

7-1-1976

## Special Libraries, July 1976

Special Libraries Association

Follow this and additional works at: [https://scholarworks.sjsu.edu/sla\\_sl\\_1976](https://scholarworks.sjsu.edu/sla_sl_1976)

 Part of the [Cataloging and Metadata Commons](#), [Collection Development and Management Commons](#), [Information Literacy Commons](#), and the [Scholarly Communication Commons](#)

---

### Recommended Citation

Special Libraries Association, "Special Libraries, July 1976" (1976). *Special Libraries, 1976*. 6.  
[https://scholarworks.sjsu.edu/sla\\_sl\\_1976/6](https://scholarworks.sjsu.edu/sla_sl_1976/6)

This Magazine is brought to you for free and open access by the Special Libraries, 1970s at SJSU ScholarWorks. It has been accepted for inclusion in Special Libraries, 1976 by an authorized administrator of SJSU ScholarWorks. For more information, please contact [scholarworks@sjsu.edu](mailto:scholarworks@sjsu.edu).

# *special libraries*

*July 1976, vol. 67, no. 7*

- Information On-Line
- The Museum Library
- Library Computer Systems
- Staff Development
- Manual Retrieval
- Cooperative Planning

SPLBA 67 (7) 285-352 (1976)  
ISSN 0038-6723

*Call for Papers*

# SCISEARCH<sup>®</sup> SOCIAL SCISEARCH<sup>®</sup>

## When you want to do a literature search *fast*

**SCISEARCH and SOCIAL SCISEARCH are two new on-line retrieval files that give you instantaneous access to the world's most important journal literature in the sciences and the social sciences.**

**Easy Access.** SCISEARCH and SOCIAL SCISEARCH permit you to conduct extremely rapid searches through a computer terminal located in your own facilities. In a typical 10 to 15 minute search with the computer—you use simple English-language statements—you can easily formulate your questions, examine preliminary results, and refine your search to specify what you want from the file. And because the system is tied-in to a nationwide communications network, most subscribers in the U.S. are able to link their terminals to the computer in Palo Alto, California, through a local phone call. Most European subscribers can gain access to the computer through an inexpensive toll call.

**Vast Coverage.** SCISEARCH provides a file of all items published in more than 3,700 scientific journals. Presently it offers access to over 800,000 items published since January, 1974. SOCIAL SCISEARCH covers more than 300,000 items published in over 1,400 social sciences journals since January, 1972. Plus items, deemed relevant from more than 1,200

journals in the medical, physical, and natural sciences. Both files are steadily growing. Each month thousands of new items are added. So you can use SCISEARCH and SOCIAL SCISEARCH for back-year searches or to locate new information months before it appears in printed indexes.

**Tough Searches Made Easy.** With SCISEARCH and SOCIAL SCISEARCH you can search by title words, word stems, authors, and organizations or by any combination of these techniques. In addition, citation searching—an exclusive feature of ISI's data files—permits you to locate more recent items relevant to a subject if you know about an earlier publication on the same topic.

**What You'll Get.** For every item retrieved, you can receive a full bibliographic description on-line. And you also get an ISI order number which you may use to place orders (by mail, phone, or telex) for copies of items from ISI's *Original Article Tear Sheet (OATS<sup>®</sup>)* service.

**For More Information.** To learn more about SCISEARCH and SOCIAL SCISEARCH, just fill in the coupon below and mail it today.

**SCISEARCH and SOCIAL SCISEARCH are available in the U.S., Canada, and Europe, through Lockheed Information Systems' DIALOG information retrieval service.** ©1976 ISI

Please tell me more about SCISEARCH<sup>®</sup> and SOCIAL SCISEARCH<sup>®</sup>.

|         |              |     |
|---------|--------------|-----|
| Name    | Title        |     |
| Dept.   | Organization |     |
| Street  |              |     |
| City    | State        | ZIP |
| Country | Phone        |     |

**ISI<sup>®</sup>**

Institute for Scientific Information<sup>®</sup>

325 Chestnut St., Phila., Pa. 19106, U.S.A. Tel. (215) 923-3300. Cable: SCINFO; Telex: 84-5305.

European Office: 132 High Street, Uxbridge, Middlesex, U.K., Phone: Uxbridge 30085; Telex 933693.

76 463

Engineering Index, Inc. Announces

# 25% OFF SALE

## Ei Annual Back Issues Printed and Microfilm

Now is the time to fill in the voids in your Ei Annual collection — or convert to microfilm and save valuable shelf space!

### PRINTED/BOUND

| Years     | Regular Price/year | Sale Price/year |
|-----------|--------------------|-----------------|
| 1959-1968 | \$200.00           | \$150.00        |
| 1969-1973 | 250.00             | 187.50          |
| 1974      | 315.00             | 236.25          |

### MICROFILM

| Years     | Regular Price/set | Sale Price/set |
|-----------|-------------------|----------------|
| 1884-1927 | \$1,000.00        | \$ 750.00      |
| 1928-1958 | 1,500.00          | 1,125.00       |
| 1959-1974 | 2,200.00          | 1,650.00       |
| 1884-1974 | 3,900.00          | 2,925.00       |

ORDER NOW — Sale is for three months only —  
JUNE through AUGUST  
Limited quantities on some bound volumes.

For information — or to place orders — contact:

**Marketing Division**  
**Engineering Index, Inc.**

345 East 47th Street  
New York, N.Y. 10017

Phone (212) 644-7615, 644-7616, 644-7620

# Journals in the Biomedical Sciences

## Journal of Molecular Medicine

**An International Journal Unifying Medicine and Molecular Biology**

**1976 - Volume 1 in 4 issues**

**Subscription Price: US \$33.75/Dfl. 84.00 including postage.**

The aim of this journal is to report investigations which seek a molecular explanation for clinical observations.

## Molecular and Cellular Endocrinology

**1976 - Volumes 4 and 5 in 10 issues**

**Subscription Price: US \$89.75/Dfl. 224.00 including postage.**

This journal promotes the rapid publication of papers and co-ordinates information related to the chemical effects of hormones and the understanding of basic mechanisms of hormone action, studied at a cellular and molecular level.

## Computer Programs in Biomedicine

**An International Journal devoted to the Exchange of Information on  
Computer Software in Biomedicine**

**1976 - Volume 6 in 4 issues**

**Subscription Price: US \$54.95/Dfl. 137.00 including postage.**

Among the aims of this journal are: to make readers aware of the possible applicability of the published computer methods and to foster good programming practice in the field of biomedicine and medical sciences.

## Biosystems

**Journal of Molecular, Cellular and Behavioral Origins and Evolution**

**1976 - Volume 8 in 4 issues**

**Subscription Price: US \$44.95/Dfl. 112.00 including postage.**

Among the topics covered in this journal are: evolutionary relationships, cosmo-chemistry, comparative metabolism, assembly processes, tropism; and synthetic biology.

*Journals are automatically sent by air to the U.S.A. and Canada at no extra cost and to Japan, Australia and New Zealand with a small additional postal charge.*

Specimen copies are available upon request from the Publisher.

**ELSEVIER/NORTH-HOLLAND  
EXCERPTA MEDICA**

*Associated Scientific Publishers*

**P.O. Box 211, Amsterdam, The Netherlands**

*The Dutch guilder price is definitive. US \$ prices are subject to exchange rate fluctuations.*

0334

|  |     |   |     |
|--|-----|---|-----|
| Letters  | 6A  |   |     |
| SCORPIO, A Subject Content<br>Oriented Retriever for<br>Processing Information On-Line | 285 | D. Lee Power<br>Charlene A. Woody<br>Francis Scott<br>Michael P. Fitzgerald |     |
| The Museum Library in the<br>United States: A Sample                                   | 289 | David Hull<br>Henry D. Fearnley   |     |
| Dedicated Versus Resource-Shared<br>Library Computer Systems                           | 299 | Dennis R. Elchesen  |     |
| Staff Development in College<br>and University Libraries                               | 305 | Amelia Breiting<br>Marcia Dorey<br>Deirdre Sockbeson                        |     |
| Establishing a Manual Retrieval<br>System for a Small Library                          | 311 | Suzanne Paul  |     |
| A Microfilm Card<br>Catalog at Work  | 316 | Clara A. Folk<br>Bill W. Campbell<br>Masse Bloomfield                       |     |
| Cooperative Planning in Action:<br>The Washington Experiment                           | 319 | Marilyn Gell  |     |
| About GPO and the Depository<br>Library Council  | 322 | Ruth S. Smith   |     |
| <b>SLA News</b>  |     |   |     |
| SLA Election Returns   | 327 | Call for Papers 1977  | 337 |
| Copyright Revision   | 327 | In Memoriam   | 339 |
| Directory of SLA Student<br>Groups and Advisors  | 335 | Audit Report<br>Jan 1, 1975–Dec 31, 1976                                    | 339 |
| <b>Vistas</b>  |     |   |     |
| Have You Seen?   | 343 | Coming Events   | 347 |
| Have You Heard?  | 344 | Reviews   | 348 |
| Washington Letter  | 346 | Pubs  | 352 |
| Placement  | 10A | Index to Advertisers  | 12A |

*Editor:* JANET D. BAILEY  
*Advertising Sales:* JOHN ROCK

*Assistant Editor:* NANCY VIGGIANO  
*Circulation:* FREDERICK BAUM

*Special Libraries* is published by Special Libraries Association, 235 Park Avenue South, New York, N.Y. 10003. © 1976 by Special Libraries Association. Material protected by this copyright may be photocopied for the noncommercial purpose of scholarship or research. Monthly except double issue for May/June. Annual index in December issue.

Second class postage paid at New York, N.Y., and at additional mailing offices.

Proceedings of the 1975 8<sup>th</sup>

Annual Connector Symposium

8<sup>th</sup>

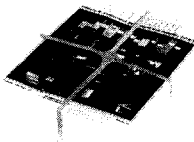
OVER 460 PAGES OF NEW AND VALUABLE DATA ON CONNECTORS, MATERIALS, AND INTERCONNECTIONS.

\$20 from:   
Electronic Connector Study Group, Inc.

P.O. Box 1428 Camden, N.J. 08101

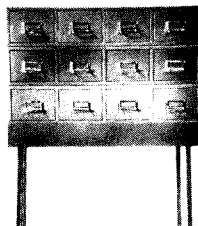
Past Proceedings are also available from ECSG & Xerox.

Only from **Highsmith**



a rubber band that stretches 4 ways to neatly bind most anything

economical sectionals for fiche, with removable drawers like a card catalog



For low-cost solutions to old problems as well as those presented by new technologies, look to Highsmith's 1975-76 Library/AV catalog of over 10,000 items. Write for your free copy!

**The Highsmith Co., Inc.**

P.O. 25-1700 Fort Atkinson, Wis. 53538

Subscription Rates: Nonmembers, USA and Canada, \$22.50 per calendar year; add \$2.50 postage for other countries. \$7.50 to members, which is included in member dues. Single copies (recent years) \$2.75 except for October issue (Directory) which is \$12.00.

Back Issues & Hard Cover Reprints: Inquire Kraus Reprint Corp., 16 East 46th St., New York, N.Y. Microfilm & Microfiche Editions (1909 to date): Inquire University Microfilms, Ann Arbor, Michigan.

Changes of Address: Allow six weeks for all changes to become effective. All communications should include both old and new addresses (with ZIP Codes) and should be accompanied by a mailing label from a recent issue. *Members* should send their communications to the SLA Membership Department, 235 Park Avenue South, New York, N.Y. 10003. *Non-member Subscribers* should send their communications to the SLA Circulation Department, 235 Park Avenue South, New York, N.Y. 10003.

Claims for missing numbers will not be allowed if received more than 90 days from date of mailing plus the time normally required for postal delivery of the issue and the claim. No claims are allowed because of failure to notify the Membership Department or the Circulation Department (see above) of a change of address, or because copy is "missing from files."

Special Libraries Association assumes no responsibility for the statements and opinions advanced by the contributors to the Association's publications. Instructions for Contributors last appeared in *Special Libraries* 66 (no. 12) (Dec 1975). A publications brochure is available from the Association's New York offices. Editorial views do not necessarily represent the official position of Special Libraries Association. Acceptance of an advertisement does not imply endorsement of the product by Special Libraries Association.

Indexed in: *Book Review Index*, *Business Periodicals Index*, *Information Science Abstracts*, *Historical Abstracts*, *Hospital Literature Index*, *Library Literature*, *Library & Information Science Abstracts*, *Management Index*, *Public Affairs Information Service* and *Science Citation Index*.

### Membership

DUES. Member or Associate Member \$40; Student Member \$8; Retired Member \$10; Sustaining Member \$200.



# BUILD IT BETTER WITH WILEY

## HOSPITAL PLANNING HANDBOOK

By Rex Whitaker Allen and Ilona von Karolyi.

1976 242 pp.

\*0-471-02319-1 +75-30599 CIP \$16.00

Written for architects, hospital administrators, planners, and programmers, HOSPITAL PLANNING HANDBOOK helps the professional avoid the muddle that typically surrounds the preparation of a program for new hospital construction.

Clearly separating methodology and discussion, the authors provide practical, logical planning information. The book identifies the crucial questions that must be asked with regard to policies, organizational structures and administrative procedures; it contains an entire chapter on out-patient services.

## SHOPPING CENTERS: Planning, Development, and Administration

By Edgar Lion, P. Eng.

1976 198 pp.

\*0-471-54020-X +75-33374 CIP \$16.00

Covers every aspect of planning and operating shopping centers. This book details the crucial stages of a shopping center's life: gestation, realization, leasing, operations, advertising and promotion, and rejuvenation of old centers. It contains information on zoning, ecology, vandalism, customer fatigue, eating facilities, heating, decor, community rooms, loading docks, lighting, taxi stands, security, tenants, and mall and boutique services.

Checklists give the reader ready access to important points, and concise explanations help clear up problems. The book tells how to evaluate potential projects, and improve existing and deteriorating centers.

## THE LANDSCAPE OF INDUSTRY

By Clifford Tandy.

1975 314 pp.

\*0-470-84440-X +75-28033 CIP \$42.50

Discusses the impact of industry on the landscape in the past, present, and future. Considers damage which has been done to the environment by industrial land use, and studies ways to correct it. Examines design of new landscapes in scale with modern technology and practical means of creating them. Classifies industries in terms of their landscape impacts and problems.

## A DECADE OF BRITISH HOUSING, 1963-1973

Edited by David Crawford, *The Sunday Telegraph*.

A volume in the Community Development Series.

1975 251 pp.

\*0-470-18520-1 +75-17185 \$22.50

Covers a very important period in Britain's housing programs. During this decade, profound changes occurred in attitudes to housing, especially towards high-rise developments. The studies in this book look at each project in great detail from a social as well as technical point of view.

(Not available in Canada through Halsted Press)

ISBN +LC

Use underlined word in title and ISBN to order.

Prices subject to change without notice.

Prices slightly higher in Canada.

For further information on these or other titles write:

Library Services Department—SL

John Wiley & Sons, Inc.

605 Third Avenue

New York, N.Y. 10016



USE ISBN—IT'S SPEEDIER BY NUMBER



## LETTERS

### *The Individual and Expenditures*

One important point concerning William Knox's discussion of user-controlled/user-financed library operations [*Special Libraries* 67 (no. 1): 45-48 (Jan 1976)] should be made. This is that in such a system the user is not spending his own personal funds for information goods and services, but is allocating funds over which he has managerial control. Psychologically, the closer that resource ownership can be identified with the individual, the greater its value to the individual becomes. The more remote the locus of resource ownership from the user, the greater the value (price) he is willing to assign to goods and services offered.

According to this refinement of Knox's theory, in order for the system described to operate effectively, both the library and the user should be encompassed in a single organizational structure (corporation, university, etc.). Application of this theory to other situations would produce less than optimal results.

Theodore Figura, Jr.  
Old Dominion University  
Norfolk, Va. 23508

### *Hospital Library Standards*

In the December 1975 issue of *Special Libraries*, I read with interest the excellent article entitled "Hospital Library Standards: An Administrator's View" by William P. Koughan. He described the weak Joint Commission on Accreditation of Hospitals (JCAH) standards for hospital libraries. This is a situation with which librarians are familiar and which they deplore. Mr. Koughan offered suggestions to remedy this condition.

The Medical Library Association (MLA) has sought to upgrade these standards. In response to a request from the JCAH, the MLA president appointed an ad hoc, bi-professional committee to review the library section of the *JCAH ACCREDITATION MANUAL FOR HOSPITALS*. This committee included a hospital administrator, a physician, a hospital education director as well as four hospital librarians and two regional services medical librarians. Thus, both users and providers of services, representing institutions of differing sizes, types, and locations, worked together on this document. The proposed standards, approved by the MLA board (and mentioned in the Koughan article),

are printed in full with interpretations in *MLA News* 62:7-9 (Jan 1975). If adopted by JCAH, they would give the hospital administrator what Koughan advocates, an estimate of what constitutes good hospital library service.

In his article, Koughan makes six recommendations to improve hospital libraries. The first called for new, specific, meaningful library standards. The MLA proposed standards included Koughan's excellent suggestions among others. Before spelling out their suggested standards, MLA defined the term "qualified medical librarian," and asked for "Library Services" to be included in the orientation JCAH surveyors receive. Also, the ad hoc committee volunteered to aid in the development of questions for the library portion of the Hospital Survey Questionnaire. At the end of the proposed standards, MLA appended references as well as sources of information.

The major points of MLA's five suggested standards and their interpretations are briefly summarized:

1. Library services shall be available for all hospital employees, medical staff, and other affiliated health professionals. Interlibrary cooperation, sharing, and networks are recognized, and the library is called on to have written objectives.

2. The library shall be organized as a department of the hospital and shall be directed, staffed, and equipped to provide information to all health care personnel. A qualified medical librarian, as a department head, shall be employed on a full or part-time basis. The interpretation stipulates that when such employment is not possible, the hospital must secure the regular, consultative assistance of a qualified medical librarian, with an employee in the institution trained to perform basic library services. It also recognizes educational programs, orientation, and in-service education and the library's part in these. It calls for a representative, advisory library committee. It also states that the hospital shall support library services with a budget adequate to achieve the objectives of the library.

3. This standard calls for authoritative, up-to-date, print and non-print materials, indexes, adequate space and equipment and accessibility. It calls for cooperation with geographically contiguous libraries to broaden resources, and avoid duplication, and it mentions by name basic indexes needed. It calls for organization of materials for ease of patrons' use.

4. The library shall provide reference service and document delivery service. The meaning of both of these services is spelled out. Several supportive services commensurate with the needs of the users are mentioned.

5. Standard five calls for written records and reports and for a policies and procedure manual. It calls for evidence of a continuing effort to study the hospital's library services needs, identification of immediate and long term goals and the development of a budget adequate to support these services.

Adoption of these five standards would help the hospital administrator gain what William Koughan wants, standards against which he can measure his institution.

Ruth W. Wender  
Regional Library Services  
University of Oklahoma  
Health Sciences Center  
Oklahoma City, Okla. 73190

### Observations on CE

After reading in the March issue of *Special Libraries* the two articles on continuing education and the review of the NCLIS study on the subject, I'd like to share some observations:

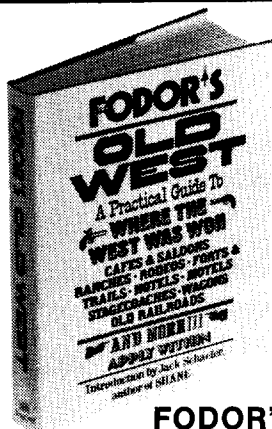
- The special librarians I know are not nearly as far behind the times as the pieces assume.

- The overwhelming emphasis on library school sponsored programs would certainly do much to keep the schools in business during these hard times.

- The input, via the questionnaire, to the NCLIS study from operating librarians was minimal, 18.5%; from special librarians, miniscule at 4.4%.

In this library, for continuing education, I would distribute brownie points to my 16 professionals at the rate of one for each credit of course work in a post-master's program, ten for a year of active participation in SLA.

Charles O. Olsen  
International Monetary Fund & World Bank  
Washington, D.C.



### FODOR'S OLD WEST

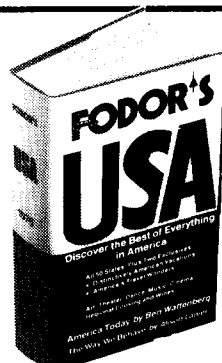
*A Practical Guide to Where the West Was Won*

The first complete vacation travel guide to the Old West covers sights, attractions, and facilities in 22 states west of the Mississippi. With illustrations, maps, and index.

ISBN 0-679-00182-4 Traveltex \$9.95  
ISBN 0-679-00181-6 Cloth \$12.95

# FODOR'S

## big new guides for U.S. vacation travel



### FODOR'S USA

*Discover the Best of Everything in America*

This 800-page guide is the first comprehensive one-volume guide to the U.S.A. since the WPA book forty years ago. It is arranged by "type of vacation" as well as geographically on a state-by-state basis for all 50 states. With 64 pages of photographs (32 in full color), four-color fold-out map, many city plans, maps of national parks and other areas.

ISBN 0-679-00183-2 Traveltex \$12.95  
ISBN 0-679-00178-6 Cloth \$17.50

DAVID MCKAY COMPANY, INC.  MCKAY 750 Third Avenue, New York 10017

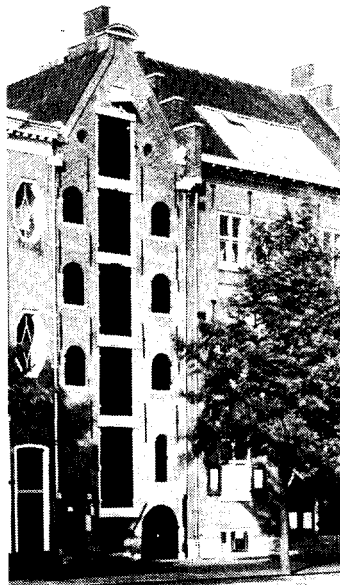
# Swets North America, Inc. 75 years "know-how" in library service

subscriptions  
backsets  
reprints  
new books  
publishing  
psychological tests  
computer service

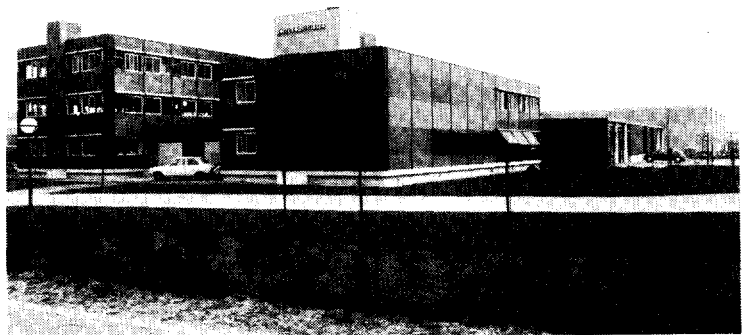
*through the  
experience of*  
**Swets & Zeitlinger B.V.**  
1901-1976



Amsterdam 1901



Amsterdam 1935



Lisse 1976

## Swets North America, Inc.

p.o. box 517, berwyn, pa.19312, phone: 215-644-4944, telex: 084-5392  
leol.burkels, *vice president* / peter bence, *director of marketing*

# SCORPIO, A Subject Content Oriented Retriever for Processing Information On-Line

**D. Lee Power, Charlene A. Woody, Francis Scott, and Michael P. Fitzgerald**

Library of Congress, Computer Applications Office, Information Systems Office  
Washington, D.C. 20540

---

■ The design and implementation of SCORPIO provides a network of software for the integration of diverse applications, including bibliographic and legislative information systems under a common system structure. SCORPIO is a multi-tasked, terminal-independent information system used to support the Library of Congress and U.S. Senate applications.

---

IN THE PAST two years a quiet evolution has produced a common buzzword around the Library of Congress and other parts of Capitol Hill. The buzzword is SCORPIO. Even the originators have trouble remembering that the letters stand for Subject Content Oriented Retriever for Processing Information On-Line; nevertheless, it shows up in conversations, in phrases like, "I'm going down to the SCORPIO terminal," or, "Ask SCORPIO what happened to Bill H. R. 1258."

What began as a simple, two-terminal experiment in displaying information about federal legislation has grown into a sophisticated system of multiple files and hundreds of users. Over 400 terminals, video and typewriter, are used throughout the Library of Congress and Capitol Hill to research current federal legislation, to prepare bibliographies of current events,

and to check authoritative views on issues of national interest. The Senate Committee on Rules and Administration used SCORPIO to find information for the hearings concerning the nomination of Nelson Rockefeller for Vice President, and some staff members in the House of Representatives use SCORPIO to find answers to letters from constituents. In December 1974, after only 10 months of operation, SCORPIO users numbered over 300. By December 1975, there were over 1,000 users. The number of file searches per day surpassed the 200 mark by the end of the first year and 650 by the second anniversary. (The average search, containing 10-12 steps, took about 15 minutes.)

The acceptance and growth of SCORPIO is due in part to the ease of use and the rapid (2-10 second) response to commands, but of more importance is the value of the available information. Had there been an independent retrieval system for each of the four major applications, the total user community would be about one-tenth what it is. This, then, is a case of synergism. By creating a network of software, the value of the combined files is much greater than the sum of the individual applications. Realization of synergistic benefits played an important role in the evaluation of SCORPIO, often guiding the direction of development, as will be described in the history of SCORPIO; however, achieving full measure of the

synergistic benefits has been a challenge, presenting consequences which deserve serious consideration.

### A User's View of SCORPIO

SCORPIO is a tool for information retrieval along with the more traditional card catalogs and printed indexes.

A user can begin his search with any of the four major files: 1) the Bill Digest file on current federal legislation; 2) a bibliographic file of over 100,000 citations to significant legislative research support documents (including articles from current periodicals, government publications, lobby group publications and similar materials); 3) the Major Issues file, a collection of concise, objective briefs on key issues of public policy, such as energy and housing; 4) the National Referral Center Master Resources file, a collection of descriptions to information resources in the United States.

To begin a search, the user keys a four character command code, BGNS, and names the file with another four characters. To display a particular document, such as a bill before Congress, the users can enter a single display command. The typical search, however, is by subject. The user may browse through the available retrieval terms or he may directly select the set of documents indexed by a known term. When more than one term is needed to refine the results, a Boolean logic command is available for combining the selected sets with "and," "or" and "not" logic. At any point in the search the user may display the contents of any of the sets, requesting a display of document titles or of the full documents. Printed copy is obtained at a nearby printer.

Regardless of the file being searched, the commands are the same. Should a document in one file refer to a document in another file, such as a bibliographic citation of committee hearings for a particular bill, the second document—in this case the bill—can be displayed immediately with a direct display command. It does not matter that the second document is in another file. This maneuverability from file to file adds a considerable value to

each of the files. In effect, each file contains the data of the others.

### History of SCORPIO

With the original Bill Display system, first in operation in 1971, digests of and actions on current legislation were available. There were only about ten consistent users, who were the people responsible for the publication of the data in the *Digest of General and Public Bills and Resolutions* (the Bill Digest), and those who received calls about the status of bills and comparison of similar bills. In 1973, a second display system added the Congressional Research Service's file for another user group of about 10 researchers. Each user group used its own file, largely unaware of, or uninterested in the other. It would have been a disappointing start had it not been for the underlying plans.

Used independently, the two files would not have justified an on-line information retrieval system; however, if the two applications could be developed for the cost of one, then the development would be reasonable. The two files were so dissimilar that a single "generalized" system seemed impossible. The bibliographic records, composed of many short, variable length fields, averaged about 550 characters. Users expected to see the whole citation in a single display. On the other hand, the legislative data records would begin with as few as 100 characters when the bill was introduced and might grow to more than 120,000 characters over the two-year period of a particular Congress. For example, when the Higher Education Act was amended, a revised digest of over 116,000 characters was added to the record. With such disparity of size, the display programs had to be different for each application; however, the programs for storing and retrieving the data could be shared by the applications if a file structure could be designed which would accommodate the data of either file.

The first steps under the common software philosophy were to create the file structure and an on-line display program. Each step in the development was calculated to invest a minimal amount of

resources to produce a useful capability. For instance, the first six weeks were used to design the file structure, convert the Bill Digest file from tape to disk, and develop the first on-line Bill Display program. The next increments were in response to the user reactions to the original display program. Backward and forward paging was added along with other refinements. Having the file on-line prompted a change in data preparation procedures, resulting in more timely entry of the data. Once the Bill Display system was running smoothly, attention was then turned to creating the index file system. The experiences of the Bill Display system helped in making the Index Display system a short, smooth task of about three months.

The next step was to create the Bibliographic Display system, the beginnings of the software network. The file maintenance and display programs for the bibliographic index were the first programs shared by the two applications.

Having the ability to display records and terms from the index files, users pressed for Boolean logic searching, which had already been scheduled as the next increment. At this point they also began to appreciate a synergistic benefit. The commands to browse and use the terms in the index files were the same for the two files. This helped the users to think of the files as belonging together. As a result, the call for simplifying the use of the two files together became as pressing as the call for Boolean logic. These two requirements were the impetus for the creation of SCORPIO.

The features of the original display systems were retained for easier transition of the users to the new system. The old commands remained, along with their computer programs. The SCORPIO programs provided an umbrella to improve the flow from command to command. Boolean logic was added and in a period of four months the two display systems evolved into a single Boolean logic information retrieval system with multiple files.

At the same time, a separate effort was creating a third application, the Major Issues system. Each record, or Issue

Brief, is composed of a large narrative of the background and policy analysis of a major issue of interest to Congress, along with references to pertinent legislation, hearings and documents cited in the bibliographic file. The file was established with the same structure as the other two files, using a variation of the Bill Digest File Maintenance, Index and Display systems. Consequently, with about one-month of effort a third application was available through SCORPIO.

### **Synergistic Consequences**

With three applications available from a single point—the terminal—and with a single retrieval language for easy transition among the files, many people expressed interest in using SCORPIO. This attention was rewarding. A valuable service had been provided; however, with the advent of hundreds of users came hundreds of suggestions for new commands, additional files, and more timely information. Weekly updates of the bibliographic file left something to be desired by the Senate users who wanted to find citations to congressional reports within a day or two. Actions on bills reported within 36 hours were not timely enough. Real-time updating was demanded for legislative actions. The most frequently requested feature, however, was not an additional capability. It was a request which affected the core of the existing applications—a common indexing vocabulary. Users wanted to retrieve information from all three files using exactly the same retrieval terms.

Arriving at an indexing vocabulary which is acceptable for the specific requirements for indexing bills and, at the same time, acceptable to the broader coverage of the bibliographic and Major Issues file is a task which will take longer than the creation of the software for SCORPIO. This problem has been partially solved by a type of dual indexing. A thesaurus, called the Legislative Indexing Vocabulary, provides the common ground for the three files. In the legislative file, for which the thesaurus terms are not considered sufficient, additional indexing

is done. These terms are included in the creation of the index for SCORPIO retrieval and are called, simply, index terms in the retrieval process. In searching the legislative file, the user has the advantages of both sets of terms. In crossing files, he uses the thesaurus, which is also available on-line, to find the terms common to all files.

### Summary

In the beginning the dream was to build an information retrieval capability which could be applied to several applications—different applications sharing the same programs. As the Bill Digest and Bibliographic systems evolved, no restric-

tions were imposed which would isolate a user to one (but not the others). This freedom to use all files and the common retrieval commands led to the recognition of greater benefits in using the applications in support of one another. The incremental approach to development not only provided useful capabilities all along the way, but was important in making it possible to modify the direction and achieve the greater benefits of a single network of systems.

*Received for review Apr 17, 1975. Revised manuscript accepted for publication Mar 2, 1976. Presented Jun 11, 1975, as a Contributed Paper, during SLA's 66th Annual Conference in Chicago.*



POWER



SCOTT



WOODY

**Charlene A. Woody is chief and D. Lee Power, Francis J. Scott, and Michael P. Fitzgerald are senior systems analysts, Computer Applications Office, Information Systems Office, Library of Congress, Washington, D.C.**



FITZGERALD

# The Museum Library in the United States:

## A Sample

**David Hull**

San Francisco Maritime Museum, San Francisco, Calif. 94109

**Henry D. Fearnley**

College of Marin, Kentfield, Calif. 94904

---

■ A statistical survey was made of the general condition and problems of the museum library, using a questionnaire sent to a random sample of 856 historical, art, science, and other museum libraries. The data obtained illustrate the financial

condition of these libraries, the scope and nature of their collection and their access, the extent and nature of staffing and training, and services offered. Recommendations are made regarding financial support and the need for professional librarians.

---

THE MUSEUM LIBRARY is an indispensable component of the museum organization. It plays, as Joanne Fuerst has argued with respect to the library of Mystic Seaport Maritime Museum, a vital function in making "... retrievable to students and scholars, the artistic and historical data relevant to our artifacts" (*I*, p. 117). Together with other museum departments, the library enables the museum "to preserve," in Fuerst's words, "the artifacts *and* their story" (*I*, p. 122). The size and diversity of the library, then, is a direct source and reflection of the vitality of the museum; an innovative, active museum—like any other innovative, active organization—needs information.

The field of museum libraries is a venerable one, for the oldest reporting library was established in 1791—before the Library of Congress. While the average year of establishment was 1941, the median was 1952, which indicates that the rate of establishment is increasing.

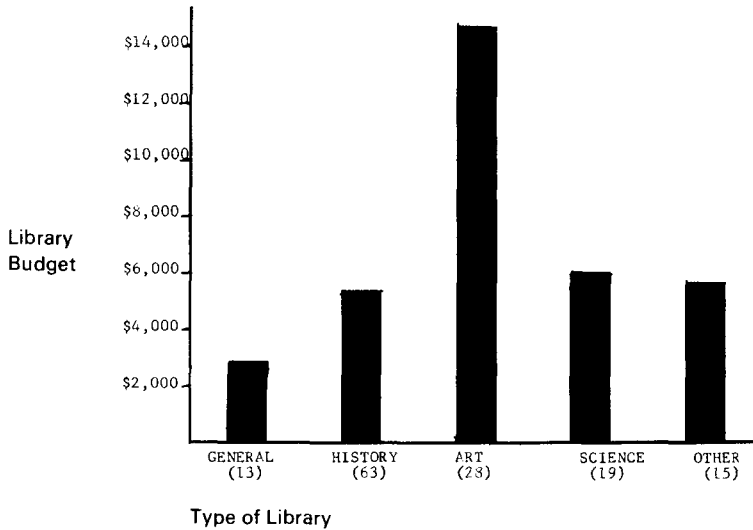
There are about 3,000 in the United States. Despite the trend of an increase in museum libraries, surprisingly little is known about the museum library in general—its organization, services, resources, and needs. Persuasive testimony to the marginal attention which museum libraries have traditionally received is to be found in the sparsity of literature that exists on this subject. An example close to home is that the last American Association of Museums' survey of salaries in museums included everyone from the director to the guard—but excluded the librarian!

The primary objective of this study, then, is to present a general picture of the condition of museum libraries in the United States and to identify some of the more serious problems which they now face. Attention is focused on these basic themes: the financial relationship with the parent body; the size, composition, and control of the collection; and characteris-



**Table 1. Average Library Budget by Type of Library**

The median would be much lower in all cases: what is clear is that there are libraries of professional stature in each of the classes.



tics of the staff. However, it should be emphasized that the survey does not pretend to be definitive in its findings. It is hoped that describing the basic peculiarities of the museum library will bring it to the attention of the museum world (as well as the library world), encourage further research, and outline the direction of change.

### Method

This survey of museum libraries was conducted between April and June 1974, when questionnaires were mailed to 856 recipients throughout the United States. A list of 2,556 museums which indicated the existence of a library was compiled from the 1973 edition of the *Official Museum Directory*. From this initial list 856 museum libraries were chosen at random for the sample. The term "museum" was broadly used in the manner of the Museum Association and encompassed not only the traditional museum but also zoos, arboretums, national parks, and other similar institutions.

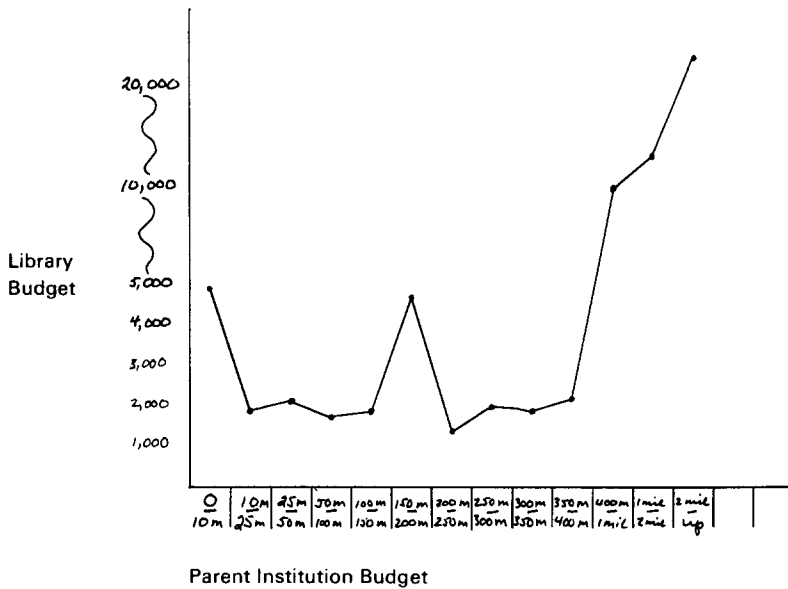
Since the emphasis of this study is on libraries whose primary function is to serve

as a resource facility, only libraries whose parent bodies were museums were chosen for the survey. Libraries whose parent bodies were a state or university were not used. Neither were libraries used in which the museum was a department of the library rather than its parent institution.

The questionnaire contained eighteen questions and was divided into three sections. The first section dealt with the location and emphasis of the museum, the source of funding and the budget of the parent institution. Part two included questions on the library budget, the size and type of collection, access to the library's resources, and the hours of operation. The last section covered the qualifications, experience, size, and salaries of the library staff.

Three hundred seventy-four museums responded, giving a statistical accuracy of 94%. All but three states are represented in the sample, with California (9.6%), New York (9.3%), and Pennsylvania (7.6%) providing the greatest number of respondents. Of the questionnaires returned 51.2% came from history museums, 14.6% from art museums, 10.8% from science museums and the remainder from mu-

Table 2. Average Library Budget by Budget Range of Parent Institution



seums with either a very general or very specific interest. With the invaluable assistance of Dean Patrick Wilson, Dr. Michael Cooper and Mark Welge of the University of California Library School, the data collected from these responses were analyzed with the use of a statistical computer program for the social sciences (2) at the University of California, Berkeley.

**Budget**

The source of a library's funding and its financial situation is a reliable indicator of the condition of a library, and the museum library is no exception. Of the 159 responses containing budgetary information, the most frequently reported budget was zero. From there, the range went to \$130,000, creating an average of \$6,130. However, the median of \$1,001 more accurately reflects the difficult financial situation in which most museum libraries find themselves (Tables 1, 2).

Since 60.4% of the respondents indicated either total or partial reliance on private funding, it would seem that more public money could well be used in this area. Such action would help to immunize the museums and their libraries from a ca-

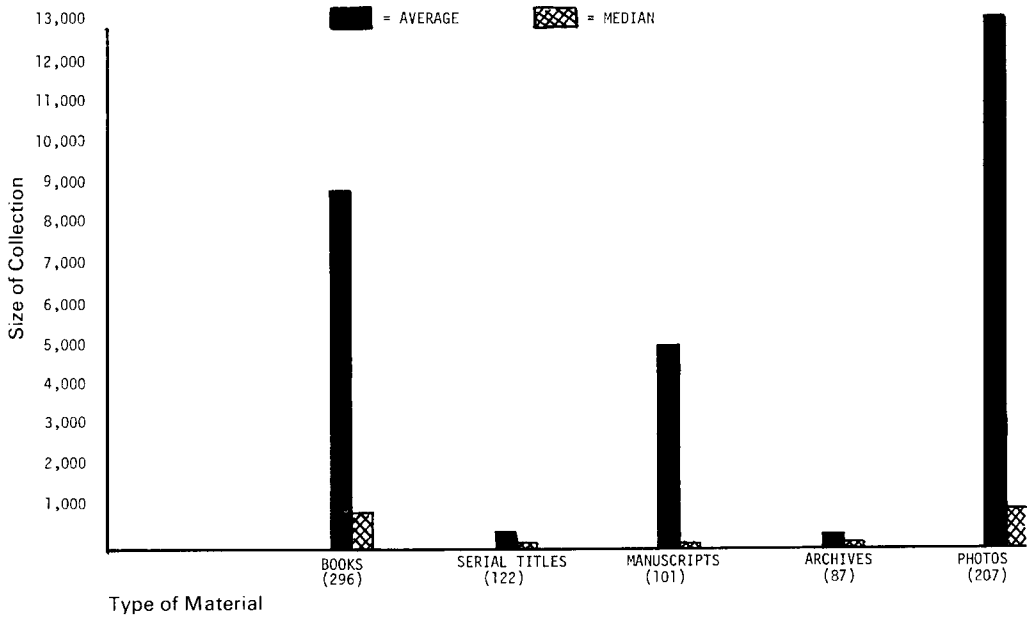
pricious economy to which they are now highly vulnerable because of their predominantly private orientation.

The sample shows that the relatively affluent 1960s saw the establishment of more museum libraries than any other decade. The lean years of the 1970s may prove to be years of severe financial dislocation for museum libraries. Measures to be taken by the libraries to improve their financial situation will likely be in order. For example, serious thought might be given to the idea of charging research fees. Currently 92% of museum libraries surveyed do not charge usage fees.

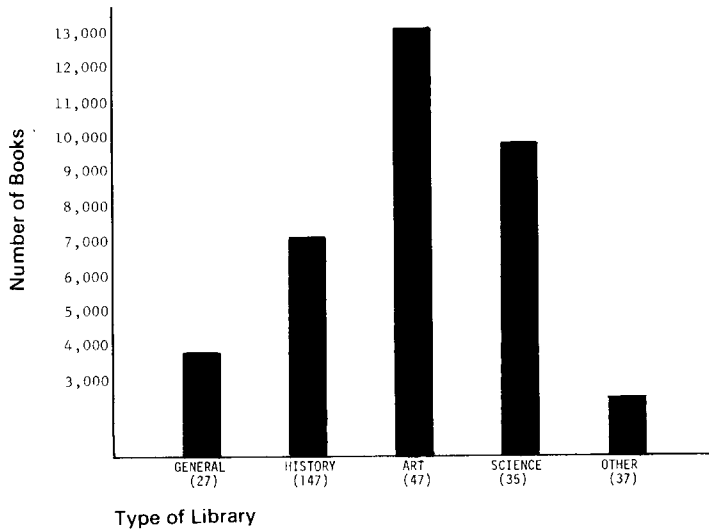
**The Collection**

The financial picture is reflected in both the smallness of many of the museum libraries and the degree of control of their collections. As the tables indicate, the basic forms of information in museum libraries are books and photographs (Table 3). Fifty-three percent of the libraries reported 1,000 or fewer books; 91% reported 20,000 or fewer. Photo collections fell into exactly the same distribution. In short, a nucleus of about 10% of the population described has collections of over 20,000 titles while the majority (90%)

**Table 3. Collection Size by Type of Material**



**Table 4. Average Collection Size by Type of Library**



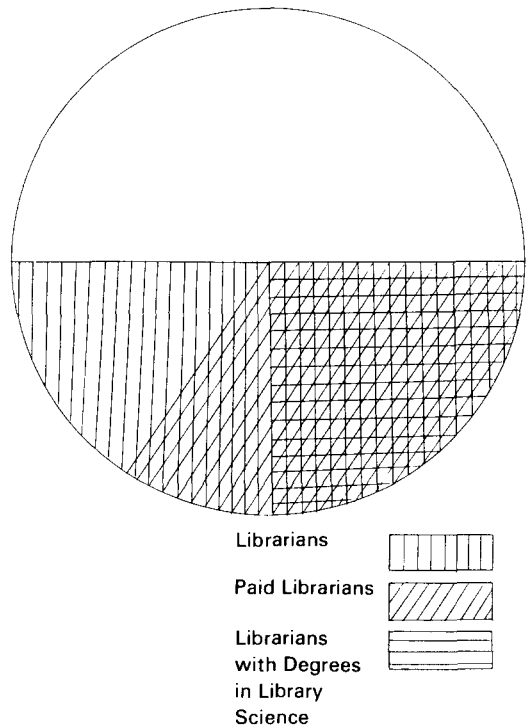
have collections below that figure. The largest collections—the largest being 300,000 titles and 500,000 photos—skew the average up while the many small collections skew the median downward. This skewness holds true throughout the survey. Thus, the average size of a collection is 8,924 titles, but the median is only 992. While there were more history libraries than any other kind, it was the art library that had the highest average number of books (Table 4).

So far as bibliographical control is concerned, 69.7% of the librarians reported that their book collections were cataloged and 10% partially cataloged. The Dewey Decimal Classification System was most often used (44%). The predominance of DDC may indicate that those libraries that meet or approach professional standards are those that are older. Only 25% relied on the LC scheme or a modification of it. Forty percent of the respondents employed a system of their own making, ranging from simple accession numbers to elaborate classification and subject heading schemes.

The Museum Computer Network (MCN) at Stony Brook, New York, is another aspect of access to information in museums. The MCN hopes to provide access to the holdings of the museum world at large by use of a union catalog. This may be the direction that long term economics dictates for the future (though the economic feasibility of computerized installations will be tested by time). But at this time, MCN might be described as the 21st century trying to meet the 19th century; the MCN requires as input *systematic* information, but a significant portion (c. 30%) of museum libraries do not yet have available that systematic information. So, while technology is having its impact, it would appear, both from the nature of the required input and the cost of membership—\$1,000/year—that MCN is an option only for that small percentage (c. 9%) of financially stable large museum libraries.

Photographs are a widespread form of information in museums; 73% reported having a photo collection. Access to photos, however, is somewhat more

Table 5. The Librarians in Museum Libraries



limited than access to books. Only 46% reported cataloged collections and 23% reported partially cataloged collections. Even this figure, however, may be misleading in that it may indicate the existence of only simple accession number order.

### The Librarian and the Library Staff

Another way to take the pulse of the museum library is to look at the museum librarian and library staff. Only 50% of the libraries indicated that they had a librarian. Fifteen percent of these librarians reported that they were responsible for more than just the library and only 47% of them possessed a degree in library science (Table 5).

The statistics gathered suggest that most librarians serving in museum libraries with less than 10,000 titles are without formal training and, therefore, are more likely to be museum professionals (i.e., curators) rather than librarians,

Table 6. Average Librarians' Salary by Budget Range of Parent Institution

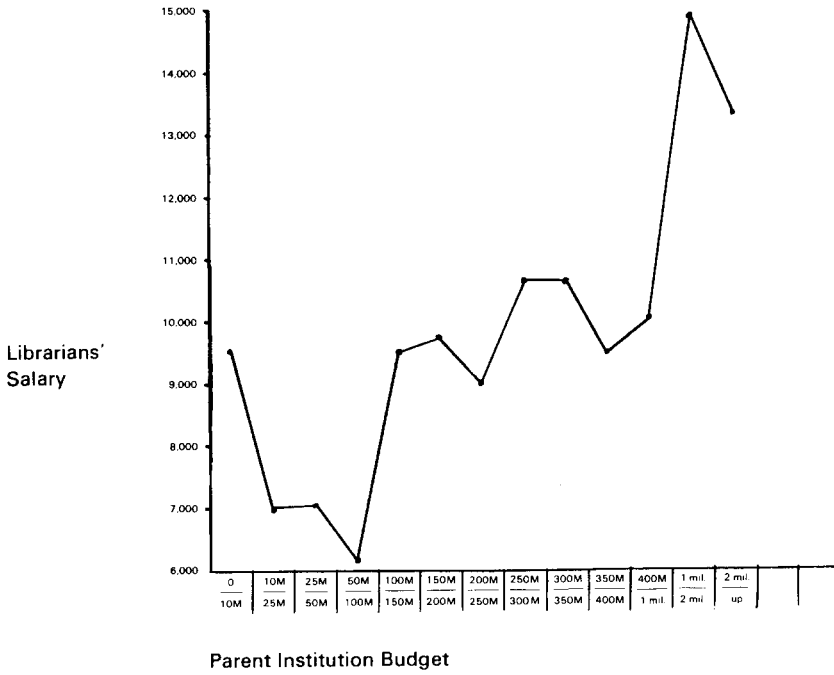


Table 7. Number of Librarians by Collection Size

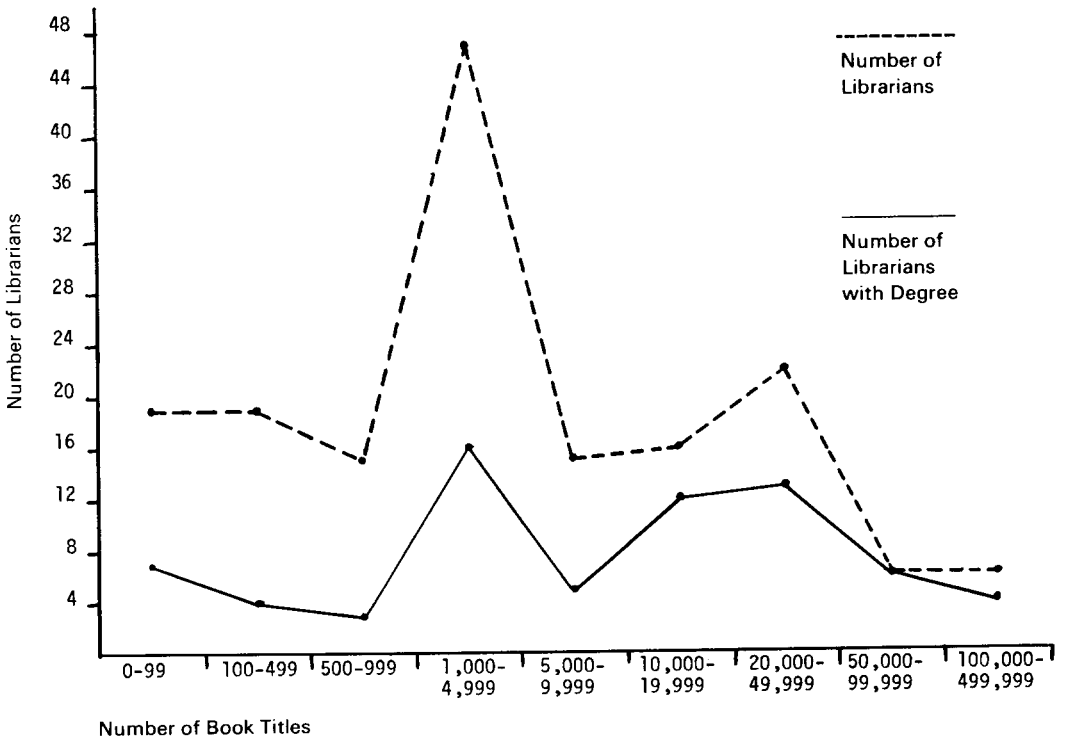


Table 8. Average Number of Full-Time Librarians by Collection Size

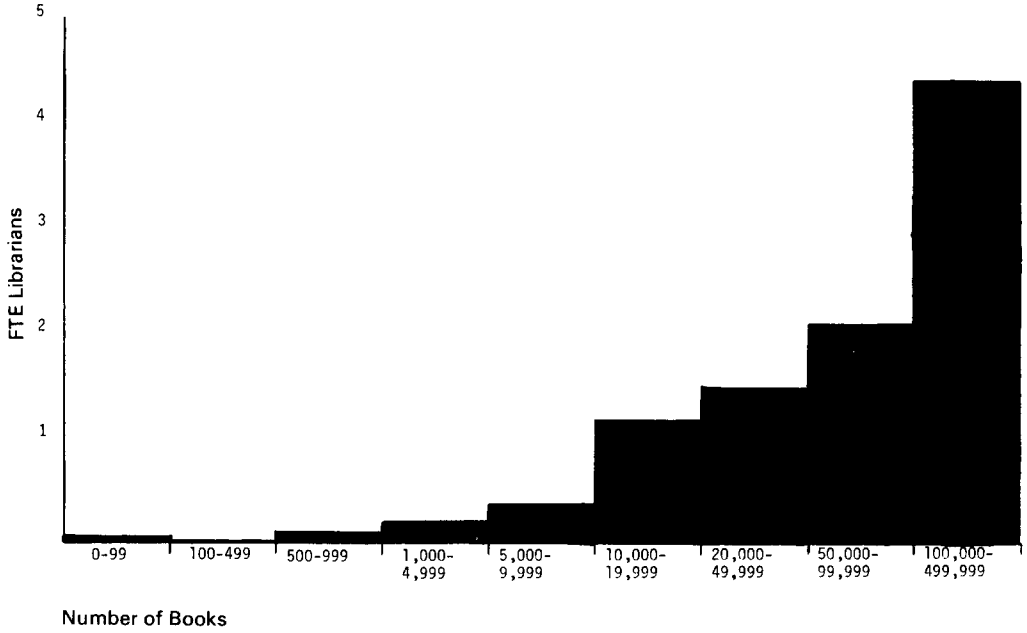


Table 9. Average Salaries of Librarians by Type of Library

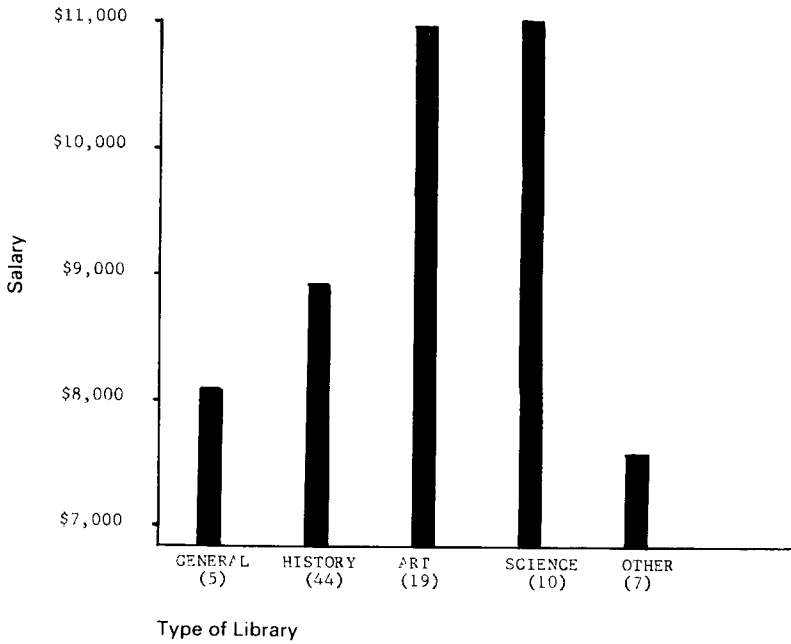
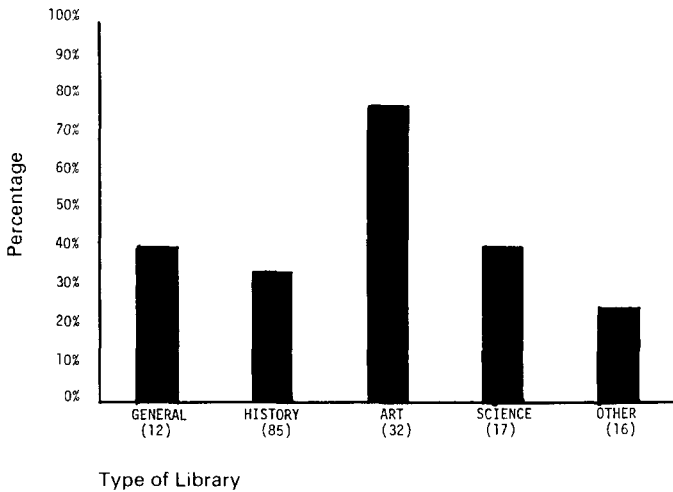


Table 10. Percent of Librarians with Degree in Library Science by Type of Library

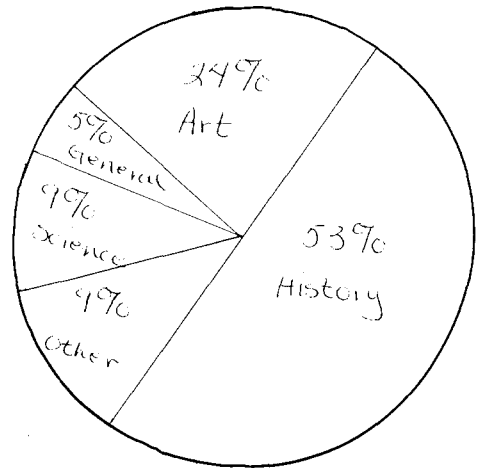


which would explain the unexpectedly high salaries at the beginning of Table 6. More specifically, our statistics describe the advent of the librarian as follows: Museum libraries begin to use some sort of administration when they reach the size of about 1,000 titles; around 2,000 titles, they begin to hire a paid administrator; and somewhere around 4,500 titles, they begin to hire an administrator with a degree in library science. The greatest concentration of librarians (and libraries) is in the 1,000 to 5,000 title class (Table 7), but full-time librarians do not begin to appear until the collection reaches the vicinity of 10,000 titles (Table 8).

The ideal approach to the museum library is to have at least professional-level guidance from the accession of the first book or document. In that way, systems of storage and access are established for each form of information as it appears.

In summary, there is an average of 1.8 librarians and a median of 1.2 which in FTE terms add up to only 69% of an FTE librarian per library—in the half of the libraries which do have librarians. With regard to the entire library staff, 50% of the libraries reported staffs; in these libraries total staff, including librarians, library assistants, and volunteers, averages 5.8 people, but only 2 full-time equivalents per library.

Figure 1. Distribution of Librarians Among Types of Libraries



The salary of museum librarians is of particular interest. Seventy-four percent reported that they were paid (Table 5). For this group salaries ranged from \$2,000 to \$24,000 per annum and publicly funded salaries were about \$1,000 per year higher than salaries funded from private sources—an average of \$10,069 compared to \$9,439 which is rather low given that the average librarian has served in the library and museum field for a median of 10 years. In collections between 5,000–10,000 titles, the salary is even lower—

\$6,800. It would appear from Table 6 that prospective museum librarians (who require full-time employment at standard salaries) would do well to apply to institutions with budgets of at least \$100,000 per year.

In terms of the type of museum, art and science museums appear to pay their librarians the highest salaries: \$10,969 and \$10,995, respectively (Table 9). Conversely, general museum libraries and those falling in the "other" category (arboretums, zoos, etc.) pay their librarians the least. It is not surprising, therefore, that art libraries were most likely (68%) and general libraries, least likely, (53%) to have a librarian. By the same token, librarians with degrees in library science were most likely to find themselves in art museum libraries and least likely to be employed in the "other" class (Table 10). In fact, art museum libraries were the only ones to show more librarians with degrees than without. Furthermore, it is interesting to compare Table 10 with Figure 1. For instance, history museum libraries appear to have both the greatest number of librarians and the greatest number of librarians without formal training.

### Public Services

The final area of museum libraries to be looked at is their public services. Hours open per week range from zero to 88, with an average of 35 and a median of 40. This figure of 40 hours is another indication of the private orientation of museum libraries.

The response to the question of whether stacks were open or closed showed a pretty clear split: 46% reported open stacks, 49% closed, and 5% indicated their stacks were open but with restrictions. Furthermore, there did not appear to be a pattern with regard to the size of the collections. Bare majorities in classes from 1,000 to 10,000 had open stacks and above and below these figures bare majorities had closed stacks.

Finally, the statistics indicate that 76% of the libraries do not lend their books. As well as reflecting both the limited staff and

the limited bibliographical control of these libraries, this policy of controlled circulation may also reflect the private nature of these libraries.

### Conclusions

The field of museum libraries is composed of a large group of small, growing libraries, with the greatest concentration in the 1,000 to 5,000 class, and with a significant but insufficient amount of professional guidance and staffing. The small libraries—those with fewer than 1,000 titles—very likely constitute the majority of the 21% of uncataloged collections. Here, there is a great need to at least begin to lay the foundation of bibliographical and circulation control. After all, how much has the growth of these libraries been stunted by the loss of books that results from a casual control of circulation? On the other hand, the few large museum libraries appear to be relatively well staffed, well financed, and well organized. But it is those libraries with holdings between 1,000 and 10,000 titles which represent the crucial area in the authors' judgment. The mere momentum of continued existence has generated a growth sufficient to place them on the threshold of emergence into professionalism. If, by this transitional stage, little headway has been made to transform the collection into a library, bewilderment and chaos may follow and the value of many of the resources are lost. Yet statistics seem to indicate that these libraries suffer from the greatest neglect. The small remuneration which the librarian receives at this stage, the lack of full time assistance, the relative absence of formal training in librarianship are symptoms and examples of the difficulties faced by museum libraries, particularly of this size.

The first recommendation, then, is that museum libraries, aided perhaps by the library establishment, make a vigorous effort to tap other financial sources (possibly public funding) and that they also resort to charging fees for their services. The authors suggest, furthermore, that more professional librarians,



either as staff or consultants, be brought into the field, that they be allocated budgets and be guaranteed the authority to administer their collections and dispense their budgets as they see fit in light of their professional training. The rest will follow: Collections will become better and more completely controlled; access will improve; more funds will be generated as the cataloging discovers duplicates which can be sold; staffing will increase as librarians make more use of programs such as federal work-study, and in the end the service of the library to both the museum staff and the public will improve.

### **Acknowledgments**

The authors wish to thank their colleagues, Jean Hull and Amy Fearnley, for their assistance in the preparation of this paper.

### **Literature Cited**

1. Fuerst, Joanne / A Day in the Life of an Iceberg. *Log of Mystic Seaport* (Winter 1974).
2. Nie, Norman, Dole H. Bent, and C. Hadlai Hull / *Statistical Package for the Social Sciences*. New York, McGraw Hill, 1970.

*Received for review Oct 3, 1975. Revised manuscript accepted for publication Dec 23, 1975.*

**David Hull is librarian, San Francisco Maritime Museum, San Francisco, Calif.  
Henry D. Fearnley is instructional librarian, College of Marin, Kentfield, Calif.**

# Dedicated Versus Resource-Shared Library Computer Systems

Dennis R. Elchesen

Lawrence Livermore Laboratory, University of California, Livermore, Calif. 94550

---

■ The effectiveness of dedicated and resource-shared computer facilities in providing housekeeping services and information retrieval in special libraries is compared. The experience with various computer implementations at Lawrence Livermore Laboratory is described and it is concluded that resource-shared facilities, such as ADP service centers and general-purpose time-sharing systems,

are adequate for off-line, batch-mode library housekeeping and for current awareness services, but are not well suited to on-line, interactive housekeeping or to retrospective information retrieval. These latter services are best provided by quasi-dedicated computers, stand-alone mini-computers, and large, dedicated networks.

---

THE FOLLOWING major issues are often considered during the design of computerized systems for automation and information retrieval in special libraries: new software versus existing software; specialized subsystems versus total, integrated systems; in-house computer facilities versus off-site computing centers or networks; special-purpose computers versus general-purpose computers; time-shared systems versus batch-mode systems; on-line interaction versus off-line

processing; dedicated computer facilities versus resource-shared computer facilities.

During the 12-year involvement with computer-based library information systems at the Lawrence Livermore Laboratory (LLL), all of these issues were confronted and it was found that the question of dedicated versus resource-shared facilities is the most crucial.

As used here, a "dedicated" computer facility is one that is totally committed to a particular application, such as library automation or bibliographic information retrieval. This type of facility offers users: 1) computer software designed specifically for its application, 2) uncontested computer-time allocations, and 3) secondary storage that is either permanently reserved for the users or available whenever it is needed.

A "resource-shared" facility, on the other hand, supports a variety of applica-

---

This work was performed under the auspices of the U.S. Energy Research & Development Administration.

Reference to a company or product name does not imply approval or recommendation of the product by the University of California or the U.S. Energy Research and Development Administration to the exclusion of others that may be suitable.

tions equally, and is characterized by: 1) system libraries of multipurpose sub-routines, 2) competitive computer-time bidding schemes, and 3) secondary storage that is available on a common, or first-come, first-served basis.

The author feels that the success of most computer-based special-library information systems is directly proportional to the extent to which the computer facilities being used are dedicated to processing bibliographic information. The LLL has used a wide variety of computer configurations over the years in providing customer services. By highlighting this experience with these various configurations, it will be shown how the success or failure of each application was primarily dependent on the degree to which the computer configuration was either dedicated or resource-shared.

Strict economic aspects of systems design and performance are not emphasized, since the computer resources and service goals of individual special libraries are too variable to allow any meaningful assessments to be made of the cost-effectiveness of particular computer systems. Rather, the intent is to compare the *operational* effectiveness of a variety of computer systems for housekeeping and information retrieval in special libraries.

### **Quasi-Dedicated Computer Facilities**

The initial experiences with automated library systems involved a quasi-dedicated computer facility. As used here, the term "quasi-dedicated" refers to an arrangement in which a central computer facility is used for a variety of applications but, from a user's point of view, the computers appear to be fully dedicated. Typically, in such an environment, users operate the machines themselves using blocks of computer time assigned to their particular jobs. The users also write and maintain their own coding. Such informal arrangements were common before the widespread use of computer service bureaus and the development of on-line time-shared systems.

Computer facilities of this type are well suited to batch-mode housekeeping functions in a special library. Some 12 years ago, LLL used a quasi-dedicated IBM 1401/7094 system to process acquisitions, circulation, and cataloging records (1). The library's serial records were added later (2). This type of operating environment was highly reliable and allowed the work to be efficiently scheduled and processed without backlogs.

### **Dedicated Software**

In these early automation efforts LLL was not faced with the question of developing its own codes as opposed to obtaining them elsewhere. At that time relatively few special libraries were automated to any significant extent, and appropriate software was not commercially available. Today, of course, such off-the-shelf packages are available, and it is generally agreed that their use is more feasible than the development of original software for a library just beginning an automation project. However, bear in mind that imported programs may not be as compatible with intended service goals or existing computer hardware as coding developed in-house.

In any case, the source of the software is not highly significant. The most important consideration in this area is that the software be specifically tailored to meet the needs of the particular library in which it is used.

### **ADP Service Centers**

The experience has shown that an automated data processing (ADP) service center is less suitable for library housekeeping and current awareness functions than is a quasi-dedicated facility. In working with an ADP service center, a number of inherent operational problems were encountered.

As defined here, an "ADP service center" is a noncommercial in-house computer facility that supports a variety of data-processing functions and employs its own staff of programmers and computer operators. Such a resource-shared facility

is commonly found in university settings or within large corporations.

Typically, under such arrangements, a user library has little direct control of computer operations. The schedule for processing jobs may be jointly determined by the center's administrative staff and the library, or by the service center only. If there are a large number of other users, computer time may be at a premium and may be allocated on a priority basis. The computer hardware is usually operated exclusively by the center's staff, rather than by the users themselves. In addition, responsibility for computer program maintenance most often lies with the service center.

Several years after library operations were automated, LLL instituted a formal scheme for allocating computer time, and the Laboratory's Data Processing Department assumed direct control of the IBM 1401/7094 systems and functioned as a service center. Operating within this framework reduced the quality of the library services. Scheduling conflicts with other user groups were encountered and work often became backlogged. Delays also occurred because of errors made by the center's staff, who had little experience in library information processing.

Because of the laboratory's organizational structure, the LLL library is still entirely dependent upon this in-house service center for computer support. None of the production-mode work or program maintenance is performed directly under library control. Even in recent years, when computer time on the laboratory's large time-shared network has been allocated to the library, the service center has continued to act as the intermediary. This arrangement is workable, but it is not as satisfactory as the original quasi-dedicated facility.

### **Time-Shared Library Information Systems**

Today, many special libraries that serve research and development agencies and commercial organizations have access to large, general-purpose time-sharing systems, both in-house and off-site. In the present context, the term "general-pur-

pose time-sharing system" refers to a highly resource-shared computer facility. The author has found that such facilities are adequate for production-oriented special-library housekeeping functions and for off-line batch-mode current awareness operations, but are not well suited to on-line interactive library applications or to retrospective information retrieval.

The motivation for using large computers for library information services lies in their greater speed and larger core memory. It was for this reason that, several years ago, the LLL library converted its acquisitions and circulation routines for batch-mode operation on the Laboratory's Octopus time-sharing system (3). (Octopus interconnects four CDC 7600 computers; two CDC STAR-100 computers are soon to be added.) The Octopus system was also used to implement a batch-mode current awareness alerting service for the LLL staff (4).

Use of the Octopus system has decreased the computer time required to complete each individual processing step in the operations, but in many cases has increased overall turnaround times. For example, the acquisition and book-circulation programs, which previously required 25 hours per week on the IBM 1401/7094 system, require less than 1 hour per week to process on Octopus. However, book-circulation printouts are now done only three times a week, rather than daily as before.

The library had intended to use the time-sharing system to provide on-line acquisition and circulation services and to perform interactive, retrospective searching of the current awareness files. However, for reasons outlined below, it has been found that these applications may be difficult to implement effectively on a large, resource-shared computer facility.

One problem in this area is that time-sharing usually involves competitive bidding for computer time. Users must compete for the total available computer time, and those users who have been allocated the most time have a greater probability of having their jobs processed. Quite often, under these circumstances, li-

braries are at a disadvantage because their overall worth to the parent organization is not perceived as being high enough to warrant sufficiently large computer-time allocations.

A second problem found in many large, general-purpose time-sharing systems is that they support a large number of interactive daytime users. The peak periods of on-line computing often coincide with the hours of greatest activity at library circulation and reference desks. Therefore, on-line library housekeeping and information-retrieval systems might be forced to compete for processing time with many users during the least desirable periods of the day.

Hardware downtime and software modifications are other problems commonly encountered in multiprocessor resource-shared systems. The research interests of many parent organizations require that new, faster, and larger-capacity hardware be obtained as it becomes available. Changes to the system software may then become necessary to support the new equipment. As a result, many systems of this type are in a state of virtually continuous change. In most libraries, of course, the emphasis is on routine production and such discontinuities are not easily accommodated.

The diversity of applications is yet another troublesome characteristic of large, resource-shared systems. Programs may range from simple utility routines to complex text editors and large numerical simulations. User applications may also differ widely in terms of program length, degree of remote interaction, amount and type of data, efficiency of operation, and average running time. If no particular type of application is favored by the system over any other, all programs must compete simultaneously for execution. Under these conditions, certain applications fare better than others. Unfortunately, on-line library automation and information retrieval generally involve highly interactive programs and large data files, and therefore are not well suited to this type of an environment.

Perhaps the most serious problem with large, general-purpose time-sharing sys-

tems is that, typically, no user may routinely claim or reserve a part of the secondary storage for his exclusive use. Consequently, the amount of secondary storage available for a particular application at any given time is unpredictable. This situation is especially unworkable for on-line library applications, which often require substantial amounts of secondary storage space that must be immediately accessible at random times throughout the day.

### **Fully Dedicated Library Minicomputer Systems**

The author feels that on-line, interactive special-library information systems require fully dedicated computer facilities, if they are to function most effectively. For most special library applications a fully dedicated, stand-alone minicomputer can minimize the problems of using large, resource-shared facilities and still provide the necessary computing power and storage space.

Appropriate minicomputer facilities may be designed using OEM (original manufacturer's equipment) components and writing new programs, or may be obtained as complete hardware and software packages. In the latter case, the LIBS-100 system marketed by CLSI (Computer Library Services, Inc.) has become widely used (5). Prepackaged library minicomputer systems are also available from the 3M Company and Hewlett-Packard Corp. (6).

At LLL, the former alternative of designing an OEM system based on original software was taken. The preliminary stages of this project are now being planned and the department is optimistic that the necessary funds will be forthcoming. In addition to enabling us to provide workable on-line library service, this minicomputer facility will provide increased flexibility and allow us to preserve the integrated systems approach used in earlier versions of the systems.

In the experience of the LLL library, an integrated approach to designing systems for library housekeeping and information retrieval is preferable to a specialized

subsystem approach. Integrated systems allow several master files to be used in two or more operations and so conserve processing time and storage space, both of which are limited in a minicomputer environment.

Another benefit of small, dedicated machines is that they may be used to take advantage of the larger core size and faster processing speed of maxicomputers and yet avoid the problems of resource sharing. For example, on-line, interactive error-checking and data processing may be performed on a dedicated, stand-alone minicomputer prior to performing a batch-mode sorting or merging operation on a larger machine.

A disadvantage of minicomputers is that they are limited in the amount of on-line secondary storage that may be accessed efficiently. While this need not restrict their usefulness for most special-library housekeeping functions, it does reduce their present value for retrospective information retrieval.

### **Dedicated Library Information Networks**

Two basic types of computer networks are used to provide library services: shared cataloging networks, such as OCLC (7) and SPIRES/BALLOTS (8), and bibliographic data base networks, such as RECON (9), DIALOG (10), and ORBIT (11). On-line, shared cataloging networks offer a viable alternative to costly original cataloging and allow user libraries to participate without a large investment in hardware. Bibliographic data base networks enable users to perform fast retrospective searches in a variety of subject fields and also require the lease or purchase of a computer terminal as the primary hardware expense.

LLL has joined the three data base networks mentioned above as well as the RDT&E network operated by the Defense Documentation Center (12). The library is also evaluating the feasibility of using a cartridge disk terminal for on-line search and data capture via the SPIRES/BALLOTS network.

The significant point here is that all of these networks share one important

characteristic; each is at least partially dedicated to providing library information services. The central processors, system software, secondary storage, and communication devices used in these networks are devoted to handling bibliographic information. As a result, these systems offer highly reliable performance, hardware and software continuity, virtually uncontested computer-time availability, highly responsive interaction, and the capacity for manipulating large data files.

### **Conclusions**

The success of most automation and information retrieval systems for special libraries depends primarily upon the extent to which the computer facilities are dedicated to these applications. Such issues as the source of the computer software, the size and location of the hardware, and the mode of processing are important, but secondary, considerations.

Resource-shared computer facilities such as ADP service centers and large, general-purpose time-sharing systems are adequate for off-line, batch-mode special-library housekeeping operations and for current-awareness services, but not well suited to on-line, interactive housekeeping functions or to retrospective information retrieval. These latter services are best provided by small, stand-alone computers and large, dedicated networks. While dedicated facilities may be more expensive than resource-shared systems, their use is compensated for by greater efficiency and ease of operation.

The fundamental problems of providing computer-based special-library information services are not inherently technological, but are tied to administrative policies. If parent organizations were to allocate sufficient computer resources for library applications, the need for dedicated facilities would become less crucial. However, in most organizations, libraries do not play a central role and so cannot realistically expect to have their computer allocations increased significantly.

The concept of "dedicated" computer facilities is a two-way street. When computers are totally committed to a library's

operations, that library is likewise dependent upon computers for its continued existence. Thus, any decision to use dedicated computer resources for library functions should be made only after the full and sustained support of top management can be assured.

### Acknowledgments

The author wishes to thank John B. Verity of the LLL Library for his invaluable help throughout this project. My thanks are also offered to Lynn M. Allen, Scott J. Buginas, Jerry R. Byrne, Elizabeth L. Crocker, Neil B. Crow, H. Leonard Fisher, Victor E. Hampel, Isom Harrison, Sandra R. Love, David L. Seibel, Pam K. Wallace, and Robert G. Werner of LLL for their interest and assistance.

### Literature Cited

1. Boylan, M. N., Jr., et al. / "Automated Acquisition, Cataloging, and Circulation in a Large Research Library." Lawrence Livermore Laboratory. Rep. UCRL-50406, 1968.
2. Verity, J. B. and E. L. Crocker / A Computer-Based System for Serial Records at Lawrence Livermore Laboratory. *Journal of the American Society for Information Science* 21:247-253 (Jul/Aug 1970).
3. Fletcher, J. G. / The OCTOPUS Computer System. *Datamation* 19:58-63 (Apr 1973).
4. Buginas, S. J. and N. B. Crow / The Computerized File Management System—A Tool for the Reference Librarian. *Special Libraries* 64:12-17 (Jan 1973).
5. Computer Library Services, Inc. / *Library Information Systems*. Wellesley, Mass., 1975. 15 p.
6. CLSI Retakes California; Hewlett-Packard Enters Market. *Advanced Technology/Libraries* 4: 3-4 (Jun 1975).
7. Kilgour, F. G. / A Regional Network—Ohio College Library Center. *Datamation* 16:87-89 (Feb 1970).
8. Epstein, A. H. / An Overview of Operational BALLOTS. In: Waldron, H. J. and R. F. Long, eds. / *Innovative Developments in Information Systems: Their Benefits and Costs*. Westport, Conn., Greenwood Press, 1973. 247p.
9. Gillchrist, J. A. / "AEC/RECON User's Manual." Oak Ridge National Laboratory. Rept. ORNL-4943. 1974.
10. Lockheed Missiles & Space Company, Inc. / *DIALOG Terminal Users Reference Manual*. Palo Alto, Calif., nd.
11. System Development Corporation / *SDC Search Service, ORBIT User Manual*. Santa Monica, Calif., 1975.
12. Defence Documentation Center / *DEFENSE RDT&E On-Line System, (Revised) Interim Operating Instructions*. Alexandria, Va., Defense Supply Agency, 1974. 90p.

Received for review Aug. 4, 1975.  
Manuscript accepted for publication Dec. 1, 1975.



**Dennis R. Elchesen is a technical information specialist, Technical Information Department Library, Lawrence Livermore Laboratory, Livermore, Calif.**

# Staff Development in College and University Libraries

Amelia Breiting, Marcia Dorey, and Deirdre Sockbeson

Northeastern University, Dodge Library, Boston, Mass. 02115

---

■ One hundred large university and college libraries were surveyed to determine current staff development practices. The following aspects of staff development were covered: professional meetings, workshops, independent re-

search, continuing education, and departmental meetings. The main finding was that current practice as reported by library administrators has progressed little since Kaser's 1970 study.

---

IN November 1974, the director of Northeastern University Libraries asked the NUL Staff Librarians' Association (NUSLA) to draw up guidelines concerning staff development. In this way staff librarians at Northeastern would be informed of what possibilities were open to them and new programs could be proposed to the director for implementation. NUSLA set up a three member committee. Their plan was to study the literature on the subject, define the various aspects of staff development, draw up a questionnaire to compare other institutions' programs, and write a report for Northeastern University Libraries. The questionnaire was designed to find out what types of programs and opportunities exist in other universities in order to compare NUSLA's ideas and plans on staff development with existing programs/practices in other colleges and universities. The committee also wished to compare actual in-progress programs with those recommended in the literature.

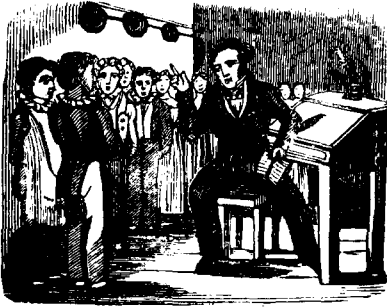
The studies enabled a purposeful, positive program to be presented to the direc-

tor. The program included proposals for written policies dealing with attendance at workshops and meetings and a program of in-service training. As a result of the report, a permanent Staff Development Committee was formed and a staff librarians' handbook written and published.

## Methodology

Study of the literature revealed three major programs which are considered predominant aspects of staff development. These are 1) participatory management, 2) professional advancement, and 3) continuing education. We found leading authors in the field all include one or more of these aspects in their discussions of staff development (1-3). As a means of establishing a staff development program, the American Library Association's Staff Development Committee suggests the following: Library personnel should accumulate job-related competencies which include knowledge, skills, attitudes, and





behavior, enabling them to better serve the clientele of the library (4).

Emphasis is repeatedly placed on the role of the administrator in providing the atmosphere in which staff development programs are able to work.

It is the manager . . . on whom the specialist depends for the integration of his output into the work of others. . . . The manager is the channel through which the career professional, and especially the true specialist can direct his knowledge, his work, and his capacities toward joint results, and through which in turn, he finds out the needs, the capacities, and the opportunities of the enterprise of which he is a member (2, p.395).

After studying the literature and defining the scope of staff development, NUSLA polled one hundred academic libraries in an effort to determine present staff development policies in the field. The questionnaire was based on David C. Weber's outline of a staff development program (3). One public and one private institution were selected from each state in the continental United States. Northeastern is the largest private university in Massachusetts. It was decided to use as a sample the largest private and the largest public college or university from each state in the continental United States. A comparison of public versus private institutions might have revealed different staff development practices. There were, however, no substantial differences between the programs available at the two types of schools.

The questionnaire was addressed to the library with a request that it be forwarded

to the appropriate staff member. One hundred percent of the responses, however, came from persons in administrative positions. The results, therefore, reflect administrative attitudes rather than staff perceptions of current staff development practices. The high level of response to the questionnaire (79%) reflects a national interest in staff development. When the results were received, they were tallied, percentages arrived at, and conclusions drawn (5).

In the process of analyzing the responses, a number of weaknesses in the format of the questionnaire was discovered. The questionnaire did not ask if policies were written, only if they were formal. It would have helped to know if policies had been written. Questions on staff associations were not specific enough, which led the committee to disregard their function in the overall conclusions. No budgeting questions were included in the questionnaire. It would have helped to know if separate budget lines were set aside for specific staff development programs.

### Analysis of Results

The NUSLA survey questioned libraries about support for attendance at professional meetings and workshops, support for independent research and study, and the existence of in-house education programs and departmental meetings.

*Professional Meetings.* Eighty-two percent of responding libraries reported having established procedures for attending professional meetings. Over 90% make both time and money available for their personnel to attend meetings. A high percentage of respondents (79%) require that meetings be work related. David Kaser (6) found in 1970 that 93% of the libraries queried in his survey reimbursed staff for attendance at professional meetings, but these reimbursements were highly restricted by qualifications that the meeting be work related, or that staff members be participants in the meetings.

In the NUSLA survey, 75% of the respondents provided release time for

association purposes, thus encouraging active involvement in professional meetings. Kaser's survey showed 92 out of 107 libraries gave the same kind of encouragement.

The committee concluded from these figures that professional meetings have historically been and continue to be held in high regard by library administrators. Professional meetings are highly regarded in the literature as well, as a method for staff development through the communication of ideas and problems among members of the profession from more than one institution. Meetings are included by Weber in his list of types of developmental activities that should be going on in libraries (3, p.261).

*Professional Workshops.* While only 59 of the responding institutions have formal procedures for attendance at professional workshops, over 80% provide time and money. In most cases (84%), these workshops must be work related.

Both workshops and professional meetings are recognized by library administrators as important to staff development. There is a significant difference, however, between the number of libraries reporting established procedures for attendance at professional meetings and those reporting established procedures for attendance at professional workshops. It is believed that an established procedure communicates availability of opportunity. Further research is needed to find the relationship between informal vs. formal procedures, and the use of those procedures by members of a library staff.

*Independent Research.* Although research is considered a key staff development activity in the literature (3, p.261-262) and is the major method for professional advancement in the academic community, less than 50% of the university and college libraries polled encourage this activity by providing time and funding. Library science graduate education is focused on research techniques, and most graduates of library schools are well equipped to do in-depth research, yet replies to the questions on availability of time and money for research reflect reluctance on the part of administrators to

encourage development by means of research opportunities.

Kaser's survey (6) indicated that in 1970, 104 libraries of 145 polled granted leave for study or research. Leave was, in the majority of cases, without pay. NUSLA's survey reflects less support at present than in 1970 for pursuit of research activities. Library staff who wish to pursue research must do it on their own time, or in a few cases, are granted leave without pay.

*Formal Courses.* Continuing education, on the other hand, is reported to be a widespread practice. Comments on the questionnaires lead us to assume this is because of university controlled policies and procedures. It is not clear, therefore, to what extent the library administration encourages continuing education through formal courses. Seventy-five percent respond that money is available for classes, but only 50% allow release time, and only 16% encourage attendance at institutions other than their own. The 75% which make money available set a limit on the number of classes attended. The 50% which allow release time also limit classes to work-related classes.

The Kaser study reflected that release time was allowed for attendance at classes, with the restriction that the course had to improve library effectiveness (6).

It was concluded that although policy seems to reflect the attitude in the literature concerning the importance of continuing education (1, p.543), the release time restriction effectively limits librarians from taking advantage of many courses offered.

*In-House Training, Seminars, and Programs.* Peter Drucker points out in *Management* that knowledge workers especially must be in tune with the experience of others with whom they work.

Continuous training is as appropriate to clerical work as it is to manual work. It is of particular importance in knowledge work. The very fact that knowledge work, to be effective, has to be specialized, creates a need for continuous exposure to the experiences, the problems, the needs of

others, and in turn, for continuous contributions of knowledge and information to others (2, p.270).

In contrast to this opinion, programs for in-service or in-house training have a low priority with most library administrators. Only 39% report that they have in-service training, and only 46 provide in-house seminars. The percentage is even lower when supervisory training is explored. Only 27 libraries, or 36% provide supervisory training for staff members. Thus it was concluded that in-house programs are not encouraged or promoted by library administrators. The literature also reflects this. Betty Jo Mitchell feels: "The subject of supervisory training for libraries is one that seems to be largely neglected in both library literature and library practice (7, p.144).

*Departmental Meetings.* An overwhelming percentage of libraries (94%) conduct staff meetings. However, only 52 of the respondents hold their meetings regularly. In over 90% of the cases, department heads participate in these meetings, and include recommendations from the meetings in policy making decisions. Assuming that a schedule of regular meetings is a reflection of their effectiveness, the low percentage of libraries holding regular meetings seems to support Jane Flexner's statement: "Librarians in general are not experienced in working in groups or conducting meetings (8, p.276). Flexner believes that meetings are an effective means of communicating problems and plans to staff and of including staff in the decision-making process. She goes on to say that meeting skills are learned skills, and require constant effort. The committee believes that in-house and supervisory training would provide for more effective departmental meetings.

### Summary

In most cases, NUSLA's survey shows partial programs in staff development, mainly centered around attendance at organized professional meetings and workshops, with some support for continuing education in formal classrooms. The other aspects which complete the

staff development package tend to be overlooked by the majority of administrators in large university libraries. Research support is negligible to nonexistent. In-house training and seminars are overlooked, and departmental and all-staff meetings are not regularized in the majority of cases.

In order to plan for staff development, libraries should take a look at the complete staff development package, set goals for themselves and for the direction the administrator wishes the staff to take. (A planned program including long- and short-term uses of the suggested areas of staff development, with adequate communication of opportunities, methods, and procedure to staff members, adequate budgeting, and regular meetings is suggested.)

Comments by a number of administrators reflect that staff development programs are among the first to suffer from lack of funding. This is probably because there is no definite budget line given to staff development. The Kaser survey queried budget, while the NUSLA survey did not, but it would seem apparent that there is still no planned budgeting for staff development in the majority of institutions surveyed.

Stone and others repeatedly emphasize that if there is to be successful staff development, it must have the clear support of the administration.

... The extent to which human resources will be developed in any given library system will largely be dependent on the management perspective and leadership style of the chief administrator, for he, more than anyone else, sets the tone and philosophy of a library (9).

A systematic plan for staff development programs is also needed. Kaser advises:

Certainly the experience in some other industries and in the library community as well, is that the most comprehensive and efficient programs of continuing education and professional growth of staff are those which have been systematically developed (6, p.74).

In addition to a supportive administration and a program of systematic plan-

ning, a good staff development program depends on having "its purpose, its method, and what is expected of the participants" clearly defined to the staff (7, p.147).

Although a great deal of study, research, talking and writing has been concerned with the subject of staff development in business as well as libraries, the NUSLA survey shows that there has been slow, small, and uneven progress in the general practice of library administrators. It appears from the NUSLA survey that there is little interest in promoting research and scholarly endeavors as a method of professional development. Limited support is available for continuing education. The actions, however, that would return the greatest results for the least cost, namely, in-house training through meetings and seminars and continuous supervisory training for librarians, are ignored by the majority of library administrators responding to this questionnaire.

#### Literature Cited

1. Stone, Elizabeth W. / Continuing Education in Librarianship: Ideas for Action. *American Libraries* 1(Jun 1970).
2. Drucker, Peter F. / *Management: Tasks, Responsibilities, Practices*. New York, Harper & Row, 1974.
3. Weber, David C. / The Dynamics of the Library Environment for Professional Staff Growth. *College and Research Libraries* 35:259-267(Jul 1974).
4. Guidelines Subcommittee of the Staff Development Committee, Personnel Administration Section, Library Administration Division, American Library Association / Guidelines to the Development of Human Resources in Libraries: Rationale, Policies, Programs, and Recommendations. *Library Trends* 20:98-99(Jul 1971).
5. These results and assumptions are based on the majority of responses. The few outstanding staff development programs reported are in the minority.
6. Kaser, David / The Training Subsystem. *Library Trends* 20:71-77 (Jul 1971).
7. Mitchell, Betty Jo / In-House Training of Supervisory Library Assistants in a Large Academic Library. *College and Research Libraries* 34:144-149 (Mar 1973).
8. Flexner, Jane G. / Staff Participation in Management in Large University Libraries. *College and Research Libraries* 34:275-279(Jul 1973).
9. Stone, Elizabeth W. / Introduction. Personnel Development and Continuing Education in Libraries. *Library Trends* 20:9-10 (Jul 1971).

#### Bibliography

- Allen, Lawrence A. / *Continuing Education Needs of Special Librarians*. New York, Special Libraries Association, 1974.
- Drucker, Peter F. / *Management: Tasks, Responsibilities, Practices*. New York: Harper and Row, 1974.
- Flexner, Jane G. / Staff Participation in Management in Large University Libraries. *College and Research Libraries* 34:275-279 (Jul 1973).
- Flowers, Vincent and Charles L. Hughes / Why Employees Stay. *Harvard Business Review* 151:49-60(Jul/Aug 1973).
- Johnson, Edward R. / Applying 'Management by Objectives' to the University Library. *College and Research Libraries* 34:436-438(Nov 1973).
- Kipp, Laurence J. / Management Literature for Librarians. *Library Journal* 97:158-160(Jan 15, 1972).
- Leese, Joseph / The Bureaucratic Colander. *Personnel Journal* 53:757-760(Oct 1974).
- Lyle, Guy R. / *Administration of the College Library*. 3d ed. Bronx, N.Y., H. W. Wilson, 1961.
- Mitchell, Betty Jo / In-House Training of Supervisory Library Assistants in a Large Academic Library. *College and Research Libraries*. 34:144-149(Mar 1973).
- Plate, Kenneth H. and Elizabeth W. Stone / Factors Affecting Librarians' Job Satisfaction: A Report of Two Studies. *The Library Quarterly* 44:97-110(Apr 1974).
- Rogers, Rutherford D. / *University Library Administration*. Bronx, N.Y., H. W. Wilson, 1971.
- Stone, Elizabeth W., ed. / "Personnel Development and Continuing Education in Libraries." *Library Trends* 20 (Jul 1971).
- Stone, Elizabeth W. / Continuing Education in Librarianship: Ideas for Action. *American Libraries* 1:543-551(Jun 1974).
- Stone, Elizabeth W. / Librarians and Continuing Education. *Journal of Education for Librarianship* 11:64-71(Summer 1970).
- University of Connecticut, University Libraries / "Report of the Management Review and Analysis Program." Storrs,

Conn. 1974. Typewritten mimeographed Report: University of Connecticut Libraries.  
Vaughn, William J. and J. D. Dunn / A Study of Job Satisfaction in Six University Libraries. *College and Research Libraries* 35:163-177(May 1974).  
Warshasky, Stanford / Cooperative Staff Development. *Connecticut Libraries* 16(no.4):25-27(1974).

Weber, David C. / The Dynamics of the Library Environment for Professional Staff Growth. *College and Research Libraries* 35:259-267(Jul 1974).

*Received for review Sep 19, 1975. Revised manuscript accepted for publication Dec 31, 1975.*



BREITING



DOREY



SOCKBESON

**Amelia Breiting is selections librarian, Dodge Library; Marcia Dorey is serials librarian, Burlington Campus Library; and Deirdre Sockbeson is interlibrary loan librarian, Dodge Library, Northeastern University, Boston, Mass.**

# Establishing a Manual Retrieval System for a Small Library

Suzanne Paul

Drug Abuse Council, Inc., Washington, D.C. 20036

---

■ A punched-card, optical coincidence information retrieval system has been designed for the information needs of a small library specializing in drug abuse literature. The indexing vocabulary, developed from the actual literature included in the system, can be quickly and inexpensively up-dated as the information requirements of the literature change. This manual system has specificity of

indexing and retrieval, and flexibility of use. A user may readily locate pertinent materials by coordinating any two or more terms. The system can handle 30,000 to 40,000 items, and can easily be adapted for later computerization if necessary. It serves information needs not requiring a full-scale computer system, but needing more than standard reference tools or ordinary library subject catalogs.

---

THE Drug Abuse Council was founded in February 1972. It is a private, independent source of information and policy evaluation. The library/information center was started shortly after the founding of the council. In the four years since its inception, the collection has grown to cover 1,600 books and reference books, 185 periodical subscriptions, and more than 6,600 indexed documents. The collection is largely current rather than retrospective, and selective rather than comprehensive. While designed primarily for staff use, the library is open to the public.

It became apparent very early that a flexible, efficient information retrieval system would be needed to handle in-house documents. A collection large enough to warrant computerization was not anticipated, yet the type of in-depth coverage that a computer could give was desirable. The obvious answer to this was an optical coincidence, post-coordinate indexing system which was first en-

countered by the author as a library student at the University of Maryland. This type of system seems to be rarely used in the United States, though it is frequently found in European information centers.

One such place is the Institute for the Study of Drug Dependence in London, with which the Drug Abuse Council has a continuing cooperative arrangement. The council generously afforded the author the opportunity to visit and work with the ISDD information specialists to experience the practical problems involved in setting up and maintaining this type of manual retrieval system.

## The Vocabulary

The heart of any retrieval system is its vocabulary. The ISDD had worked out a vocabulary of about 250 terms which was intended for use in the Drug Abuse Council's system. Unfortunately, it just

did not accommodate the wider diversity of subject matter. There was no viable alternative except to produce a tailor-made vocabulary. For the next six to eight months the author worked to develop a keyword list with accompanying thesaurus and scope notes to serve the literature and the type of requests the council's users were making (1).

The first step was an exercise in free indexing. Every tenth document in the collection was indexed, writing down each term as it occurred, including all synonyms and spelling variations. A tally was kept of how frequently each term occurred. This was to be the basis for deciding whether or not to include a term or which of the many synonyms or spelling variants to use.

The next step was to combine and shuffle terms—to decide which ones to use and which to eliminate. Terms from other drug abuse keyword lists which had not surfaced in the random sample were then added, as well as terms and concepts that were not on anyone's list, but for which a need could be anticipated.

Although the indexing was to be non-hierarchical, the terms were organized into logical groupings as an aid for both indexers and searchers. These groupings became the basis for the first format of the keyword list.

Compiling the thesaurus was next. All the terms on the keyword list were included plus all other synonyms and variants in order to guide the user from unused to used terms. This thesaurus contains three guide terms: "use," "use for," and "see also" to indicate related or broader terms and concepts. For example, when a user looks up "nail polish remover" in the thesaurus, it says, "use acetone"; under acetone it says, "use for nail polish remover; see also volatile substances."

To accompany the thesaurus it was necessary to write definitions or scope notes. Drug names do not present much of a problem; neither do discrete terms such as "physicians," "methadone maintenance," or "legislation." It is the concepts that are difficult. What is meant by "administration of justice," "sociocultural

aspects of drug abuse," or even "addiction"? How do you distinguish between "drug traffic" and "drug distribution"? Or "policy" and "politics"? No two people will regard these terms in exactly the same way, so it is incumbent upon any system to define or describe terms and to give examples in order to maintain consistency in indexing.

At the point of completing the thesaurus, three highly experienced indexers were hired who set to work enthusiastically on the document collection. The keyword list was soon found inadequate; there were inconsistencies in the thesaurus; the scope notes were incomplete or unclear; concepts which were perfectly evident to me were confusing or incomprehensible to the indexers. In addition, the indexers had been used to serving a different type of audience, and it was necessary to help them think in terms of the council users' needs. There were many spirited and, at times, acrimonious discussions. As a result of these interchanges, an extensive revision of the keyword list and thesaurus was hammered out; all previously indexed documents were redone. Since that time there has been one more substantial revision of the keyword list and thesaurus although minor adjustments were continually made in both. One by-product of the first revision was a reworking of the keyword list into a format that the indexers found more convenient.

### **The Equipment**

Various companies produce equipment for optical coincidence retrieval systems. A British company was chosen for both design and price considerations. The essential components follow: 1) the cards—these are plastic-coated and are divided into 10,000 numbered squares, each square corresponding to a document number. One card is used for each term in the vocabulary; 2) an accurate punch; 3) a holder for the cards so that terms can be scanned easily; 4) a light box to read the cards; 5) accessible file drawers to house the documents; and 6) adequate drawer space for catalog cards.

## **The Method**

Each document is given a number. It is then cataloged simply: author, title, publisher, date; or, in the case of a journal article, author, title, journal title, date, and page numbers. The typed master cards are sent out to be duplicated. Generally three cards are made for each document—author, title, and numerical. Once cataloged, the document goes to the indexer who reads it and checks the appropriate terms on the keyword list which bears the same number as the document. A separate keyword list is used for each document. A limit of 15 terms per item is attempted, but this is not always feasible, especially in a long document.

Until the indexers were thoroughly familiar with the system, all of their work was reviewed to make certain that it was being done properly. Now they work independently, with only an occasional review.

When there is a sufficient accumulation of indexed documents, the indexers pull the cards labeled with the terms they have checked on the keyword sheets, and punch the holes on the cards which correspond to the document numbers. Although it is tedious and time-consuming, it is preferable for the indexers to perform this operation, since they have a vested interest in the accuracy of the punching.

The documents are then filed in numerical order; the keyword lists are filed separately, also in numerical order; the author and title cards are filed alphabetically; the numbered cards are filed numerically. Thus access to any given document is available by author, title, number, or subject. The keyword lists are kept for essentially two reasons: 1) as reference in case of the inevitable mix-up, or if any change in indexing is necessary; 2) if the decision should be made to computerize, the existing sheets would merely have to be coded, thus eliminating the need for reindexing the whole collection.

## **The Materials in the System**

Originally only the collection of reprints, technical reports, and unpublished manuscripts were going to be incorporated into the retrieval system—in a

word—the vertical files. However, as the needs of the user group became clearer, it was decided to include all the pertinent journal articles in the collection, as well as conference proceedings. Presently the staff is about to embark on a most ambitious project, that of putting drug abuse books into the same system. The books, as opposed to the other documents, will remain on the shelves for browsing. However, not included in the indexing are the reference collection, congressional hearings, and the non-drug materials.

## **Retrieval**

The terms can be combined in any manner, regardless of how they are organized on the keyword list. Since indexing has been done under the most specific terms, the system should be searched under the most specific terms. Thus, in looking for information on "LSD," the user should go directly to "LSD" rather than to "hallucinogens." If he does not find the information he wants there, he should consult the thesaurus for broader or related terms. Broader terms are used in indexing when documents are of a general nature.

Suppose, for example, that a user desires information on the evaluation of drug treatment programs for Vietnam veterans. The cards labeled "treatment," "program descriptions," "evaluation," "military," and "Vietnam" are withdrawn from the holder, combined, and placed on the light box. If there are one or more matches (optical coincidence), light will shine through the holes. If there are no matches, it is necessary to withdraw one or more of the terms and recombine them. If there still is no match, the user should consult the thesaurus for alternative terms to use. If no match is then forthcoming, it may be assumed that the desired information is not in the system. Let us assume that there is a match. The searcher then jots down the number(s) of the document(s) indicated by the optical coincidence and can either refer to the numerical card file to identify the title and author of the document(s) or go directly to the document itself.



## Problems Encountered

As can be imagined, establishing a smoothly operating system has not been without problems. In addition to the initial difficulties in evolving a workable vocabulary and thesaurus, substantive and technical problems had to be coped with at each step. The most significant and continuing problem is to maintain an up-to-date vocabulary. In the drug abuse field there has been a marked shift in much of the literature from a biomedical to a sociological emphasis. The vocabulary must be able to accommodate this. In order to take care of terms and concepts not included in the keyword list, many sections of the list have "NOS" (not otherwise specified) categories; i.e., "effects of drug use NOS," or "treatment NOS." At some point some of these NOS terms occur frequently enough to justify their inclusion in the regular list. Some method of tallying these terms had to be established in order to decide which ones to include. A form was devised for the indexers to use while punching. They write on the form any NOS terms which have occurred in a document along with the document number. These forms are reviewed periodically. If a term occurs frequently enough (usually more than three or four times), it is added to the keyword list; a new card is prepared, the appropriate numbers are punched on it, and the keyword lists for the documents involved are corrected without having to refer to the original document.

Besides adding terms, it is sometimes necessary to modify or expand definitions. As with added terms, the punch cards and keyword lists are changed accordingly.

Terms are deleted from time to time. One major adjustment made has been in geographic place names. The original intent was to add all United States locations as mentioned (states, cities, counties, etc.), as well as all foreign cities and countries. This became totally unmanageable. A core list of 25 U.S. cities is now used; all other U.S. localities are indexed only under their state names; all foreign locations are indexed under the name of the country. Area names (southeast, north

central) are not used since the boundaries are vague.

Another major vocabulary adjustment has been in drug names. The keyword list contains the names of the principal drugs of abuse. However, the number of drug names occurring in the literature is almost endless. To search for a particular drug under an NOS term would be a frustrating experience, particularly if the classification of the drug were not known. Therefore, all the NOS terms for drugs were eliminated and a 3 in. x 5 in. card file index of all drug names which occur but do not appear on the keyword list was initiated. A card is made for each new drug name and the numbers of the documents containing the information are listed on the cards. It is then a simple matter to flip through the alphabetically arranged cards for available information on a particular drug. In this way jamming of the system with infrequently used punch cards is avoided, but at the same time we maintain access to information on out-of-the-way drugs of abuse.

Clerical problems have been experienced in keeping pace with the indexers' output. Catalog card typing and filing of both cards and documents frequently have lagged far behind. Card duplication has also been a headache. Due to slow performance by the firm used, at times from 500 to 1,000 cards were in limbo. This made it impossible to check for duplicate indexing or to retrieve items known to be in the system. Recently the library changed to a different company and has had much better service.

Disappearance, not unique to this library, has been a problem. To minimize the loss of materials, only library staff now has access to the document files.

Materials handling and organization has been another problem. Because of the enormous number of documents in various stages of processing, it was imperative that the arrangement be systematic in order to avoid confusion. But mix-ups inevitably occurred, resulting in some items being indexed twice, some documents being separated from their keyword lists, and some of them being mis-numbered. Proportionately, however, the

number of errors has been relatively small.

Storage space has not yet been a problem. When that time comes, it will be necessary to convert to microforms.

## Discussion

This type of manual retrieval system can be adapted to almost any small collection. It is especially good for in-depth retrieval of specialized material, but it can also be used with less detail for more general collections. It can provide the type of detailed access to information in books or articles that traditional subject indexing cannot. It obviates the need for struggling with subject headings and cross-references in the card catalog. It helps the user to obtain information which might be buried deep in a document.

Information can be added to the data base quickly. New journals are routinely scanned as they come in. When an appropriate article is found, it is flagged, duplicated, and given to an indexer. The article is in the system and the journal is back in circulation within a short time.

This optical coincidence system can be adapted to a variety of uses. One organization whose entire data base consists of statistical tables plans to use it to retrieve detailed information from these tables. Another organization hopes to use the system to identify large numbers of organizations and individuals by their activities and functions. Still another organization is using this system to identify drugs by their physical characteristics (2). A scholar doing research on Assyrian architecture has inquired about using this system to handle the myriad of details he has accumulated in the course of his research.

Up to 30,000 or 40,000 items can be accommodated conveniently within the system. More than that might become awkward to handle. It also might be advisable to limit the total number of terms in the vocabulary, both for clarity in indexing and for ease in searching. This system contains about 500 terms which, at this writing, appear to be adequate.

A major advantage is the modest cost of the equipment. The total investment

(about two years ago) was slightly under \$600.00 including shipping charges. The cost of the light box, which is not included, should come to about \$50.00 more.

One *caveat*—there is no substitute for good indexing. The “garbage in, garbage out” maxim applies to manual as well as computer retrieval systems. Do not try to economize on indexers.

No studies have yet been done on recall or relevance, but judging from user reaction, the system appears to be working quite well. Most of the users are satisfied to get a reasonable number of documents in hand. If they want an exhaustive search, the library does have access to large computer data bases.

These days more and more of the time at professional library meetings seems to be devoted to extolling the virtues of computerized systems and networks. These systems certainly perform valuable services for large institutions. But in the rush to join the new wave, the profession is neglecting the needs of small libraries with minimum personnel and restricted budgets. Automation is too costly and is unnecessary for their volume of circulation and acquisitions. It is also too costly for retrieval of information from their own documents. A devil's choice between traditional subject heading retrieval and prohibitively expensive computerization is not necessary. The optical coincidence manual retrieval system which has been described can fill a much-needed middle ground.

## Literature Cited

1. An interesting discussion of a similar type of thesaurus construction is given in: Freeman, Frank H. / Building a Thesaurus for a Diffuse Subject Area. *Special Libraries* 67(no.4):200-222(Apr 1976).
2. Ritchie, Joan, Patricia Brodrie and Ronald McG. Harden / *The Lancet* 1(no. 7906):552-553(Mar 8, 1975).

*Received for review Sep 16, 1975.  
Manuscript accepted for publication Jan 1, 1976.*

**Suzanne Paul is librarian, Drug Abuse Council, Inc., Washington, D.C.**

# A Microfilm Card Catalog at Work

Clara A. Folk, Bill W. Campbell, and Masse Bloomfield

Hughes Aircraft Company, Culver City, Calif. 90230

---

■ A duplication of the book card catalog on microfilm has been successfully utilized at Hughes Aircraft Company by a number of its libraries. The microfilm catalog, in 16mm cartridges, has been found cheaper and as efficient as any other method of duplication over the past ten years. In addi-

tion, copies of the Hughes Aircraft Company's Internal Document System's automated book catalogs are microfilmed, using a COM processor, and made available to all company libraries in 16mm microfilm cartridges.

---

OVER the past 20 years the Hughes Aircraft Company has experienced rapid growth in the size of its total employment and in the number and location of its new plant sites. The company's largest library is located at the Culver City plant. As growth occurred additional libraries were established throughout the other Southern California area facilities. In February 1963 the first branch library reporting to the Culver City plant was established at the new Space Systems Division Building at El Segundo. The most recent addition is the branch library at Canoga Park, which was established in 1967 to serve the then Missile Systems Division. Presently, in addition to the three libraries served from Culver City, there are nine other independent libraries at various sites. Altogether these 12 Hughes Aircraft Company libraries serve 35,000 employees.

A problem faced early in the library's growth was the duplication and distribution of the Hughes Aircraft Company Union Catalog to the various library locations. The Hughes Union Catalog is a centralized card catalog, listing the book holdings of all the Hughes libraries and branches. This Union Catalog is located at Culver City and lists approximately 26,000 volumes on approximately 160,000 cards. Duplicating the catalog was to be done in an expeditious method and as economically as possible, with an eye toward

the possibility of incorporating card changes as they occurred. In 1963, the decision was made to microfilm the Union Catalog and make it available to all the library locations as a set of microfilm cartridges with a microfilm reader (1). This present article is a report on the effectiveness of the microfilm technology as it relates to the Hughes Aircraft Company Library System and to the Hughes Union Card Catalog.

## Considerations

Originally the microfilm catalog was chosen because of lower cost in production, updating, and storage. The alternatives considered at that time were:

- 1) A book catalog consisting of approximately 14 volumes. The method for planning purposes was to duplicate the catalog cards by microfilming 12 cards to a page and then enlarging the page to 8<sup>1</sup>/<sub>2</sub> in. x 11 in. Initial cost: \$10,000 or \$715 per volume.\* Annual maintenance cost: \$2,000 for supplemental books. Total first year cost: \$12,000.

- 2) A traditional card catalog requiring about 54 square feet of floor space. Initial

---

\*The prices quoted in this article will fluctuate from vendor to vendor and from area to area. They are included for comparative purposes only.

cost: \$12,800 (\$8,000 to duplicate 160,000 cards at \$0.05 each and \$4,800 for wooden catalog files). Annual maintenance cost: \$3,500 for new cards and filing. Total first year cost: \$16,300.

3) Microfilm the catalog and purchase a reader. The reader and cartridges need only the top of a desk for their space requirement. Initial cost: \$1,650. (\$625 for 25 cartridges at \$25 each and \$1,000 for a microfilm reader). Annual maintenance cost: \$2,000 yearly for 3 complete microfilm reprints (i.e., updating) of the entire catalog. Total first year cost: \$3,650. Microfilm was chosen on the basis of lowest cost.

In 1975 the cost in production, updating and storage of the Union Catalog has been reevaluated. The same three alternatives were considered.

1) The book catalog would now consist of 27 volumes of 500 pages each. The initial price for the book catalog would be cheaper now than in 1963 due to advances in photocopy equipment. Initial cost: \$6,398 or \$378 per volume. Annual maintenance cost: \$3,000. Total first year cost: \$9,398.

2) The traditional catalog would cost approximately the same now as in 1963. Initial cost: \$12,476 (\$4,476 for four 74-drawer card files at \$1,119 each and \$8,000 for the duplication of 160,000 cards at \$.05 each). Annual maintenance cost: \$4,500 for new cards and filing. Total first year cost: \$16,976.

3) A microfilm catalog set and reader would still require the same desk-top space. Initial cost: \$2,350 (\$1,600 for a self-threading reader and \$750 for 25 cartridges at \$30 each). Annual maintenance cost: \$1,500 for two complete microfilm reprints (i.e., "editions") of the entire catalog each year. Total first year cost: \$3,850.

The microfilm catalog is still the form of lowest cost.

### **User Acceptance**

At the time of its introduction into the Hughes Library System, use of the microfilm medium to store library information was an untried idea. Because of this, it was

feared that the microfilm-reader system would be too novel and alien to be fully used by library patrons. To avoid this, a plan was developed whereby library personnel were first given demonstrations on the operation of the microfilm equipment at the main library. Then, upon returning to their branch locations they introduced and, in fact, continue to introduce patrons to the equipment as questions arise. Over the years, this strategy has proven successful to the extent that microfilm is now used regularly by the patrons themselves to locate books within the collection as well as to do literature searches.

### **Updating**

At its inception it was foreseen that the entire microfilm catalog would be reprinted (i.e., updated) three times each year. Experience has shown that semiannual updating keeps the catalog sufficiently current. Publishing one less edition each year serves to further reduce the cost of catalog maintenance. Also, since implementing the system, nearly a 40% increase in user service—book service and reference service—has been noted. This is partly attributed to the increased ease of locating books at other locations and partly attributed to the speed (1 day) with which a borrowed book now arrives at a requesting branch location. At the Canoga Park Branch, for example, between a quarter and a third of the books checked out are borrowed from other Hughes libraries.

### **Another Application**

Another benefit resulting from using microfilm technology appeared in July 1963. At that time, the card catalog of government and other external technical reports held in the Company Technical Document Center was microfilmed, as was the HAC document card catalog index.

In October 1967 Hughes adopted a new automated information retrieval system for its internal technical documents. This system replaced a previous semiautomated system, and from 1967, all

Hughes technical reports, proposals, patents, and other items were cataloged by and into the new system.

At the same time, the library began entering all of its old material into the new system as well, beginning with the most recent material and working backwards. The input of old material was complete as of September 1973.

As of July 1970, indexes to the internal technical documents were printed via Computer Output on Microfilm (COM) technique. The new printing technique was esthetically superior to the old impact printing and cheaper. Automated indexes in cartridges compatible with the Union Catalog indexes were thus made available to all Hughes libraries, at minimum cost. To further make Hughes documents available, microfiche copies of the documents themselves were reproduced and housed in the two branch libraries reporting to the home facility. Also, documents produced by certain other independent Hughes facilities were reproduced in microfiche form and housed in the libraries of those facilities, thus reducing hard copy storage costs at those facilities.

Having the three catalogs on microfilm has significantly reduced the relative cost of the catalog system since the cost of the reader is now shared by the three catalogs. Moreover, each facility can have access to the extensive external document collection and HAC document collection held in the larger central Culver City facility.

W. A. Kozumplik and R. T. Lange (2) gave a description of the use of Computer Output on Microfilm for the Lockheed catalog of books and documents. Where the original use involved microfilming catalog cards, Lockheed used Computer Output on Microfilm form for its catalog. Lockheed was able to reduce 720 card trays to 40 microfilm cartridges. They state (2) that they avoided purchasing expensive wooden card catalogs and had a 200% saving in space. Extra catalogs in microfilm form were available at little extra cost as needed. As a result of instituting a microfilm catalog, a savings of \$13,000 was obtained by Lockheed in 1967 (2).

This experience with the microfilm technology at the Hughes Library System has proven to be quite successful and in fact quite above expectations. The authors would recommend this approach to any library system in a similar situation with books and other materials spread throughout many different physical locations. This type of catalog allows fast service to the patron, quick location of materials, and ready communication between libraries, thus enhancing the user-library relationship.

### Literature Cited

1. Matsumiya, H. and M. Bloomfield / A Working Microfilm Card Catalog. *Special Libraries* 55(no. 3):157-159 (Mar 1964).
2. Kozumplik, W. A. and R. T. Lange / Computer-Produced Microfilm Library Catalog. *American Documentation* 18(no.2):67-80 (Apr 1967).

*Received for review Sep 9, 1975.  
Manuscript accepted for publication Dec 1, 1975.*



FOLK



CAMPBELL



BLOOMFIELD

**Clara A. Folk is librarian, Canoga Park Branch, Bill W. Campbell is supervisor, Company Technical Document Center, and Masse Bloomfield is supervisor, Culver City Library, Services Division, Aerospace Groups, Hughes Aircraft Company, Culver City, Calif.**

# Cooperative Planning in Action: The Washington Experiment

**Marilyn Gell**

Metropolitan Washington Council of Governments, Washington, D.C. 20036

---

■ Library cooperation in the Metropolitan Washington area is unique in several respects: 1) the political context in which it operates; 2) the vast resources involved; and 3) the existence of substantial intertype programs including a regional delivery system, an active job placement

service, and cooperation in the delivery of information to specific user groups, among others. The program is described, along with its problems and successes, and the significant role special libraries can play in an ambitious intertype library cooperative.

---

AN EXPERIMENT by its very nature implies a hypothesis or set of hypotheses, a controlled environment and an expected outcome. This is true in a social setting as surely as it is true in a laboratory. Unfortunately when dealing with social or political situations our hypotheses are frequently vague, the environment uncontrollable and the expected conclusion ambiguous. Rarely do we accurately assess the shifting forces of society as they impinge on our model.

The Librarians' Technical Committee of the Metropolitan Washington Council of Governments (COG) is a multi-type, interjurisdictional cooperative representing over 1,000 library and reference facilities in the Washington Metropolitan Area. These libraries contain one-sixth of the total library resources in the country. It was organized informally in 1967 by politically sensitive librarians who recognized the need to participate in broad regional planning activities and to interact with elected officials at the Metropolitan level as well as to develop substantive cooperative planning of their own.

The elements of the hypothesis were and still are that: 1) A cooperative effort should include all types of libraries. 2) It should be interjurisdictional in nature. And 3) libraries should be an integral part of regional planning and development.

There is obviously nothing unique about cooperation among various kinds of libraries. In the Washington Metropolitan Area, with its vast proliferation of special and federal libraries, such an approach is almost compulsory.

## Coop Projects

Some of the projects which currently involve more than one type of library are:

- **MAILS** (The Metropolitan Area Inter-Library Delivery Service), a daily delivery service among area libraries which operates at a cost of \$0.25 per item delivered.

- **Jobline**, a cooperative placement service supported by eight different library associations including the Washington, D.C. Chapter of the Special Libraries Association; this service currently handles over 450 calls per week and

placed over 50 people its first year of operation.

- A joint purchasing program whereby library supplies are obtained in bulk at a considerable savings. Last year \$22,300 was saved by area libraries participating in this program.

- A comprehensive continuing education program.

- Maintenance of comparative statistical information about area libraries which is compiled annually in the report of the Librarians' Technical Committee and which provides a base for intelligent planning, and

- Publications such as *Bicentennial Briefs*.

### Cooperation

The second element in the experiment has to do with cooperation among libraries in different political jurisdictions. While the Washington Metropolitan Area is perhaps a rather extreme example of potential jurisdictional conflict, located as it is in three states and containing the federal government as well, it is not the only interstate metropolitan area in the country. There are, in fact, 33 interstate metropolitan areas in the United States containing over 30% of the urban population. Efforts in coping with problems arising from this anomaly are therefore of more than local significance.

In Washington, interstate library planning and cooperation was given a boost in 1973 when the three state library agencies in Maryland, Virginia, and the District of Columbia agreed to provide financial support for the Librarians' Technical Committee. Programs which have grown out of this cooperative include, in addition to those mentioned a moment ago:

- The Universal Library Card—A reciprocal borrowing agreement among public libraries in the area;

- Publication of an Area-Wide Union List of Serials;

- Development of standard forms for the gathering of certain types of statistical information; and

- Compilation and publication of library services available from various area libraries.

But all of these programs can be found in some form in cooperatives across the country. The most important hypothesis to be tested in the Washington experiment is the assumption that libraries can and should be an integral part of a comprehensive regional planning effort.

It is this theory that will be explored in more depth, because it is this political environment that offers the greatest potential for libraries, especially public libraries, today.

### Conflicts

In the structure of COG the Librarians' Technical Committee stands alongside Technical Committees dealing with housing, transportation, public safety and the environment. These other committees are concerned with social outputs—clean air, adequate housing, efficient transportation. Library service, however, is not so simply defined for it is both an output and an input.

Information is an essential ingredient in the planning and development of every other program. Yet while the need for information and information systems is widely acknowledged among planners and politicians alike, libraries are almost never considered as the source of such information.

Libraries are looked upon as outputs—as buildings, as books, as places to study. The old image persists with a vengeance! Thus, libraries find it necessary to compete at every level with fire departments, police departments, and public housing authorities for necessary support. While libraries do provide these services, they can and should be providing an important, sophisticated information support system for a host of specialized community activities.

There are financial constraints—and libraries are notoriously poor. That politics and economics impinge on the grandest of designs is undeniable. However, money is available, if it is sought in a persuasive and sophisticated manner.

On the local level there is revenue sharing, and libraries have made a dismal showing in their efforts to obtain a significant portion of that money. On the federal

level there is comprehensive planning money, such as that provided by HUD 701 funds. In specialized areas such as transportation and environmental control, money is frequently allotted to the development of specialized information systems, information systems that could be easily and efficiently handled by a skilled librarian.

The sad truth is that libraries have been only moderately successful in obtaining money from more general sources of revenue at any level. To break this cycle—lack of services arising from lack of funds—it is necessary to intervene politically, to redefine the role of the library, and to become a fully integrated part of community planning and development. It may be that the library is in a unique position to act as catalyst and facilitator as well as active participant.

### The Role of Libraries

First, librarians must redefine their own concept of a library. There seems to be a semantic confusion in the rhetoric of the profession as the active or passive nature of the institution has been debated. It would be preferable to consider libraries in the light of another duality—the creative and the receptive.

For purposes of discussion, define “creative” as a direct forward movement while “receptive” is characterized by an opening out. Both have active and passive states. In further explaining this concept the *I Ching*, or *Book of Changes*, indicates that the receptive “In the state of movement, of opening, allows the light to enter, and by means of this light illuminates everything.”

“... The success of the creative lies in the fact that individual beings receive their specific forms, the success of the receptive causes them to thrive and unfold.”

But what does an obscure philosophical doctrine have to do with 20th century libraries? Perhaps it would help to consider libraries not as active or passive, socially responsive or neutral, but in fact define them as active-receptive institutions.

This implies a totality of involvement, a breadth, a strength, and a commitment that is presently not evident. Libraries can

nourish and feed other programs with information, become a part of the complete movement.

For example, the Metropolitan Washington COG recently received a grant to develop a model energy information system. During the course of the meeting it was suggested that the library was the appropriate place for such an operation. Initially, the suggestion was not taken seriously. However, after one person accepted the idea, the planners consulted librarians in several large special libraries in the area, the files have since been computerized and a librarian may be hired to handle the program.

This is obviously a small incident but it contains several valuable lessons. Information was needed, money was available to obtain it, a librarian was consulted because she was accessible, and in the final analysis a librarian was recognized as an information specialist. The library became a function, not just an institution, and acted in an active-receptive manner.

This kind of thing should happen on a much broader scale. Libraries can be a fully integrated, appropriately funded, essential element in regional planning. With the visibility gained by providing needed information support, even the more traditional library operations should profit.

And so over the last two years the author's expected conclusion for the Washington experiment has changed along with her vision of libraries and their potential. The profession is at the beginning of a whole new era not only in library cooperation but in library development. The presence of library cooperatives in regional planning agencies is a small step but is a step in the right direction.

*Received for review May 9, 1975. Revised manuscript accepted for publication Oct 6, 1975. Presented Jun 9, 1975, as a Contributed Paper, during SLA's 66th Annual Conference in Chicago.*

**Marilyn Gell is chief of library programs, Metropolitan Washington Council of Governments, Washington, D.C.**



# About GPO and the Depository Library Council

**Ruth S. Smith**

Institute for Defense Analyses, Arlington, Va. 22202

---

■ The Depository Library Council to the Public Printer looks at problems and makes recommendations for improvements at the Government Printing Office. At recent meetings, major concerns were bibliographic control and the need for a national depository system.

---

“WE WELCOME any comments related to . . . getting documents out to the public,” declared Public Printer Thomas F. McCormick at an open meeting of the Depository Library Council to the Public Printer, held in Washington, D.C., Oct 23–24, 1975. Although the focus of the meeting was on depository libraries, it soon became evident that many of the problems of depository libraries are similar to the problems of other libraries dealing with the Government Printing Office. On hand to interact with the 15-member council were approximately 50 attendees from various parts of the country—interested librarians, representatives of the information industry, and members of the staffs of GPO and the Joint Committee on Printing.

Mid-morning the first day, Chairman Peter J. Paulson (State University of New York) turned the meeting into a question and answer period with the GPO staff. John D. (Jim) Livsey (Director of the Library and Statutory Distribution Service, GPO) said they now are processing shipping lists from six different areas and the backlog of depository shipments is ex-

pected to be cleared up by February. Quality assurance checks are made daily to cut down on missing or duplicate shipments. GPO priorities are to obtain copies of new items for bibliographic entry (bibliographic control) and distribution to depository libraries. They are pushing for “full compliance” with the law governing depository library distribution.

## **Bibliographic Control**

In regard to bibliographic control, Livsey said that the *Monthly Catalog* is the single most frustrating aspect of the job. Delivery of the June 1975 issue was expected in November. The first terminal was now installed and soon would go into operation for input to the Ohio College Library Center (OCLC) system.

*Panel on Bibliographic Control.* The council committees met in the afternoon for individual work sessions. The Committee on Bibliographic Control presented a panel discussion with guest speakers, to highlight what other groups have been doing.

The *Advisory Group on National Bibliographic Control* was represented by its executive director, Paul Lagueux (Council on Library Resources). This group is jointly sponsored by the National Science Foundation, the National Commission on Libraries and Information Science and the Council on Library Resources. It is composed of individuals who could be described as librarians, vendors and publishers, and abstractors, indexers, or disseminators of information.

Two working parties have been appointed to deal with specific tasks. The Working Party on Formats for Journal Articles and Technical Reports is chaired by Margaret Park of the University of Georgia. The Working Party on Bibliographic Name Authority File is chaired by Ann Curran of the Boston Public Library. Both working parties already have held meetings.

Lagueux explained that if there is to be a truly national information handling system, a comprehensive and coherent approach to national bibliographic control is an absolute requirement. The national program document of the National Commission on Libraries and Information Science further underscores this need. Regardless of where the overall organizational responsibilities for the national information network reside, certain bibliographic files and procedures will be required in order to resolve problems of incompatibility among the systems of those who produce, store, disseminate, and use bibliographic information. The activities of these and future working parties constitute efforts leading toward the development of some of the building blocks from which ultimately will evolve a national system.

The *Federal Information Processing Standards (FIPS)* program was explained by Madeline Henderson (Institute for Computer Science and Technology, National Bureau of Standards). FIPS deals with automation standards. Presently, she said, many libraries are inputting bibliographic information in the MARC format. At a minimum FIPS should have the capability of outputting in the MARC format as well. She hastened to add they are not trying to impose the MARC format. This is an implementation of the standard. FIPS contribution will be in the form of standards—dimensions of punched cards, holes in punched cards, dimensions of tape, quality, recording of dates, country codes, ways to express time, etc. About thirty standards have been generated so far, she said.

Currently, the FIPS program is working with the library and information community on standards particularly suitable

to or of interest to those communities, for the interchange of bibliographical information on magnetic tape. When a FIPS is adopted, it becomes mandatory for government agencies to use it, or seek a waiver. The Z39.2 standard format for the bibliographic interchange on magnetic tape was suggested as a candidate for FIPS. It is used by the Library of Congress in the MARC tape interchange program. It is the format standard used by the National Technical Information Service in distributing tape and by NASA, Energy Research and Development Administration and Defense Documentation Center in interchange programs. It is offered as an option by ERIC in distributing their tapes. However, the Patent Office raised a valid question. Patent citations, if considered bibliographic data, would be difficult because they are extremely long. Now, it is being suggested that the standard be required as an alternative, with a minimum capability of interchanging the data into the standard format.

Henderson also described activities of the Federal Library Committee and their shared cataloging experiment with the Ohio College Library Center. She expressed a personal interest in the necessity of eliminating duplication of effort where it can be so motivated. "The money and the effort for the best possible analysis should be spent at the sources of documents," she emphasized. Use of a standard input sheet would allow common use of the record once it has been generated.

The *SLA Government Information Services Committee* was represented by its Chairman, Mary Lou Knobbe (Metropolitan Washington Council of Governments). She described a project being conducted in conjunction with the Committee on Information Hang-ups (Washington, D.C.) to evaluate the GPO's operations and public sales service from the users point of view. This project has been described in *Special Libraries (1)*.

The *ALA Government Documents Round Table (GODORT)* was represented by the Chairman of its Task Force on Federal Documents, LeRoy

Schwartzkopf (University of Maryland Library). GODORT has task forces on federal documents, state documents, local documents, international documents, and microforms. Of these, the Task Force on Federal Documents is the largest and has a work group on bibliographic control.

Two main concerns of the work group on bibliographic control are the *Monthly Catalog* and the capturing and getting bibliographic control of non-GPO publications. GPO has not made the effort to make the agencies comply with the law, Schwartzkopf stated. "What we are trying to do," he said, "is to get some active liaison with these people in order to get their documents—like the Congressional Information Service does. The law allows GPO to acquire non-GPO publications for distribution to the depository libraries. However, a clause in the law requires the issuing agencies to pay for these copies." Schwartzkopf said they would like to see a change in this law. The Task Force on Federal Documents has recommended that GPO be provided with funds to purchase publications from agencies for distribution to depositories. It also sent GPO a list of suggestions for improving the *Monthly Catalog*.

### **Committee Reports and Restructuring**

The council re-convened to hear committee reports on standards, bibliographic control, depository law, inspection, and micrographics. The Standards Committee reviewed their proposed standards and guidelines for local depository libraries. (These were published in GPO's *Public Documents Highlights*, no. 13, Dec 1975). The Micrographics Committee noted that no microforms have yet been distributed by GPO on the Pilot Project. The Inspection Committee commended GPO for hiring an additional librarian for the inspection team and recommended use of the proposed standards on the inspections to be made during the coming year. The Bibliographic Control Committee said, "GPO must make sure its system for bibliographic control is a) designed to be useful to libraries and b) completely compatible with the emerging national plan."

Paulson proposed a future restructuring of the committees, to be less specific and encompass broader concerns. A question was raised about whether the council was getting beyond the basic concerns of depository libraries. Replies indicated quite the contrary. Depository librarians often purchase additional copies of documents in order to be able to respond to loan requests, so many of them consider the entire GPO operation—including the sales program—an integral part of the depository program. The council approved the following committee re-structuring to begin January 1976: Depository Libraries Committee (standards and inspection); National System Committee (regionals and depository law); GPO Operations (performance and bibliographic control); Micrographics.

### **A National Depository System**

Discussion of a national depository system focused attention on existing problems. There is no mechanism for a regular depository library which is not served by a regional depository library to dispose of unwanted or little-used material, such as low demand or older documents. Would a super-regional covering several states or a national depository library solve this problem?

There are 1,167 designated depository libraries in the GPO depository library system (as of Apr 1975) (2). Of these, 44 act as regionals. All must make their depository documents available to the public.

A regular depository (often called selective depository) may choose from a list of government publications available for depository distribution and receive only those items they wish to receive. When no longer needed, the documents are sent to the regional depository which serves that area. If no regional serves that area, the documents must be retained. They may not be returned to GPO.

A regional depository library must receive and retain at least one copy of all government publications made available to depositories, either paper copy or microform, except those authorized to be

discarded by the Superintendent of Documents (such as superseded publications and those issued later in bound form). In addition, regionals must respond to requests for reference, interlibrary loan and depository guidance from the selective depositories within the area they serve. Most regional libraries serve a single state or part of a state. Only one—the University of Maine—serves a tri-state area, in the Northeast.

*National Depository.* Catherine J. Reynolds (University of Colorado Libraries) took the position that “some form of national depository should be considered as part of the long range plan.”

Reynolds also suggested the possibility of creating a lending network among all existing depositories, regardless of location or type of depository. “A lending network would not necessarily involve a central collection,” she said. “It could be a location file, utilizing the holdings of all depository libraries.” However, among her “essential features” for a national lending network were an ongoing source of support and a permanent headquarters.

*Super-Regionals.* Maine’s Librarian James C. MacCampbell declared that “having a vast archival collection would add another layer to the vast bureaucracy we already have.” He supported the concept of the super-regional, a library designated to serve a group of states and provide a channel for the selective as well as the regional libraries within those states to dispose of materials or obtain reference and interlibrary loan services.

The discussion that followed pointed out that accessibility of regionals is important. Super-regionals which would encompass vast regions, such as some of our western and southern states, would be less effective than those within a state. Further more, the finances and state politics involved generally are deterrents to such inter-state arrangements.

### **Follow-up on Monthly Catalog**

By Dec 1975, the Government Printing Office had installed one terminal and ordered several more for input of bibliographic information to the Ohio College

Library Center (OCLC), as part of the Federal Library Experiment in Cooperative Cataloging (FLECC) under the guidance of the Federal Library Committee. Milton Megee (Chief, Classification and Cataloging Branch, GPO) has been re-training the GPO staff for OCLC input using the MARC format. He asked the Bibliographic Control Committee, regarding the *Monthly Catalog* format: Should it remain the same? Should it be re-formatted, perhaps more like the *National Union Catalog*, or some other?

In order to respond, the committee called an Ad Hoc Meeting on the *Monthly Catalog*, Dec 9, 1975, in Arlington, Va. Thirty-one attendees included three staff members from GPO, three persons from the Federal Library Committee, two from the Advisory Group on National Bibliographic Control, and representative librarians from academic, public, and special libraries. These libraries were both large and small and some were depositories. Among the associations represented by the attendees were the American Association of Law Librarians, American Library Association, American Society for Information Science, Federation of Information Users, Special Libraries Association, and Virginia Microfilm Association.

*Federal Library Committee (FLC) Role.* James P. Riley (Executive Director, FLC) pointed out that the role of the FLC is to guide federal libraries in the use of OCLC, to respond to requests for assistance, and to work with federal producers of information. Forty-one federal libraries now are participating in the Federal Libraries Experimental Cooperative Cataloging (FLECC) experiment. They generally get their agency’s publications first. The cataloging information input by them will be available to GPO. Supplemental information can be added. As more producers participate, there will be better control over the production and announcement of agency publications.

*Monthly Catalog Format.* Megee explained the new format proposed for the *Monthly Catalog of U.S. Government Publications*. It takes into account that

GPO is committed to producing the catalog in a MARC format and, tentatively, is committed to the OCLC system. He saw the impact of these commitments, as follows: a) Library of Congress main entries and Anglo-American Cataloging Rules will be required. b) GPO corporate author arrangement will no longer be possible. (Personal authors, LC corporate authors, title entries, and symposiums will be used.) c) GPO-type indexing will be difficult or impossible to continue, especially for the congressional material.

The discussion ranged from "keep it as is" to "throw it out" with all the variations in between. Finally, basic uses of the catalog were pinpointed as follows: an acquisitions tool and a subject search tool. As an acquisitions tool, the entry should include the following: a) Basic bibliographic information (author, title, publisher, date, etc.); b) availability (where to get it); c) depository indication, with item number; d) sales indication, with price; e) format (paper copy or microfiche); f) SuDocs classification number (since it is used for shelf-arrangement by an estimated 85% of depositories and many large research libraries); g) other identifying numbers when available (LC and Dewey numbers, ISBN, federal stock number, report series number, congressional series et, LC order number, monographic series, etc.); h) cross references to issuing agencies, if not used as main entry.

As a subject search tool, the catalog should be based on authority files and contain the following information in each entry: a) LC subject headings; b) subject terms used by originating agencies which have a specialized thesaurus; c) possibly, a KWIC or augmented KWOC indexing, for greater depth; d) if only LC headings

are used in monthly issues, use additional keywords for greater depth of subjects in the annual printed cumulations and the data base (for machine searching); e) cross references; f) notes in regard to "issued also as. . . ."

### Conclusion

Through the Depository Library Council to the Public Printer, the GPO staff is listening to the library community. Some changes already are visible. Professional librarians have been hired to conduct the inspections of depository libraries. The council's guidelines for minimum standards are being used in these evaluations. GPO's cataloging of documents is being done in cooperation with a federal library network and, thus, they are becoming participants in a coordinated national plan. There is indeed hope for the future.

Open meetings of the Depository Library Council to the Public Printer are held twice a year and generally are announced in the *Federal Register*. Any interested participant may attend and take part in the discussions.

### Literature Cited

1. Knobbe, Mary Lou / In Progress A Study of GPO. *Special Libraries* 67 (no. 2):113-114 (Feb 1976).
2. Government Depository Libraries; The Present Law Governing Designated Depository Libraries. Revised Apr 1975. 94th Congress, 1st session. (Joint Committee Print) Printed for the use of the Joint Committee on Printing. Washington, D.C., U.S. Govt. Print. Off., 1975.

*Received for review Dec 22, 1975. Revised manuscript accepted for publication Feb 19, 1976.*



**Ruth S. Smith is manager, Technical Information Services Institute for Defense Analyses, Arlington, Va.**

## SLA Election Returns

SHIRLEY ECHELMAN has been elected to the office of President-Elect of the Association for 1976/77. Mary Sexton has been elected Chairman-Elect of the Chapter Cabinet. Renata Shaw has been elected Chairman-Elect of the Division Cabinet. Ellis Mount was elected to a three-year term (1976/79) as Treasurer. The two new Directors, elected for 1976/79, are Aphrodite Manoulides and Mary Lee Tsuffis.

The 1976/77 Board of Directors held its first meeting in Denver on Friday, June 11. Mark H. Baer automatically succeeded Miriam H.

Tees as President; Miriam H. Tees will serve on the Board as Past President. Lois E. Godfrey automatically succeeds to the office of Chapter Cabinet Chairman, and Judith J. Field automatically succeeds to the office of Division Cabinet Chairman.

Joseph M. Dagnese and Constance Ford will serve the third year of their three-year terms (1974/77) as Directors. Robert G. Krupp and H. Robert Malinowsky will serve the second year of their three-year terms (1975/78) as Directors.

---

## Directory Information Sought

The Committee on the Positive Action Program for Minority Groups is attempting to compile a directory of minority group special librarians, and solicits the help of the membership in identifying all minority members of Special Libraries Association, i.e., native Americans, Asian-Americans, blacks and native Spanish-speaking persons. The Committee feels that such a directory could be of great value to all special librarians, corporate personnel officers, library school placement offices, library directors, chapter placement officers, Association officers, etc., who need such a source when seeking qualified minority persons to fill job vacancies, make committee assignments, speakers, and the like.

The Committee asks that the names, and addresses if known, of minority persons in the Association be conveyed to the Committee which will then survey these members for inclusion in the directory. Please address all correspondence to:

Reginald W. Smith  
SLA Committee on the Positive  
Action Program for  
Minority Groups  
College of Medicine and  
Dentistry of New Jersey  
Library  
100 Bergen Street  
Newark, N.J. 07103

---

## Copyright Revision

The following letters (with the exception of the one dated Mar 26, 1976) are statements from the six library associations—American Association of Law Libraries (Julius J. Marke, chairman, Copyright Committee), American Library Association (Robert Wedgeworth, executive director), Association of Research Libraries (John P. McDonald, executive director), Medical Library Association (John S. Lo-Sasso, executive director), Music Library Association (Susan Sommer, chairman, Copyright Committee), Special Libraries Association (Frank E. McKenna, executive director)—to the Subcommittee on Courts, Civil

Liberties, and the Administration of Justice of the House Committee on the Judiciary in regard to Section 108(g)(2) of H.R. 2223 and S.22, The General Copyright Revision Bill. The positions taken were indicated as uniformly supported by the American library community as represented by these organizations.

The letter dated Mar 26, 1976, is from Association of American Publishers (Alexander C. Hoffman, chairman, Copyright Committee), Authors League of America (Irwin Karp, counsel), and certain independent publishers (Bella Linden, counsel, Harcourt Brace Jovanovich, Inc. and Macmillan, Inc.) to

the Subcommittee in response to the library association letter of Mar 5, 1976.

February 23, 1976

Representatives of the library community have carefully reviewed and discussed the proposed draft of a revision of Section 108 of S.22 dated 2/13/76, which was submitted to us at a meeting at the National Library of Medicine on February 16, 1976. We appreciate the initiative taken by the Subcommittee staff and the Copyright Office in preparing this proposal, as an attempt to deal with grave problems for libraries and their users raised by Section 108(g)(2) of S.22.

Our review has led us to conclude, however, that the proposal has serious flaws. In its present form the 2/13/76 draft is not acceptable; it would require fundamental revision if it is to be seen as a reasonable substitute for major portions of Section 108.

The net effect of the draft is to confirm the validity of our long-held view that it is unreasonable and impractical to require abandonment of procedures by which libraries are presently able to respond to the needs of their users, in order to avoid injury to publishers which to date remains undocumented and for a system which has yet to be realized. Therefore, we adhere to the position which we expressed in our joint testimony before this Subcommittee on May 14, 1975 and reemphasized in our statement to the Subcommittee of February 5, 1976: Section 108(g)(2) is an unjustified restriction to the legitimate rights of library users; if enacted, it would have serious detrimental effects on the public's access to library resources; and accordingly, Section 108(g)(2) should be entirely deleted from the bill.

In general, the defects of the proposed revision of Section 108 emphasize the problems and pitfalls of any attempt to impose legislative restrictions in this area without a proven case for their need and ample information to show the shape such restrictions might reasonably take. Congress has already, in Public Law 93 573, directed the National Commission on New Technological Uses of Copyrighted Works (CONTU) to study and compile data on machine reproduction of copyrighted works, including library copying practices, and to make recommendations to Congress for any needed changes in the copyright law. It is clearly not appropriate to enact new and onerous restrictions on library copying practices at a time when Congress, by establishing CONTU, has acknowledged the need for more information regarding what problems, if any, exist in this area, and has provided the mechanism (CONTU) for obtaining that in-

formation. We submit that the question of inter-library loans should be accorded treatment consistent with that provided with respect to the other area of CONTU's jurisdiction—the use of copyrighted works in computer systems—as to which S. 22 provides in Section 117 for the maintenance of the *status quo* pending CONTU's examination of the issues and report to Congress.

Turning to the details of the proposed revision of Section 108, a fundamental problem is raised by the fact that the draft, in Section 108(e) and Section 108(g),<sup>1</sup> would impose complex and confusing procedures and requirements on the vital process of inter-library loan. That process is carried out in innumerable libraries all over the country, and we question whether all those libraries can reasonably be expected to deal with these difficult and, in light of their cumulative impact, wholly excessive requirements. We are working, after all, with a system spread over the entire nation and operated by librarians, not by copyright lawyers. Statutory language which might be appropriate in regulating an industry with a high degree of concentration and centralization, advised at every turn by expert counsel, is not helpful in finding a practical solution to any problems which may be presented by library copying.

We are also deeply and fundamentally troubled by the proposal, exemplified by Section 108(e)(1), to create a Federal regulatory influence of great potential impact, acting on what is at the heart of the intellectual freedom of American libraries, their acquisition policies. The basic notion of using anticipation of user demand sufficient to warrant purchase or subscription as a criterion is a potentially promising move away from the irrelevant question of library systems. However, we hope, and believe, that Congress will refuse to empower Federal authorities, under the Copyright Law, to lay down regulations telling librarians all over the country what they should or should not be buying for their collections. The notion is repugnant to our tradition, and we are confident that the Subcommittee will reject it.

Whatever benefit might come from a carefully drafted application of reasonably anticipated user demand as a criterion in connection with inter-library loan, that benefit would in any event be destroyed by Section 108(e)(2). We can discern no public interest whatsoever in precluding arrangements among libraries by

<sup>1</sup>References hereafter, unless specifically identified as being to the existing language of S. 22, are to the language of the draft of 2/13/76.

which they are able to obtain for their users copies of excerpts from little-used publications, where demand does not warrant purchase of the publication concerned and copies cannot be obtained from the copyright owner at a comparable price.

The imposition of such a limitation would prevent practices which ought rather to be encouraged and is detrimental not only to the interest of library users, but also--although they refuse to concede it--to the interests of publishers. If two libraries each had no reasonable basis for anticipating user demand sufficient to warrant purchase or subscription by either of them standing alone, this subsection would nevertheless prevent them from agreeing that one of them, rather than neither of them, would purchase or subscribe, and that the resulting material would be available to the users of both libraries. It is precisely this sort of "concerted arrangement" which has made it possible for American libraries to develop the breadth of resources which characterizes our libraries. We would welcome CONTU's examination of such questions as:

1. What is the effect of the existence of such arrangements on subscriptions?
2. What would be the probable effects of preventing further development of such arrangements?

Section 108(e)(3) and the related provisions of Section 108(g) simply seem to us to pose serious problems of workability. We recognize that the Copyright Royalty Tribunal may indeed be able to formulate acceptable procedures, but we doubt its ability to produce a method which takes account of the varying geographic distances which affect the response time to be expected between a given "requesting library" and "supplying library" or, in its alternative, question the desirability of a method which ignores the differing abilities of libraries, varying also with the particular item sought, to meet their needs from other libraries. Moreover, under the proposal, copyright owners or their agents might fail to live up to representations or commitments they may make as to their ability and willingness to furnish copies with speed and price comparable to those provided by libraries, or certifications as to the availability of particular publications may become outdated, and libraries would still be precluded from obtaining copies for their users from other libraries. The result will be to subject library users to intolerable delays and expense while libraries wait until a panel is again convened which may consider decertification of works which have, in fact, proven to be unobtainable at reasonable price and within

a reasonable time from the owner or his agent. Thus, we are concerned by the omission of outer parameters to guide the Tribunal in making its decisions, and of self-executing sanctions against the owner or agent who fails to meet the needs which libraries are now filling and are ready to continue filling.

Finally, we wish to point out a problem arising from the structure of the proposal. Libraries have sought a specific provision on the revision bill dealing with library copying in order to provide a measure of certainty as to what practices are permitted to libraries. We therefore sought some reasonable certainty in a specific provision dealing with library copying. The existing structure of Section 108 minus (g)(2) would have as one of its advantages that it provides some of this certainty. Under the proposed draft, however, not only is a library's right subjected to a series of vague and ambiguous conditions, there is also the additional complication that the structure is such that it appears that the burden would be on the library to show that it met each of the cumulative requirements of proposed Section 108(e). In light of the imposition of statutory damages for infringement, such a structure would have a profoundly chilling effect on libraries, and it is wholly unacceptable.

Reduced to its most basic terms, the essential problem with the draft proposal is the same as that embodied in Section 108(g)(2). They both prejudice the fundamental, and as yet unanswered, questions as to whether or not there is any need to prohibit inter-library loans, and what the impact of such a prohibition will be on library users. As Senator McClellan, chairman of the Patents, Trademarks and Copyrights Subcommittee stated on February 6 during the Senate debate on S. 22, Congress "already has provided in the National Commission on New Technological Uses of Copyrighted Works the mechanism for further study of this issue." As subsequently noted by Senator Magnuson, CONTU has given top priority to these very matters. Because it is clearly premature to impose restrictions on an activity which is even now being studied by a body established by Congress for the purpose of determining whether or not restrictions are warranted, we ask that the Subcommittee act to defer any attempt to decide these issues until CONTU has made its report, and in the interim refrain from endorsing any such restrictive scheme, whether incorporated in Section 108(g)(2) or in any other formula.

This position is uniformly supported by the American library community as represented by the organizations listed below [see introductory paragraph].



March 5, 1976

The undersigned representatives [see introductory paragraph] of the library community wish to thank you for the opportunity to present our views to you directly, regarding the library photocopying issue on Monday, 23 February. We would also like to apprise you of the results of further deliberations which we have had following that meeting with you.

The fundamental issue separating librarians and copyright proprietors with respect to the revision of the 1909 copyright law is the public's right of access to materials under copyright through the nation's libraries. Copyright proprietors have alleged but have failed to document actual or potential harmful effects attributable to the development of cooperative agreements among libraries variously called "library systems, library networks, or library consortia." Librarians and other representatives of user groups not only deny these allegations based upon their knowledge of the activities in question, but also assert that publishers already have it within their power—and indeed are using that power—to set book and journal prices at levels which take into consideration institutional uses of their products. Moreover, they could set up reprint and/or back-issue services which would obviate the need for many of the interlibrary loans.

The present copyright revision bill (S.22) which the Senate has passed and is now being considered by your Subcommittee deals specifically with this issue in section 108(g)(2). If this bill were to be passed by the House of Representatives and signed into law by the president in its present form, it would be, in our opinion, the worst disaster ever to befall the users of the nation's libraries and would render inestimable damage to scholarship and research. The immediate result would be to prompt all libraries to terminate interlibrary loans where the actual item could not be lent. These would be, for the most part, copies of journal articles. In an informal survey of legal counselors to library trustees and library administrators, we have learned that they would advise their clients not to continue interlibrary loan under the terms of section 108(g)(2) as written. The complete stoppage of this flow of information from the education and research centers of the country to users of institutions in remote, less well-endowed or simply sparsely populated areas would substantially reverse twenty years of library development at the state and local level, much of which was encouraged by Congress through such Acts as the Library Services and Con-

struction Act, the Medical Library Assistance Act, and the Higher Education Act.

At this point no one is able to say what the best alternative approach to this problem may be, and for this reason we have urged Congress not to prejudice the issue. Studies currently under way, sponsored by the National Commission on Libraries and Information Science and the American Council of Learned Societies, in which librarians and copyright proprietors are participating, promise to bring considerably more information to bear upon many aspects of this problem than we have at present. Also, Congress has charged the National Commission on New Technological Uses of Copyrighted Works (CONTU) with analyzing such studies as these and other sources of pertinent information in order to advise the Congress on legislative needs in this area.

Therefore, we firmly believe that it would be in the public interest to treat this issue similarly to the treatment accorded computer uses of copyrighted material in section 117, by striking section 108(g)(2) and adding a new section 108(i), as follows:

(i) Two years from the effective date of this Act, or within six months after the submission to the President and the Congress of the final report of the National Commission on New Technological Uses of Copyrighted Works, established pursuant to Public Law 93-573, whichever date shall be earlier, the Register of Copyrights, after consulting with representatives of authors, book and periodical publishers, and other owners of copyrighted material, and with representatives of library users and librarians, shall submit to the Congress a report setting forth the extent to which this section has achieved the *intended statutory balancing of the rights of copyright proprietors and the needs of users*. The report should also detail any problems that may have arisen, and present such legislative or other recommendations as are warranted.

This would preserve, until such time as Congress has been able to review these materials and reach a more permanent legislative solution, the current well-established and indispensable mechanisms for providing public access to copyrighted materials, not within the present capabilities of copyright proprietors.

If political considerations make it impossible to delete section 108(g)(2) entirely, we offer the attached revision to section 108 for your consideration. In addition, we call to your attention that other prominent groups and individuals, recognizing the serious negative implications of the present section 108 (g)(2),

have suggested modifications to this provision of S.22—specifically, the National Commission on Libraries and Information Science, which is advisory to the President and to Congress (letter with attachment dated February 27, 1976 from Chairman Frederick Burkhardt to the Subcommittee Chairman, Mr. Kastenmeier); and the Department of Health, Education, and Welfare (letter with attachment dated September 19, 1975 from HEW Secretary David Mathews to House Judiciary Committee Chairman, Mr. Rodino).

This position is uniformly supported by the American library community as represented by the organizations listed below [see introductory paragraph].

#### **Proposed Revision to Section 108 of S.22**

##### *Revised subsection 108(g)(2)*

(g)(2) by agreement with another library or archives and in order to meet ordinary study, education, instructional, information, and research needs of its users, causes such library or archives to provide to it copies or phonorecords of material from a particular currently available work described in sub-section (d) in such aggregate quantity in any calendar year as, consistent with sound acquisition policies of such acquiring library or archives, would warrant its purchase of or subscription to such work.

##### *Proposed new subsection 108(i)*

(i) Five years from the effective date of this Act, and at five-year intervals thereafter, the Register of Copyrights, after consulting with representatives of authors, book and periodical publishers, and other owners of copyrighted materials, and with representatives of library users and librarians, shall submit to the Congress a report setting forth the extent to which this section has achieved the intended statutory balancing of the rights of creators, and the needs of users. The report should also describe any problems that may have arisen, and present legislative or other recommendations, if warranted.

April 5, 1976

We have considered the March 26 statement submitted by the copyright proprietors and find that it exacerbates the library photocopying controversy by introducing further obstacles to the public's access to information.

We continue to believe that the inclusion of subsection 108(g)(2) as presently written is not acceptable. In spite of assertions by copyright proprietors, we are persuaded that current li-

brary practices involving photocopying and deemed essential to interlibrary loan activity could not be continued without risk of costly law suits. Accordingly, passage of the bill in its present form will lead to drastic curtailment of interlibrary loan services essential to the nation's research and educational interests.

The deletion of subsection 108(g)(2) in its entirety would assure the preservation of current practices without interruption. These practices have never been shown to be detrimental to the interests of copyright proprietors. Deletion of 108(g)(2) remains our preference.

The substitute language for 108(g)(2) which we submitted on March 5 was proposed in lieu of deleting 108(g)(2). In spite of the objections raised to this language in the March 26 statement from the copyright proprietors, we are convinced that our language equitably recognizes the interests of both copyright proprietors and library users.

The proposed revision of 108(g)(2) submitted by the copyright proprietors in their March 26 statement is unacceptable for the following reasons:

- a) It introduces new and broader restrictions which are in direct conflict with 108(d) by confusing intra-library (in-house) copying with interlibrary loan activity.
- b) This proposed language sets up vague and ambiguous hypothetical situations in such a manner as to make it impossible to advise libraries of their rights if this language were to be adopted.

We believe that representatives of the library community have proposed alternatives to 108(g)(2) which provide the basis for a reasonable and equitable compromise. In doing so we have sought to balance the needs of library users with the interests of copyright proprietors. We hope that the subcommittee, in their further deliberations, will carefully weigh the alternatives in our March 5 statement.

---

From: Association of American Publishers, Authors League of America, and Certain Independent Publishers  
To: Subcommittee on Courts, Civil Liberties and the Administration of Justice; Committee on the Judiciary  
Re: *Subsection 108(g)(2); H.R. 2223 & S. 22.*

Dear Chairman Kastenmeier and  
Members of the Subcommittee:

On March 5th, six library associations sent you a letter requesting that *Subsection 108(g)(2)* be deleted from the Copyright Revision Bill or that it be replaced by a drastically different provision. We urge the Subcommittee to reject both library proposals, for the reasons discussed below; and we submit recommendations for dealing with the dispute over "(g)(2)."

#### SUMMARY OF OUR POSITION.

*Subsection 108(d)* grants libraries an exemption to reproduce and distribute copies of copyrighted journal articles and contributions under conditions established in *Subsection 108(g)(1) and (2)*. This copying constitutes the bulk of library reproduction. The librarians demand deletion of one condition—*clause(g)(2)*, which precludes that degree of reproduction and distribution which could substitute library-made copies for subscriptions or sales of copies or reprints. Under *(g)(2)*, the exemption of *108(d)* does not extend to "systematic reproduction or distribution" of copies of material from journals, collective works or small parts of other works.

*We respectfully submit:*

1. *Subsection (g)(2)*, with the purpose and meaning explained in the Senate Report (attached), should be retained in the Revision Bill. It is fair, reasonable, and essential to protect authors and publishers in this age of "single-copy" reproduction.

Your Subcommittee's Report could provide further reassurance to librarians by making clear: (i) that *Subsection 108(g)(2)* does not prohibit all reproduction of copies of journal articles by one library for users of other libraries; (ii) that *(g)(2)* only precludes "systematic", i.e., methodical reproduction of copies by a library when the purpose or effect may be to substitute them for subscriptions or sales of copies of the journal; and (iii) that the new exemption from statutory damages provided in *Section 504(c)(2)* will protect librarians from litigation, and leave major questions of interpretation under *Section 108* to declaratory judgment actions between librarians and copyright owners associations.

2. If the Subcommittee believes that *Subsection(g)(2)* should be revised, we propose alternative language which is set forth at page 4 [Section 2 below].

3. The Subcommittee should not accept the librarians' demand for deletion of *Subsection 108(g)(2)*. If the Subcommittee wishes to preserve the "status quo" under the present 1909 Act, then *all of Section 108* should be deleted since it grants the librarians new exemptions and other benefits not contained in the present Act.

4. The Subcommittee should not accept the librarians' alternative proposal for a new *Subsection 108(g)(2)*. Their clause would permit all *intra-library* reproduction whose purpose or effect was to substitute library-made copies for subscriptions or sales; it would permit much *inter-library* reproduction which had that purpose or effect; and it would subject copyright owners to a test individual libraries would formulate and change, to suit their interests.

#### 1. SUBSECTION (g)(2) SHOULD NOT BE DELETED:

(i) *Its Meaning and Purpose.* Librarians recognize that unlimited single-copy reproduction of articles, short stories and other contributions would damage copyright owners. They accept the other conditions of *Subsection 108(g)* which limit reproduction under *Subsection 108(d)* to isolated, and unrelated reproductions or distribution of the same material, and provide that the exemption does not extend to multiple copies whether made at one time or over a period of time.\*

The librarians' proposed alternative for *Subsection (g)(2)* also recognizes that methodical reproduction of copies of material from a journal or collective work may substitute the library-produced copies for subscriptions, or sales. However, their proposed alternative to *(g)(2)* would not protect copyright owners against much of this methodical reproduction and distribution.\*\*

The librarians oppose *Subsection (g)(2)*, charging it would prevent "interlibrary loans where the actual item could not be lent."\*\*\* This claim is wrong. *Subsection 108(d)* explicitly permits libraries to reproduce copies of articles and contributions and distribute them to other libraries to fulfill their users' requests. This interlibrary reproduction of copies is what the librarians' letter characterizes as "interli-

\*This is an increasingly important method of producing reading materials for college courses, a primary market for many authors who earn a major share of their income from reprints of their articles, short stories and poetry in anthologies, collections and other forms which are sold for these uses.

\*\*For discussion of this point see pages 5 & 6 [Section 4 below].

\*\*\*The supplying library is not making a loan: it is producing a copy. And the copy becomes the user's property (cf. 108(d)(1)). The Revision Bill does not prevent libraries from lending journals or books-- the "actual item" --to other libraries or users.

brary loans." *Subsection 108(g)(2)* does not rescind this privilege; nor does it prohibit this kind of normal interlibrary reproduction among libraries in a system or consortium.

As the Senate Report makes plain, *Section 108(g)(2)* precludes only such "systematic" or methodical reproduction which may substitute the library-made copies for subscriptions and sales to the copyright owners' detriment.

The Report says that reproduction and distribution of copies from a particular journal reaches the level of "systematic" when done under formal or informal arrangements whose purpose or effect is to have the reproducing library serve as a source of material from that journal for its users, or for other libraries. "Systematic" means only that kind of methodical reproduction; it does not mean *all* reproduction within a library system. The crucial question, the Report emphasizes, is whether such methodical reproduction and distribution may substitute the library-made copies for subscriptions or sales of that journal or collective work, or of reprints of its articles or contributions. The Senate Report gives some examples of such methodical library reproduction of copies of a journal's articles, done by a library for its own users ("in-house"), or by one library to provide to other libraries for fulfillment of their users' requests ("interlibrary").

Thus, the Report cites a research library with a number of users who need a particular journal from time to time. When such a library fulfills their requests for the journal by *lending* each user the journal issue itself, it would of necessity purchase multiple subscriptions, with the number depending on the volume of requests. However, as the Report notes, if that library purchases only one or two subscriptions and methodically reproduces and distributes copies of material to the same number of users, then it substitutes such "systematic" reproduction of copies for the purchase of several subscriptions. Such reproduction makes the contents available to many users "*in the same manner which otherwise would have required multiple subscriptions.*" This is one type of "systematic reproduction"—of the "in-house" variety—precluded by *Subsection 108 (g)(2)*. However, much of the reproduction of copies which libraries do for their own users is not of this "systematic" nature and would not be precluded by *Subsection 108(g)(2)*.

The "systematic" reproduction precluded by *Subsection 108(g)(2)* also may occur in either phase of interlibrary copying. Libraries whose own users have need of a particular journal may discontinue or refrain from purchasing subscriptions if a "supplying" library will methodically reproduce copies for them to fulfill

these requests. Whether done under formal or informal arrangements, this systematic reproduction and distribution has the purpose or effect of substituting library-made copies for subscriptions or purchases by the requesting library or its users, and is precluded by *(g)(2)*. Furthermore, a supplying library may use reproduction of copies of a particular journal to fulfill isolated requests from many other libraries which, in the aggregate, are so numerous that it would have required multiple subscriptions to that journal by the supplying library to fulfill those requests by true interlibrary loans of the subscription copies themselves. Such systematic reproduction would also be precluded by *Subsection (g)(2)*.

On the other hand, much interlibrary reproduction and distribution of copies of journal articles is not of the systematic kind and would not be precluded by *Subsection 108(g)(2)*. In many instances, the requesting library seeks a copy of an article from a journal for which it has minimal demand from its users; and the "supplying" library does not produce many copies of articles from that journal in a year, so that its reproduction and distribution of copies does not replace subscriptions or purchases of copies.

(ii) *Subsection 108(g)(2) Should be Retained.* *Subsection (g)(2)* is essential to protect copyright owners against "systematic" reproduction and distribution of copies described at p. 70 of the Senate Report [Senate Report No. 94-473]. We have entered the age of "one-at-a-time" single-copy reproduction. It is an established medium for distributing journal articles to many users in the very audience for which such journals are published. Without the protection of *(g)(2)*, "systematic" reproduction of journal articles by libraries will expand enormously.

*Sec. (g)(2)* permits authorized reproduction agencies to expand their role in filling the needs of libraries for copies of articles, in situations where *(g)(2)* applies. Elimination of *(g)(2)* could well see the destruction of these agencies by the competition of subsidized, non-profit libraries which would be free to engage in the "systematic" reproduction which *(g)(2)* as written and amplified by the Senate Report would otherwise preclude.

(iii) The amendment of *Sec. 504*, eliminating statutory damages in certain circumstances relieves librarians and archivists of the threat of infringement suits. Litigation, if any, in this area probably would take the form of declaratory judgment actions, between library and publisher/author associations, to determine whether *(g)(2)* applies to particular types of reproduction.

## 2. OUR PROPOSED REVISION OF SUBSECTION 108(g)(2).

If the Subcommittee believes that revision of *clause (g)(2)* is required, we propose the following language to clarify its purpose and effect:

"Sec. 108 . . .

(g) The rights of reproduction and distribution under this section extend to . . . , but do not extend to cases where the library or archives or its employee:

(1) (same)

(2) engages in the reproduction or distribution of single or multiple copies or phonorecords of material described in subsection (d) for its own users or for users of other libraries where the purpose or effect of such reproduction or distribution is that the library or archives making the copies serves as the source of such materials so that the copies or phonorecords which it supplies may substitute for subscriptions to or for the purchase of such material or of authorized copies therefrom, which the users or other libraries might have subscribed to or purchased for themselves."

## 3. THE LIBRARIANS' FIRST PROPOSAL—ALLEGED "SEC. 117" TREATMENT:

In their March 5th letter, the librarians suggest that the Revision Bill treat the issue of *Subsec. (g)(2)* in the "same manner" as computer uses are dealt with in *Sec. 117*. But they then ask the Subcommittee to do just the opposite. *Sec. 117* keeps the rights of copyright owners and users in *status quo* with respect to computers, by providing that their rights shall be the same as those under the present Copyright Act and common law.

The librarians seek the opposite. They ask preferential treatment. They want the Bill to retain all of the provisions of *Sec. 108* except *(g)(2)*. That is not providing "status quo" treatment, since Subsections (b), (c), (d), and (e) each grants librarians a new exemption for reproduction of copies which is *not* contained in the present Copyright Act or dependent on the doctrine of fair use. Other provisions also give libraries new benefits. Yet the librarians ask the Subcommittee to keep all of these provisions which aggrandize them, and delete *Subsec. (g)(2)* which provides a modicum of protection for copyright owners. It should be stressed that *Section 108's* exemptions represent a series of compromises and concessions by authors and publishers; the original bill passed by the House in 1967 was far less generous to librarians.

If the *Sec. 117* solution is to be applied by the Subcommittee, then *all of Sec. 108* should be deleted so that the rights of librarians and copyright owners in respect of library "photocopying" would be maintained as they are under the present 1909 statute, and the doctrine of fair use as it has been and may be interpreted by the Courts under the 1909 Act.

The new Section (i) proposed by librarians will not rectify the injustice of their proposal to tilt *Sec. 108* entirely in their favor. Requiring a Report from the Register of Copyrights will not alter the effect of giving the librarians all the provisions of *Sec. 108* which benefit them while excising *(g)(2)*. Moreover, (i) could be added while retaining the present *Subsec. (g)(2)*.

## 4. THE LIBRARIANS' SECOND PROPOSAL—AN ALTERNATIVE *(g)(2)*:

The librarians' March 5, 1976 letter in effect concedes that some of the reproduction precluded under *Subsection (g)(2)* would be injurious to copyright owners. The librarians propose, as a second alternative, a new *Subsection 108 (g)(2)*.

We urge the Subcommittee to reject this proposal for these reasons:

(i) the librarians' clause would not protect copyright owners against systematic "in-house" (intra-library) reproduction that displaced subscriptions or sales.

(ii) the librarians' clause provides inadequate protection against "systematic" interlibrary reproduction and distribution. At the outset, it places authors and publishers at the mercy of a meaningless and subjective test which each requesting library could formulate and change to suit its own purposes—i.e., its own "sound acquisitions policies." If a library's "acquisitions policies" permitted it to discontinue or refrain from purchasing subscriptions to a journal, it could order copies from a supplying library in quantities which would substitute for subscriptions or purchase of copies of that journal.

(iii) the librarians' proposal denies copyright owners protection against systematic interlibrary reproduction unless it is done under an "agreement." However, in many instances supplying libraries will systematically reproduce and distribute copies without any agreement between them and requesting libraries who use the copies to substitute for purchases or subscriptions to the journals. As the Senate Report emphasizes such systematic reproduction should be precluded whether done under formal or informal arrangements.

In some instances the informal arrangement for extensive systematic reproduction and distribution may consist solely of a supplying library's announcement that it will systematically provide copies.

(iv) the librarians' proposal would allow a supplying library to systematically reproduce large numbers of copies of articles from a particular journal to fill requests for a few copies each from many requesting libraries. *Subsection 108(g)(2)* should not permit a large supplying library to substitute systematic reproduction of copies for the multiple subscriptions that otherwise would be needed by the supplying library under these circumstances.

(v) the librarians' proposal expands the purposes for which reproduction and distribution of copies under *Subsec. 108(d)* may be made. These purposes should consist, as under the present section, only of "private study, scholarship or research."

(vi) the librarians' proposal denies protection to authors and publishers of articles which are not of a scientific or technical nature, as well as short stories and poetry, by permitting systematic reproduction of contributions to a journal or collective work which is not "currently available." Many such contributions appear in magazines and periodicals which are no longer currently available. But such works are reprinted in anthologies and collections over a period of years, and provide authors with a major part of their income. Systematic reproduction of such contributions should not be permitted.

We are providing copies of this letter to the six library associations. On March 16th we had sent them a Mailgram setting forth the text of our proposed revision of *Subsection (g)(2)* and stating our opposition to their proposals.

---

## Directory of SLA Student Groups and Advisors

Recognition of the following SLA Student Groups has been approved  
by Special Libraries Association.

### NORTHEAST

Professor A. M. Abdul Huq  
St. John's University  
Department of Library Science  
Jamaica, NY 11432

M. "Jims" Murphy and  
Professor James M. Matarazzo  
Simmons College  
School of Library Science  
Boston, MA 02115

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

Professor Joseph N. Whitten  
Long Island University  
Palmer Graduate Library School  
Greenvale, NY 11548

Professor John Larsen  
Columbia University  
School of Library Service  
New York, NY 10027

Professor Nathalie Frank  
Pratt Institute  
Graduate School of Library and  
Information Science  
Brooklyn, NY 11205

Professor Henry Voos  
Rutgers University  
Graduate School of Library Service  
New Brunswick, NJ 08903

Professor Charles L. Bernier  
State University of New York—Buffalo  
School of Library and Information Studies  
Buffalo, NY 14214

### SOUTHEAST

Professor Marion Taylor  
Emory University  
Division of Librarianship  
Atlanta, GA 30322

Professor Charles K. Bauer  
Atlanta University  
School of Library Science  
Atlanta, GA 30314

Professor Katherine Cveljo  
University of Kentucky  
College of Library Science  
Lexington, KY 40506

Professor Robert K. Dikeman  
Louisiana State University  
Graduate School of Library Science  
Baton Rouge, LA 70803

Professor Bernie S. Schlessinger  
University of South Carolina  
College of Librarianship  
Columbia, SC 29208

#### *MIDWEST*

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

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

Professor Mildred Hedrick  
Western Michigan University  
School of Librarianship  
Kalamazoo, MI 49001

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

Professor Ronald L. Fingerson  
Emporia Kansas State College  
Department of Librarianship  
Emporia, KN 66801

Dean Edward P. Miller  
University of Missouri—Columbia  
School of Library and Information Science  
Columbia, MO 65201

Professor Richard D. Walker  
University of Wisconsin—Madison  
Library School  
Madison, WI 53706

#### *SOUTHWEST*

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

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

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

#### *WEST*

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

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

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

Margaret Setliff  
University of Hawaii  
Graduate School of Library Studies  
Honolulu, HI 96822

Professor Thomas Whitby  
University of Denver  
Graduate School of Librarianship  
Denver, CO 80210

#### *CANADA*

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

**James M. Matarazzo**  
Student Relations Officer

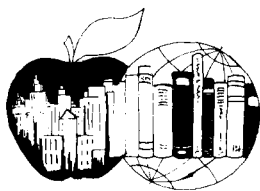
---

## Addendum

Pauline M. Vaillancourt's article, "The Continuing Library Education Network and Exchange (CLENE): Aid to Continuing Education for Special Librarians," appeared in April *Special Libraries* [67(no.4):208–216]. Since the publication, many inquiries concerning

CLENE have been received by Dr. Vaillancourt's office. However, additional information may be more easily gained by writing to:

Membership  
The Continuing Library Education  
Network and Exchange  
620 Michigan Avenue, N.E.  
Washington, D.C. 20064



## **Worldwide Information Sources**

### **CALL FOR PAPERS 1977** **68th Annual Conference** **Special Libraries Association**

New York, New York  
New York Hilton  
June 5-9, 1977

The 1977 Conference theme is "Worldwide Information Sources." You are invited to share in the expansion of knowledge within the information professions by submitting a paper on your research or personal experience for presentation at the Conference.

Contributed Papers are solicited from SLA members, library school faculty and students, and all others interested in making an informative contribution to the Conference.

Topics for presentation should be of professional interest and need not be limited to the Conference theme. Papers must be based on original research or personal experience and not have been previously presented to any national or international group or submitted for publication.

Two types of papers will be considered for presentation:

- 1) Brief Papers: about 15 minutes of oral presentation.
- 2) Extended Papers: about 30 minutes of oral presentation.

Papers may be presented in the usual oral presentation or possibly by utilizing the poster session technique. Diagrams and data for visual presentation should be legible. Use large letters, heavy lines, and limited data on each illustration. Lettering should be readable from 150 feet. Projection equipment must be specified and requested when the abstract is submitted. An overhead projector is suggested.

Papers will be accepted only if the author expects to be present, and only if he or she has submitted an abstract first according to the following procedure.

An abstract of 100 words maximum must be submitted using the official abstract form on the reverse side of this page, or a copy of it. Send the form postmarked no later than Sep 10, 1976 to:

Muriel Regan  
Rockefeller Foundation Library  
1133 Ave. of the Americas  
New York, N.Y. 10036

Your abstract should be informative and carefully prepared so as to 1) set forth the purpose of the paper; 2) state the research methods used if applicable; 3) state the important results obtained; 4) draw a conclusion. Please use significant words descriptive of the content and avoid generalities.

Abstracts will be reviewed by the Conference Contributed Papers Committee to determine their interest to Conference attendees. Notification of acceptance will be given no later than Nov 12, 1976. Full text of all papers accepted must be received by Jan 7, 1977. All papers submitted will be considered for first publication in *Special Libraries* and are the property of Special Libraries Association. Abstracts not accepted as Contributed Papers will be referred to Division Program Chairmen if authors so wish.



## 68th Annual SLA Conference

Abstract of Paper for Presentation at New York, June 5-9, 1977.

Abstracts of papers should be mailed no later than Sep 10, 1976.

Mail this abstract to:

Muriel Regan  
Rockefeller Foundation Library  
1133 Ave. of the Americas  
New York, N.Y. 10036

Title of Paper \_\_\_\_\_

Expected length of paper (number of words) \_\_\_\_\_

Institution or company where work was done \_\_\_\_\_  
\_\_\_\_\_

Authors(s) (underscore name of person presenting paper) \_\_\_\_\_  
\_\_\_\_\_

Affiliation of author(s) (company or institution) \_\_\_\_\_  
\_\_\_\_\_

Mailing address \_\_\_\_\_

\_\_\_\_\_ Telephone \_\_\_\_\_

Choice of Divisions (if you wish abstract submitted for their program use):

1) \_\_\_\_\_ 2) \_\_\_\_\_

Presentation will be (check one) \_\_\_\_\_ Oral delivery. \_\_\_\_\_ Poster Session format.

Audiovisual or other equipment needed for presentation \_\_\_\_\_  
\_\_\_\_\_

Abstract (100 words maximum):

**Mary Louise Alexander**, retired, former director, Ferguson Library, Stamford, Conn. . . . died in early February 1976. She was a member of the group founded in 1923 which became the Advertising & Marketing Division. She had served two terms as President of SLA beginning in 1932. In 1966 Ms. Alexander was elected to the Hall of Fame.

**Elizabeth R. Bates**, engineering librarian, Stamford University . . . died Sep 30. She served as the Engineering Division chairman for 1974/1975. She had been a member of SLA since 1963.

**Helen Belknap**, chief librarian, Printed Book and Periodical Collection, Henry Francis du Pont Winterthur Museum . . . died Dec 11. She had been a member of SLA since 1954.

**John Cedrins**, assistant director, American Dental Association Bureau of Library Services, Chicago . . . died Mar 11, 1976. He joined SLA in 1961.

**Anna Mijnlieff**, a librarian in the business information department, Cleveland Public Library . . . died Dec 14. She had been a member of SLA since 1960.



**Philip Smythe Ogilvie**

Philip Smythe Ogilvie, North Carolina State Librarian, died Jan 24, 1976.

Mr. Ogilvie was born in Savannah, Ga., and spent most of his life in library service in the South. He was the assistant director of the Tulsa City-County Library System in Tulsa, Okla., prior to accepting the position of State Librarian of the North Carolina State Library in 1965.

Philip Ogilvie received a bachelor's degree from St. Mary's Seminary, Baltimore, Md.; a BS in Library Science from Catholic University of America, Washington, D.C.; and did further graduate work at the University of North Carolina at Chapel Hill; North Carolina State University, Raleigh; and at Loyola University, New Orleans, La.

A member of Special Libraries Association since 1966, he was a past president of the North Carolina Chapter.

## AUDIT REPORT JAN. 1, 1975—DEC. 31, 1975

### BOARD OF DIRECTORS SPECIAL LIBRARIES ASSOCIATION, INC.

We have examined the statement of assets, liabilities and fund balances of Special Libraries Association, Inc. at December 31, 1975 and the related statement of income, expenses and fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of Special Libraries Association, Inc. at December 31, 1975 and its income, expenses and changes in fund balances for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

**J. K. LASSER & COMPANY**  
New York, New York  
March 18, 1976

(Notes to Financial Statements on page 342.)

**SPECIAL LIBRARIES ASSOCIATION, INC.**  
**STATEMENT OF ASSETS, LIABILITIES AND FUND BALANCES**  
**DECEMBER 31, 1975**

|  | <u>TOTAL</u>     | <u>General<br/>Fund</u> | <u>Nonserial<br/>Publications<br/>Fund</u> | <u>Scholarship<br/>Fund</u> | <u>Research<br/>Grants<br/>In-Aid Fund</u> |
|--|------------------|-------------------------|--|-----------------------------|--|
| <b>ASSETS</b>  |                  |                         |  |                             |  |
| Cash (Including \$196,901 in savings accounts<br>and \$100,000 certificate of deposit)   | \$322,997        | \$270,462               | \$ 26,274                                  | \$12,279                    | \$13,982                                   |
| Marketable securities—At cost (Approximate<br>quoted market value \$143,786)   | 133,657          | 82,161                  |  | 51,496                      |  |
| Accounts receivable—Net of provision for doubtful<br>accounts of \$1,000 in General Fund and \$200 in<br>Nonserial Publications Fund | 14,378           | 8,163                   | 5,640                                      | 575                         |  |
| Interfund receivable (payable)—Net   |                  | 1,352                   | ( 1,654)                                   | 502                         | ( 200)                                     |
| Inventory of nonserial publications and insignia<br>(Note 1)   | 80,980           |                         | 80,498                                     | 482                         |  |
| Prepaid expenses and deposits  | 23,408           | 23,283                  | 125  |                             |  |
| Furniture and fixtures—At cost—Net of<br>accumulated depreciation of \$13,588 (Note 1)   | 2,678            | 2,678                   |  |                             |  |
|  | <u>\$578,098</u> | <u>\$388,099</u>        | <u>\$110,883</u>                           | <u>\$65,334</u>             | <u>\$13,782</u>                            |
| <b>LIABILITIES</b>   |                  |                         |  |                             |  |
| Subscriptions, dues, fees and contributions<br>received in advance (Note 1)  | \$271,797        | \$271,064               |  | \$ 733                      |  |
| Notes payable  | 1,500            |                         | \$ 1,500                                   |                             |  |
| Accounts payable—Trade   | 16,160           | 16,160                  |  |                             |  |
| Withheld taxes and accrued expenses payable  | 2,518            | 2,518                   |  |                             |  |
| Income taxes payable (Note 1)  | 4,200            | 4,200                   |  |                             |  |
|  | <u>296,175</u>   | <u>293,942</u>          | <u>1,500</u>                               | <u>733</u>                  |  |
| <b>COMMITMENT</b> (Note 2)   |                  |                         |  |                             |  |
| <b>FUND BALANCES</b>   | <u>281,923</u>   | <u>94,157</u>           | <u>109,383</u>                             | <u>64,601</u>               | <u>\$13,782</u>                            |
|  | <u>\$578,098</u> | <u>\$388,099</u>        | <u>\$110,883</u>                           | <u>\$65,334</u>             | <u>\$13,782</u>                            |

See accompanying notes to the financial statements.

**SPECIAL LIBRARIES ASSOCIATION, INC.**  
**STATEMENT OF INCOME, EXPENSES AND FUND BALANCES**  
**YEAR ENDED DECEMBER 31, 1975**

JULY 1976

|  | <u>TOTAL</u>     | <u>General<br/>Fund</u> | <u>Nonserial<br/>Publications<br/>Fund</u> | <u>Scholarship<br/>Fund</u> | <u>Research<br/>Grants<br/>In-Aid Fund</u> |
|--|------------------|-------------------------|--|-----------------------------|--|
| <b>INCOME</b>  |                  |                         |  |                             |  |
| Dues and fees  | \$271,743        | \$271,743               |  |                             |  |
| Subscriptions and advertising  | 146,216          | 146,216                 |  |                             |  |
| Net receipts from conference, less allocation below                              | 72,492           | 72,140                  |  | \$ 352                      |  |
| Net receipts from education program  | 5,918            | 5,918                   |  |                             |  |
| Net receipts from mailing list service program                                   | 5,575            | 5,575                   |  |                             |  |
| Interest, dividends and losses on sales of investments                           | 20,074           | 14,732                  | \$ 1,274                                   | 3,361                       | \$ 707                                     |
| Sale of nonserial publications   | 53,433           |                         | 53,433                                     |                             |  |
| Gifts  | 18,109           | 2,021                   |  | 15,363                      | 725  |
| Miscellaneous  | 2,622            | 2,456                   |  | 166                         |  |
| Total income   | <u>596,182</u>   | <u>520,801</u>          | <u>54,707</u>                              | <u>19,242</u>               | <u>1,432</u>                               |
| <b>COSTS AND EXPENSES</b>  |                  |                         |  |                             |  |
| Allotment of funds to subunits   | 53,446           | 53,446                  |  |                             |  |
| Salaries, wages and benefits   | 184,085          | 183,380                 |  | 705                         |  |
| Office services and occupancy costs  | 98,698           | 98,698                  |  |                             |  |
| Professional fees and services   | 14,649           | 14,649                  |  |                             |  |
| Travel and entertainment   | 18,308           | 18,308                  |  |                             |  |
| Member services and promotion  | 23,184           | 23,184                  |  |                             |  |
| Systems 3 conversion cost  | 7,239            | 7,239                   |  |                             |  |
| Cost of periodical publications sold, including allocation below                 | 194,367          | 194,367                 |  |                             |  |
| Scholarships   | 10,000           |                         |  | 10,000                      |  |
| Cost of nonserial publications sold  | 20,504           |                         | 20,504                                     |                             |  |
| Miscellaneous  | 1,197            | 300                     |  | 697                         | 200  |
| Depreciation   | 1,835            | 1,835                   |  |                             |  |
| Allocation of above expenses to—   |                  |                         |  |                             |  |
| Cost of periodical publications  | ( 35,199)        | ( 35,199)               |  |                             |  |
| Conference   | ( 17,797)        | ( 17,797)               |  |                             |  |
| Other funds and programs   | ( 7,010)         | ( 15,983)               | 8,609                                      | 364                         |  |
| Total costs and expenses   | <u>567,506</u>   | <u>526,427</u>          | <u>29,113</u>                              | <u>11,766</u>               | <u>200</u>                                 |
| <b>EXCESS OF INCOME OVER EXPENSES (EXPENSES OVER INCOME) BEFORE INCOME TAXES</b> |                  |                         |  |                             |  |
|  | 28,676           | ( 5,626)                | 25,594                                     | 7,476                       | 1,232                                      |
| Provision for income taxes   | 4,200            | 4,200                   |  |                             |  |
| <b>EXCESS OF INCOME OVER EXPENSES (EXPENSES OVER INCOME)</b>                     |                  |                         |  |                             |  |
|  | 24,476           | ( 9,826)                | 25,594                                     | 7,476                       | 1,232                                      |
| <b>FUND BALANCES—BEGINNING OF YEAR</b>   |                  |                         |  |                             |  |
|  | 257,447          | 103,983                 | 83,789                                     | 57,125                      | 12,550                                     |
| <b>FUND BALANCES—END OF YEAR</b>   |                  |                         |  |                             |  |
|  | <u>\$281,923</u> | <u>\$ 94,157</u>        | <u>\$109,383</u>                           | <u>\$64,601</u>             | <u>\$13,782</u>                            |

See accompanying notes to the financial statements.

## SPECIAL LIBRARIES ASSOCIATION, INC.

### Notes to the Financial Statements

#### 1. Summary of Significant Accounting Policies

The accounting policies that affect the significant elements of the Association's financial statements are summarized below:

**OPERATIONS:** The Association encourages and promotes the utilization of knowledge through the collection, organization and dissemination of information. It is an association of individuals and organizations with educational, scientific and technical interests in library and information science and technology.

**INVENTORY:** Inventory of nonserial publications and insignia is stated at the lower of average cost or market, which does not exceed net realizable value.

**FURNITURE AND FIXTURES:** Depreciation of furniture and fixtures is provided on the straight-line basis at various rates calculated to extinguish the book values of the respective assets over their estimated useful lives.

**SUBSCRIPTIONS, DUES AND FEES:** Membership in the Association is on either a year ending December 31, or June 30. Subscriptions to periodicals published by the Association are based on a calendar year. Dues, fees and subscriptions are credited to income in the year to which the membership or subscription relates.

**PENSIONS:** The Association has a contributory group annuity retirement program with an insurance company covering substantially all qualified employees. There is no unfunded past service cost to be paid by the Association as of December 31, 1975.

**INCOME TAXES:** The provision for income taxes is based on unrelated business income, which consists of net advertising income and net mailing list service income.

#### 2. Commitment

The Association occupies offices under a lease which expires in 1977. The lease provides for minimum annual rentals of \$21,000, plus certain taxes and maintenance costs.

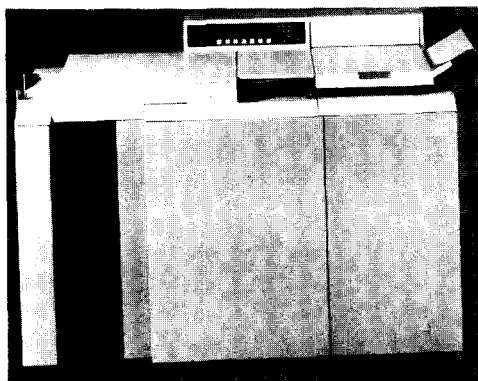
## Include Your Library

The 30th edition of the *American Library Directory*, to be published in the fall of 1976, is now in preparation by the Jaques Cattell Press of Tempe, Arizona, a unit of the R. R. Bowker Company. Questionnaires have been mailed to all the U.S. and Canadian public, academic & special libraries listed in the previous edition. If your library has not received a questionnaire, please send your request (indicating type of library) to: The Editor, *American Library Directory*, Jaques Cattell Press, P.O. Box 25001, Tempe, AZ 85282.

## HAVE YOU SEEN?



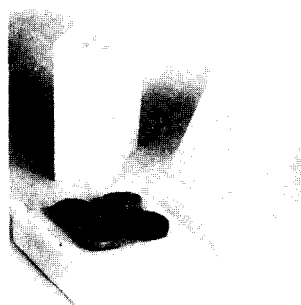
H. Wilson Corporation has a line of **metal book trucks** with colored end panels. Another series in walnut wood grain is also available. The trucks range from two to six shelves. They are constructed of heavy-gauge, welded steel. The baked mar-resistant enamel finish is in brown with gold, blue, or orange end panels. The wooden models are built of 3/4-inch laminated wood. The trucks come with two or three flat shelves or four or six sloping shelves with center dividers. Contact: Book Trucks, H. Wilson Corp., 555 West Taft Drive, South Holland, Ill. 60473.



IBM Series III **Copier/Duplicator** is compact and versatile. It will produce copies of line documents, solids, photographs, low-contrast originals, drawings, and bound volumes at the rate of 75 per minute. A variety of cut sheet paper stock can be used ranging from 16 lb. to 24 lb. The machines, in two models with different features, can be leased, rented, or purchased. Contact: International Business Machines Corporation, Office Products Division, Parson's Pond Drive, Franklin Lakes, N.J. 07417.



**Paperflo** is a series of trays for sorting and displaying paperwork of various sizes. They can be mounted on walls, installed in files, or used with a free-standing support on desk tops. Contact: J. A. Andrews, Steelcase, Inc., Grand Rapids, Mich. 49501.



**Acid-free document storage** is achieved permanently with corrugated plastic cases. The cases, which are durable and impervious to moisture, come in legal and letter sizes. They are packaged flat for economical shipping and storage. Their lock-fold design uses no metal or glue. Labels are included. Write: The Highsmith Company, Inc., Box 25DC, Fort Atkinson, Wis. 53538.

# HAVE YOU HEARD?

## Report Available

The Annual Report of the Librarians' Technical Committee of the Metropolitan Washington Council of Governments is on sale for \$1.50. The report is entitled, "Information through Cooperative Action." It can be ordered from the Metropolitan Washington COG, Information Center, 1225 Connecticut Avenue, N.W., Washington, D.C. 20036.

## Immediate Reply Requested

To further its efforts toward developing a national consensus on methods of collecting and reporting reference/information service activities, the ALA/LAD/LOMS Committee on Reference Statistics requests that libraries of every type and size send samples of their forms used for recording and summarizing reference statistics. Instructions and definitions required for their use, as well as comments as to the uses made of collected statistics and question forms will be appreciated. Please send to Marcella Ciucki, Chief of Reference Services, Lake County Public Library, 1919 West Lincoln Highway, Merrillville, Indiana 46410.

## Ordering Made Easy

Brodart, Inc., has announced the international standard book number may now be used when placing orders with them.

## New Metalworking Bulletin

*Metalworking News Notes* contain notes on technical articles published monthly, each issue is divided into four sections: 1) grinding, 2) metal cutting, 3) metal forming and forging, and 4) tool materials. Subscriptions may be obtained from Seabright Texts Ltd., 247 Berkley Ave., Elmhurst, Ill. 60126, for \$30.00 per year.

## NMA Defines Micrographics

The National Micrographics Association's Board of Directors has accepted a definition of the word "micrographics," as applied to the industry. The definition reads: "That which has to do with the creation and use of microimages."

## Post Masters Program

Rosary College will offer a Certificate of Advanced Study in the School of Library Science beginning Sep 1. Courses will be at Rosary and at a cooperating graduate or professional

school. Write: Director, Program for Certificate of Advanced Study, Graduate School of Library Science, Rosary College, 7900 W. Division St., River Forest, Ill. 60305.

## Trying to Learn a Foreign Language?

The Linguistic Research Foundation has sponsored a project on "How to Learn a Foreign Language." The resulting pamphlet lists a step-by-step procedure for accomplishing this goal. The pamphlet is available free from the Foreign Language Study Project, P.O. Box 1012, San Diego, Calif. 92112.

## Guide to Conference Proceedings

Interdok Corp. has published the 10th annual cumulative volume of the *Directory of Published Proceedings*, Series SEMT, Science/Engineering/Medicine/Technology. Each citation originally appeared in the monthly edition. The 412-page volume is \$45.00 for current monthly subscribers, \$80.00 to non-subscribers. Contact Interdok Corp., P.O. Box 326, Harrison, N.Y. 10528.

## Media Course

San Jose State University is offering a media management, self-study course based on ideas and materials originating at the Educational Resources Information Clearinghouse (ERIC at Stanford). The course is offered for two units by the departments of instructional technology and librarianship. For further information contact Dr. James W. Brown, Instructional Technology Department, San Jose State University, San Jose, Calif. 95192.

## Asian Book Service

C&T Company is a mail-order bookstore supplying English, Chinese, Japanese, and Korean language materials from the U.S. and abroad. A free catalog is available on request from C&T Co., P.O. Box 328, Cambridge, Mass. 02139.

## MLS Assistantships

St. John's University Division of Library and Information Science has a number of assistantships available for highly qualified students. The stipend for the first year is \$2,300 and \$2,500 for the second year. All tuition is remitted except fees. Write: Dr. Mohammed M. Aman, Division of Library and Information Science, St. John's University, Jamaica, N.Y. 11439.

### Free Periodicals

An *Index to Free Periodicals* has been compiled which covers over 50 items selected for editorial and/or graphic content. A variety of subjects are covered including history, sports, energy, and technology. The *Index* may be ordered from Pierian Press, 5000 Washtenaw, Ann Arbor, Mich. 48104.

### Black Publications

The *Black Press Periodical Directory-1975* lists newspapers, magazines, newsletters, radio stations, and news services in the U.S. and abroad which are black owned or oriented. Also listed are native American news sources. It is available for \$10.00 U.S. currency from the Black Newspaper Clipping Bureau, 68-72 East 131st St., New York, N.Y. 10037.

### Guide to Software

The guide includes remote-access packaged software. All the programs and data bases included use an English language approach. The loose-leaf guide is "Remotely-accessible Conversational Programs & Data bases." It is available by mail with the first 3 bimonthly updates included for \$28.00 (postage prepaid). Write: Gregory Research Associates, 1900 Greymont St., Philadelphia, Pa. 19116.

### Health Information

The High Blood Pressure Information Center, an affiliate of the National Heart and Lung Institute, National Institutes of Health, has a variety of free educational materials for both laymen and health professionals. Write: High Blood Pressure Information Center, 120/80 National Institutes of Health, Bethesda, Md. 20014.

### Legal Bibliography

The eleventh in the series of legal bibliographies produced by the Tarlton Law Library, School of Law, University of Texas is now available. Entitled *Privacy and Public Disclosures Under the Freedom of Information Act*, it was edited by Professor David A. Anderson for the Reporters Committee for

Freedom of the Press. The 173-page volume is priced at \$15.00.

### Index Begun

Publication has begun on *Pharmaceutical News Index* a monthly loose-leaf publication covering four weekly newsletters. These are "Washington Drug & Device Letter," "FDC Reports," the "PMA Newsletter," and "Drug Research Reports." There is a quarterly cumulation of the index on microfiche. The annual subscription cost is \$165.00. Write: Data Courier, Inc., 620 So. Fifth Street, Louisville, Ky. 40202.

### Paper Series Initiated

The Graduate School of Library Service, Rutgers University, New Brunswick, N.J., has begun publication of an Occasional Paper Series. At least five papers will be issued annually. The first paper is entitled, "Administering Collections of Contemporary American Literary Papers." A yearly subscription is \$10.00, single copies of specific papers are \$3.00 each. Checks should be made out to Rutgers University, Graduate School of Library Science and mailed to the editor, Benjamin Weintraub, Graduate School of Library Service, 4 Huntington St., New Brunswick, N.J. 08903.

### COBOL Journal Revised

The Programming Language Committee of the Conference on Data Systems Languages along with the Canadian Federal Government (a member of CODASYL) have produced a revised edition of the *COBOL Journal of Development* including specifications as of Jan 1, 1976. It may be purchased alone or on a subscription service which will include all future committee authorized page changes through 1976. Order from the Department of Supply & Services, Material Data Management Branch, 5th Floor, 88 Metcalfe St., Ottawa, Ont., Canada K1A 0S5. The journal price is \$7.50 per copy; the subscription price is \$20.00 per set. Make checks payable to the Receiver General of Canada. U.S. or Canadian funds acceptable.



# WASHINGTON LETTER

May 11, 1976

## NTIS Publications Copyrighted?

Publications disseminated by the National Technical Information Service (NTIS) may soon be copyrighted, if Congress follows the lead of the House Judiciary Subcommittee on Courts, Civil Liberties, and the Administration of Justice, chaired by Rep. Robert Kastenmeier (D-WI).

In early April the Kastenmeier subcommittee adopted an amendment to the copyright revision bill (S.22) that would permit the Secretary of Commerce to "secure copyright for a limited term not to exceed five years, on behalf of the United States as author or copyright owner in any National Technical Information Service publication, which is disseminated, pursuant to the provisions of chapter 23, title 15, United States Code."

Viewed as noncontroversial by the subcommittee, the amendment was offered by Rep. Thomas Railsback (R-IL) in response to a recommendation from the Department of Commerce. The following explanation was given by Mr. Railsback:

"Its intent is to assist NTIS in meeting its statutory mandate of being self-sustaining and self-liquidating. In testimony before the Subcommittee, the Department pointed out that it is becoming increasingly difficult for NTIS to disseminate technical information in such a way that it pays for itself. A limited copyright in certain material would help keep prices down, because more people would purchase publications; otherwise it is cheaper to take a published copy and reproduce it rather than buy it and consequently, NTIS is unable to recoup its cost of publication. The result of this will be fewer and fewer publications, unless this amendment is adopted."

Members of the library community tended to view this amendment with dismay and a number of letters were fired off to members of the subcommittee protesting its adoption. Questions still to be answered include whether the proposed limited copyright would apply to all titles disseminated by NTIS or only some of them, and if only certain titles, on what criteria will the judgment be made to copyright or not to copyright.

There is no comparable provision in the Senate-passed version of the copyright revision bill. The House subcommittee is expected to complete its work on the bill this summer, sending it then to the full House Judiciary Committee which may make other changes.

The House would then vote on the measure, and the next step would be appointment of a conference committee to resolve differences between House and Senate versions. While congressional time-tables have a way of changing, sometimes radically from day to day, most Capitol Hill watchers would put conference action on the copyright bill no earlier than late summer, and possibly not until fall.

## Research Libraries

Major research libraries would receive some federal assistance under a bill introduced April 5 by Sen. J. Glenn Beall (R-MD), and approved the following day by the Senate Labor and Public Welfare Committee as part of the Education Amendments of 1976 (S.2657).

The Beall proposal would create a new Part C to Title II of the Higher Education Act, authorizing grants to institutions of higher education, independent research libraries, state and public libraries that serve as major research libraries.

According to provisions of the bill, a major research library is defined as a public or private nonprofit institution whose library collections are available to qualified users and which 1) make an indispensable contribution to higher education and research; 2) are broadly based, recognized as having national or international significance for scholarly research; and 3) are of a unique nature, not widely held and of such significance that fairly substantial demands are made upon the institution by outside researchers and scholars.

Comparable legislation on the House side is split into two bills: HR 12851 which amends and extends the Higher Education Act, and HR 12835 which amends and extends the Vocational Education Act and the National Institute of Education. Both House bills were passed on May 11, but neither contains the new research library proposal in the Senate bill. Accordingly, the research library provision will be a negotiable item in conference when a House-Senate committee will be meeting to iron out differences between House and Senate bills.

Other library provisions in both House and Senate bills include extension of the existing college library resources program authorized by Title II Part A of the Higher Education Act, and the training and research/demonstration projects in library and information science authorized by HEA Title II Part B.

Sara Case  
Washington, DC

## COMING EVENTS

**Jul 12-23. Statistical Methods, Workshop . . .** Georgia Institute of Technology, Atlanta. Write: Department of Continuing Education, Georgia Institute of Technology, Atlanta, Ga. 30332.

**Jul 13-16. Library Management Skills Institute . . .** Airlie House, Airlie, Va. Sponsor: Association of Research Libraries, Office of University Library Management Studies, 1527 New Hampshire Ave., N.W., Washington, D.C. 20036.

**Jul 16-17. Continuing Library Education Network and Exchange, First Assembly . . .** Palmer House, Chicago. For further information contact Mary Baxter, Public Information Office, CLENE, 620 Michigan Ave., N.E., Washington, D.C. 20064.

**Jul 19. The Purposes of Reference Measurement . . .** ALA Annual Conference, Chicago. Sponsored by LAD LOMS Committee on Statistics for Reference Services, cosponsored by RASD and LRRT.

**Jul 30-31. New Directions in Academic Library Management, Workshop . . .** University of California Extension, Santa Cruz.

**Aug 6-7. Developing Patterns in Interlibrary Communication, Workshop . . .** University of California, Santa Cruz.

**Aug 17-20. Institute on Management for Librarians . . .** Asilomar State Park, Monterey Peninsula, Calif. Sponsored by the Division of Education, Medical Library Association. The principles of market analysis, program development, and organizational analysis. Write: Division of Education, Medical Library

Association, 919 N. Michigan Ave., Chicago, Ill. 60611.

**Sep 9-12. Oral History Association, 11th National Workshop and Colloquium . . .** Ottawa and Montebello, Canada. Write: Ronald E. Marcello, P.O. Box 13734, N.T. Station, North Texas State University, Denton, Texas 76203.

**Sep 20-23. Aslib 50th Annual Conference . . .** University of Exeter, England. Theme: The Effective Organization of Information Services.

**Sep 20-Oct 1. 38th International Federation for Documentation Conference and Congress . . .** Mexico City. Theme: Information and Development. Contact: FID and CONACYT, Insurgentes Sur 1677, Mexico 20 D.F., Mexico.

**Sep 26-30. European Centenary Seminar on Dewey Decimal Classification . . .** Bradbury, Great Britain. Sponsor: The Library Association, 7 Ridgmount Street, London WC1E 7AE, Great Britain.

**Sep 27-Oct 1. 1976 International Council on Archives Congress . . .** Washington, D.C. Theme: The Archival Revolution in Our Time. Write: ICA '76, National Archives and Records Service, Washington, D.C. 20408.

**Sep 30-Oct 2. Arizona State Librarians 50th Annual Conference . . .** Braniff Hotel and Tucson Community Center, Tucson, Ariz. Theme: Visions '76. Contact: Dr. Helen Gothberg, Graduate Library School, University of Arizona, Tucson, Ariz. 85719.

## REVIEWS

**The Administrative Aspects of Education for Librarianship: A Symposium**, Mary B. Cassata and Herman L. Totten, eds. Metuchen, N.J., Scarecrow Press, 1975. \$14.50.

This collection of essays, edited by Cassata (SUNY, Buffalo) and Totten (Oregon), is arranged around the framework provided by the *Standards for Accreditation, 1972*. The prologue is a history of library education by Carroll (Missouri). This is followed by a chapter on the development of, comparison with the 1951 *Standards*, and a summary of the *Standards for Accreditation, 1972* by Bidlack (Michigan).

Part two deals with program goals and objectives. Chisholm (Washington) has written on the philosophies and objectives of graduate programs. Hull (SUNY, Buffalo) follows this with an exposition of the place of the library school in the graduate school structure. After this is a treatment of undergraduate education by Pfister (North Texas). Winger (Chicago) then has a study differentiating master's, advanced certificate, and Ph.D. programs. Stone (Catholic) was asked to write the chapter on continuing education. Martin (Kentucky) has provided an essay on the impact of professional organizations.

Part three deals with curriculum. The first essay was written by Magrill (Michigan). This section also has a chapter on the international student by Lancour (Pittsburgh), Krzys (Pittsburgh), and Koh (Rosary). In part four Grotzinger (Western Michigan) delineates the roles of professors.

Part five is concerned with students. Morrison (Oregon) and Gilbert (Oregon) contributed the essay on characteristics of students. Crowley (Toledo) write the chapter on student admissions and minority recruitment. Palmer (Michigan) wrote the chapter on internships and practica. Totten (Oregon) wrote the essay on terminal evaluation procedures.

Part six is devoted to governance, administration and financial support. The first essay by Cassata and Totten deals with the administrative relationship of the library school to the parent institution. Kaldor (SUNY, Geneseo) wrote the section on faculty governance. Weiss and Weiss (Arizona State) provided the chapter on student governance. One of the more enjoyable essays is on the administration of a library school by Shera (Case Western Reserve). Berninghausen (Minnesota) con-

tributed the treatment on institutional support. Altman (Toronto) wrote the essay on extra-institutional funding.

Part seven by Cameron (Western Ontario) deals with physical resources and facilities. Part eight by Bobinski (SUNY, Buffalo) deals with the accreditation visit.

The essays have not been written in isolation because within them frequent mention is made to the other essays in the collection. Despite this, there is some overlap. Further, the substantiating statistics in some of the essays are dated.

One feeling with which the reader finishes this book is that many people associated with library education are aware of the poverty of the present situation, but that they look forward to improvement, in anticipation of which many are working industriously. The book will be of interest to anyone who is dissatisfied with the status quo in the field.

**Thomas P. Slavens**  
University of Michigan  
Ann Arbor, Mich. 48104

**Use of Reports Literature**, Charles P. Auger, ed. Hamden, Conn., Archon Books, 1975. (Information Sources for Research and Development) 226 p. \$12.50 ISBN 0-208-01506-x. LC 74-28477

The amorphous mass of documents variously referred to as the literature of technical reports, of research reports, of scientific reports, or simply as the "reports literature" has historically been given scant attention within ALA committees concerned with developing codes for cataloging nonbook materials, by library school professors offering courses in reference and bibliography, or by governing boards of commercial or professional society abstracting and indexing services. Are technical reports "published" documents? Are such documents to be cataloged, indexed, abstracted, or retained in the collections? While such questions may still undergo vehement argument within and outside the library profession, the literature of research reports proliferates and continues to expand. Moreover, reports are cited and often requested by those who are in the forefront of their respective fields of knowledge. Certainly, not a single learned discipline or area of knowledge can now be considered complete without reference to its reports literature.

Charles P. Auger, editor, British librarian, and major contributor to this text is to be congratulated for his effort in seeking to devote a monograph focusing attention on the reports literature. Among other contributions, his chapters dealing with the nature and development of the reports literature, with report collections and methods of acquisition, with bibliographic control, cataloging and indexing, and with the use and value of microforms are lucidly written, comprehensive in scope, and give evidence of incisive, critical analysis and evaluation. An excellent feature in this volume is the current, quality citations and data provided at the end of each chapter for publications and organizations mentioned in the text.

Regretfully, the enterprise is flawed somewhat by a certain diffusion of purpose, a result, perhaps, of a broadening or ambivalence of objectives. While we can argue whether theses, translations or preprints constitute legitimate segments of the reports literature, does a chapter on "Report Writing" legitimately belong in a volume on the *Use of Reports Literature*? The editor, apparently, seeks to appeal to two groups of readers: discipline subject specialists and library and documentation specialists. Thus, while approximately half the volume is devoted to the analysis of the reports literature, the other half deals with the use of the reports literature in such specific subject fields as aerospace, agriculture and food, biology and medicine, business and economics, nuclear energy, education, etc. These subject-oriented chapters, written by several British librarians and information officers who serve specialized clientele, are for the most part excellent and crammed with valuable details and bibliographic citations. But should these chapters have been included in *this* volume when, in the same series (*Information Sources for Research and Development*) individual monographs have been published on the *Use of Medical Literature*, *Use of Economics Literature*, *Use of Biological Literature*, etc.? Is it that the reports literature has not been given adequate treatment in the above volumes? If not, perhaps this volume should have analyzed, "why not?"

As a subject, then, the reports literature is of sufficiently vital importance to merit concentrated and exclusive treatment in its own right. Certainly a knowledge of the use to be made of the reports literature within specific subject disciplines is important. Assuredly how to use that literature within the respective disciplines needs to be studied, analyzed, and communicated to the public at large. However, in a text aimed at the reports literature, such study, and analyses should have been under-

taken not as ends in themselves, but rather as means to illuminate the nature and problems inherent in the reports literature. This, indeed, may have been the underlying motivation and objective of the editor, as reflected in his contributions to the text. In spite of the less than successful attempt to satisfy two sets of clientele, the volume in question represents a rare and welcome contribution toward the understanding of a neglected, still-emerging and vital segment of the information communications revolution.

I. M. Klempner  
State University of New York at Albany  
Albany, N.Y. 12222

**Information Systems and Networks; Eleventh Annual Symposium, March 27-29, 1974**, John Sherrod, ed. Westport, Conn., Greenwood Press, 1975. 200 p. \$11.00.

This is what I call an opinion book. Very little data are presented and almost nothing in the way of practical accomplishments. When it comes to opinions, usually your opinion is as good as anyone's including the various authors of this book.

The subject of the symposium was information systems and networks and most of the authors were more computer experts than library experts. It would seem to me that the typical paper of this symposium would be the one "Information Networks: An Emporium," by Jack A. Speer. It covered possible future networks and some of the work of the National Commission on Libraries and Information Science. It was somewhat disconcerting that this paper and about half the rest did not have any references.

I had the feeling as I was reading, that someone felt the need to produce this book just for the purpose of producing a book. They certainly did achieve that goal, but I would recommend many other books before this one. The EDUCOM conferences on information networks come to mind as being far better than this meeting. If you need to have a complete collection of books on information systems and networks with a heavy bias toward the computer, you will probably want this volume.

Masse Bloomfield  
Hughes Aircraft Company  
Culver City, Calif.

**Basic Statistics for Librarians**, by I. S. Simpson. Hamden, Conn., Linnet Books (London, Clive Bingley), 113p. ISBN 0-208-01365-2

Critics of librarians often point to a number of areas in which, presumably, librarians are deficient. Nearly always the critics will, not infrequently with substantial justification, denounce the absence of managerial training in the librarians' education. In the face of such denouncements, library schools generally continue to emphasize the art of librarianship while playing down the important managerial aspects of running libraries. Contributing to this continued neglect of management techniques undoubtedly is the educational and experiential deficiencies of the library school faculty members themselves.

Special librarians learn early in their careers that management techniques are a *sine qua non* in libraries serving commerce and industry and these librarians usually scramble to fill this gap in their preparation. The slim volume by Simpson will assist the librarians' efforts to bring some additional control to library operations as well as suggesting additional techniques to use in communicating reports to management.

The assistance Simpson offers is not totally without pain, for the author attempts not only to deliver practical instructions in chart and graph production but also to present basic statistical measures in about one hundred small pages. The volume would have been much more valuable to American Librarians if the text had been expanded into another fifty pages or so.

Nonetheless, Simpson offers direction to librarians since his examples are drawn from literature familiar to most librarians and the limited number of exercises he provides are similarly appropriate. In addition to the chapter on constructing tables and graphs, which occupies nearly one-quarter of the book, the author presents instruction on the elemental statistical measures including standard deviation. A short expose of sampling is next followed by chapters on probability, Chi-square, T and Z tests, an all too short chapter on variance, followed by a presentation of correlation. The author concludes by offering eight sparsely worded pages on regression.

Simpson is to be congratulated for attempting such a text which does have merit despite this writer's views. Remarkably, although this is a British book, the reader is not at all conscious of conflict between British and American English usage. If the text were ex-

panded, as noted above, the volume would be more valuable to the American reader.

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

**Computer-Aided Information Retrieval**, by Andrew E. Wessel. Los Angeles, Melville Publishing Co. (A Wiley-Becker & Hayes Series Book), 1975. 176p.

Wessel's thesis is that the effective application of the computer in the information retrieval process requires that it first be used to assist the *indexer in the formation and organization of thesauri* for the various fields of information which can then be employed in the indexing of the literature. The computer-based information retrieval systems which use free-text terms for indexing, rather than carefully formulated and controlled thesauri, are held to be grossly inefficient and ineffective, regardless of the complexity of the search strategy used.

Wessel is a theorist with strong prejudices who appears to be searching for a retrieval system having both a high recall and a high relevancy factor. As a theorist, Wessel is concerned with differentiating between a word or phrase used in a thesaurus as a descriptor and the same word or phrase used in natural language text. The prejudices show in the disparaging editorialization of some of the words and phrases used when he discusses existing computer-based information retrieval systems: "Dreary history of information processing" (p. 19); "How much good is such sophisticated search capability when applied to textual material indexed by 'normal techniques'? Better than nothing perhaps, but not by very much" (p. 21); "Mire of free-text indexing" (p. 38).

The author's thesis might be quite different were it not for the surprising gaps in his information. There are computer-based retrieval systems which depend solely on the search of non-indexed natural language texts by user-designated search strategies. IBM's STAIRS is an example. No claim for perfection is made for the system, but it works. The market place can be used as an indication of the public acceptability of a product. The phenomenal growth in the number of customers of both SDC and Lockheed Information Systems implies acceptance by the information community of RECON-type retrieval systems which Wessel severely criticizes.

In the section on "Computer Aids to Thesauri Development and Use," Wessel writes (p. 51), "However, an agreement with publishers of technical and scientific material to incorporate devices that would produce computer-readable tapes from typesetting equipment might be more fruitful" (than optical scanners). Both INSPEC and COMPENDEX, the computer tapes produced by IEE (Physics Abstracts, Computer and Control Abstract, and Electrical and Electronic Abstracts) and the Engineering Societies' Engineering Index result from computer typeset text. In the section on "Computer Software and Some Hardware Considerations" (p. 109), we find "Lastly, multi-user interactive systems with consoles scattered over large distances are functional today as in airline reservation systems. However, documentation systems and the generalized information retrieval systems we are considering with ill-structured and mixed information and with far greater amounts of data and data flow impose serious communications costs." Both SDC and Lockheed with west coast computers have numerous east coast customers! The communications costs run approximately \$10/hour, a cost which the east coast customers apparently consider acceptable.

Although it does not impact the subject content, the publisher has not provided minimal editing assistance. This has resulted in uncorrected typographical and grammatical errors.

**Gordon E. Randall  
Thomas J. Watson  
Research Center  
IBM Corporation  
Yorktown Heights, N.Y. 10598**

**Computer-Aided Information Retrieval**, by Andrew F. Wessel. Los Angeles, Melville Pub. Co., 1975. 176 p.

This work could have easily been published as two articles, instead of a book. The first article would be entitled "How We Index Us-

ing a Thesaurus at the Stiftung Wissenschaft und Politik" and the second article would be "An Approach to Information Retrieval Software." However, neither one of these articles would be especially interesting to librarians. Those of us who have been associated with both manual and machine methods of indexing will find little exciting in this book.

Indexing can be accomplished for either manual searching or machine searching, by precoordinate or postcoordinate indexing. There are no shortcuts to indexing. If we save on the indexing end, then the searching end will be expensive. If we make our indexing expensive, we can save some on the searching. Either way, the information storage and retrieval process takes a rather constant amount of time when we integrate the indexing and searching functions. There seems to be no appeal from this investment of time, no matter what method of indexing is used.

I did not feel Wessel displayed enough experience with indexes to understand the constancy of the indexing investment. He does not particularly like RECON, and he has ideas of how the computers can be used in both the indexing and searching modes. There may well be economies in the use of the computer in the indexing-searching process, but so far as I know, no individual library using its own computer and its own software has been able to document any savings in this process. The KWIC system will work, but the savings on the indexing mode are lost in the searching mode.

I wish Wessel had read and understood Lancaster's book *Vocabulary Control for Information Retrieval*. For instance, Lancaster says, "certain thesaurus conventions will have a significant impact on the performance of a retrieval system, while others should have very little effect on system performance." Wessel quotes from Lancaster's book but seems not to have read it or understood it. There are no easy solutions to indexing problems; and there are many compromises. I am not impressed with Wessel's compromises.

**Masse Bloomfield  
Hughes Aircraft Company  
Culver City, Calif. 90230**

## PUBS

### *Monographs*

(76-049) **Combined Indexes to the Library of Congress Classification Schedules, 1974.** 15 vols. \$1,145.00.

Set 1: Author/Number Index. 2 vols. \$162.00. Set 2: Biographical Subject Index. 3 vols. \$228.00. Set 3: Classified Index to Persons. 3 vols. \$228.00. Set 4: Geographical Name Index. 1 vol. \$80.00. Set 5: Subject Keyword Index. 6 vols. \$463.00. Order from: U.S. Historical Documents Institute, Inc., 1647 Wisconsin Ave., N.W., Washington, D.C. 20007.

(76-050) **International Academic and Specialist Publishers Directory.** Clarke, Tim. New York, Bowker, c1975. 555p. \$25.00. LC 75-7800 ISBN 0-85935-002-9

Geographical arrangement, with subject and publisher indexes.

(76-051) **A History of Scientific & Technical Periodicals: The Origins and Development of the Scientific and Technical Press, 1665-1790.** 2d ed. Kronick, David A. Metuchen, N.J., Scarecrow, 1976. 336p. \$13.50. LC 75-41487 ISBN 0-8108-0844-7

Examination of the beginnings of scientific journalism.

(76-052) **Texas Special Libraries Directory, 1975.** Austin, Tex., Texas State Library, Dept. of Library Development, 1975. 78p. Free upon request. ISSN 0082-3163

Directory of special libraries in Texas, with indexes by subject and librarians. Available from Anita Farber, 7307 Brookhollow Dr., Austin, Tex. 78752.

(76-053) **The Sourcebook of Library Technology: A Cumulative Edition of Library Technology Reports, 1965-1975.** Chicago, Ill., American Library Assn., 1976. \$50.00.

Microfiche edition. Looseleaf binder includes table of contents, index, and 30 microfiche.

(76-054) **Problems of Special Libraries.** Savova, Elena, ed. Sofia, Bulgaria, Bulgarian Academy of Sciences, 1975. 273p.

In Bulgarian, with Russian and French abstracts.

(76-055) **Proceedings of the Institute on Library of Congress Music Cataloging Policies and Procedures: Information for Music-Media Specialists.** Sommerfield, David, comp. Ann Arbor, Mich., Music Library Assn., 1975. 80p. (MLA Technical Reports No. 3) ISBN 0-914954-03-2

Proceedings of institute sponsored by the Music Library Assn. in cooperation with the Music Section, Descriptive Cataloging Division, Library of Congress, Jan 26-27, 1971.

(75-056) **Corporate Headings: Their Use in Library Catalogues and National Bibliographies: A Comparative and Critical Study.** Verona, Eva. London, International Federation of Library Assns. Committee on Cataloguing, 1975. 224p. \$18.00. ISBN 0-903043-05-X

Available from: Canadian Library Assn., 151 Sparks St., Ottawa, Ont., Canada K1P 5E3.

(76-057) **A Classification of Library & Information Science.** Daniel, Ruth and J. Mills. London, Library Assn., 1975. 127p. ISBN 0-85365-118-3

Faceted classification scheme for library literature.

(76-058) **Information Sources in Science and Technology.** Parker, C. C. and R. V. Turley. Boston, Butterworths, c1975. 223p. ISBN 0-408-70657-0

Introductory guide.

(76-059) **Reader in Media, Technology and Libraries.** Chisholm, Margaret, ed. Englewood, Colo., Microcard Editions Books, 1975. 530p. \$20.00. LC 75-8050 ISBN 0-910972-51-6

Compilation of reprinted articles.

### *Periodicals*

(76-060) **Information Systems.** Vol. 1 (No. 1) (Jan 1975). Schneider, Hans-Jochen, ed. Elmsford, N.Y., Pergamon Press. \$60.00/year. Quarterly.

New journal concerned with the branch of computer science which deals with the practice of designing, building, maintaining and using computer-based information systems.

(76-061) **The De-Acquisitions Librarian.** Vol. 1 (No. 1) (Spring 1976). Slotte, Stanley J., ed. New York, Haworth Press. \$16.00/year. Quarterly.

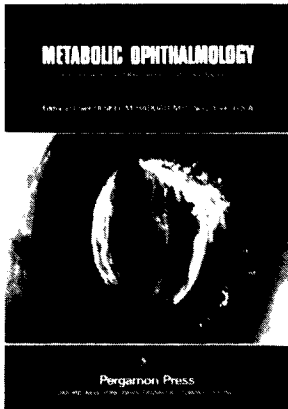
New journal devoted to weeding library collections. Available from: Haworth Press, 174 Fifth Ave., New York, N.Y. 10010

(76-062) **Canadian Business Periodicals Index.** Vol. 1 (1975/76). Ho, Kwai Liu, ed. Toronto, Ont., Canada, Information Access. \$350.00/year. Monthly. ISSN 0318-6717

Entry by subject, corporate name, and personal name.

(76-063) **Current Book Review Citations.** Vol. 1 (No. 1) (Jan 1976). Bronx, N.Y., H. W. Wilson. \$75.00/year. Monthly (except Aug). ISSN 0360-1250

Index to book reviews cited in ten other Wilson indexes, including Library Literature and Applied Science & Technology Index.



# ANNOUNCING METABOLIC OPHTHALMOLOGY

International Journal of Basic Research and  
Clinical Applications. Official Publication of the  
International Society on Metabolic Eye Disease

Editor-in-Chief: **HESKEL M. HADDAD, MD,**  
1200 Fifth Avenue, New York, NY 10029

**METABOLIC OPHTHALMOLOGY** is an international journal for the rapid communication of the results of research and clinical applications in the fields of metabolism, ophthalmology, pediatrics, neurochemistry, enzymology and genetics, as they interrelate to each other. The journal is of a comprehensive nature and wide in scope, with a distinguished international Editorial Board reflecting the broad spectrum of interests covered. It has been founded to bridge the gap between the important disciplines involved in metabolic eye disorders and will be of interest both to those in research and in the clinical practice of medicine.

**A selection of papers to be Published in forthcoming issues**

**M. WARBURG:** Genetic counselling in families with blind multiple handicapped children  
*Copenhagen Eye Clinic for the Mentally Retarded*

**H.R. KOCH et al:** Metabolic disorders of the lens  
*University of Bonn*  
**A.L. KORNZWEIG:** Bassen-Kornzweig syndrome - Present status  
*Jewish Home and Hospital for Aged, New York City*  
**M. WARBURG:** G-6-P-D deficiency, cataract and optic atrophy in a Danish boy  
*Copenhagen Eye Clinic for the Mentally Retarded*  
**E.M. KOHNER et al:** The role of avascular retina in new vessel formation  
*Moorfields Eye Hospital, London*  
**J. FRANCOIS:** Genetics in metabolic eye diseases  
*Rijksuniversiteit-Gent*

To be published quarterly commencing June 1976  
Annual subscription (1976) \$50.00  
Special two-year rate (1976/77) \$95.00  
Members of the International Society on Metabolic Eye Disease (1976) \$20.00  
Special rate for individuals whose institution takes out a library subscription (1976) \$25.00

**FREE specimen copy available on request**

## IMPORTANT NEW BOOKS

### Onchocerciasis in Zaire

Editor: **F.C. RODGER,**  
*Princess Margaret Hospital, Swindon*  
\$30.00 £15.00 approx. Approx. 300pp

### Schizophrenia Today

Editors: **D. RICHTER et al.,** London  
\$21.00 £10.50 approx. Approx. 350pp

### The Opiate Narcotics: Neurochemical Mechanisms of Analgesia and Dependence

Editor: **A. GOLDSTEIN,**  
*Stanford University, Palo Alto*  
\$20.00 £10.00 270pp

### Transmitters in the Visual Process

Editor: **S.L. BONTING,**  
*University of Nijmegen*  
\$15.00 £7.50 240pp

### Catecholamines and Stress

Editors: **E. USDIN et al.,**  
*NIH, Rockville*  
\$50.00 £25.00 644pp

### Antipsychotic Drugs: Pharmacodynamics and Pharmacokinetics

Editors: **G. SEDVALL et al.,**  
*Wenner Gren Center, Stockholm*  
**Wenner Gren Center International  
Symposium Series, Volume 25**  
\$35.00 £17.50 286pp

### Inhaled Particles and Vapours IV

Editor: **W.H. WALTON,** *Institute of  
Occupational Medicine, Edinburgh*  
A supplement to Volume 19 of  
*The Annals of Occupational Hygiene* -  
Special reduced rate available to  
subscribers  
\$60.00 £30.00 Approx. 600pp

### Infections in Cancer Chemotherapy

Chairman: **J. KLASTERSKY** *Brussels*  
A new supplement to *European  
Journal of Cancer, Vol. 11*  
\$15.00 £7.50 100pp

### Clinical Tumor Immunology

Editors: **J. WYBRAN** and  
**M.J. STAQUET,** *European Organization  
for Research on Treatment of Cancer,  
Brussels*  
\$25.00 £12.50 286pp  
\$15.00 £7.50 flexicover

### Gastrointestinal Emergencies Proceedings of the First International Symposium

Editors: **F.R. BARANY,** *St Erik's  
Hospital, Stockholm* and **A. TORSOLI,**  
*University of Rome*  
**Wenner Gren Center International  
Symposium Series, Volume 26**  
\$30.00 £15.00 approx. Approx. 300pp



**PERGAMON PRESS**

Fairview Park Emsford New York 10523 USA & Headington Hill Hall Oxford OX3 0BW England



## COMPUTER AIDED DESIGN OF DIGITAL SYSTEMS—A BIBLIOGRAPHY

*W. M. vanCleemput*

An extensive bibliography of over 3,000 citations indexed by author, title and subject from technical publications covering the entire field of digital system hardware and software design automation. Includes books and English, French, German and translated Russian journal articles from 1960 through December 1974. Subjects covered include: automated logic design; logic and fault simulation; fault diagnosis and test generation; printed circuit and integrated circuit layout; computer-aided analysis (programs, systems, and general references); automated documentation; computer-aided manufacturing of digital systems; software design automation. *Update to be issued annually, March 1976, 374pp., \$18.00 softbound, \$25.00 hardbound.*

*1975 UPDATE, available Sept. 1976, \$15.00 softbound.*

### Also of Interest

#### **JOURNAL OF DESIGN AUTOMATION & FAULT TOLERANT COMPUTING**

*Published quarterly beginning October, 1976. Annual subscription \$50.00.*

**CHESS AND COMPUTERS** by David Levy. *May, 1976, 200pp. (approx.), \$7.95 softbound, \$11.95 hardbound.*

**1975 U.S. COMPUTER CHESS CHAMPIONSHIP** by David Levy. *March, 1976, 96pp. (approx.), \$3.95 softbound, \$5.95 hardbound.*

*Prices subject to change without notice.  
California residents add 6% sales tax.*

**COMPUTER SCIENCE PRESS, INC.**  
4566 Poe Avenue  
Woodland Hills, Ca. 91364

---

## PLACEMENT

---

"Positions Open" and "Positions Wanted" ads are \$2.00 per line; \$6.00 minimum. Current members of SLA may place a "Positions Wanted" ad at a special rate of \$1.50 per line; \$4.50 minimum.

In each membership year, each unemployed member will be allowed a maximum of two free "Positions Wanted" ads, each ad to be limited to 5 lines including mailing address (no blind box addresses), on a space available basis.

There is a minimum charge of \$11.00 for a "Market Place" ad of three lines or less; each additional line is \$4.00. There are approximately 45 characters and spaces to a line.

Copy for display ads must be received by the first of the month two months preceding the month of publication; copy for line ads must be received by the tenth.

Classified ads will not be accepted on a "run until cancelled" basis; twelve months is the maximum, unless renewed.

Special Libraries Association reserves the right to reject any advertisements which in any way refer to race, creed, color, age, or sex as conditions for employment.

\* \*

---

## POSITIONS WANTED

---

MLS(Kent State)- MA (Eng.), 2 yrs. admin. exp. at important Midwest newspaper. Seeks pos. in newspaper/media/special library situation. Will relocate. Résumé on request. Box S-235.

---

## POSITIONS OPEN

---

**Head Librarian** Midwest morning and evening newspapers. Newspaper library experience and library degree required. Good salary and benefits. Send résumé to Box S-234.

**Library Science Faculty** Library Science Department is seeking applicants for faculty vacancy effective September 1976. Must have specialty in special librarianship, such as health science, medical, etc., with competency for teaching basic courses in library science. Masters in Library Science and Doctorate in Library Science or subject field are required. Must have experience in a special library and teaching experience at college or university level with ability to do research. Send résumé to Dr. Marina E. Axeen, Chairman, Department of Library Science, Ball State University, Muncie, Ind. 47306. Applications requested by July 15, 1976. Ball State University practices equal opportunity in education and employment.

## Machine Readable Data



Faxon, the world's only fully automated library magazine subscription agency, offers serials control information in machine readable format. If your library has data processing support, or if you plan to make use of automation, Faxon will supply this service for your library. For more information, write:



### **F.W. FAXON COMPANY, INC.**

**Library Magazine Subscription Agency**

15 Southwest Park, Westwood, MA 02090  
Tel. 800-225-7894 (toll-free)  
617-329-3350 (collect in Mass. and Canada only)



## PUBLICATIONS FROM UNITED NATIONS

Send for our catalogues, which give a complete description of the United Nations publishing programme and are available free of charge:

- United Nations Publications in Print 1976
- Standing Order Service Brochure
- UNITAR Folder
- United Nations Official Records 1962-1970  
Supplement 1970-1972
- Microfiche Price List 1976
- ICJ Publications
- Periodicals Folder

WHEN IN NEW YORK visit the United Nations Bookshop located in the General Assembly Building. Hundreds of publications covering such subjects as Economic and Social Development, Demography and Housing are on display and may be purchased there.



**United Nations Publications**  
Room LX-2300, New York, N.Y. 10017  
or

**United Nations Publications**  
**Palais des Nations**  
1211 Geneva 10, Switzerland

## POSITIONS OPEN

**Librarian** - Responsible for administration and development of Manuscripts-Archives-Special Collections Division. Salary and rank open, \$16,000 minimum. Faculty status, TIAA/CREF, fringe benefits, 1 month vacation. Required: MLS or equivalent professional degree and relevant second Masters; 5 years directly related experience in research library; significant publications. PhD in English or History preferred. Applications accepted through July 15, 1976. Send résumé to Dr. A. Schnaitter, Director of Libraries, Washington State University, Pullman, Wash. 99163. An equal opportunity/affirmative action employer.

**Reference Librarian** - Medical school library seeking applicants for October 1976 opening involving manual reference duties, computer terminal searches, varied public services and many supervisory responsibilities. Salary range: \$11,000-\$13,000 depending upon qualifications and experience. Interviews in Chicago during June, July, and August. Request your library school to forward undergraduate and graduate transcripts and other placement credentials. Also please forward an up-to-date résumé and letter of application to: Lee Brooke, Director of Libraries, Chicago College of Osteopathic Medicine, 5200 South Ellis Avenue, Chicago, Ill. 60615.

## POSITIONS OPEN

**Marine Science Center Librarian** Required: MSLS; Masters in Marine Biology, Fisheries or Biological Oceanography (appropriate research background may substitute for this degree); two years professional experience in academic or special library. Range: \$11,500-\$12,500. Application deadline: July 10. Oregon State University Library, Corvallis, Ore. 97331. An equal opportunity employer.

**Science Cataloger**—Original cataloging of monographs in all areas of the sciences. MLS and training in LC classification system required. Degree in physics, chemistry, and mathematics or geology and experience in cataloging preferred. Salary \$10,500 or more depending upon qualifications. Send résumé by July 10, 1976, to Joseph Jerz, Assistant University Librarian, University of North Carolina, Chapel Hill, N.C. 27514. Equal opportunity/affirmative action employer.

**South Carolina** - Regional Reference Librarian to improve reference service and develop interlibrary cooperation in multi-county area. Requires MLS, at least two years professional reference experience, and the ability to plan and direct. Starting salary \$12,575-\$13,864 depending upon experience. Available July 1. Apply to: Mrs. M. G. Thompson, Director, Florence County Library, 319 S. Irby St., Florence, S.C. 29501.

---

## POSITIONS OPEN

---

**Head, Science and Engineering Library** (Sir George Williams Campus)—Responsibility for the operation of the Science and Engineering Library; responsible for the selection, evaluation and maintenance of the reference collection for science and technology; directs the training and supervision of four (4) reference/selection librarians and approximately 13 full-time support staff. Minimum of a bachelor's degree in science or engineering *and* a degree from an accredited library school; five (5) to six (6) years of professional experience of which a major part has been in reference and/or collection development in science or engineering subjects; administrative experience in staff training and development as well as the planning and organization of services to library users; fluency in French is desired. Minimum of \$17,400 (Librarian 3). Deadline for Applications: July 15, 1976. Please send applications with curriculum vitae to: Margaret Kvetan, Staff Relations Officer, Library, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, P.Q. H3G 1M8.

---

**Science Bibliographer**—To develop an overall program of collection development in science and technology for the Science/Technology Information Center and 5 science departmental libraries at the University of Virginia. Instructor position with benefits of University Library Faculty. Salary \$9,600 and up, depending upon experience. Requirements: MLS from ALA-accredited school; BA or other degree in science preferred; minimum of two years academic library experience in acquisitions (book selection and budgeting) preferred. Contact K. L. Stubbs, Acting Associate Librarian, Alderman Library, University of Virginia, Charlottesville, Va. 22901. An equal opportunity/affirmative action employer.

---

---

## THE MARKET PLACE

---

**Lacking Issues**—Subscribers to journals listed in *Science Citation Index* have a good chance of immediately locating lacking issues for years 1970-1975 with the Replacement Serials Section of M.S.I., the worldwide back-issue house. Please address your queries to Maxwell Scientific International (now a Pergamon Press, Inc. division), Fairview Park, Elmsford, N.Y. 10523.

---

**Out-of-Print Books**—Free world-wide search. Exclusive want lists invited. Lincoln Book, 905 Westminster St., Providence, R.I. 02903

---

**MARCFICHE**—The least expensive and most up-to-date source of cataloging. MARC Research, Box 40035, Washington, D.C. 20016.

---

---

## THE MARKET PLACE

---

**Back Issue Periodicals**—Scientific, Technical, Medical and Liberal Arts. Please submit want lists and lists of materials for sale or exchange. Prompt replies assured. G. H. Arrow Co., 4th & Brown Sts., Philadelphia, Pa. 19123.

---

**For Sale**—In September 1974 the Elmer E. Rasmuson Library terminated its status as a complete depository for Atomic Energy Commission microform publications. The ACE collection contains over 300,000 microcard/microfiche units relating to the international nuclear science literature. With the exception of the last 5 monthly shipments, all microforms are filled in order. Direct inquiries to: H. Theodore Ryberg, Director of Libraries, University of Alaska, Fairbanks, Alaska 99701.

---

**Foreign Books and Periodicals** Specialty: Irregular Serials. Albert J. Phiebig Inc., Box 352, White Plains, N.Y. 10602.

---

**Indexing and Abstracting**—Let us help you catch up with your backlog, or keep you current, or get you started. Per "item" prices. Dataflow Systems Inc., 7758 Wisconsin Avenue, Bethesda, Md. 20014. (301)654-9133.

---

**Japanese Translations**—Into English of technical articles and patents. Free brochure. Thomas Wilds, 16D Weavers Hill, Greenwich, Conn. 06830. (212) 986-2515.

---

### INDEX TO ADVERTISERS

|  |           |
|--|-----------|
| Computer Science Press, Inc. ....              | 10A       |
| Electronic Connector Study Group,<br>Inc. .... | 4A        |
| Elsevier Scientific Publishing<br>Company .... | 2A        |
| Engineering Index, Inc. ....                   | 1A        |
| F.W. Faxon Company, Inc. ....                  | 11A       |
| Fodor's Modern Guides/David<br>McKay Co. ....  | 7A        |
| Gale Research Company ....                     | Cover IV  |
| The Highsmith Company, Inc. ....               | 4A        |
| Institute for Scientific<br>Information ....   | Cover II  |
| Noyes Data Corporation ....                    | Cover III |
| Pergamon Press ....                            | 9A        |
| Swets North America, Inc. ....                 | 8A        |
| United Nations Publications ....               | 11A       |
| John Wiley & Sons, Inc. ....                   | 5A        |

---

# NEW Up-To-Date Books From Noyes Data

NOYES DATA has developed two new techniques of vital importance to those who wish to keep abreast of rapid changes in technology and business conditions: 1) our advanced publishing systems permit us to produce durably-bound books within a few months of manuscript acceptance; 2) our modern processing plant ships all orders on the day after they are received.

## HARDCOVER BOOKS—LATE SPRING 1976

### HOW TO DISPOSE OF TOXIC SUBSTANCES AND INDUSTRIAL WASTES by P.W.

**Powers:** This book discusses all those ultimate disposal and recovery methods that are technologically feasible today. Many toxic or hazardous wastes contain valuable materials that can be recovered. ISBN 0-8155-0615-5; \$48

### TOBACCO SUBSTITUTES by Marshall Sittig:

The ideal tobacco substitute is devoid of ingredients that produce toxic smoke, yet furnishes contentment and satisfaction equal to normal tobacco doses. Practical manufacturing ways and means to this end are described. ISBN 0-8155-0616-3; \$36

### DURABLE PRESS TREATMENTS OF FABRICS—RECENT DEVELOPMENTS by R.H.

**Manly:** Over 300 processes using a wide variety of chemically different textile treating agents broadly related to the concepts of "durable press" and "wash and wear." ISBN 0-8155-0617-1; \$39

### FOOD FLAVORING PROCESSES by N.D. Pintauro:

When food loses its original fresh odor, its flavor goes also and our senses classify it as stale. But flavors and odors can be "fixed" by chemical complexing, plating onto solid carriers, frangible or permeable microencapsulation and other subtle techniques. This book tells how to do this on a commercial scale. ISBN 0-8155-0618-X; \$39

### DEEP COAL MINING—WASTE DISPOSAL TECHNOLOGY by W.S. Doyle:

Discusses methods designed to prevent and control pollution associated with the deep mining of coal. The extinguishing of burning refuse banks and their reclamation is described in detail. ISBN 0-8155-0619-8; \$36

### RADIATION SPECTRA OF RADIONUCLIDES by T.B. Metcalfe:

The unique feature of this presentation of all gamma spectra in tabular form provides the interpreter of mixed radiation emitters with the cross-referencing essential to the identification of each contributing isotope. ISBN 0-8155-0620-1; \$36

### MEMBRANE TECHNOLOGY AND INDUSTRIAL SEPARATION TECHNIQUES by

**P.R. Keller:** Over 280 processes are described. Fabrication techniques as well as end-use applications are given in detail. Electrodialysis and reverse osmosis units using semipermeable membranes are being installed the world over. ISBN 0-8155-0621-X; \$39

**ndc**

**NOYES DATA CORPORATION**  
NOYES BUILDING, PARK RIDGE, NEW JERSEY 07656

---

13,583 SOURCES OF UP-TO-THE  
MINUTE INFORMATION

# ENCYCLOPEDIA OF 10 ASSOCIATIONS EDITION

**Volume 1. NATIONAL ORGANIZATIONS OF THE U.S.** 1,417 pages. Alphabetical Index to Organization Names and Keywords. CIP: L.C. No. 76-4878. ISBN 0-8103-0127-X. \$64.00.

For over 20 years, Gale's *Encyclopedia of Associations* has been popular with librarians and researchers because it is one of the few reference tools completely in tune with the information explosion. In many fields, new ideas and techniques appear with such rapidity that data in books and periodicals are obsolete by the time they reach library shelves. *EA* solves the problem by telling you exactly whom to write, phone, or visit for the latest facts, figures, and opinions.

The basic Volume 1 lists 13,583 active organizations in 17 major subject categories, such as trade, agriculture, law, education, religion, etc. Each entry provides all you need to know about the association—its official name, popular name or acronym, address, phone number, number of members, chief executive, committees, publications, convention/meeting schedule, and much more.

**Volume 2. GEOGRAPHIC AND EXECUTIVE INDEX.** 718 pages. CIP: L.C. No. 76-4878. ISBN 0-8103-0132-6. \$45.00.

Volume 2 is divided into two sections. The *Geographic Index* lists in state and city order all the associations that are arranged in Volume 1 by subject. Included are addresses, phone numbers, and names of executives. The *Executive Index* lists by surname all the executives mentioned in Volume 1, followed by their titles, names of their organizations, complete addresses, and phone numbers. Each listing in both sections gives the entry number of the more detailed organization entry in Volume 1.

**Volume 3. NEW ASSOCIATIONS AND PROJECTS.** A periodical publication which supplements information in Volume 1. Cumulatively indexed. ISBN 0-8103-0130-X. Inter-edition subscription, with binder for new subscribers, \$55.00.

The periodical supplement service keeps you abreast of the information explosion. It provides, in the same format as Volume 1, full descriptions of newly formed associations, which are of particular interest to researchers, because new groups tend to be concerned with new problems and new ideas not adequately covered elsewhere.

## Reviewers Have Had High Praise for EA:

"The *Encyclopedia of Associations* has earned its reputation as a cornerstone of any sound general reference collection . . . In a word, *EA* is a basic reference tool. All libraries should have it." (*RQ*, Spring 1973)

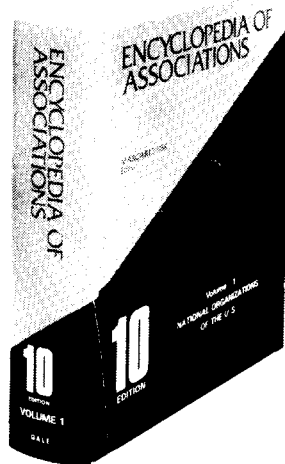
"The work is still the most comprehensive directory of associations in the U.S." (*Booklist*, "Reference and Subscription Books Reviews," Oct. 15, 1975)

Included in *Choice's* "Opening Day Collection," 3rd Edition.

"Highly recommended." (*American Reference Books Annual*, 1973)

"The only comprehensive source of detailed information on nonprofit American membership organizations of national scope." (*Guide to Reference Books for School Media Centers*, 1973)

The *Encyclopedia of Associations* and all Gale books of a continuing nature are available on Standing Order. Complete catalog of Gale books sent on request.



## GALE RESEARCH CO.

Book Tower • Detroit, Michigan 48226