer, New York Public Library (1923/27); associate in library administration, Columbia University (1927/48); instructor, Pratt Institute (1950). Among her many publications, she is most well known as the compiler of *Contributions Toward a Special Library Glossary* (1943; 2d ed., 1950).

As an active and valued member of the special library community for so many years, Linda Morley's contributions to the profession will not soon be forgotten.

LTP Reports to SLA

At the American Library Association's annual conference in Chicago, the ALA Executive Board voted to accept the 1972/73 budget recommended by the Committee on Program Evaluation and Support (COPES). The budget provides no ALA general funds for the support of the Library Technology Program. As a result, several LTP staff positions have been discontinued. The Executive Board's action does not directly affect *Library Technology Reports* or LTP's monograph publications program, both of which are supported solely by sales income and by grants from the Council on Library Resources. *Library Technology Reports* and LTP monographs will thus continue to be published by ALA under the management of Howard White and Herbert Hanna, respectively.

Library Technology Reports has contracted with William R. Hawken to evaluate microform reader/printers. Mr. Hawken, a noted reprographics consultant, is the author of LTP's *Copying Methods Manual* and has previously tested microform readers, reader/printers, and photocopiers for *LTR*. The initial test series will include those models not previously tested which are most suitable for library use. Testing of the initial series is expected to be completed within six to nine months.

LTR has renewed its contract with the R. A. Morgan Company, Palo Alto, California, to evaluate microform readers. The models to be tested in 1973 include both roll film readers and the new portable and lap fiche readers being heavily promoted for library use. Six Morgan evaluations were published in the July *LTR*—Datagraphix 1325, Datagraphix 1400, Dioptrix COM I, NCR 456-316, Realist Vantage I, and WSI FP-1113. Included with the reports was a relative performance ranking of all the fiche readers previously tested by the R. A. Morgan Company.

Featured in the Sep 1972 issue of *LTR* were reports on six cassette tape recorders. Testing was conducted at the facilities of the United States Testing Company, Hoboken, N.J. The six units evaluated, all heavy duty models designed for institutional

use, were: Bell & Howell 405, Coxco/Municator X, Rheem Califone, CR-5, Sony/Superscope 180AV, Telex Recorder/Player, and Wollensak/3M 2620AV. Included with the reports were updated and revised reports on six recorders previously evaluated in Jul 1971.

Also published in Sep were reports on two photocopiers, the A.B. Dick 625 and the Addressograph Multigraph 5000, and a report on the Gaylord 8000 series card catalog cabinet. The Gaylord cabinet is an economy priced unit constructed almost entirely of synthetic materials. Testing of the Gaylord cabinet was supported by a grant from the Council on Library Resources. The test results demonstrate why the Library Technology Program has supported the development of performance standards rather than the traditional specification type standards. A similar card catalog cabinet constructed largely of particle board with walnut veneer tested in 1969 performed very poorly on the plywood lamination test and on the artificial aging test. Undoubtedly, if a specification had been written at that time, particle board construction would not have been allowed. A specification that did not allow for changing technology and improved materials might have stifled the development of the Gaylord 8000 cabinet.

The Illuminating Engineering Society (IES) has submitted to its Subcommittee on Library Lighting for approval the proposed new *Recommended Practice for Library Lighting*. The Editor of *LTR* serves as the American Library Association's representative on the subcommittee. The new *Recommended Practice* considerably revises and updates the IES' previous recommendations, published in 1950. Libraries with an urgent need for the new recommendations are advised to purchase the *IES Lighting Handbook* (New York, Illuminating Engineering Society, 1972, \$37.50). Almost all of the text, definitions, and tables in the *Recommended Practice* will be found in the *Handbook*, albeit in a scattered format. The form of publication of the *Recommended Practice* has not as yet been decided.

Howard Pasternack
Library Technology Reports
Chicago, Ill. 60611

Kentucky Library Association on Photocopying

"The Kentucky Library Association in conference at Louisville, Kentucky, on October 6, 1972 passed the following resolution:

"WHEREAS: the free interchange of scholarly research and information is dependent upon access to and fair use of published materials;

"WHEREAS: librarians have been cognizant of and responsive to the traditional 'fair use' concept relating to published materials;

"WHEREAS: certain publishers, acting on the opinion of a commissioner of the United States Court of Claims and while the case pertinent to the above use is still in adjudication, are attempting to impose a "licensing fee" upon libraries to permit the production of a photocopy for internal library use only and prohibiting interlibrary use of such photocopy without further fees, thus inhib-

iting cooperation among libraries and free interchange of ideas;

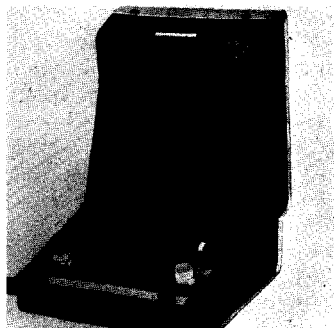
"THEREFORE BE IT RESOLVED

"1. that the Kentucky Library Association deplores this impediment to education and research at all levels;

"2. that it urges its members to refuse to pay these 'licensing fees' unless the court of the land ultimately sustains the publishers;

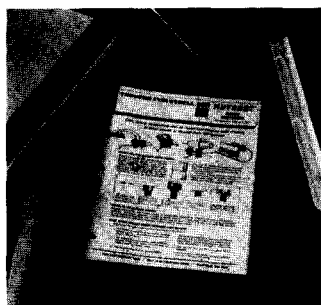
"3. that copies of this resolution be sent to the American Library Association, the Association of College and Research Libraries, the Association of Research Libraries, the Medical Library Association, the Special Libraries Association, the American Association of Law Libraries, the National Library of Medicine, the National Institutes of Health, the Association of Southeast Research Libraries, the Southeast Library Association, and the Kentucky Department of Libraries."

HAVE YOU SEEN ?



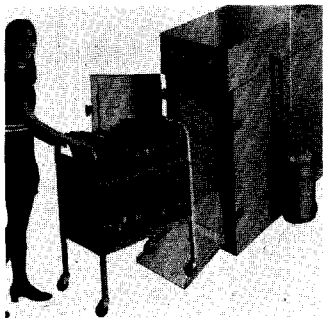
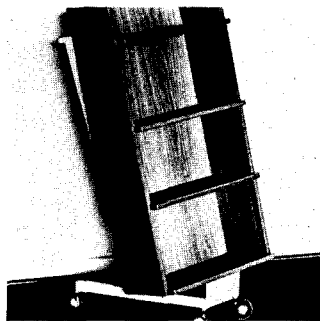
A large-screen portable microfiche reader features a 10 $\frac{1}{2}$ " \times 12" non-glare, unbreakable screen which folds into the lid for storage. The self-contained unit is housed in a case of aluminum and shatterproof plastic. The Model 27A50 weighs under 10 pounds and measures 12" \times 15 $\frac{3}{8}$ " \times 6" when closed. The side-loading reader handles any size fiche, tab cards and jacketed fiche up to

4" \times 6", and has an indexing system. A choice of 24 \times , 40 \times or 90 \times lens is offered, and a "constant focus" mechanism is said to maintain focus even when scanning at 90 \times . For details contact Dukane Corp., Special Products Division, St. Charles, IL 60174.



A snap open, snap closed binding element for 3-hole punched paper is available

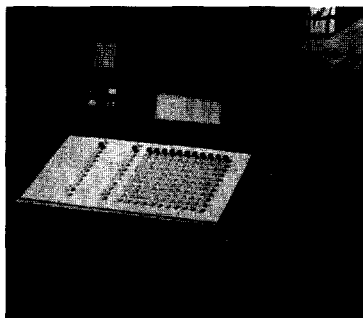
for binding up to 65 sheets, plus covers. The single-piece Poly Binder is made of self-hinging plastic, and provides loose-leaf flexibility. Poly Binder is available in 11" lengths in black, white, red and royal blue. Hot stamp imprinting services are available. For sample contact Devoke Co., 1015 Corporation Way, Palo Alto, CA 94303.



A fumigator for insect infested books consists of a vacuum chamber and controls for injecting a fumigating gas, which, it is claimed, effectively fumigates bookworms, silverfish, termites, moths, larvae, fungus and mold. With optional vacuum drying cycle the fumigator facilitates the drying of water-soaked materials. Measuring 5'0" high \times 3'5" deep \times 2'7" wide (external), the unit occupies 13 sq. ft. of floor space. It operates on 110v. power. Available from Vacudyne Corp., 375 East Joe Orr Road, Chicago Heights, IL 60411.

Identimat[®] 2000 identifies and recognizes a person by the formation of his hand. A person's hand is both unique and attached to that person, thus affording permanent identification. For maximum security, this type of recognition by a sensor may be greatly preferable. The Identimat[®] is used in conjunction with a card or badge, can also be coupled with a computer, a camera, bell or other devices for record-keeping. Further information available from Identification, 408 Paulding Ave., Northvale, NJ 07647.

A book trolley Halland from Library Bureau's Scandinavian Group collection transports up to 70 volumes. The case can detach from the wheel-base to serve as a free-standing bookcase. The shelves are adjustable, thus making the trolley useable for other outsized items. The item is crafted in white German Oak. More information available from Library Bureau, 801 Park Ave., Herkimer, NY 13350.



A multiple-source data input terminal collects keyboard-entered variable data and fixed data from cards or badges. The Model 4401C C-Dek terminal uses a light source and photo diodes to read card and/or badge input. A standard terminal contains a reader with two 80-character buffers which handle two 80 or 51 column cards, a card and a badge, or two badges. A hold feature on the badge buffer is standard. This allows the badge data to be held for multiple transactions. In library use, for example, the hold switch programs the buffer to retain the borrower's badge number, charging all books to be borrowed to that number. For further information, contact Roger Prenzlöw, MDS Colorado Instruments Division, 1 Park St., Broomfield, CO 80020.

HAVE YOU HEARD ?

Library Service to Correctional Institutions

Agreements have been reached by the Illinois Department of Corrections, the Illinois State Library and nine public library systems for the establishment of community based library service to the residents of six adult and twelve juvenile correctional institutions in the state. The project's goal is to initiate basic library service; annual appropriations will be earmarked for developing the book collection and improving methods of delivery. Both interlibrary loan and research and reference services will be available.

EDP Information

DATAPRO 70 is a loose-leaf reference service on EDP equipment, software and suppliers. Introduced in 1969, the publication is updated monthly. For a brochure, contact: Datapro Research Corp., One Corporate Center, Route 38, Moorestown, NJ 08057.

NTIS Search

NTIS Search is a computerized information retrieval service which will provide immediate access to the more than 300,000 technical reports collected by National Technical Information Service (NTIS). The service, available to the public on a fee basis, is from Lockheed Information Retrieval System (LIRS). For information: Dr. Roger Summit, Lockheed Palo Alto Research Laboratory, 3251 Hanover St., Palo Alto, Calif. 94304.

Intellectual Freedom Award

Nominations for the Robert B. Downs Award for outstanding contribution to intellectual freedom in libraries are being accepted until April 15, 1973. They should be sent to Herbert Goldhor, Graduate School of Library Science, University of Illinois, Urbana, Illinois 61801. Decision will be by vote of the school faculty. The \$500 award will be presented during the ALA Conference in Jun 1973.

Automation Survey

Automated Functions and Equipment in Libraries and Information Centers of Greater New York, 2d ed. is available from Martha H. O'Leary, 431 East 20th St., NY 10010. The price is \$2.00 (U.S., Canada, Mexico); \$3.00 (elsewhere). The publication

was prepared by Documentation Group, SLA New York Chapter and is in its second printing.

U.N. Publications Documented

International Bibliography, Information, and Documentation (IBID) will begin quarterly publication in March 1973. The new journal will classify and describe the body of publications published by the 18 intergovernmental agencies of the United Nations System and will itself be published jointly by R. R. Bowker Co. and Unipub, Inc. The editor is Harry N. M. Winton (formerly chief, Documents Reference Section, Dag Hammarskjold Library, United Nations). Subscriptions are \$15.00 (U.S. and Canada), \$17.50 (elsewhere), from R. R. Bowker Company/Unipub, Inc., P.O. Box 433, Murray Hill Station, NY 10016.

International Bibliography

International Publications 1972/73 is an annotated subject bibliography divided into serials and series, international organizations, and monographs. LC Catalog Card Numbers are provided. The 103-page volume is \$5.00 from International Publications Service, 114 East 32nd St., NY 10016.

Union Catalogs for Interlibrary Loan?

A feasibility study of a bibliographic bank for resource sharing in library systems has been completed. A primary conclusion reached is that union catalogs for library systems will not be of much value in interlibrary loan services. A limited number of copies of the report are available from Peter B. Schipma, ITT Research Institute, 10 W. 35th St., Chicago, Ill. 60616.

IFLA Prize

IFLA has announced its competition for the T. P. Sevensma Prize. Papers on the subject of "regional cooperation in library service: an opportunity for developing countries" must reach the General Secretariat, before Aug 15, 1973. For information and rules: General Secretariat, P.O. Box 9128, The Hague, Netherlands.

Medical Librarianship Traineeships

Four one-year traineeships in medical librarianship will be offered for the year beginning Sep 1, 1973. Applicants must hold the master's degree from ALA-accredited library schools. Applications must be submitted by Apr 1, 1973. For information:

Lelde Gilman, Training Coordinator, Biomedical Library, Center for the Health Sciences, University of California, Los Angeles, Calif. 90024.

Report on Abolishing Fines

A study of the effects of abolishing fines for overdue materials has been completed. The final report, *Two Fineless Years: A History, Analysis, and Evaluation*, was prepared for the Alameda County (Calif.) Library System. The report accumulates the experience of 26 libraries that have tried fine-free operations, with pro-and-con evaluations. Actual effects are listed. The report is available for \$2.25 from Robert S. Meyer & Associates, Box 2028 Dollar Ranch Station, Walnut Creek, Calif. 94595.

COMING EVENTS

Jan 23. Art Libraries Society—North America (ARLIS/NA), 1st annual conference . . . at Columbia University, NYC. For information: Judy Hoffberg, Brand Library, 1601 W. Mountain St., Glendale, Calif. 91201.

Jan 25–27. SLA Winter Meeting . . . at Fairmont-Mayo, Tulsa, Oklahoma.

Feb 1–3. Symposium on Library Systems Analysis . . . at Schrafft's Sandpiper Resort Inn, St. Petersburg Beach, Florida. Sponsor: Florida Chapter, SLA. Contact Mrs. Joan Baurer, librarian, Florida Power Corporation, P.O. Box 14042, St. Petersburg, Florida 33733.

Feb 27–Mar 1. COMPCON '73 . . . in San Francisco, IEEE Computer Society. Contact: S. Fernbach, Lawrence Livermore Lab., P.O. Box 808, Livermore, Calif. 94550.

Mar 14–17. Special Winter Chemical Literature Conference (ACS/DCL) . . . in Columbus, Ohio. For information: Judy E. Davis, Goodyear Tire & Rubber Co., 142 Goodyear Blvd., Akron, Ohio 44336.

Apr 5–6. Workshop on cataloging and bibliographic access for non-book materials in college and research libraries . . . at Central Washington State College, Ellensburg, Washington. For information: J. E. Baldi, Office of Continuing Education, Central

Doctoral Program for Disadvantaged

The Committee on Institutional Cooperation seeks applicants for its new federally funded library science doctoral program for minority and/or disadvantaged groups. Participants will be recruited from among Black, Chicano, American Indian, Puerto Rican, and Appalachian white librarians, who by virtue of their social and economic circumstances, have been unable to take advantage of advanced programs to prepare for positions of greater responsibility and leadership. Applications are due February 1973. For information: Hiram L. Davis, director, CIC Library Science Doctoral Program, School of Library Science, The University of Michigan, Ann Arbor, Mich. 48104.

Washington State College, Ellensburg, Wash. 98926.

Apr 8–13. Association for Educational Communications and Technology (AECT), 23rd national convention . . . in Las Vegas, Nevada. For information: Convention Coordinator, AECT, 1201 Sixteenth St., N.W., Washington, D.C. 20036.

Apr 8–14. National Library Week. Theme: "Get Ahead . . . Read." For information or promotion aids: NLW, One Park Ave., N.Y. 10016.

Apr 11–13. Informatics 1: Structure and Meaning . . . at the University of Durham, England. Conference organized by Aslib Coordinate Indexing Group. For information: Michael Rostron, Esq., Hutton & Rostron, 42 Claremont Rd., Surbiton, Surrey.

Apr 29–May 2. Clinic on Library Applications of Data Processing . . . at Graduate School of Library Science, University of Illinois. Theme: "Cooperative Ventures in Library Applications for Data Processing." For information: Leonard E. Sigler, Division of University Extension, 116 Illini Hall, Champaign, Ill. 61820.

Apr 29–May 3. 18th Seminar on the Acquisition of Latin American Library Materials . . . in Port-of-Spain, Trinidad, West Indies. For information: Marietta Daniels Shepard, Organization of American States, Washington, D.C. 20006.

Apr 30–May 1. Hospital Librarians' Section, Association of Western Hospitals . . . in San Francisco. For information: AWH, 26 O'Farrell St., San Francisco, Calif. 94108.

May 3–4. National Information Retrieval Colloquium . . . at Independence Mall Holiday Inn, Philadelphia, Pa. Theme: "Changing Patterns in Information Retrieval." For information: Susan Nickleach, P.O. Box 15847, Philadelphia, Pa. 19103.

May 13–15. 5th Central Regional Conference (ACS/DCL) . . . in Cleveland, Ohio. Chairman: Marcia Parsons, Sears Library, Case Western Reserve University.

May 14–18. Wageningen (Netherlands) International Association of Agricultural Libraries and Documentalists (IAALD). Regional European Symposium: progress and prospects in agricultural librarianship and documentation. For information: A. F. van Hattem, c/o Library of the State Agricultural University, 1A, Gen. Foulkesweg, Wageningen, Netherlands.

May 16–18. First European Congress on Documentation Systems and Networks . . . in Luxembourg. Congress will be preceded by Seminar "The Anatomy of an Operational Documentation System," May 14–15. Organizer: C.C.E.-DG Diffusion des connaissances, 29, rue Aldringen, Luxembourg (attn: Mr. Emringer).

May 20–23. Institute on Research in the Field of Reading . . . at Allerton House, Robert Allerton Park, University of Illinois Conference Center, Monticello. For information: Leonard E. Sigler, 116 Illini Hall, Champaign, Ill. 61820.

Jun 4–8. First National Computer Conference and Exposition . . . in New York. Sponsored by AFIPS. Dr. Carl Hammer, Chairman, Science and Technology Program, c/o Univac, 2121 Wisconsin Ave., NW, Washington, D.C. 20007.

For Future Meetings of Library Associations, see *Special Libraries* 63(no.7):p.361 (Jul 1972).

REVIEWS

Selected Federal Computer-Based Information Systems, edited by Saul Herner and Matthew J. Vellucci. Washington, D.C., Information Resources Press, 1972. \$24.95.

In the past few years there have appeared a number of publications describing the automated information systems of the Federal Government. These have included the various Records Management Handbooks of GSA (SL 63 (nos. 5/6): p.279) including *Managing Information Retrieval: Information Retrieval* which has just been published, the National Bureau of Standards sponsored *Guidelines for Library Automation* and now the COSATI sponsored book by Herner and Vellucci. By the very nature of their coverage, these books are addressed to a special, parochial audience. This poses a dilemma to the reviewer how to evaluate the book for the general reader, more specifically for librarians. He usually takes refuge in simply listing the agencies and programs covered and a word or two as to how the presentations are made, leaving it up to the individual librarian to make the evaluation as to the utility of the book for his library. To further complicate the problem, most of these books present a hodgepodge of unrelated systems. An exception here is the NBS *Guidelines . . .* which limits itself to library housekeeping applications.

Selected Federal Computer-Based Information Systems presents some 35 different federal systems in a clear, uniform manner, including very simple systems flow charts and all publicly available references which presumably provide

more detailed information. But it is still a hodgepodge. Covered are general information services to the public (National Technical Information Service, Defense Documentation Center, MEDLARS); specialized information services that the public can use (water resources, social security statistics, oil and gas fields, nuclear desalination); special services to government agencies and companies (meteorological information, patent office processing); internal management programs (marine corps readiness evaluation, air force management, and so on), and for librarians a very brief description of MARC.

The Herner-Vellucci book is an "enlarged and updated version of *Selected Mechanized Scientific and Technical Information Systems . . .* originally published in 1968. The original version consisted of 13 system descriptions; the present version consists of 35 descriptions." No doubt the original version has proved useful to COSATI, hence the present expanded version. It is extremely doubtful though if such a compilation is of much use in libraries in general, especially in view of its very high price. Any subject specialist, it is expected, would be familiar with and have better sources of information about the government agencies active in his specialty. For the person engaged in systems work, the information presented is much too sketchy and generalized to be useful.

I. A. Warheit
IBM

San Jose, Calif. 95114

SPECIAL LIBRARIES

Available from SLA . . .

Planning the Special Library

Ellis Mount, editor

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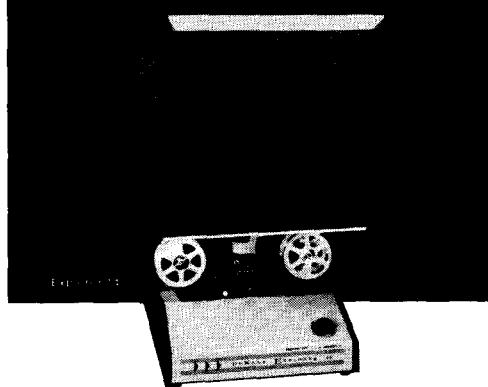
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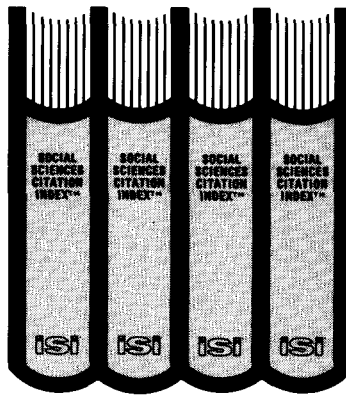
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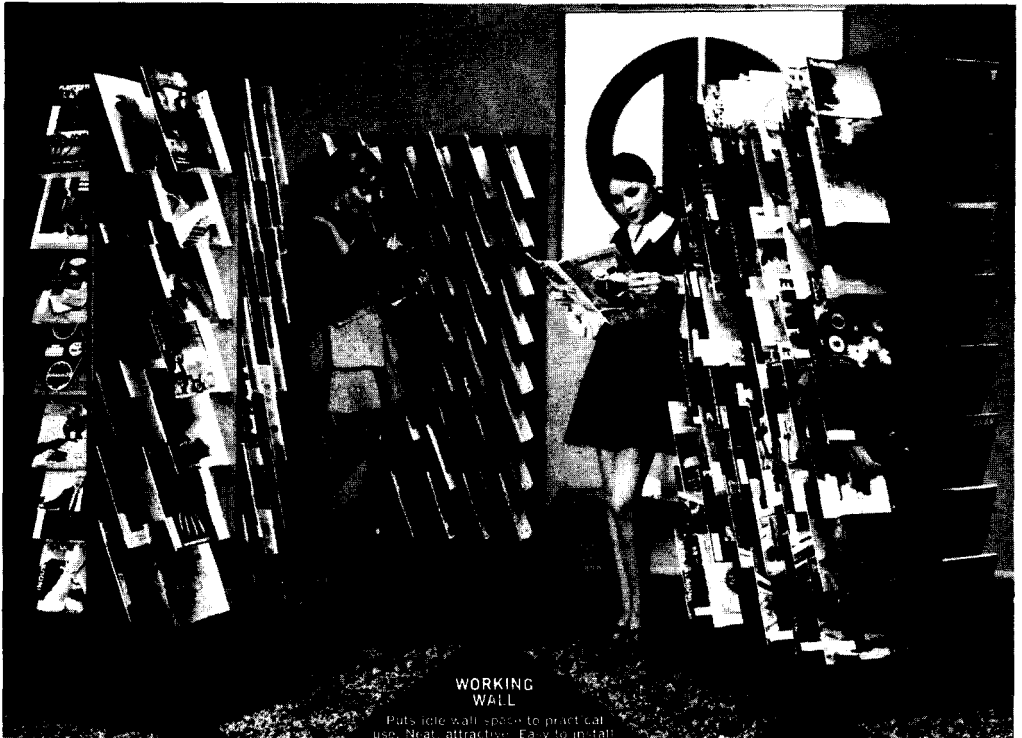
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