special libraries

December 1978, vol. 69, no. 12

☐ Industrial Current Awareness
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Special Libraries
LETTERS

ERA and Priorities

The question of the Equal Rights Amendment should be based on whether it is a good law. The implication that the passage of the ERA will have a substantial effect on the salaries of librarians is in error. Wage and salary schedules depend on the economic laws of supply and demand, as well as the imputed value of information services to company profitability. If librarians would concern themselves with improving the perception that corporate management has of the value of their services, instead of focusing on issues which management considers to be "tangential," they might make more headway toward higher salary levels and better career opportunities.

Louis F. Aulbach
Supervisor, Information Systems
Ashland Exploration, Inc.
P.O. Box 1503
Houston, Tex. 77001

What Do You Think?

The Committee on Committees is presently considering a definition for the Statistics Committee [see Special Libraries 69 (no. 9): 376 (Sep 1978)]. I know what I would like to see as the missions of this committee.

I should think the standardization of definitions of functions, tasks, work units, and so forth would be the first task to be undertaken and completed before anyone could begin to collect and evaluate statistics. I do not think an SLA Statistics Committee should either collect or evaluate statistics. I do think an SLA Statistics Committee should present the membership with a set of definitions which each of us, when we decide to collect statistics, could use so that our end results could be compared with other library operations similar to our own.

Wouldn't it be nice if special librarians could compare productivity within their own areas, for example, all pharmaceutical company libraries, all insurance company libraries, all museum libraries. Right now few of us can do it (even among libraries in the same company) for the simple—or not so simple—reason that we have no standard definitions of the "things" we want to compare. Some libraries count photocopies by the number of pages copied. Others count photocopies by the number of articles copied. Some libraries count phone requests separately from written or "in person" requests for aid and/or assistance. Definitions for these and other kinds of work units (even if everyone didn't completely agree with the definitions) would be extremely helpful. Using standard definitions special librarians could gather statistics based on this set of definitions and then would be able to make comparisons with similar special libraries.

I would hope that an SLA Statistics Committee might be defined to perform just such a service for special libraries. Public and academic libraries have some sort of "standard" reporting method. Special libraries need their own kind.

Comparisons made, using standardized definitions of work units, could lead to composite pictures of types of libraries which would be useful 1) to organizations considering starting a library; 2) in studies for the reorganization of existing special libraries; 3) for research in how special libraries of a certain type fulfill the needs of the users; 4) in planning growth, space, staff, budget in existing special libraries.

Naturally not everyone will collect and/or interpret their statistics the same way. However, with standard definitions as a baseline, special librarians will be that much closer to being able to collect, report, and compare.

Definitions in the following areas would be helpful in obtaining such a goal: 1) work units (e.g., photocopying, circulation, etc.); 2) ratio of number on the library staff and experience (not necessarily education) to the number of users served; 3) size of journal collection (by number of titles and not number of volumes); 4) growth rate (new acquisitions per month by book titles added, journal titles added, government documents, etc.); 5) number of ILL's per month (including photocopy in lieu of loan and tear sheet services such as OATS).

A. Mamoulides
Shell Development Company
Houston, Tex. 77001

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Dictionary of Report Series Codes, 2d ed.

Lois E. Godfrey and Helen F. Redman, editors


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The Introduction describes the development, assignment, and components of report numbers. Also included are explanatory notes for using the Dictionary, a glossary, lists of abbreviations and sources, and detailed reference notes on the peculiarities of numbers assigned by many agencies.

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Anthony T. Kruzas

1965/hardcover/144 pages/6 x 9 1/2/ $8 00/LC 65-19781/ISBN 0-87111-148-9

This volume uses company libraries as the thematic center to trace the history of the special library movement in the United States. Two aspects of library service for business and industry are considered. The first concerns the appearance and influence of possible antecedents. The second investigates company-established and supported special libraries.

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Special librarians have a long tradition of involvement in informal library cooperation. In recent years, they have recognized the fast-paced development of formal cooperation/resource sharing/networking organizations and have become convinced that formal networking is a necessity. Their concern is often whether to join an existing formal network or to establish a new one. Guidelines are necessary to assist in this decision-making process. The guidelines presented in this manual should stimulate and promote effective formal networking by special libraries and by groups of special libraries.

The Special Librarian as a Supervisor or Middle Manager

Martha J. Bailey

1977 / paper / 46 pages / 8 1/2 x 11 / $6.00
LC 77-5021 / ISBN 0-87111-249-3

Libraries have often drawn heavily on the business world for innovation in hardware. A fairly recent trend has been the adoption of management techniques to library operations. However, business management techniques may not have the same meaning and impact in the library organization until they are placed in similar contexts.

The library and information science literature concerning the supervisor and the middle manager is reviewed. Where information is not available, the material is drawn from the literature of business management. After defining the terms "supervisor" and "middle manager," the various library environments are described. This is followed by an examination of position responsibilities and the education and work experience desired. This report concludes with recommendations for further research.

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An Industrial Current Awareness Service
A User Evaluation Study

Carolyn L. Warden
Whitney Library, General Electric Corporate Research and Development, Schenectady, N.Y. 12301

The users of the General Electric Whitney Library Current Awareness Service, offered on the CA CONDENSATES and EI COMPENDEX data bases, were surveyed as to the quality, relevancy, usefulness, and acceptability of the service. The majority of users responding expressed high satisfaction with the service for its convenience, thoroughness, speed, and regular coverage of numerous source publications. However, most users still monitor the current literature through informal contacts or by scanning key journals. Significant information transfer from the service to the research environment was reported by many users. Specifically, the service alerted users to other persons working in the same field, provided new research leads, prevented the duplication of research already conducted, and resulted in more free time for reading or research.

THE GENERAL ELECTRIC Whitney Library, Corporate Research and Development (CRD), supports research in all the sciences. It also acts as a coordinating library and a backup for the various components of General Electric. An in-house current awareness service has been in operation at the Whitney Library since 1972 on the Chemical Abstracts (CA) CONDENSATES data base, and since 1974 on the Engineering Index (EI) COMPENDEX data base. The U.S. Department of Energy ENERGY DATA BASE was added in 1977. The service is available to all technical, research, and managerial personnel throughout the General Electric Company (1).

Most users learn about the Whitney Library Current Awareness Service from a colleague who subscribes, by requesting a retrospective literature search, from a promotional announcement circulated company wide, or from a special presentation on the library's computer search services. All new users receive three free trial searches on their search profile per data base requested. This promotional technique has proven successful. The user can evaluate the service before subscribing and the search analyst uses the trial printouts to prepare any necessary revision or refinement of the user's profile.

Search profiles are formulated by the search analyst after consulting with the requester in person or by telephone. The profile preparation guidelines which have been outlined in an earlier publication (2) are followed in developing the current
awareness profiles. Testing of the search strategy for a profile may be performed via one of the on-line search systems. The profiles are merged together and run in batch mode against each data base update tape on the CRD computer. Currently a subscription costs $6 per update search for paper printout and $7 for printout on tab-size cards. The card printout option is popular since the user can conveniently sort and file the references retrieved by his or her profile. CRD users may order documents unavailable in the Whitney Library directly from the cards. A special code appears on the printouts after the journal source reference for the Whitney Library journal holdings. This feature facilitates location of papers listed on the printouts for CRD users.

Since a comprehensive evaluation study of the current awareness service had never been undertaken, a user survey was planned to coincide with the 1977 subscription renewal campaign. A higher response rate to the survey was anticipated since a renewal decision involves considerable evaluation. Thus, combining the survey with the subscription renewal increased the probability for receiving feedback from all users, those canceling as well as those continuing the service.

**Purpose of the Study**

The major goals of the evaluation study were identified as follows:

- To obtain data on the users' assessment of the overall quality, relevancy, usefulness, and acceptability of the service.
- To identify any information transfer from the service to the research and development activities of scientists and engineers using the service, to justify continued support by the company.
- To collect data on the influence of a current awareness service on the information behavior of industrial researchers. Particularly interesting would be confirmation of the traditional distinctions made between engineers and scientists in their usage of the literature (3-8).
- To improve communication between the users of the service and the current awareness librarian, i.e., to improve users' understanding of the capabilities and limitations of the service and to enable the librarian to become better acquainted with the users and the performance of their profiles.

**Methodology**

Most evaluation studies of current awareness services have employed a questionnaire, interview sessions, or a combination of the two techniques. The logistics of reaching GE users scattered around the country led to the choice of a survey questionnaire. Any users indicating profile relevancy problems on their questionnaire, or users canceling their profile(s), were contacted by telephone for a follow-up discussion.

The questionnaire (see the Appendix) was developed after careful study of questionnaires used to evaluate similar services or user groups (9-17). Tagliacozzo (16) has cautioned against asking questions that elicit general judgments and suggested that at least some of the questions should reinforce each other. Thus, question reinforcement was planned in questions 2 and 5, questions 3 and 4, and questions 6 and 7. Users giving conflicting or inconsistent responses to these pairs of questions were contacted for a follow-up discussion.

Questionnaires were sent to all current CA CONDENSATES (CA) and EI COMPENDEX (EI) subscribers. New users still receiving trial printouts were not surveyed. Users subscribing to both data bases received two questionnaires. Questionnaires were sent to 65 CA users and to 68 EI users. The response rate was 60.0% for CA users and 38.2% for EI users.

**Results**

**General Assessment of the Service**

The matrices in Table 1 give the users' assessment of the overall service usefulness (question 1) plotted against the users' judgment of the general relevancy of the items retrieved by his profile (question 2).
Table 1. User’s Assessment of Usefulness vs. Relevancy of Items Retrieved.

<table>
<thead>
<tr>
<th>Usefulness</th>
<th>CA Condensates*</th>
<th>Relevancy (%)</th>
<th>EI Compendex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>Few</td>
<td>Many</td>
</tr>
<tr>
<td>Major</td>
<td>0</td>
<td>0</td>
<td>25.6</td>
</tr>
<tr>
<td>Moderate</td>
<td>0</td>
<td>2.6</td>
<td>30.8</td>
</tr>
<tr>
<td>Minor</td>
<td>0</td>
<td>7.7</td>
<td>5.1</td>
</tr>
</tbody>
</table>

*No response = 2.5%

Table 2. User Rating of the Current Awareness Service Features.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percent Favoring</th>
<th>Rating of Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CA Users</td>
<td>Ei Users</td>
</tr>
<tr>
<td>Convenience</td>
<td>84.6%</td>
<td>88.5%</td>
</tr>
<tr>
<td>Speed</td>
<td>51.3</td>
<td>30.8</td>
</tr>
<tr>
<td>Thoroughness</td>
<td>35.9</td>
<td>30.8</td>
</tr>
<tr>
<td>Card Output</td>
<td>35.9</td>
<td>26.9</td>
</tr>
<tr>
<td>Covers journals and other publications which I normally would not see</td>
<td>79.5</td>
<td>84.6</td>
</tr>
<tr>
<td>Format of printouts</td>
<td>23.1</td>
<td>15.4</td>
</tr>
<tr>
<td>Location code for Whitney Library journals on printouts</td>
<td>15.4</td>
<td>7.7</td>
</tr>
<tr>
<td>Regular literature coverage</td>
<td>51.3</td>
<td>46.2</td>
</tr>
<tr>
<td>Printed compilation of references in my research area</td>
<td>41.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No response</td>
<td>2.6</td>
<td>0</td>
</tr>
</tbody>
</table>

For example, 30.8% of the CA users responding selected “moderate” usefulness in question 1 and “many are relevant” in question 2.

Of the respondents to questions 1 and 2, 84.6% of CA users and 88.5% of EI users rated the service as having “major” or “moderate” value. Similarly, 87.2% of CA users and 84.6% of EI users judged “most” or “many” of the references retrieved by their profiles to be relevant. More EI users (15.4%) than CA users (10.3%) answered “few are relevant.” This difference could reflect the search analyst’s experience and expertise with the two data bases, or problems in searching the controlled index headings assigned in EI COMPENDEX. All users marking this category were contacted directly for profile revision. A response to this category almost always correlated with a profile specific criticism in question 5.

Rating of Service Features

Table 2 shows the rating of the key features of the current awareness service by CA and EI users (question 3). Both user groups selected “convenience” and “covers publications ... not normally seen” as the two most popular features of the service. Similar features (“saved time” and “broadened subject areas monitored”) received high ratings by academic users of a major university selective dissemination of information (SDI) service (18).

A significantly higher percentage of CA users (41.0%) than EI users (11.5%) selected the feature “printed compilation of references in my research area.” The low response to the journal location feature pointed out that many users were unaware of this new feature on their printouts despite explanatory memos.
Criticisms of the Service

The response to question 5 was grouped by controlling factors. Criticisms were identified as being *profile specific*, or within the search analyst's responsibility to improve or correct; *service specific*, or amendable only by modifying the computer programs or a policy decision; and *data base specific*, or entirely controlled by the data base producer.

The response of both user groups for each category of criticism is presented in Table 3. No criticism of the service, or no response to questions 4 or 5, were indicated by 61.5% of CA users and 57.7% of EI users.

Profile-related problems pointed out the need for revising or updating a profile to accurately reflect the user's interests, or dropping or adding a data base. The problem of missing "important references seen elsewhere" was frequently traced to the source coverage or indexing policies of the data base producer. Adding an appropriate data base or, in one case, broadening the profile to compensate for the depth of patent indexing by the Chemical Abstracts Service improved the profile's performance.

A feedback mechanism for profile retrieval on a hit by hit basis is frequently included in current awareness or SDI printouts to facilitate profile refinement or document ordering (19-22). Programming costs have prevented adding an evaluation module to our current awareness service. However, the option for printout on tab-size cards partially fills this need. New users or users whose profiles need revision are asked to return the cards for those hits that are "way off" from their interests. A set of carbon printouts is retained in the library for a short period. The search analyst can then revise a profile by comparing the returned cards with the user's carbon printout for a particular update run.

A small number of users were critical of existing service policies, such as the rates, and the exclusion of abstracts from the EI COMPENDEX printouts. Users receiving their printout on cards asked to use the cards for ordering documents. This procedure was adopted and is working satisfactorily.

A serious problem for both data bases is the time lag between the publication of a document and its appearance in a data base. Users were more critical of EI COMPENDEX than CA CONDENSESATES for containing noncurrent citations. EI users were also critical of the spelled out symbols in document titles and the inability to search EI COMPENDEX by specific languages. The absence of abstracts in CA CONDENSESATES was noted as a problem by 15.4% of responding CA users.

User's Current Literature Habits

The influence of the current awareness service on the users' literature searching time (question 6) and reading time (question 7) is shown in Table 4. Apparently the time saved on literature searching by the scientists and engineers using the service is being spent reading more of the items appearing on their printouts. Carmon and Park observed similar results in a group of academic users (18).

In response to question 8, 89.7% of CA users and 82.1% of EI users stated they have one or more additional sources for their current literature needs. The results in Table 4 agree with earlier reports (15, 23) that scanning a core group of journals and informal contacts are the predominant methods used by scientists to keep up with the current literature. The high percentage of users monitoring other literature sources also confirms Pryor's (23) observation that engineers and scientists do not rely on an information
Table 4. Current Literature Activities of Users.

<table>
<thead>
<tr>
<th>Literature Searching Time</th>
<th>Percent Responding</th>
<th>CA Users</th>
<th>EI Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased</td>
<td>59.0%</td>
<td>50.0%</td>
<td></td>
</tr>
<tr>
<td>Increased</td>
<td>10.3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Not changed</td>
<td>20.5</td>
<td>38.5</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>10.2</td>
<td>11.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reading Coverage</th>
<th>Percent Responding</th>
<th>CA Users</th>
<th>EI Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read fewer articles</td>
<td>5.1</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>Read more articles</td>
<td>46.2</td>
<td>46.2</td>
<td></td>
</tr>
<tr>
<td>Read same number of articles</td>
<td>33.3</td>
<td>30.7</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>15.4</td>
<td>15.4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Methods Used</th>
<th>Percent Responding</th>
<th>CA Users</th>
<th>EI Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scan specific group of journals</td>
<td>76.9</td>
<td>53.8</td>
<td></td>
</tr>
<tr>
<td>Use Current Contents</td>
<td>15.4</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Informal contacts</td>
<td>33.3</td>
<td>19.2</td>
<td></td>
</tr>
<tr>
<td>Other (Responses included other current awareness services, and numerous abstracting or indexing services)</td>
<td>20.5</td>
<td>23.1</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>10.3</td>
<td>19.2</td>
<td></td>
</tr>
</tbody>
</table>

service as their primary information source, but as a supplementary source or a backstop mechanism to catch important references and to cover additional source publications.

A major reason that scientists and engineers continue to rely on other alerting methods is the noncurrent material inherent in all secondary information services. Midcareer or established scientists and engineers apparently resist changing their literature habits (5, 14). It would be interesting to correlate data on the users' age, experience, and career level with the response to questions 6, 7, and 8.

Information Transfer to the Users' Work

The users' assessment of any carry-over or direct transfer of the information obtained from the current awareness service to their work is shown in Table 5. Other important benefits mentioned by users included: more time for research, locating a key reference not seen before, keeping up-to-date in their research field, and expediting the preparation of annual review publications.

Transfer from an information service to the work environment also depends upon the proper functioning of "gatekeepers" who refer pertinent documents to colleagues in their work group. The extent to which a user acts as a gatekeeper can be indirectly measured by the number of colleagues and co-workers sharing the user's profile. A high percentage of both user groups indicated their profiles are seen by other people, as shown in Table 6.

Table 5. Transfer From Current Awareness Service to Users' Work.

<table>
<thead>
<tr>
<th>Professional Benefit</th>
<th>Percent Responding</th>
<th>CA Users</th>
<th>EI Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevented duplication of research conducted elsewhere</td>
<td>20.5%</td>
<td>19.2%</td>
<td></td>
</tr>
<tr>
<td>Made aware of others in the field</td>
<td>53.8</td>
<td>50.0</td>
<td></td>
</tr>
<tr>
<td>Provided new research leads</td>
<td>43.6</td>
<td>30.7</td>
<td></td>
</tr>
<tr>
<td>Suggested new viewpoints or different interpretation of research data</td>
<td>15.4</td>
<td>15.4</td>
<td></td>
</tr>
<tr>
<td>Made more time available for research</td>
<td>25.6</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>12.8</td>
<td>11.5</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>10.3</td>
<td>26.9</td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Promotional Activities of Users.

<table>
<thead>
<tr>
<th>Promotional Activity</th>
<th>Percent Responding</th>
<th>CA Users</th>
<th>EI Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share profile with colleagues</td>
<td>76.9%</td>
<td>41.0%</td>
<td></td>
</tr>
<tr>
<td>Tell others about the service</td>
<td>61.5</td>
<td>69.2</td>
<td></td>
</tr>
<tr>
<td>Suggested names of potential users</td>
<td>12.8</td>
<td>7.7</td>
<td></td>
</tr>
</tbody>
</table>
Promotional Information

The number of users who indicated that they tell others about the service offers an additional measure of user satisfaction (18) (see Table 6). Both user groups suggested names of potential users, and these persons were contacted for trial profiles. The adage that "the best advertisement is a satisfied user" has certainly proven true for our current awareness service.

Conclusions

Users of the Whitney Library Current Awareness Service expressed high satisfaction with the following features: convenience, thoroughness, speed, saving time, regular coverage of many more sources, and the tab-size card printout. Benefits realized by users of the service included: more time for reading, new contacts or awareness of other persons working in the same field, additional research leads, and avoiding the duplication of research already conducted elsewhere.

Interesting similarities were noted in the literature habits of the GE scientists responding to this evaluation survey and a group of academic scientists using an SDI service who were surveyed several years ago (18). Both the academic and the industrial researchers indicated that saving time in literature searching and covering more source publications or subject areas were the best features of a computer alerting service. As a result of using a computer search service, both academic and industrial researchers reported a decrease in literature searching and a corresponding increase in reading and studying.

No definite comparisons can be made in the literature habits of the engineers and the research scientists in the two GE user groups. The typical EI user at General Electric appears to be more research- and development-oriented than product- or process-oriented; this user resembles the research scientist's information needs and literature usage patterns. However, a smaller percentage of EI users selected the feature "printed compilation of references in my research area" in question 3 and indicated that they regularly scan a group of journals.

The evaluation provided the current awareness librarian with needed user feedback and identified users whose profiles were not performing satisfactorily. These users often did not realize that their profile performance could be substantially improved. Dissatisfied users may ignore the printouts and consider the service of little value or may cancel the service. Particular attention is paid to the reasons for a profile cancellation, since a certain number of subscriptions is needed to cover the major costs of the service. Users changing to a new position or project assignment within the company are asked to suggest a colleague who will be continuing the old research area and are encouraged to establish a profile pertaining to their new assignment. Users with profile relevancy or retrieval problems are encouraged to try a profile revision before canceling.

The survey reinforced the search analyst's responsibility to contact all users of an information service regularly. The interests or assignments of industrial researchers may change frequently, making it difficult for the search analyst to keep profiles current unless their performance is continually monitored. In some cases, a user's interests may shift gradually so that the busy scientist or engineer neglects to update the profile unless contacted personally by the search analyst.

Some users prefer to develop their own profiles, while others appreciate the search analyst's efforts in researching additional search terms or suggesting alternate search strategies. This search analyst has found the following techniques effective for initiating a profile revision, particularly for off-site users or when the library budget cannot support extensive testing of search strategies via an on-line search system.

- Send the user a copy of his or her current profile with the suggested revision outlined and request approval for the proposed changes.
- Set up a separate test profile with the proposed changes for several update runs. Send the user both printouts pointing out the hits that would be affected by the different strategies.
- Ask the user to mark the printouts according to a key, such as “good,” “way off,” and “cannot tell,” and return the printout for revision analysis. Users receiving their printouts on cards need only return the cards for the irrelevant or “way off” hits.

The search intermediary who is dedicated to maintaining a vital, effective information service must actively reach out to all users in order to keep them satisfied and to ensure their continued participation in the service.

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**Appendix:**

Whitney Library Current Awareness Service Evaluation Questionnaire

1. How would you rate the overall usefulness of this service to you?
   - Major value
   - Moderate value
   - Minor value
   - No value

2. How closely do the articles in your printouts describe your topic?
   - Most are relevant
   - Many are relevant
   - Few are relevant
   - No articles are relevant

3. What features of the current awareness service do you like? (Check all applicable)
   - Convenience
   - Speed
   - Thoroughness
   - Card output
   - Covers journals and other publications which I normally would not see
   - Format of printouts
   - Location code for Whitney Library journals on printout
   - Regular literature coverage
   - Printed compilation of references in my research area
   - Other (please specify)

4. What features of the service would you like changed? What additional features would you like to see? What data bases would you like added?

5. Please check any aspects of the service which you find unsatisfactory: (If any of these blanks are checked the current awareness librarian will contact you to see if your profile can be revised or improved.)
   - I receive too many references and would like the topic narrowed.
   - I receive too few references and wish to broaden the subject.
   - My interests have changed and I am now interested in a new topic.
   - Too many of the references are irrelevant and do not describe the topic which I requested; the search should be reformulated.
   - Important references seen elsewhere have not been picked up on my printouts.
   - I receive too many foreign language references.
   - The data base(s) are not appropriate for my research field.
   - Printouts come too late.
   - It is difficult to read the printouts.
   - There are no abstracts on the printouts.
   - The service is too expensive.
   - The articles are not current enough.
   - Explanations of the current awareness and/or analysis of search results by the search librarian.
   - The coding of my search profile is too complex; I cannot evaluate how the profile is working, e.g., which terms or combination of terms will cause hits to be selected.
   - Other (please specify)

6. Since you have been receiving the current awareness printouts, has the amount of time spent on literature searching
   - Decreased
   - Increased
   - Not changed

7. As a result of the current awareness service do you
   - Read fewer articles
   - Read more articles
   - Read the same number of articles

8. Do you have other means of keeping up with the current literature?
   - Personally scan specific group of journals
   - Use Current Contents
   - Informal contacts
   - Other (please specify)
9. Has the current awareness service helped you in your work? (check all applicable)
   - Prevented duplication of research conducted elsewhere
   - Made aware of others in the field
   - Provided new research leads
   - Suggested new viewpoints or different interpretation of research data
   - Made more time available for research
   - Other (please specify)

10. How many other people see your printout? __________

11. Do you tell other people about the current awareness service? __________

12. Can you recommend others who might be interested in a free trial search profile?

13. Comments:

   Please check:
   - CA CONDENSATES user
   - COMPENDEX user

Name (optional) __________
Profile number(s) __________

---

Literature Cited


Special Libraries


Manuscript received May 11, 1978. Revised manuscript accepted for publication Sep 18, 1978.

Carolyn L. Warden is search librarian, on-line services, Whitney Library, General Electric Corporate Research and Development, Schenectady, N.Y.
Selecting Materials for Interdisciplinary Programs

Martha J. Bailey

Purdue University, Physics Library, West Lafayette, Ind. 47907

In selecting materials for a departmental library, the subject specialist must consider not only the teaching and research programs of the department but also the interdisciplinary programs within the university. The circulation of books and journals in the Physics Library, Purdue University are examined and the specific subjects of optics, solid state, low temperature, and astronomy and astrophysics are discussed.

In academic libraries that have numerous branches, it is often difficult to determine which branch should be the major repository for a specific subject. Various formulas have been suggested for allocating materials budgets according to subject, according to holdings in specific subjects, or according to types of graduate programs (1). However, neither the subject matter nor the teaching disciplines fit into these neat budget categories. Many topics are treated from the theoretical and the applied viewpoints, e.g., theoretical mechanics and applied mechanics. Many are interdisciplinary in nature, e.g., biophysics. This paper describes the long-range program by the Physics Library at Purdue University to evaluate the collection; the data were used in preparing a collection development statement.

In 1970 the author, as an aid to selecting material, commenced a study of the borrowers of items from the Physics Library. Most studies of library use focus on the age of the materials in the collection, e.g., how many items five years old, ten years old, and so on, circulate. Some examples are Sandison (2) and Chen (3). Many are conducted over short periods of time; an example is Wenger (4) who conducted a six-month study. The Physics Library staff surveys to what extent material is used by Physics Department students and faculty compared to students and faculty from other departments on campus. From 1970 to the present, two days each year are set aside for the staff to check through all the circulation cards in file to determine what departments are represented by borrowers. Usually this is scheduled for Thanksgiving Break and Spring Break because overdues are not sent those weeks.

Table 1 is a summary of the Physics Library circulation studies for the period 1970–76. Over the years the students and faculty in the School of Science, Electrical Engineering, Mechanical Engineering, and
Chemical and Materials Engineering have accounted for the bulk of the circulation. There does not seem to be any seasonal pattern to the circulation.

There are drawbacks to using these data because circulation is influenced by several extraneous factors. For example, in 1974 the bulk of monographs, serials, and periodicals in science and technology (Dewey 500 and 600) in the General Library collection were given to the departmental libraries. This meant that users had to go to the science and engineering libraries for material in these classifications. In both 1974 and 1976 the library system dropped $40,000 worth of subscriptions including many duplicate subscriptions. In 1977 the seven engineering libraries were combined into one location. With a large centralized collection and improved exit controls, the circulation figures in the Engineering Library skyrocketed beyond all anticipation. However, many engineering students and faculty continue to use the Science Library collections.

Circulation figures are often affected by the way in which the subjects are assigned to the various schools and departments in the university. Much of the material in applied physics is shelved in the Engineering Library. The materials on bionucleonics are housed in the Pharmacy Library, but there is also a School of Nuclear Engineering that shelves its materials in the Engineering Library. People in the Audiology and Speech Department (in the School of Humanities) often use the acoustics journals in the Physics Library. The material on biophysics is shelved in the Life Science Library.

Another factor is that most circulation studies do not distinguish between how many times a book or journal is used and how many people use it: e.g., one person may represent all of the circulation data for one book.

In 1973 the library system implemented a photocopy service in which most of the campus libraries now participate. Students and faculty members who have university account numbers may request photocopies to be sent to them in the campus mail. Most requests are filled within 24-28 hours. Table 2 shows data accumulated by the Physics Library staff for the period 1973-76; 46% of the material was requested within five years of publication and 66% within ten years.

The examination of photocopy requests (Table 3) indicates a similar pattern of use by the departments mentioned above, with Chemistry Department personnel the largest group of users. However, the Pharmacy School also uses the service; this use is scattered through several disciplines in the school, as seen by the requests for solid state materials. Most of

<table>
<thead>
<tr>
<th>Date of Publication</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>1</td>
</tr>
<tr>
<td>1971–75</td>
<td>45</td>
</tr>
<tr>
<td>1966–70</td>
<td>22</td>
</tr>
<tr>
<td>1961–65</td>
<td>12</td>
</tr>
<tr>
<td>1956–60</td>
<td>7</td>
</tr>
<tr>
<td>1951–55</td>
<td>6</td>
</tr>
<tr>
<td>1941–50</td>
<td>3</td>
</tr>
<tr>
<td>1931–40</td>
<td>2</td>
</tr>
<tr>
<td>1921–30</td>
<td>2</td>
</tr>
<tr>
<td>1881–1911</td>
<td>0.0</td>
</tr>
</tbody>
</table>

100%
the students and faculty members in the Physics Department use the self-service photocopy facility that is available in the department and do not request this service from the Physics Library.

In 1975 the Research Development Unit of the Purdue University Libraries and Audio-Visual Center conducted a system-wide study of circulation (5). This examined the materials circulated and the photocopies requested during the three month period February to April 1975.

In Table 1 the data from the Physics Library portion of the 1975 survey are compared to the data the staff gathered for the period 1970–76. In 1975 the Physics Department students and faculty represented 61\%, Chemistry Department 7\%, Electrical Engineering 4\%, Mechanical Engineering 3\%, and Chemical and Materials Engineering 3\%.

Late in 1977 a staff member examined in detail the circulation in four representative subjects: optics, solid state, low temperature, and astronomy and astrophysics. The data gathered in this phase of the study are being incorporated into a collection development statement for the departmental library.

**Optics.** Due to the variety of applications, optics is a subject which is collected in a large number of libraries on campus. The Physics Library acquires much material cataloged in Dewey 535, but other departmental libraries purchase items relevant to their own concerns. For example, optics of photography is classified in photography and is purchased by the fine arts collection in the General Library.

### Table 3. Photocopy Requests 1973–76

<table>
<thead>
<tr>
<th>Department</th>
<th>Total Number of Requests N = 1420</th>
<th>Optics Requests N = 152</th>
<th>Solid State Requests N = 269</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical and Materials Engineering</td>
<td>7%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>59</td>
<td>83</td>
<td>44</td>
</tr>
<tr>
<td>CINDAS</td>
<td>12</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>3</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>4</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Physics</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Misc</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 4. Distribution of Subscriptions on Campus—1977

<table>
<thead>
<tr>
<th></th>
<th>Optics</th>
<th>Solid State</th>
<th>Low Temperature</th>
<th>Astronomy and Astrophysics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>9</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>19</td>
<td>23</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>General Library</td>
<td>. . .</td>
<td>. . .</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Geoscience</td>
<td>. . .</td>
<td>. . .</td>
<td>. . .</td>
<td>6</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>. . .</td>
<td>. . .</td>
<td>. . .</td>
<td>8</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>1</td>
<td>. . .</td>
<td>. . .</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>24</td>
<td>25</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Psychology</td>
<td>1</td>
<td>. . .</td>
<td>. . .</td>
<td></td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>. . .</td>
<td>. . .</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 titles</td>
<td>26 titles</td>
<td>10 titles</td>
<td>32 titles</td>
</tr>
</tbody>
</table>
Table 5. Duplicate Subscriptions

<table>
<thead>
<tr>
<th>Number of Libraries With Subscriptions</th>
<th>Optics</th>
<th>Solid State</th>
<th>Low Temperature</th>
<th>Astronomy and Astrophysics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>...</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>9</td>
<td>...</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>14</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>3</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>25 titles</td>
<td>26 titles</td>
<td>10 titles</td>
<td>32 titles</td>
</tr>
</tbody>
</table>

Table 6. Circulation of Monographs

<table>
<thead>
<tr>
<th>Department</th>
<th>Optics (Sample)</th>
<th>Solid State (Sample)</th>
<th>Low Temperature (Sample)</th>
<th>Astronomy and Astrophysics 1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>52%</td>
<td>86%</td>
<td>48%</td>
<td>44%</td>
</tr>
<tr>
<td>Aeronautical Engineering</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>1</td>
</tr>
<tr>
<td>Agriculture School</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>5</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>5</td>
</tr>
<tr>
<td>Chemical and Materials Engineering</td>
<td>...</td>
<td>1</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6</td>
<td>4</td>
<td>...</td>
<td>8</td>
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<tr>
<td>Civil Engineering</td>
<td>...</td>
<td>1</td>
<td>...</td>
<td>...</td>
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<tr>
<td>Electrical Engineering</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Humanities School</td>
<td>...</td>
<td>...</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>3</td>
<td>...</td>
<td>...</td>
<td>12</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>3</td>
<td>...</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>...</td>
<td>...</td>
<td>4</td>
<td>...</td>
</tr>
<tr>
<td>Misc.</td>
<td>26</td>
<td>5</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

library, while physiological optics materials are used in the life sciences, veterinary medicine, psychological sciences, and pharmacy areas.

Of twenty-six journal titles on the subject of optics, the Physics Library has twenty-four, the Engineering Library has nineteen, and the Chemistry Library nine (Table 4). These twenty-six are journals relating to the subject to which the library system currently subscribes. There is considerable duplication of subscriptions, with one title in five locations, one in four, eight in three locations, ten in two, and five in only one location (Table 5).

The bulk of the photocopy requests received by the Physics Library were from the Chemistry Department students and faculty for journals not in their collection (Table 3). In a 10% sample of the shelf list, 52% of the circulation was to the Physics Department (Table 6). The books circulated from zero to nine times, for an average of two per book (6).

Solid State. Solid state also has wide applications on campus. However, the Physics Department has a large National Science Foundation grant which supports faculty members, research people, and graduate students. The Department has a long history of expertise in the subject. Karl Lark-Horowitz, whose work on transistors paralleled that of Nobel prizewinner John Bardeen, was department head for many years; two of the last three department heads have had solid state backgrounds. By agreement between the two librarians involved, in the past five years the Physics Library has been collecting heavily in the field while the Chemistry Library is more selective. Currently, the Physics Librarian and the
Engineering Librarian do not coordinate purchases.

About 20% of the total photocopy requests were for solid state journals (Table 3). The Chemistry Department and the Engineering Schools accounted for the bulk of the requests, generally following the pattern of Table 1.

In an examination of twenty-six journal titles on the subject of solid state, the Physics Library had twenty-five of them, Engineering twenty-three, and Chemistry nine (Table 4). There was not as much duplication of subscriptions as in optics, with nine titles in three locations, fourteen in two locations, and three in only one location (Table 5).

Due to the expense and time required for programming, it was not feasible to do a detailed breakdown of the circulation study for 1975. Only 44 of the approximately 1,600 circulations for the Physics Library were in solid state (Dewey 530.41). In a 10% sample of the shelf list, the overwhelming circulation of 86% was to the Physics Department (Table 6). The books circulated from zero to twenty-eight times for an average of eight per book. Ninety-four percent of the sample circulated at least twice since they were purchased.

Astronomy and astrophysics. During the 1960s the Aeronautical Engineering group at Purdue was quite large, but as NASA funds ceased, the department changed its focus. Since Neil Armstrong, Gus Grissom, and Gene Cernan, the early astronauts, were Purdue graduates, there probably will continue to be some incentive to maintain a large collection. Introductory courses in astronomy are taught in both the Geoscience and Physics Departments; the Physics Department has a graduate program in astrophysics. The collection is widely scattered through General, Geoscience, Physics, Math, and Engineering Libraries. Examination of thirty-two journals in the subject of astronomy and astrophysics owned by the system revealed that the Engineering Library had sixteen, Physics fifteen, Math eight, General Library seven, and Geoscience six (Table 4). None were held in all five locations, one in four, three in three, eleven in two, and seventeen in only one location (Table 5).

There were so few requests for photocopies that the data were omitted from Table 3. The 1975 circulation study provided a detailed breakdown of Dewey 520-529; there were eighty books circulated in this category. Of these, 44% went to physics, 12% to math, 10% to humanities, and 8% each to chemistry and electrical engineering (Table 6). The circulation in the humanities was to students enrolled in introductory courses in astronomy. Surprisingly there was no circulation to the Geoscience Department whose faculty and students complain about lack of material in their own collection.

Low Temperature. Low temperature also has wide applications in science and engineering. The bulk of research work seems to be in engineering rather than physics.

On examining ten journals on the subject of low temperature, the Engineering Library had seven of them and the Physics Library four (Table 4). There was minimal duplication of subscriptions (Table 5).

There were so few requests for photocopies that they were omitted from Table 3. Since only two books in low temperature were represented in the 1975 circulation study, every tenth card in the shelf list under Dewey 536.56 and 621.59 was checked. Of these about one-half went to the Physics Department with the rest scattered widely (Table 6). The individual titles in the study circulated from 0 to 11 times since their purchase for an average of 4.6 circulation per book. Sixty percent of the sample circulated at least twice since purchase.

Collection Development

Based on the analysis above it was determined that the Physics Library monograph purchases in optics should be limited to specific titles requested by Physics Department faculty. A few of the duplicate subscriptions may be dropped.

The library should continue to purchase solid state monographs at the present high level. Due to the large number of researchers on campus involved in solid
state chemistry, physics, and engineering, there is currently no need to coordinate purchases with the engineering librarian. The duplicate subscriptions should be examined again.

The purchase of material on astronomy and astrophysics should be evaluated. A few subscriptions will continue to be located in the General Library collection because they are indexed in Readers' Guide to Periodical Literature. The remainder of the subscriptions should be examined to see in which services they are indexed to determine where they should be placed in the system. The author plans to study the monographs and serials cataloged in Dewey 520–529 which are owned by the system. Some volumes may be relocated to complement the journal holdings in the various departmental libraries.

Since there seems to be little outside demand for both the journals and monographs on low temperature held by the Physics Library, purchases should be limited to selected titles requested by the faculty. A few duplicate subscriptions may be dropped.

**Evaluation of Program**

The examination of circulation once or twice a year provides some indication of what groups are using the departmental library. It may be a useful instrument for libraries that do not have a computer circulation system. Massive circulation studies can provide valuable information by supplying detailed breakdowns on the books circulated in a given classification number, such as solid state, from all locations on campus. However, such computer analyses involve considerable labor and often may not be worthwhile. One, for the Engineering Library collection, was prepared (7). The examination of the journals in the subject fields also provides data on which to evaluate duplication of subscriptions in the system. The examination of photocopy requests provides another view. The requests by pharmacy and life science students and faculty were a surprise. There was no attempt to examine the specific references which people requested; this could be done on a short-term basis.

**Conclusion**

Comparison of circulation surveys 1970–76 with an in-depth circulation survey in 1975 indicated that the students and faculty from the Chemistry Department, Electrical Engineering, Mechanical Engineering, Chemical and Materials Engineering, and Mathematics Departments were the chief borrowers from the Physics Department. Examination of the monograph circulation, photocopy requests, and journal holdings provided some insight into which departments on campus use the material in the areas of optics, solid state, low temperature, and astronomy and astrophysics. The author used these data in preparing a collection development statement for the departmental library.

**Acknowledgments**

Several people compiled the data used in this study. Jane Gold compiled those data concerning monograph and journal use in the four subject areas. Julia Cook prepared the historical data on photocopies. Jill Springer, Andrea Gos, and Julia Cook prepared the circulation statistics for 1970–76.
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6. One study indicates that two borrowings can be considered to be cost effective. This was reported by Thomas J. Galvin and Allen Kent / Use of a University Library Collection: A Progress Report on a Pittsburgh Study. *Library Journal* 102 (no. 20): 2319 (Nov 15, 1977). Recent data indicates that the average circulation for new books received in the Physics Library is 3.4 per title. Bailey, Martha J. / Circulation of New Books Received 1970–1976. (unpublished manuscript).


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Art Libraries
International and Interdisciplinary

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The art library is a well-established type of special library. Characteristic contents are identified, as are some typical concerns and/or problems of the art library, e.g., organization and preservation of materials, and clientele and staffing. Past activities of art librarians in ALA and SLA are reviewed. New organizations for art librarians—ARLIS in the United Kingdom, ARLIS/NA in North America—have emerged in the last decade. Art library activity in other European countries is highlighted. In conclusion an account is given of international aspects of art librarianship in the 1970s.

THE SPECIAL LIBRARIES represented in the International Federation of Library Associations and Institutions (IFLA) embrace a universal range of subjects, from technology, business, social science, and law, for example, to historical collections in the arts and humanities. Common meeting grounds for some have been provided by IFLA in sections such as those for specialist librarians in law, administration, social science, and astronomy and geophysics, for example. Not all subject disciplines of IFLA’s specialized library members are represented in this structure. One might understandably be concerned that proliferation of subject sections would create an overstructured division of the Federation.

However, there is one group of libraries that, confronted with an established body of specialized subjects and materials, and some common problems, have joined together to share information and to seek solutions to these problems, first on a national basis and more recently on an international level. Art librarianship will be reviewed here and some of its international manifestations; in so doing persuasive reasons will be given for consideration of art libraries as a section of the Special Libraries Division of IFLA.

What is meant by “fine arts”? Definitions of the term leave quite a bit of latitude for inclusion. Of the term “art,” Herbert Read says that:

. . . Its proper use is restricted to spheres in which utility is not the first consideration. . . . In the past the products of skill in this sense have been called the ‘Fine Arts,’ and if that phrase now seems somewhat old-fashioned, it is only because the modern age

has been responsible for the invention of a wide range of new materials and processes which greatly extend the range of art. We inevitably associate the phrase ‘the Fine Arts’ with the arts of painting, sculpture, and architecture; we hesitate to include within its scope arts such as the film or works that have some claim to beauty but are produced by machine tools rather than the hand. . . . Nevertheless, the underlying principles remain the same: skill is always involved, but so is the imagination (1).

Speaking from a practical viewpoint, the term “fine arts” usually includes the so-called “visual arts”: architecture, painting, sculpture, drawing, printmaking media, photography, and the decorative (or “applied”) arts, e.g., furniture, glass and ceramics, and textiles. In a broader sense of the term “fine arts” one might also include the “performing arts”: music, theater, dance, opera, motion pictures, and television. Dividing lines between the visual arts and the performing arts have become increasingly blurred in the past two or three decades, even as the limits of what we consider to be “art” have been expanded.

Still, for clarity of presentation this paper will concentrate on the visual arts. The extent to which performing arts might be included with visual arts in an Arts Libraries Section is a topic which might engage us in serious consideration for some time. This presentation focuses on the visual arts because the author has been a librarian in art and history museums for the past nineteen years.

Furthermore, the author believes that library matters concerning the visual arts alone are well worth consideration as a separate section in the larger field of special libraries.

Dr. Frank McKenna undertook to define “special libraries” noting several characteristics common to all special libraries. Among these are a special subject collection or a collection in a special format; organization of the collection for a specialized clientele; organization of the specialized collections so as to anticipate specialized services required by this particular clientele; and specialized service offered by the staff to this clientele (2).

Special Types of Art Library Material

Let us examine art libraries in terms of the characteristics that McKenna cites. Most apparent, of course, is the body of special subject material typically found in the art library: monographs and journals on art, architecture, and in some cases archaeology or anthropology, as well as extensive visual material. Dr. Wolfgang Freitag has traced the origin and development of the literature of art history. Freitag notes that although landmark works in art history were published in the Renaissance by Vasari, Ghiberti, and Alberti, the literature expressing a scholarly study of art history is generally agreed to have begun with the publication in 1794 of Johann Winckelmann’s Geschichte der Kunst des Altertums (3). The emergence of various types of art literature—artists’ biography (the earliest type), catalogs of private collections, guidebooks, auction catalogs, historical studies, and so forth—is outlined in Freitag’s text.

Extreme variations of format in art literature are not uncommon. A large percentage of volumes in art libraries are oversized and require special shelving and reading facilities. Many of these volumes are portfolios or slipcases that contain loose plates: prints, photographs, or even original works of art on paper.

Catalogs of art exhibitions and art collections, those most characteristic and essential components of the art library,
are issued in every imaginable size, shape, and format, from standard-sized books and leaflets to decks of printed cards, packets of loose slides or photographs, phonodiscs, and microfiche. Many of the exhibition catalogs fall into the category of ephemera, which constitute the backbone of most art libraries. These ephemera—pamphlets, small catalogs, press-clippings, exhibition announcements, and such—are more likely to be filed in cabinets or boxes than on shelves.

Visual materials are required in profusion for any art library. This sometimes means original works of art, but more often there will be reproductions of art works. Large study photograph collections of works of art are essential to the art historian, professional artist, art student, and museum curator. In addition to photographs, many universities, schools, and museums have collections of color slides of art works and, increasingly, microforms—film or fiche—that combine textual and visual material. Some art libraries are now adding videotape and motion picture films as well. While the management of these nonbook media shares some problems with audiovisual media outside of the fine arts area, it would be a mistake to consider, and manage, the nonbook art materials outlined here apart from the related fine arts book collection, if the art library facility is to be fully effective.

Preservation

Preservation problems in libraries are common to us all, because of some unfortunate technological developments in papermaking and book production in the late 19th century, as well as pollution, water damage, vermin, and simple wear. Art libraries have some special preservation problems because of the fragility of the visual material in some cases. Illustrations in books and portfolios are often original engravings or lithographs, susceptible to mishandling, and attractive to print collectors. Art library collections frequently hold original drawings or sketches that require special protection for safe handling. The impermanence of some photographic processes, especially in color slides and photographs, creates particular problems for the visual resources librarian.

Organization

The organization of art library materials has produced a number of special systems or modifications of systems. Note, for example, the use of the computer to control a large collection of exhibition catalogs, a method devised for the University of California at Santa Barbara by William Treese (4); the Iconclass classification system in use at Marburg for filing art reproductions according to their subject matter, devised by the late Dr. H. van de Waal (5); and a computer cataloging system for slides, widely used in art slide libraries, established by Simmons and Tansey at the University of California at Santa Cruz (6).

Clientele and Staffing

The clientele of the art library are often, but not always, specialists. They fall into three broad categories, as noted by Freitag, the professional, the student at various stages below the graduate level, and the layman, for whom art is an avocation. The specialist user, the professional, may be an art historian, graduate student, critic, professional artist, or museum curator (3, p. 580).

The professional librarian who serves this specialist clientele is often an art specialist in his or her own right, or becomes one in the course of work with the material. The question of whether an advanced degree in art history is required for effective work in art librarianship is a topic that has lately engaged the interest of a number of art librarians in the United States. While the MLS is generally held to be the hallmark of the professional librarian in the United States, the Standards Committee of the Art Libraries Society of North America (ARLIS/NA) asserts that in addition an advanced degree in art or art history is highly desirable for the art librarian, if not an absolute requisite. It should be recognized that in an art school that trains
professional artists, the librarian who has art studio training (as well as the MSLS) will be far more effective in recognizing the needs of art students and faculty.

For British viewpoints on “Education for Art Librarianship” see the papers from a conference by that name that was held in April 1972 at the College of Librarianship in Aberystwyth, Wales (7). The sponsor of that conference was the Art Libraries Society, which is discussed in a following section.

So much, then, for fine arts libraries and what they are. Where are art libraries in the broader field of librarianship, and how are they represented in professional associations of librarians? In a broad overview such as this, the worldwide situation of art libraries cannot be fully examined; instead some general comments, with special reference to several U.S. organizations, will be offered.

**ALA and SLA**

The two largest library associations in North America are the American Library Association (ALA), founded in 1876, and the Special Libraries Association (SLA), founded in 1909. The membership in both associations is international.

Art librarians in the American Library Association did not assume particular visibility in the organization until 1924, when an Art Reference Round Table (ARRT) presented papers of special interest at the annual conference of ALA. The Art Reference Round Table continued to meet annually in ALA until 1959. At that time ALA was reorganized, and the former ARRT became an Art Subsection (later, Section) of the ALA’s Association of College and Research Libraries (ACRL). Early activities of the ARRT are outlined in a chronology prepared in 1961 by Julia Sabine and two other art librarians (8).

The Art Section of ACRL continues to have special meetings during ALA’s annual conferences. They publish occasional news notes in the newsletter of the ACRL. Although as many as 1,000 ACRL members may express some interest in the Art Section, via a check mark on the membership renewal form, only about 50 or 60 art librarians per year take an active part in the Art Section’s annual programs.

In 1929 art librarians in the Special Libraries Association were instrumental in the organization of a Museum Group (later, Museum Division, and since 1971, the Museums, Arts, and Humanities Division). Other librarians in SLA who were concerned with visual materials in all subjects formed a Picture Division in 1952; some art librarians participate in this Division’s activities as well. Both the Museums Division and the Picture Division of SLA publish bulletins, plan special meetings during the SLA Annual Conference, and have occasional programs throughout the year. Membership figures in June 1976 were Museums, Arts, and Humanities Division, 754; Picture Division, 174.

It should be noted that the art librarians who participate in the Museums and Picture Divisions of SLA represent art libraries in all types of institutions: special libraries, museums, public libraries, colleges, universities, and art schools.

**ARLIS**

In 1969, art librarians in Great Britain, led by Trevor Fawcett, founded the first national organization to be devoted
entirely to art libraries and art librarianship, the Art Libraries Society or ARLIS. By U.S. standards a small organization, the membership of ARLIS in October 1973 included 52 personal members and 80 institutions. A small group, perhaps, but extremely dynamic, generating considerable productive activity through meetings, conferences, and the excellent ARLIS Newsletter, of which 26 numbers were published between October 1969 and March 1976. In addition to news items, book reviews, and want lists, some issues of the newsletter have been devoted to coverage of topics such as education for art librarianship, exhibition catalogs, and microform publications in art libraries.

The purpose of ARLIS is stated on each issue of the newsletter: "To promote art librarianship particularly by acting as a forum for the interchange of information and materials." A brief history of the beginnings of ARLIS appeared in the Society's Directory of Members 1973/74 (9). In that history it is noted that early publicity sent out by ARLIS attracted inquiries from all of the major English-speaking countries, as well as from France, Germany, and Argentina.

ARLIS/NA

Undoubtedly one of the inquiries from the United States was from Judith Hoffberg who, following visits in Britain with many of the ARLIS members, was inspired to return to the United States with a plan for a similar art libraries organization which might become affiliated with ARLIS and other similar societies. In mid-1972 at a gathering of about a dozen art librarians from the United States and Canada, Hoffberg proposed the development of what has become the Art Libraries Society of North America (ARLIS/NA). An organization meeting held in New York in January 1973 attracted over 80 interested librarians. Once founded, the society expanded its membership dramatically in the first three years. There are now about 950 members, personal and institutional. Annual conferences have been held by ARLIS/NA each January since 1973. A bimonthly newsletter serves the all-important function of communication throughout the year. Published since November 1972, the ARLIS/NA Newsletter carries committee reports, lengthy accounts of the annual meetings, book reviews, reports of chapter activities, notices of new publications, and a variety of news items. An annual membership directory is also distributed to members.

From its beginning, ARLIS/NA has been an international society, with charter members from Canada as well as the United States, and an affiliation with ARLIS in the United Kingdom. Other countries are now represented, according to the 1976 membership directory of ARLIS/NA: England (21 members), France (5), Germany (I), Israel (2), Italy (I), Japan (I), New Zealand (2), Australia (7), Norway (1), and Sweden (1).

The executive secretary of ARLIS/NA was Judith Hoffberg until November 1977*; she was also the editor of the ARLIS/NA Newsletter. An account of the early years of ARLIS/NA was presented by Hoffberg at IFLA's 40th general meeting in Washington, D.C., November 1974 and was published the following year in the journal of the Special Libraries Division of IFLA, INSPEL (10).

Art Libraries Activity in Other Countries

In the meantime, organizations of art libraries were active in other countries as well. Through reports in the ARLIS Newsletter (U.K.) one learned of such activities as the following.

In Canada an "Art Libraries Committee" was founded in 1967 under the umbrella of the Canadian Libraries Association (11). In France, there was news of a "subsection of art libraries" (Sous-Section des Bibliothèques d'Art) in the Association des Bibliothecaires Français (ABF) and a provisional directory of libraries responsible for art collections throughout France, compiled by the Sous-Section in 1975 (12). In another account of

French art libraries, a report in 1974 stated that there were about 220 libraries in France devoted wholly or chiefly to fine arts, of which 39 were in Paris (13).

In Germany a "working party of art libraries" (Arbeitsgemeinschaft der Kunstbibliotheken) was established in 1964 to coordinate activities among six of the major German art libraries, which were located in Berlin, Cologne, Munich, Nu- remberg, Florence, and Rome (14).

Recently, a new Art Libraries Society, patterned after the society in Britain, was founded in Australia and New Zealand (ARLIS/ANZ). We understand that the groundwork is now being laid for an ARLIS/Sweden, as well.

These highlights indicate some of the widespread cooperation among art libraries that has been developing.

International Aspects of Art Librarianship

In April 1976 international art librarianship moved into a new phase when an International Conference on Art Periodicals was convened at the Victoria and Albert Museum in London and continued at the University of Sussex in Brighton, England. The conference was sponsored by the Art Libraries Society, with participation in planning by the Art Libraries Society of North America. The conference, a stimulating event in itself, brought a dramatic demonstration of widespread interest in art librarianship at the international level. Among the over 130 participants were distinguished representatives of art libraries in France, Germany, Canada, the Netherlands, Australia, Nigeria, Sweden, Norway, and Denmark.

The concluding session of the Brighton conference was devoted to the question of an "ARLIS International." Position statements were presented by Trevor Fawcett (for Britain), Judith Hoffberg (for the United States), Jacqueline Viaux (for France), and Melva Dwyer (for Canada). Of particular relevance is Viaux's position, which was that an ARLIS International should be represented within the structure of IFLA. She emphasized the importance of international cooperation among art libraries, of communication among widely separated art librarians, and of standardization in procedures, e.g., bibliographic description, that would be of benefit to art libraries. Viaux stated that IFLA provided an established structure within which international art librarianship might flourish.

Art librarians left the Brighton conference with a keener awareness of the potential benefits of an international association and with several divergent views of how this might be effected. To date there has been no further material progress toward an international organization, although interest and discussion continue.

Meanwhile, new steps have been taken toward international cooperation in art librarianship through publications of international authorship. *Art Libraries Journal*, edited by Philip Pacey, began publication under the sponsorship of ARLIS in the spring of 1976. It is concerned with the documentation and librarianship of art and design throughout the world. In its four issues to date, *Art Libraries Journal* has published articles of substance by art librarians from several countries and has documented the Brighton conference of 1976 (15). The present editor is Sonia French.

An international committee of art historians and art librarians has undertaken the documentation of art and art history on an unprecedented scale with the publication of *RILA: Répertoire International de la Littérature de l'Art* / *International Repertory of the Literature of Art*, beginning on a regular basis in 1976. A comprehensive abstracting service covering all periods from medieval art to the 20th century, it is the work of teams of librarians and art historians throughout the world, coordinated through several European regional offices and the central editorial offices in Williamstown, Mass. *RILA* is sponsored by the College Art Association of America, the Union Académique International, and the International Committee for the History of Art (16).

Most recently, ARLIS in the United Kingdom has sponsored an *Art Library Manual, a Guide to Resources and Practice*, edited by Philip Pacey. Published in the United States by the Bowker Company, *Art Library Manual* is the work of 21 contributors (20 British and 1 American) (17).
Conclusion

The author has demonstrated the existence of a concern with art librarianship on an international scale, and illustrated some of the efforts so far among art libraries toward communication and cooperation. Further progress in international art librarianship can be fostered through the recognition of that discipline in the Special Libraries Division of IFLA with the creation of an Art Libraries Section. (Following the 1977 IFLA Conference an Art Libraries Round Table was established within the Special Libraries Division. Jacqueline Viaux is its first chairman.)

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Programming Aptitude as a Function of Undergraduate Major

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A study has revealed that math/science majors performed significantly better and education majors significantly worse than other students in a course involving computer programming for library applications. Further analysis of the data shows that the differences for these groups are even greater than previously reported and indicates that similar differences, although more subtle, may exist for language and history majors. It is suggested that employers might wish to consider these criteria when other factors are equal.

Computer programming has come into its own as a desirable library skill just within the last few years. This is a direct result of substantial improvements in hardware and software coupled with an increased awareness on the part of librarians and library educators of the benefits to be derived from first-hand knowledge of the subject. The reason for this is not just that libraries have become increasingly involved with automation; it is also that libraries and information centers require a variety of programming techniques, some of which, such as text processing and string manipulation, are not a standard part of traditional scientific or business data processing. This situation is reflected in the choice of programming languages for library applications.

Who does well?

It has been thought in many quarters that math/science majors would make the best programmers. A number of years ago, the author heard a prominent special librarian say that she would only hire programmers for her library if they knew calculus. When questioned about this, the librarian admitted that calculus was not systems such as those of SDC, Lockheed, and OCLC all the librarian needs to know is the interface language of the system; the actual programming will have been done beforehand. However, there are always local and regional needs, particularly in special libraries and technical information centers, that can only be addressed properly by competent staff members familiar with the problems involved.
necessary for the applications in her li-
brary but she also indicated that the extra
training in symbol manipulation should
still make for better performance.

This kind of thinking, however well
intentioned it may be, is not a substitute
for empirically gathered data on the sub-
ject. After several years of teaching data
processing for libraries, the author de-
cided to test the librarian's hypothesis by
examining grade distributions as a func-
tion of undergraduate major. If the as-
sumptions were correct, then the results
would show a higher number of
math/science majors with better than
average marks in data processing—at
least when other factors, such as previous
programming experience, were held equal.

It should be noted that the course
examined was a second-level course
involving programming for such applica-
tions as keyword indexing, SDI, and docu-
ment retrieval. Elementary applications of
a numerical kind, such as the computation
tallies, percentages, and other basic
statistics, were covered easily and quickly
in the early part of the classes' exposure
to the subject. Texts included *Illustrative
Computer Programming for Libraries, In-
troduction to PL/I Programming for Li-
brary and Information Science*, and
the second edition of *Programming Lan-
guage/One* (2-4). In short, the techniques
taught were precisely those most likely to
be of value to special libraries and techni-
cal information centers. Grades were de-
termined on the basis of two objective
examinations and satisfactory completion
of a term project involving programming
relevant to library and information
science.

The results of the investigation, which
covered five years and 334 students,
strongly supported the hypothesis that
math/science majors would outperform
others and also indicated that education
majors fell at the opposite end of the
spectrum—an unanticipated finding. In
both cases, chi-square tests revealed sub-
stantial differences in the grade distribu-
tions (5). It also became clear that there
might be similar, although more subtle,
differences for language and history ma-
jors, respectively.

Further analysis

The chi-square test was originally
chosen as the most conservative test ap-
propriate for the study, because the data
consisted of letter grades ranging from
A+ to B– and lower. However, the chi-
square test suffers from some limitations.
For example, if cell sizes for categories
are too small, then one must combine or
"collapse" them, thereby losing informa-
tion that would otherwise contribute to the
statistic. It was decided, therefore, that a
more powerful parametric statistic would
be used, and numerical scores were
assigned to the letter grades at the inter-
vals to which they approximated. This
technique seemed quite reasonable since
the classes had all been taught in a similar
manner by the same instructor at the
same institution over the entire five-year
period, and the overall pattern of grades
did not vary perceptibly from year to year.

The resulting mean for the entire popu-
lation of 334 students was 83.7 with a stan-
dard deviation of 8.68. For a distribution
of sample means, the $Z$ value for a single
sample can be calculated by dividing the
difference between the sample mean $\bar{X}$
and the population mean $\mu$ by the stan-
dard error of the mean $\sigma/\sqrt{n}$, which ob-
viously varies with the sample size $n$:

$$Z = \frac{\bar{X} - \mu}{\sigma/\sqrt{n}}.$$  

The sample sizes, the average scores, $Z$
values, and some associated probabilities
found for different undergraduate majors
are displayed in Table 1. Note that the $Z$
test has been used rather than Student's $t$,
because the standard deviation for the
entire population is known in this case.
Table 1. Sample sizes, average scores, Z values, and associated probabilities for different undergraduate majors.

<table>
<thead>
<tr>
<th>Major</th>
<th>n</th>
<th>( \bar{X} )</th>
<th>Z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math/Science</td>
<td>32</td>
<td>89.2</td>
<td>3.91</td>
<td>(&lt; 0.0002)</td>
</tr>
<tr>
<td>Language</td>
<td>47</td>
<td>85.3</td>
<td>1.23</td>
<td>(&lt; 0.22)</td>
</tr>
<tr>
<td>English</td>
<td>72</td>
<td>84.2</td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities &amp; Fine Arts</td>
<td>44</td>
<td>83.0</td>
<td>-0.49</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral</td>
<td>61</td>
<td>82.9</td>
<td>-0.72</td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>53</td>
<td>82.2</td>
<td>-1.29</td>
<td>(&lt; 0.20)</td>
</tr>
<tr>
<td>Education</td>
<td>25</td>
<td>78.2</td>
<td>-3.17</td>
<td>(&lt; 0.002)</td>
</tr>
</tbody>
</table>

\( N = 334 \)

Discussion

It can be seen that the results for both math/science and education majors are highly significant—more so, in fact, than suggested by chi-square in the earlier analysis (5, p. 50). This comparison reveals the greater power of the Z test compared with the chi-square statistic; it is substantially less wasteful of information.

It is also interesting to note that language majors and history majors deviate suspiciously from the norm, although it must be emphasized that the observed differences do not warrant rejection of the null hypothesis at the usual 0.05 level. The probability is nevertheless only about one in five that the observed differences could have occurred by chance, and because of the difficulty involved in gathering such data, it may be some time before a more detailed study can be made. In the meantime librarians who need to employ personnel with programming expertise might consider using the applicant’s undergraduate major as a criterion if other factors are equal. That is, if two equally attractive candidates applied for a data processing position, it would be rational to choose a language major over a history major if there were truly no other distinguishing characteristics of value in the decision-making process. Put another way, odds of five to one, although normally insufficient for formal hypothesis testing, are nevertheless much better than flipping a coin. And in times when there are many more applicants than positions, managers need as much objective information as possible.

It should also be noted that the course was elective rather than required, which means that the samples were self-selected rather than random. As a consequence, the individuals who took the course may have been more highly motivated to learn the material than their colleagues from the same undergraduate backgrounds who did not take the course. To the extent that this may be a factor, it is most damaging to the case of education majors, who performed poorly in spite of such presumed motivation.

Summary and Conclusion

Computer programming and related data processing activities are becoming increasingly important in library and information center work. Evidence gathered from a five-year study of 334 graduate students shows that math/science majors perform significantly better than others in a course dealing with this subject matter. Further analysis reveals that language majors may have a similar but more subtle aptitude for such work. Education majors and history majors seem to be poor risks, although the latter performed significantly better than the former on the average. It is suggested that an applicant’s undergraduate major could be used as a criterion for choosing between otherwise equally attractive candidates for positions involving data processing for libraries.
Literature Cited

5. Davis, Charles H. / Computer Programming for Librarians. Journal of Education for Librarianship 18 (no. 1):41–52 (Summer 1977). The results on p. 50 are as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Chi square</th>
<th>Degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math/Science</td>
<td>7.898 (Corrected for continuity)</td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td>3.553 (Corrected for continuity)</td>
<td>1</td>
</tr>
</tbody>
</table>

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Cartographic Acquisitions at the Library of Congress

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The Library of Congress acquisition policy for the procurement of cartographic materials is stated. The various procurement sources—copyright deposits, exchanges, government deposits and transfers, gifts, and purchases—are mentioned along with some statistics for each category based on annual accessions for fiscal year 1977.

The Library of Congress has one of the world's largest and most comprehensive cartographic collections. The collections include original cartographic work ranging in date from the earliest period of map making to the most recent commercial or government produced map, atlas, or globe. The collections are comprehensive in area, subject, and date, and are particularly rich in Americana materials. In order for any collection to become so large and comprehensive, it is necessary to have an active procurement program for cartographic materials (1). This article will briefly describe the cartographic acquisition policies of the Library of Congress, the methods and sources of procurement, and the varieties and scope of its acquisition activities for cartographic materials.

The cartographic holdings of the Library of Congress, at its establishment in 1800, included three maps and four atlases (2). A decade later, the Library possessed some 50 maps and an unrecorded number of atlases. Today, accessions of cartographic items average over 60,000 items per year. The present cartographic collections consist of 31/2 million maps and charts, 40,000 atlases, 250 globes, 2,000 three-dimensional plastic relief models, and other unique cartographic formats such as primitive maps, silk maps, powder horn maps, maps on fans, balloon globes, maps on microforms, and examples of digitized map data.

Cartographic Acquisition Policy

The library's broad acquisition policy empowers the Geography and Map Division to consider comprehensive coverage of maps and charts, regardless of scale or date, for the collections. Cartographic materials in many different formats are acquired on a continuing basis for the collections. The general cartographic acquisition policy is, "The Library of Congress will endeavor to acquire for its permanent collections at least one copy of each edition, revision, or reproduction of every currently available map which makes any significant contribution to knowledge. Map shall be understood to include all forms of cartographic materials normally added to the collections of the Library, including flat maps and charts, collections of maps in atlas form, terrain models, globes, powder horn maps, etc. Certain categories of bulky and infrequently used maps, which portray no
significant information that is not also available on better maps or in more useful form, may be excluded. . . . Single copies only are to be retained of topographic sheets, aeronautical and hydrographic charts, or map-sets at scales larger than 1:500,000. This statement does not preclude the acquisition of additional service copies for temporary use."

The Library of Congress uses a number of different methods and sources to procure cartographic materials. These include copyright deposits, exchanges, government deposits and transfers, gifts, and purchases.

**Acquisition Methods and Sources**

*Copyright Deposits.* Atlases, maps, globes, and three-dimensional plastic relief models registered for copyright are made available for selection and possible addition to the library's cartographic collections. The Copyright Office publication, *The Catalog of Copyright Entries, Third Series, Part 6, Maps and Atlases,* identifies cartographic materials registered for copyright protection (3). A new Copyright Law went into effect Jan 1, 1978. Under Section 407 of the first section of Public Law 94-553 (90 Stat 254) the owner of copyright, or of the exclusive right of publication, in a work published with notice of copyright in the United States is required to deposit two copies of the work in the Copyright Office for use or disposition of the Library of Congress. Globes and three-dimensional cartographic representations are an exception to the statement and may be deposited in single copies only. During fiscal year 1977, 2,083 maps, 380 atlases, and 4 globes were added to the cartographic collections after being selected from copyright deposits. This is a major source for atlases and globes produced by United States commercial and private publishers.

*Domestic Exchange.* Domestic exchange has become an important source for retrospective cartographic materials at the Library of Congress. Exchange arrangements between the Library of Congress and other institutions, antiquarian dealers, or individuals have resulted in the acquisition of some significant historical cartographic items. As duplicate items are weeded from the cartographic collections, specific materials, because of their rarity, date, or unique subject matter, are set aside to be used in possible exchanges. When items of equivalent value have been selected by an exchange partner, then an exchange takes place. All exchanges are handled through the Library of Congress Exchange and Gift Division.

*Foreign Exchange.* Foreign exchanges have continued to be an important procurement channel for cartographic materials. A continuous flow of exchange lists passes between the Library of Congress and its numerous sources in foreign areas. During fiscal year 1977, 154 atlases and 18,955 maps were acquired by the Library of Congress on foreign exchange. The success of this venture over the years accounts for the large number of foreign cartographic materials received by the Library of Congress.

The biggest acquisition problem encountered through the foreign map exchange program is the classification or caveats on some categories of topographic maps and city plans (4). Many countries do this, for security reasons, to restrict or prohibit the acquisition of large-scale topographic maps (5). This policy contrasts with the large number of maps which are produced and easily acquired in most other parts of the world.

*Government Deposits.* The Library of Congress is a depository for all United States Government publications which in-
cludes maps and atlases. This policy is authorized by Title 44 of U.S. Code, Sections 1718 and 1719, which states, "There shall be printed and furnished to the Library of Congress for official use . . . copies of all publications and maps which are printed . . . ." The number of printed maps and atlases acquired by the Library of Congress from some 40 Federal agencies during fiscal year 1977 was over 31,000 cartographic pieces. Leading in the production of cartographic materials during fiscal year 1977 were the Department of Housing and Urban Development (HUD), Geological Survey (USGS), and the Defense Mapping Agency (DMA).

In addition, a number of state, regional, and local agencies deposit cartographic materials in the Library of Congress collections. Many of these organizations are encouraged in this endeavor by the library's Exchange and Gift Division, which issues a Monthly Checklist of State Publications (6), recording the kinds of material received through this procurement channel. The library also encourages deposits of selective materials by soliciting cartographic items from city managers or engineering offices, Chambers of Commerce, planning, transportation, and educational organizations, and other official agencies which produce maps, atlases, and city plans. During fiscal year 1977, the Library of Congress acquired over 2,900 atlases and maps from state and local organizations through active solicitation programs.

Transfer Materials. Federal Agencies are required by law to offer to the Library of Congress their unwanted library materials. U.S. Code 40, Sections 471 and 472, authorizes this policy. By this means, great numbers of atlases, maps, and charts, have been received, reviewed, and selected to add to the holdings or replace items in poor condition or missing in the library's cartographic collections. Transfers from the Defense Mapping Agency and the Department of State have contributed notably to the division's fine collection of hydrographic charts and foreign topographic map series. The transfer of the Hauslab–Liechtenstein Collection from the custody of the U.S. Air Force to the Library of Congress in 1976 resulted in the acquisition of some 9,600 manuscript and printed maps ranging from the late 16th to late 19th centuries (7). These materials will complement the library's already rich holdings of cartographic materials.

Gifts. Both current and retrospective cartographic materials may be received as gifts. Individuals and organizations continuously donate items to the Library of Congress. The library accepts gifts which complement its collections and fill gaps in its holdings. During fiscal year 1977, 98 atlases and over 2,500 maps were donated to the cartographic collections of the Library of Congress.

Acquisitions by Purchase. Atlases and cartographic publications are purchased through blanket order dealers in over 100 countries through subscriptions and standing orders, as part of the National Program for Acquisitions and Cataloging (NPAC), established under Title II of the Higher Education Act of 1965 and the Public Law 480 program. The library sometimes sends personnel on official visits to foreign countries for acquisition and reporting purposes. Most official maps and charts produced by foreign governmental sources are acquired by the Interagency Map and Publications Acquisitions Committee (IMPAC) program sponsored by the U.S. Department of State. Funds from the general appropriations of the Library of Congress are allotted by its Order Division through IMPAC to U.S. foreign posts for the purchase of cartographic materials. Geographic Attaches, representing IMPAC, have the responsibility to visit, to report, and to procure cartographic materials in foreign
countries. Cartographic items, not obtained on international exchange, are purchased from foreign institutions and government mapping agencies. Maps and atlases may be purchased from commercial firms, foreign antiquarian dealers, and individuals, too. These materials are usually offered through means of a sales auction catalog or list of maps and atlases. Some auction catalogs have to be acquired through subscription or purchase. The Library of Congress usually arranges for an agent or dealer to represent its interests for a commission or flat fee (8). During fiscal year 1977, some 508 atlases and 13,685 maps and charts were acquired by purchase through use of these programs.

Desiderata List

Even though the Library of Congress cartographic collections are comprehensive in scope and coverage, there are gaps in the holdings. A desiderata list is being developed to record essential information on lacunae. A systematic effort is being made to note missing maps and atlases in the cartographic collections and to maintain a file. A comprehensive desiderata list can assist in determining which cartographic items are missing or wanting in a collection as large as the Library of Congress. It is also a useful checklist to use when perusing sales auction catalogs and may be sent to map dealers to make them aware of certain wanted items for the library’s cartographic collections.

Conclusion

Over the past 178 years, the collections of the Library of Congress have achieved first-ranked status among the world libraries. The library’s cartographic collections also rate as one of the finest and most comprehensive collections not only in the Western Hemisphere but also comparable to, if not surpassing, most European and Asian cartographic collections.

An active procurement program by the Library of Congress will assure that its collections will continue to acquire both current and retrospective cartographic materials. This will enable the Library of Congress cartographic collections to continue being among the best of the world library collections.

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Commentary on Archival Management and Special Libraries

The question of whether archivists on a graduate level should be trained in history departments or in library school is an old one, and has not been entirely resolved. The problem arises because an archivist must be able to function professionally and responsibly in greatly differing situations. Consider the spectrum of archival situations: an archive itself; a college or university library; a special collection; a business archive or record center; a state or national record center; an agency of government; a city hall or county clerk’s office; a museum; a historical society; a research institute; a conservation center. To complicate this pattern of diversity, records managers are generally trained in business schools, and records management is the first function of archival control of materials.

Until recently most training programs for archivists seem to have been in library schools. Now, however, history departments are entering the teaching field of archival studies in increasing numbers and in increasing depth. The basis of teaching in either library school or history department is similar; the course outlines and syllabi show much in common.

History departments are entering the field because the training requires development of historical perspective and some knowledge of law and legal citation, as well as a subject orientation. The current era of diminishing opportunity for historians may make these qualifications easy to meet, and the lack of opportunity may in itself be responsible for the increasing interest of history departments in the teaching of archives.

Wherever and however an archivist is trained, the tasks usually assigned are the acquisition, accessioning, packing, storing, arranging, description, conservation, reproduction, retrieval, servicing, exhibition, and editing of historical documents or materials. Manuscript curators follow the same processes—acquisition, arrangement, description, exhibition, editing, and so on. Librarians acquire, accession, shelve, classify, bind, describe, conserve, copy, retrieve, and service library materials. Fewer and fewer of these materials are bound volumes, but appear in the form of audio or video tape, microfilm, slide, photograph, manuscript, correspondence, or exhibition catalog.

Library schools are facing the problems of teaching control of these materials by offering courses in special collections, nonbook materials, and media. It should be emphasized that the value of library training for archivists and curators, as well as librarians, does not lie in the teaching of techniques, often cumbersome, but in research methodology and service orientation. The philosophy and discipline taught in library schools is of far greater value than the techniques.

As library schools become more oriented toward administration and automation, they seem to be losing some of their traditional scholarly values. This may be one reason that history departments are gaining headway in teaching curatorship. Librarians and archivists who act only as administrators are misguided. As in nursing, librarianship was, and should be, a service profession; as in nursing, librarianship seems to be undergoing a change, and administration seems to be turning into an end in itself rather than a means to an end.

Archivists face this dilemma also. The National Archives performs the housekeeping functions of the records programs for the
federal government. This agency has also been the foremost teaching institution for archives in the United States, so that administration of records has been heavily stressed. Records management has been an integral part of every educational, business, or research institution, and will be even more important in the future. Without records management, we would be buried under our own paper. Obviously, administration is essential, but not to the elimination of perspective, scholarship, and professionalism.

The Society of American Archivists is defining basic standards for archival education, and is exploring accreditation of archival courses and of archivists themselves.

Basic required courses for all branches of the profession include, according to current recommendations:

- records management,
- microforms,
- introduction to archives,
- manuscripts and historical archives,
- conservation,
- introduction to museology,
- introduction to historic preservation,
- introduction to graphics.

Library cataloging and bibliography are also considered essential. So is a background, either as an undergraduate or in graduate school, of American history and/or art history.

The end result of these courses is to teach that there are various ways of handling materials such as manuscripts, prints and photos, ephemera, memorabilia, maps and measured drawings, exhibition catalogs, and other materials familiar to special librarians.

There is a distinct methodological difference between librarians and archivists in approaching these materials. The two positions actually function on exactly opposite principles of organization and description. Librarians proceed from the singular item to incorporate it in a collection. Archivists work from a large body of material to identify and locate distinct items within the body, always keeping in mind generic relationships. Librarians move from the specific item to the whole classification; archivists work from the whole to the specific. Fortunately, both work with defined finding aids and, hopefully, the user in mind.

I encountered archival techniques and training as a matter of necessity in administering a special library. Now I teach in a history department. I have found that teaching library school students is especially rewarding when they understand the basic library principles of documentation, order of flow, and service. The strongest archival programs seem to be in those universities and colleges that have library schools. This has been the case even if the archival program is not part of the library school.

Multicourse offerings in archives are taught in the library schools of the University of Alberta, Catholic University, and the University of Illinois. Multicourse offerings appear in the history departments of American University, Auburn, University of Denver, Florida State, University of Minnesota, University of Missouri (being enlarged), University of North Carolina, North Dakota State, Wayne State, Western Washington State, and Wright State. Case Western Reserve, Wisconsin, and Maryland offer entire Master's degrees in Historical Archives. The Maryland program is new and is listed as Advanced Studies in Archives, Manuscripts, and Historical Collections. It is taught both in the History Department and the College of Library and Information Services. It is a two-year curriculum, leading to the MLS and MA in History. Three curricular options exist—Archives and Modern Manuscripts, Rare Books and Special Collections, and Subject Area Bibliography—to be applied to one of three fields, humanities, social sciences, or science and technology.

This is the basic format that Denver's new program, grinding slowly through the academic process, will follow. Record management, archives, manuscripts, local history, library courses, conservation, graphics, historic preservation, oral history, editing will all be covered. Many job descriptions these days require both the MLS and the MA; we must prepare for this demand. In the future, many of the librarians found in museum libraries will be products of this dual training. The students are preparing for the future and are eager to meet it. As librarians and archivists we can do no less.

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Special Libraries
Libraries as Special Information Systems

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The modern library must be more than a passive collection of literature. Each library should examine its individual sections and services, in order to determine the best methods of providing its users with readily accessible information. Cooperating networks among libraries, and between libraries and documentation centers, can increase the efficiency of each individual institution. Standardized catalog listings and increased bibliographic training of users may also make the library's holdings more accessible. The same recommendations apply to the university library and its constituent special libraries.

Libraries can be viewed in various ways. One can regard them as Goethe did: as capital which "noiselessly dispenses incalculable interest" (1). Harnack saw them as "simultaneously storage and workshop and tool of scholarship" (2). The reference to capital on the one hand and to storage on the other makes it clear that both Goethe and Harnack viewed libraries as collections of information held over periods of time in a storage unit. This traditional view of the library assumes that information is stored largely in printed form. However, in recent years there has been much discussion of a different method of storing information, the data bank—a method which may be of help in getting information to its users more quickly and comprehensively.

Libraries and data banks both need to be supplied with the right materials before they can be utilized. The material which must be fed into a library has always been of central interest in the scholarly investigation of libraries: the expansion of library holdings, the processing of library collections, the concern with the contents of the library, often with a strong historical emphasis, constituted the core of this discipline in earlier decades. What were termed "history of the book" and "history of libraries" were seen to be closely related. Recently scholars have started to regard libraries themselves as social institutions which provide materials for scholarship and teaching, university studies, continuing education, and general information.

Library science, then, though once oriented more toward the past than the present, has shifted its focus of attention. User-analysis methods are being put to use by libraries in both practical and theoretical ways. The flow of information and communication is being investigated, as well as the interaction between the supply of and demand for information and the use of particular processes of information. Research about the users themselves is now leading to improvement in the organization of information systems, as well as improvement in the methods of distributing information. The field of library management is being em-
phasized; statistical models, for instance, for calculating the number of reading places in university libraries and for estimating the personnel requirements of a research library have been developed, and systems-analysis methods have been applied to library structures.

Active Contributions

Modern libraries must be more than passive collections of literature—they must actively make information available. The description of an information system by Kunz and Rittel emphasizes this active function: "A system is an information system because it contributes to informing, and not because it produces or contains information" (3).

Of course, libraries which focus their attention on the efficient conveying of information will lose none of their present importance; indeed libraries, because of their storage function, should be able to strengthen their position in relation to other institutions which supply information—if they make the right use of information methods.

The jobs which a library performs as a service organization can be divided as follows: providing literature; providing information about literature; and providing information about subjects, facts, and dates. Providing literature has traditionally been the main job of every library. The demands of its readers necessarily dictate particular areas in which the library must concentrate when building its collection. The selection criteria prevailing in a library—according to subject, region, language, or level of specialization—affect the categories which the library offers its users.

Cooperation

The task of providing literature can only be satisfactorily carried out by a library with an adequate collection. Yet, no library today, no matter how specialized, can possibly hope to have complete collections, nor can it hope to anticipate every wish of its users. Thus in order to satisfy readers' needs without exorbitant expenditure, libraries must depend on the cooperation of other libraries. Attempts to organize interlibrary loan services among libraries in a particular area or between libraries of a particular type have been in process for decades. The plan for a comprehensive library system covering all of Germany, for example, known as the Library Plan 1973 (4), envisages cooperation between the various types of libraries in all parts of Germany.

If such schemes are to be successful, libraries must regard themselves as part of a network of libraries, with local, regional and super-regional levels whose help can be called upon by other libraries with inadequate resources. More important still, they must be prepared in their day-to-day work to draw upon other libraries to satisfy the needs of their users. The high labor costs for acquiring and cataloging literature as well as the constant problem of shortage of space require more attention to economic management, cost calculation and cost-benefit analysis. In this connection, the question of the optimal use of literature already held by the library is relevant. All libraries supported directly or indirectly with public money should be interested in the widest possible use of their holdings. Most libraries may feel satisfied with their performance in this respect, for the number of users steadily increases. However, it should not be forgotten that the intensity with which the various parts of the collection are used is as important as the absolute increase.

Libraries should be prepared to borrow from other collections and, in turn, should expedite their loans of literature requested by other libraries. This means that the necessary space, technical apparatus, and personnel should be available. The library must also possess the bibliographical aids essential for the smooth functioning of a system of interlibrary lending.

The library provides its users with information about literature, as well as the literature itself. Here the job of the library is similar to that of a documentation center, so far as the latter supplies literature. The relations of these various information-supplying institutions to one another require further examination.

Three Kinds of Information

The kinds of information a library distributes can be divided into active, passive, and intermediary. The most important kind of active information concerns the contents of the li-
brary itself; alphabetical and special subject
catalogs provide this kind of information. The
documentation of literature in special areas
also belongs to the realm of "active"
infor-
mation. These items include regional bibliogra-
phies based on the holdings of the library, bibli-
ographies covering special areas of collection,
or research results of a university or firm. Se-
lective dissemination of information (SDI)
services usually also constitute active informa-
tion.

The library supplies passive information by
providing its readers with informational aids,
bibliographies, and so on. Intermediary in-
formation involves transmitting the output of
special documentation and information
centers. In this case the activities performed
by libraries are similar to those of the docu-
mentation centers, so that questions of dividing
lines and cooperation between these institu-
tions become relevant.

Documentation Centers

It is normally not possible for a single library
to provide comprehensive coverage of a
particular field, especially when the field is ex-
tensive. This is a job which, since World War
II, has been largely undertaken by special
documentation centers, which gather together
all the literature on a particular subject and
quickly distribute information about it to
interested parties. Thus the documentation
centers are part of a larger cycle. On the one
hand the original material is required in order
that the necessary evaluation can take place;
on the other hand, the documentary results of
such an evaluation would be of little use if the
recipient could not at need gain access to the
original work.

Probably the best way to satisfy the needs of
users in a particular subject area is to have
cooperative work between a library and a docu-
mentation center, which both concentrate on
that subject. The library is responsible for
collecting the literature, while the documenta-
tion center evaluates it and provides informa-
tion. Everything connected with using the
literature is the concern of the library. The
pressure on both institutions is thus lightened
in areas which do not constitute their primary
functions.

Libraries should do nothing to disturb direct
contact between documentation centers and
users wishing to make use of SDI services. Li-
braries should, however, concern themselves
with the organizational and, if necessary, the
financial side of these services. They can, for
instance, obtain lists of periodicals, conference
reports, dissertations, and so on, so that when
demands for these materials arise no un-
necessary time is lost in supplying them. The
librarian must decide whether the library should
acquire this material for its own collection or a
copy or the original should be borrowed from
another library. Various possibilities of obtain-
ning material from other institutions—depend-
ing on the kind of literature, the language, and
the mode of publication—need to be considered and tested, so that the material can
be obtained quickly if needed.

Of course, success depends on the coopera-
tion of both the library and the documentation
center. If the materials are to be evaluated
quickly, they must be made available as soon
as they are received by the library. Having the
two institutions close together can help to
avoid transportation problems. The docu-
mentation center can increase the usefulness of

... in order to satisfy readers' needs
without exhorbitant expenditure, libraries
must depend on the cooperation of other li-

its services by including nonperiodical litera-
ture such as conference reports and disserta-
tions—literature which at present is rarely
evaluated. A documentation center is unable to
collect these materials systematically, but a li-
brary collects them as a matter of course. Such
cooperation can also increase the influence of
the documentation center on library
procedures, especially in the area of subject
catalogs. Using standard terms in a subject
catalog provides the user with a clear termi-
ology, which will be helpful when using the
SDI services.

In cases where the literature on a particular
subject has not been evaluated, a library may
perform the function of a documentation
center. However, the library should be careful
to avoid repeating work that has been un-
dertaken elsewhere and should see that all the
results of such documentation are made public,
either through its own information services or
by contributions to national or international
projects.

Locating and Obtaining Information

In the library as a particular kind of in-
formation system it should be possible to
illuminate the steps which lead the reader to
the goal of obtaining information. Normally
the reader comes to the library with a particular topic for which he or she needs literature. To help the user determine what literature is relevant, the library provides the relevant bibliographies, abstracts journals and reviews, documentation card files, and subject or classified catalogs. From these sources the user can select the material which is important for the topic. While the subject or classified catalog gives the location of the information, the other bibliographical aids only provide information about the literature, and the reader must then consult the alphabetical catalog to see whether this literature can actually be found and used in the library. This is also the starting point for those readers who know exactly what works they want. Directions lead them to particular locations within the library. If the literature is not in the library, there are various steps to be followed in order to obtain it elsewhere. The central catalog of university departmental holdings, for instance, makes it possible to locate the material in one or more departmental libraries. If the desired work is not available at all locally, but its location in another library is known, this library can be approached directly, if necessary by teletype. The next step would be to request the book through the regional or central union catalog; the final step within this search would be through international interlibrary loan.

These steps constitute the core of that discipline which is concerned with the best way to locate and obtain specialized literature. The few university courses which deal with techniques of scholarly investigation spend too little time on such matters. The result is that users often have little or no systematic training in using bibliographical aids and the staff of the library is burdened with the job of checking inadequate titles and incomplete references. Just as future users of computerized special documentation centers will need to be trained in programming—or at least in the use of a thesaurus—in order to get exact answers to factual questions, so users of special information systems such as libraries will need to master the techniques involved in making use of the library. "In an age of specialization, method is more important than information" (5). Universities in particular, with their often complicated library structures, must pay more attention to introducing the reader to the various possibilities of obtaining literature.

University Library Systems

It is especially important for separate libraries belonging to one institution to feel part of a system. It is possible to bring different libraries within a university together into a smoothly functioning system without drastically reducing the responsibilities of departmental and special libraries. Wersig's general definition of a system also applies to the library system of a university: "A system is a quantity of elements linked in such a way that the quantity as a whole can be marked off from its surroundings" (6). What has been said about libraries in general, particularly in reference to the collecting of literature, also applies to departmental libraries. In all questions which extend beyond the subject and which cannot be answered with available resources, the departmental libraries will continue to depend on the university library. The central library would perform certain tasks for the other libraries, but it would also work in cooperation with the departmental libraries to provide services in other parts of the university. In such a system small libraries should be amalgamated with one another to form economically efficient larger units. Departmental reference collections which are in constant use by staff members should not, however, be affected by such measures.

Transmitting Information Efficiently

Structural changes of this kind can be successful only where new forms of organization are accompanied by measures to raise efficiency—measures extending beyond library procedures into the realm of general administration. But what are the actual possibilities of transmitting information in libraries more efficiently? A theory formulated by Teichmann in reference to the effectiveness of data banks throws some light on this question (7, p. 427-428). He sees this effectiveness as a function of the previous education of the user. Whereas the totally informed expert requires no data from the system, the layman can retrieve no information at all because of an inability to
formulate the proper question. In these extreme cases the effectiveness of the data bank approaches nil. According to Teichmann the optimal value of the data bank is reached at 50%; that is, somewhere between our theoretically antithetical sets of users or, in other words, where the questioner has an approximately average knowledge both of the field and of the use of data banks. So the largest group of potential data bank users will come from this middle range. In principle this theory could also be applied to library users, for some of whom the spectrum of library catalogs is a book with seven seals. Until now, however, the theory of cataloging has been more concerned with the formal and subject-specific criteria of the literature involved than with the special needs of the users for whom the catalogs are intended.

The third of the three previously mentioned areas to which libraries devote themselves is the provision of information about facts and data. Here it is not a matter of furnishing information about literature but rather of furnishing information contained in literature.

Furnishing such information is another legitimate task of libraries insofar as they are equipped with the necessary materials. To this third area of operation belongs information extracted from unpublished materials, manuscripts, drafts, architectural drawings, statistics, and other such materials—materials which are stored in libraries and require processing.

In surveying the various activities of libraries in the field of providing information, the conventional methods of direct transmission are, as a rule, still used without the use of technological aids. Indeed, at first glance libraries may seem to be hopelessly far behind in applying modern techniques such as data banks to perform their jobs. However, one should not forget that books, because they are available in multiple forms and can be easily distributed, will continue to be indispensable in many fields. In general, a data bank has the functional limitations of a library catalog which only exists once; there are technical, as well as economic limits, to the number of persons who can make use of it simultaneously. In addition, data banks can function only if they have an immense amount of material stored in them and if questions are put to them correctly. These limitations somewhat dampened the earlier euphoria about data banks; some years ago the possibilities of using such banks on a large scale in the near future were judged more skeptically (7, p. 425-429). But recent examples of computer-aided data banks for library purposes show that such projects can become effective after a relatively short period.

**Conclusion**

The conclusions to be drawn are clear. There is no substitute for the systematic collection of literature and for professional processing by means of catalogs, bibliographies, reviews, and subject documentation card files. These should, however, be supplemented by new media of information retrieval which can, with the help of data banks, quickly provide answers to complex problems. The possibilities of using the efforts of other institutions in the job of cataloging (with the help of materials on magnetic tapes) are being intensively developed and the results are being applied. Questions of transmitting data over long distances will occupy the larger libraries more and more in the immediate future.

If libraries are to maintain their position as special information systems within a network of other information services, they will, in growing cooperation with one another and with other institutions, have to make use of new methods of conveying information—methods which, however, will have to be adapted to the requirements of libraries. Libraries must maintain a constant check on their own organizations; they must be ready to adjust themselves to new conditions, to streamline their procedures. All this is necessary if the libraries of the future are to provide efficient information service for their users.

**Literature Cited**


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Paul Kaegbein is professor of library science. University of Cologne, D-5000, Köln, Germany.
The Review of Title 44, U.S. Code

The Joint Committee on Printing of the United States Congress is preparing a review of Title 44 USC, the law under which federal documents are printed, published, and distributed. Of special importance is Chapter 19, which governs the activities of the Government Printing Office. The operations and programs of the GPO have for some years extended well beyond the original scope and much new technology has been developed and applied since the current Title 44 became law. Since the library community is directly involved in and concerned with GPO operations, as well as with the bibliographic control and dissemination of all types of government publications, the community has welcomed the review and is responding to the invitation by JCP to express the librarians' interests, concerns, suggestions, and recommendations.

An expression on those issues which are of direct concern to librarians is particularly desirable since other segments of the information-generating and information-using community, as well as government agencies, variously involved in the generation and distribution of information, and the public-at-large, will no doubt address their views to the JCP. Of particular importance is the position paper presented by the Information Industry Association. It outlines in detail the fundamental questions relating to the overall issue of “the government's role in the generation and dissemination of information.”

It is important to realize that the review of Title 44 is not merely concerned with the quality and extent of current GPO activities. The review will no doubt start with an attempt to delineate the philosophy which is to be the basis for future information generation and dissemination by the federal government. To what extent should the federal government be involved in efforts to extend and centralize the generation and dissemination of publications and information? What should be the proper role of the federal government and of GPO in the light of the development of an efficient and effective information industry (in the private sector) operating in the same field (providing bibliographic access to government-generated information)? To what extent can government funding be obtained to strengthen the GPO’s Depository Library System (which would provide improved access to publications in any of the various nonprint media) without denying the private sector the opportunity to offer its commercially available services relating to federal documents?

While these questions touch fundamental issues of government policy which will no doubt have the close attention of librarians, a number of recommendations, made to the JCP by the American Library Association and/or the Depository Library Council to the Public Printer, may well be matters on which individual librarians hold different views—which ought to be communicated to the Joint Committee at this time. Of particular importance are the following:

- The creation of a national depository agency to serve as the central coordinating unit for the Depository Library System;
- The establishment, under that agency, of a national depository library, a permanent collection of any and all government-generated publications (including contract research reports) with reproduction and interlibrary loan capabilities;
- Improved bibliographic control of the reports literature through replacement of the current multiple bibliographic catalogs (leading to better controls and elimination of duplications of the bibliographic effort);
- The creation of a central sales agency for all government publications—to replace the current multitude of sales agencies and services maintained by the federal government and various executive departments;
- Strengthening the service capabilities of de-
pository libraries by federal funding for the (extended) activities of those libraries;
- Extended coverage for the GPO *Monthly Catalog* (to include all federal publications not published or distributed by GPO);
- A (mandatory) CIP program for all government publications;
- Continuance and extension of the GPO Micropublishing Program.

Special librarians will be particularly concerned with the future of bibliographic control efforts supported by the federal government. ALA has endorsed the use of the format now being used by GPO for the cataloging of documents (AACR with LC subject headings), as well as extended coverage, for the GPO *Monthly Catalog*. Special librarians, who have a particular interest in efficient bibliographic control of government research reports do not favor the use of AACR or LC subject headings for these publications, and would prefer adoption of a uniform format more suitable to research reports, to be used in a single bibliographic periodical publication covering the reports literature of all government research-producing agencies. Efforts will have to be made to arrive at a form of bibliographic control which will give highly improved access to both the reports literature and the other types of government publications. Moreover, the continuing improvements of information networks and the capabilities of a national data base for all government publications must be explored.

The Joint Committee on Printing will appreciate hearing from individual librarians who can speak authoritatively to one or the other of the many important issues involved. Special librarians, who are affected by any number of proposed changes in the federal government's information activities and who may well have suggestions concerning improvements in the present publishing and distribution programs, should by all means write to: Claiborne Pell, Senator from Rhode Island, Chairman, Joint Committee on Printing, Room S-151, The Capitol, Washington, D.C. 20510. They are also requested to send copies of their letters to John C. Boyle, The Public Printer, Government Printing Office, Washington, D.C. 20401, and to Francis J. Buckley, Chairman, Depository Library Council, Detroit Public Library, 5201 Woodward Avenue, Detroit, Mich. 48202.

John Henry Richter
Chairman, SLA Government Information Services Committee

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**Hawaii Travel Plans**

Now that you have received your travel brochure from GTU and the warm sand of Hawaii invites you to its shores, questions must be as plentiful as the rains on Mount Waialeale. The air fares published are those now in effect; these are the only ones we can publish. There are, however, other choices possible, and GTU will be most happy to discuss these with you. If our preplanned packages do not fit your individual preference, fill out the hotel form on #1 and ask for your particular air travel needs. GTU holds all our hotel rooms for the Conference so they alone can confirm a room for you. You will find the GTU staff accommodating, instructive, and informed. This travel is meant to save you time, trouble, and money. Use it as intended and you will have a great Conference!
SLA 1978 Salary Survey Update

Since 1967 Special Libraries Association has conducted in-depth Salary Surveys on a triennial basis. With the rapidly changing economy, it became apparent that annual salary information is needed. Because of the high cost of a survey of all members of the Association, a sampling survey was designed for use in 1977 and in 1978. With appropriate sampling, we feel that annual adjustment factors can be determined in the years between triennial surveys.

The 1977 survey questionnaire was mailed to a sample of slightly more than 25% of the members as of Jul 25, 1977 (excluding Retired Members, Student Members, Honorary Members, and Sustaining Members).

Questionnaires Mailed 2,062
Questionnaires Returned 1,366 (66%)
Invalid or No Responses 98
Usable Responses 1,268 (62%)

The usable responses in 1977 and 1978 were somewhat higher than those in the 1976 triennial survey, that is, 67% and 62% as compared to 61%.

The changes in means and medians from Apr 1, 1977 to Apr 1, 1978 are reported in Table 1. The changes are reported as changes in dollars and also as percentages. The results for the United States are reported for the nine Census Regions*; Canada is treated as a separate Census Region.

The overall median increased from $16,000 in 1977 to $17,300 in 1978 or an increase of 8.1%. The overall mean increased from $17,200 in 1977 to $18,400 in 1978 or an increase of 7.0%.

The overall median for the two-year period increased from $15,000 in 1976 to $17,300 in 1978 or a 15.3% increase from 1976 to 1978. The overall mean for the two-year period increased from $16,300 in 1976 to $18,400 in 1978 or a 13.0% increase from 1976 to 1978.

It appears to be appropriate to apply the factors 15.3% to the means and 13.0% to the

*See the 1976 Salary Survey for the states included in each Census Region [Special Libraries 67 (no. 12): 600 (Dec 1976)].

Table 1. 1978 Salaries by Census Region in Rank Order of Percent Change in Median from 1977 to 1978.

<table>
<thead>
<tr>
<th>Census Regions</th>
<th>1977</th>
<th>% Increase or (Decrease)</th>
<th>1978</th>
<th>1977</th>
<th>% Increase or (Decrease)</th>
<th>1978</th>
</tr>
</thead>
<tbody>
<tr>
<td>East South Central</td>
<td>$14.500</td>
<td>13.1</td>
<td>16.400</td>
<td>$16.200</td>
<td>12.3</td>
<td>18.200</td>
</tr>
<tr>
<td>New England</td>
<td>14.400</td>
<td>12.5</td>
<td>16.200</td>
<td>15.500</td>
<td>8.3</td>
<td>16.900</td>
</tr>
<tr>
<td>Mountain States</td>
<td>14.400</td>
<td>11.1</td>
<td>16.000</td>
<td>16.500</td>
<td>5.5</td>
<td>17.400</td>
</tr>
<tr>
<td>Pacific Coast</td>
<td>15.900</td>
<td>10.1</td>
<td>17.500</td>
<td>16.900</td>
<td>13.6</td>
<td>19.200</td>
</tr>
<tr>
<td>East North Central</td>
<td>15.500</td>
<td>9.7</td>
<td>17.000</td>
<td>16.700</td>
<td>8.4</td>
<td>18.100</td>
</tr>
<tr>
<td>Canada</td>
<td>16.900</td>
<td>8.3</td>
<td>18.300</td>
<td>17.900</td>
<td>10.6</td>
<td>19.800</td>
</tr>
<tr>
<td>Middle Atlantic</td>
<td>16.500</td>
<td>6.7</td>
<td>17.600</td>
<td>17.700</td>
<td>4.0</td>
<td>18.400</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>17.600</td>
<td>2.8</td>
<td>18.100</td>
<td>18.600</td>
<td>6.5</td>
<td>19.800</td>
</tr>
<tr>
<td>West North Central</td>
<td>14.700</td>
<td>2.0</td>
<td>15.000</td>
<td>15.800</td>
<td>1.3</td>
<td>16.000</td>
</tr>
<tr>
<td>West South Central</td>
<td>15.200*</td>
<td>(1.3)</td>
<td>15.000</td>
<td>17.000</td>
<td>(2.4)</td>
<td>16.600</td>
</tr>
<tr>
<td>Overall 1978 Survey</td>
<td>16.000</td>
<td>8.1</td>
<td>17.300</td>
<td>17.200</td>
<td>7.0</td>
<td>18.400</td>
</tr>
</tbody>
</table>

*Through an oversight figures for the 75th percentile rather than the medians for 1976 and 1977 were published in the "1977 Salary Survey Update." The following corrections should be made on p. 461 of the Dec. 1977 Special Libraries.
medians of each of the many subcategories reported in the 1976 Triennial Salary Survey.

The 1978 survey shows an overall increase with only a small decrease (1.3%) in one region. In 1977 small decreases (2.7%) were reported in three regions. The ultimate proof of the validity of the 1977 and 1978 sampling process must await the results of the next total Salary Survey in 1979.

To partially test the validity of the sampling process, the 1978 survey presented a question about attendance at recent Conferences: Chicago (1975), Denver (1976), and New York (1977). The percentage of respondents who reported attendance at each Conference was compared with the percentage of members registered for each Conference. The correlations are within approximately 2% for each of the three years.

Table 2a. Conference Expenses Paid by Employer.

<table>
<thead>
<tr>
<th>Fraction Paid</th>
<th>Respondents (% of Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>27.7</td>
</tr>
<tr>
<td>Some (but not all)</td>
<td>69.8</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>No Response</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 2b. Salary Payments for Time at Conference.

<table>
<thead>
<tr>
<th>Payment</th>
<th>Respondents (% of Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Leave (with pay)</td>
<td>72.8</td>
</tr>
<tr>
<td>Leave (without pay)</td>
<td>2.3</td>
</tr>
<tr>
<td>Vacation</td>
<td>3.3</td>
</tr>
<tr>
<td>Other</td>
<td>6.3</td>
</tr>
<tr>
<td>No Response</td>
<td>15.3</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Status</th>
<th>Respondents (% of Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td></td>
</tr>
<tr>
<td>Full-Time</td>
<td>94.4</td>
</tr>
<tr>
<td>Part-Time</td>
<td>3.4</td>
</tr>
<tr>
<td>Unemployed</td>
<td></td>
</tr>
<tr>
<td>Seeking Employment</td>
<td>1.0</td>
</tr>
<tr>
<td>Not Seeking Employment</td>
<td>0.4</td>
</tr>
<tr>
<td>Retired</td>
<td>0.5</td>
</tr>
<tr>
<td>Invalid (Conflicting)</td>
<td>0.3</td>
</tr>
<tr>
<td>Responses</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 3b. Unemployed between Apr 1, 1977 and Apr 1, 1978.*

<table>
<thead>
<tr>
<th>Status</th>
<th>Respondents (% of Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Unemployed during Year</td>
<td>83.3%</td>
</tr>
<tr>
<td>Unemployed during Year</td>
<td>7.9%</td>
</tr>
<tr>
<td>Invalid (Conflicting) Responses</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

* Of those respondents unemployed for some period during the year, 72.6% terminated on their own incentive. The average period of all unemployment was 5 months.

MEMBERS IN THE NEWS

Felicia Rosencrantz . . . appointed assistant librarian, U.S. Environmental Protection Agency Library, Atlanta, Ga.

David Rosenfield, formerly with State University of New York Agricultural and Technical College Library, Delhi, N.Y. . . . now with Virginia Polytechnic Institute and State University of Virginia at Blacksburg.

Gertrude A. Ross, assistant head, Science and Technology Department, Carnegie Library of Pittsburgh, Pa. . . . promoted to head, Science and Technology Department.

Betty Roth, chief librarian, Standard Oil Company of California, San Francisco . . . retired.

Bonnie Rothbart, assistant librarian, Margaret Herrick Library, Academy of Motion Picture Arts and Sciences, Beverly Hills, Calif. . . . promoted to head librarian.

Beverly Ryd, First Boston Corporation, New York City and former president of SLA New York Chapter . . . appointed official delegate to the White House Conference on Libraries and Information Services.

Arlene Saffren, formerly librarian, Interpace Corp., Los Angeles, Calif. . . . now investment counselor in life and health insurance; estate, financial, and pension planning, Travelers Insurance, Pasadena, Calif.

Guy St. Clair, formerly librarian-curator, Union League Club, New York . . . named director, Cultural Programs, Union League Club.

Samuel Sass . . . appointed by Gov. Michael Dukakis to a five-year term on the Massachusetts Board of Library Commissioners.

Maureen Seaman, Oregon Graduate Center Library, Beaverton . . . elected chairman, Oregon State Advisory Council on Libraries.


Mary Seng . . . named head, Special Services Department, University of Texas at Austin.

Winifred Sewell . . . 1977 recipient of Medical Library Association’s Ida and George Eliot Prize.

Lynette Shockley . . . appointed photolibrarian, Dallas Morning News, Dallas, Tex.

Helen Sisson, formerly head, Sociology and Economics Department, Detroit Public Library . . . named assistant director, Main Library.

Ted Slate, chief librarian, Newsweek, New York . . . serving as secretary and member of Executive Committee, New York Metropolitan Reference and Research Library Agency (METRO).


Linda C. Smith . . . appointed assistant professor, University of Illinois Graduate School of Library Science, Urbana, Ill.

Merna Smith, librarian, Peat Marwick Mitchell, Dallas, Tex. . . . elected 1978 program chairperson, Dallas Association of Law Librarians.

Beth Soener, formerly with Dayton-Hudson Corp. Library, Minneapolis, Minn. . . . appointed librarian, Northwestern National Life Insurance Company, Edina, Minn.

Arlene Solomon . . . appointed librarian, Smith, Currie, and Hancock, Atlanta, Ga.

S. Rita Sparks, formerly with Kresge Library, Oakland University, Rochester, Mich. . . . named assistant to the personnel director, University of Detroit, Mich.

Robert B. Sperling . . . appointed senior map cataloger, Map Division, New York Public Library.

Frances G. Spigai, Lockheed Research Laboratory, Palo Alto, Calif. . . . recipient of National Micrographics Association Distinguished Service Citation.


Pamela Stevens . . . appointed librarian, Great Western Sugar Company, Denver, Colo.


B. Camille Stryck, formerly library cataloger, Information Services Division, Standard Oil Company (Indiana), Naperville, Ill. . . . appointed staff librarian, Research Department, Standard Oil Company (Indiana).


Cecily J. Surace, director, Rand Corporation Library, Santa Monica, Calif. . . . appointed by Gov. Jerry Brown to a four-year term on the California Library Services Board as the representative of special libraries.

Christine Sweet, formerly technical reports librarian, National Oceanic and Atmospheric Administration (NOAA), Boulder, Colo. . . . appointed physical sciences cataloger/assistant head of technical services, NOAA.

Milton C. Ternberg, first assistant, Business and Technology Division, Dallas Public Library . . . promoted to division manager, Government Publications Division.


Don Tolliver, executive director, Learning Resources, University of Wisconsin-Whitewater . . .
named chairperson, University of Wisconsin Library Planning Study Committee.

Elizabeth R. Usher, librarian, Metropolitan Museum of Art, New York . . . serving as vice president and member of Executive Committee, New York Metropolitan Reference and Research Library Agency (METRO).


Ruth Van Dyke . . . appointed librarian, Dames and Moore, Seattle, Wash.

Melvin J. Voigt, Central University Library, University of California, San Diego . . . named editor, Library Research, new quarterly journal from Ablex Publishing Corp., Norwood, N.J.

Arlene R. Volz, formerly library manager, St. Mary's Hospital, Health Sciences Library, Richmond, Va. . . . appointed head, Science and Technology, Louisville Free Public Library, Ky.

Rose L. Vormelker, adjunct professor of library science, Kent State University, Kent, Ohio . . . recipient of Kent State University's Outstanding Service Commendation.


Harry D. Weitkemper, formerly medical librarian, Harry S. Truman Memorial VA Hospital, Columbia, Mo. . . . appointed chief, Library Service, VA Hospital, Dallas, Tex.


Herbert S. White, director, Indiana University Research Center for Library and Information Science, Bloomington . . . winner of ALA's Resources and Technical Services Division award for the most meaningful contribution to the literature of the field in 1977, for his article "Publishers, Libraries, and Costs of Journal Subscriptions in Times of Funding Retrenchment" [Library Quarterly (Oct 1976)].

Mary Ann Whitney . . . appointed assistant cataloger, Standard Oil Company of California Library, San Francisco, Calif.

Christi Whittington, formerly with Business, Science and Technology Department, Houston Public Library . . . named assistant librarian, Bernard Johnson Inc. Technical Library, Houston, Tex.

John R. Wilson, formerly with Ontario Ministry of Health Library, Toronto, Canada . . . now with Ontario Ministry of Labour Library, Toronto.


James Wood, director, Bibliographic Support Division, Chemical Abstracts Service, Columbus, Ohio . . . appointed by NCLIS to National Periodicals System Advisory Committee.

Doris F. Zimmermann, manager of Library Services, Federal Reserve Bank, Philadelphia, Pa. . . . retired.

Management Documents Requested

The SLA Library often receives requests from special librarians seeking information on library management. As a service to our members, we would like to collect samples of management documents to help us answer these questions. It is hoped that the materials collected will be available for loan in the near future, but the success of this project depends on the cooperation of SLA members.

Members are asked to submit the following kinds of documents, as used in their own libraries:

- Policy and procedure manuals for library staff;
- Collection development policies;
- Budgets (expressed in percentages);
- Floor plans;
- User survey questionnaires.

It is not necessary that the name of the contributor's employer appear on the document(s) submitted, but the type of organization should be indicated briefly (e.g., hospital, engineering firm, departmental library in a university).

Please direct contributions to:
Special Librarians Association
Marie Doooling, Librarian
235 Park Avenue South
New York, New York 10003.
IN MEMORIAM

VIRGINIA RAYNES

Ginny Raynes, as she was known by her many friends, passed away on Sep 6 at St. Luke's hospital in St. Louis. A week after successful surgery in that hospital, she succumbed to a heart attack, much to the shock of her family and friends. Funeral services were held in Battle Creek, Mich., her hometown. Her family has requested that anyone wishing to make a contribution in her memory should send it to the SLA Scholarship fund.

It is difficult to accept that our smiling, vivacious, often laughing Ginny will no longer be with us. She was a special person—kind, understanding, loyal, and always dependable. A bit impatient on occasion, but that only added to her charm. Two of her most admired qualities were her dislike of injustice and her sense of humor. However, most will remember her ability to enjoy life—she knew how to have a good time and how to include others in the fun.

Virginia received her BA from Michigan State University and took additional courses in Library Science at UCLA and USC. In the course of her career, Ginny worked as librarian for Magnavox Research Laboratories; Head Librarian for Data Systems Division of Litton Industries; Supervisor, Technical Information Center, Douglas Aircraft Co. From 1970 on she was Manager, Corporate Library Services, McDonnell Douglas Corp. in St. Louis.

Virginia joined SLA in 1961. On the Division level she was chairman of the Documentation Division (1974/75) and chairman of the Aerospace Division (1977/78).

On the Chapter level, she was a candidate for chairman-elect, Southern California Chapter, just before her move to St. Louis; director at large of the Greater St. Louis Chapter (1972/73) and president (1975/76).

On the Association level she served on the Fall Joint Computer Conference Seminar Committee (1968) and on the Government Information Services Committee (1968).

She threw herself enthusiastically into everything she did. When she moved from Los Angeles to St. Louis, where she knew almost no one, Ginny not only continued to be active in SLA but also became a political activist. She joined the Women's Political Caucus, where she became a staunch fighter for women's rights. She became active in the Business and Professional Women's Club of St. Louis, later serving as its chapter president. Zonta, a women's service club, also benefited from her time and help. She was also responsible for several young people entering library school and entering careers in special librarianship.

I had the distinct pleasure of interviewing Ginny for the job at the Data Systems Division of Litton Industries. We soon became close friends. We attended our first SLA Conference together in 1964, our first Winter meeting in 1974, and our first ASIS National Conference in 1966. Because of our good friendship and often close proximity at conferences, Herb White nicknamed us Tweedledee and Tweedledum.

Ginny became chairman of the Documentation Division the same year that I became chairman of the Aerospace Division. For the first time, the Divisions co-hosted a hospitality suite, a tradition that has continued. This June in Hawaii, we were going to co-hostess the Aerospace/Documentation/Library Management Suite. I'm sure that she'll be there with all of us in spirit, because Ginny never missed a good party or discussion.

When all is quiet, I imagine that I hear the tinkle of crystal wine glasses, muted laughter, an Irish tune floating in the air, and a word here and there about needing an on-line system to efficiently handle the "Book of Life" database.

Joe Ann Clifton
Woodland Hills, Calif.
Newspapers Condemn Police Search Ruling

The Newspaper Division of the Special Libraries Association has condemned the Supreme Court decision that allows law enforcement officers to search newspaper files and confiscate materials without subpoena.

In a resolution passed unanimously at its annual Conference at Kansas City, the Division also asked that Congress consider legislation to overturn this challenge to the First Amendment.

The resolution, introduced by Bill Chase of Flint, Mich., said, "The Newspaper Division of SLA condemns the recent U.S. Supreme Court decision, specifically of law enforcement officers and agencies to search newspaper files and confiscate materials without subpoena, thus effectively thwarting the tradition of freedom of the press guaranteed by the Bill of Rights and the Constitution."

Jim Scofield of St. Petersburg, Fla. proposed an amendment, adopted unanimously, supporting congressional action in this area.

The Supreme Court, in a decision handed down May 31, ruled that the First Amendment provides no special protection to the press from police searches, meaning police may get search warrants for news organization offices without giving them any warning.

CHAPTERS & DIVISIONS

Illinois—Chapter officers and committee chairmen presented a preview of Chapter events and concerns for the upcoming year at the Sep 13 meeting held in the Chicago Public Library Cultural Center.

The October meeting focused on microforms and included a presentation by Stephen Williams, president of the National Micrographics Association, Chicago Chapter.

"The Role of the Special Librarian within an Organization" was the topic of a Nov 20 meeting, with speakers James Parker, professor of organizational behavior, Long Island University, and Dr. Mary Frances Hoban, Manager, Professional Developments, SLA. A Christmas meeting and party was held Dec 6.

Mid-Missouri—In preparation for the Missouri Governor’s Conference, Chapter members met on Oct 18 at the Dalton Research Park Library in order to decide the matters which the delegates would discuss at the conference.

Mid-South—The Chapter met in Nashville on Oct 14 with the Special Libraries Section of the Tennessee Library Association and the Appalachian Chapter of SLA to discuss the significance of the Tennessee Conference on Library and Information Services.

Minnesota—Chapter President Mary Lou Kovacic and other SLA and ASIS members presented a delegates’ report on the Minnesota Governor’s Conference at an Oct 18 meeting. The delegates reported that over 80 resolutions were adopted dealing with local and national improvements of library and information services.

New Jersey—The first fall meeting was held Sep 19 at the Marlboro Inn in Montclair. Prof. Dan O’Connor of Rutgers University Graduate School of Library Service gave a talk on “Catalog Futures in Special Libraries.” There was also an exhibit of reference books, fiche, and film from Pergamon Press.

The New Jersey and Princeton–Trenton Chapters have produced Special Libraries in New Jersey: A Directory at the request of the New Jersey Governor’s Conference on Libraries and Information Services. The Directory was distributed to delegates to the conference, public libraries in New Jersey, and all the libraries listed in the directory. The purpose of the project was to supply public librarians with further information sources to enable them to meet the needs of their clients. The Directory is available free on a limited basis from the president of the Princeton–Trenton Chapter.

The Executive Board met on Sep 20 at Rutgers University. The New Jersey and Princeton–Trenton Chapters participated in an Oct 6 joint workshop on automated circulation control. Also participating in the workshop were Central New Jersey ASIS and Rutgers University Graduate Library School.

SPECIAL LIBRARIES
Central New Jersey ASIS and the New Jersey Chapter held a joint meeting on Nov 6 on the topic “Nonbibliographic/Numeric Data Bases.” That same day Chapter members participated in a workshop on search strategy comparing several data bases.

Newspaper—Short Takes is the name of the new quarterly Division bulletin. The first issue appeared in summer 1978.

Five newspaper librarians were honored Jun 15 at Arrowhead Stadium, Kansas City, Mo., at a Division-sponsored luncheon during SLA’s Annual Conference. Agnes Henebry (Lindsay-Schaub Newspapers) received the Joseph F. Kwapis Memorial Award, the Division’s highest recognition “given for a major achievement in the field . . . and/or outstanding service to the Newspaper Division.” Lou Thomas (Baton Rouge Morning Advocate & State Times) received the Award of Merit “given to each Division Chairman upon the completion of his term of office.” John J. Doohan (Kansas City Star), Joseph F. McCarthy (New York Daily News), and Ralph J. Shoemaker (retired, Louisville Courier-Journal & Times) received Roll of Honor Awards “given to a member or former member of the Division for service to the Division and for participation in its programs and projects.”

New York—Dr. Carol Nemeyer made a return visit to the Chapter on Sep 19, to discuss “LC—Macrosopic Special Library.” She discussed the nature of the Library of Congress and its current reorganization.

Chapter members were offered a chance for a one-day trip to Washington, D.C. on Dec. 2. Members were taken directly to the Library of Congress, where they viewed exhibits commemorating the five hundredth anniversary of the Oxford University Press and the fiftieth birthday of Mickey Mouse.

SLA President-elect Joseph M. Dagnese spoke to members at their Nov 5 meeting which was held in conjunction with the New York Library Association Annual Conference. Dagnese addressed the topic of formal library networking and its current growth.

The Chapter celebrated the holiday season with its Dec 12 meeting at the Old Customs House, an historic Manhattan landmark. The cost of the festivities were sponsored by the Washington Service Bureau.

Oklahoma—At a Sep 15 gathering at Oklahoma University in Norman, Dr. Chuck McClure conducted a seminar on “Effecting Change through People.”

The highlight of a Dec 1 luncheon meeting at Oklahoma State University, Stillwater, was a talk by Steve Hiller, map librarian, on “Use of Maps and Aerial Photographs by the Information Specialist in Oklahoma.”

Oregon—Members of the Chapter compiled the Directory of Special Libraries in Oregon and Southwest Washington. The price is $2 to SLA members and $3 to nonmembers. Write: Mary Devlin, Special Services Librarian, University of Portland Library, 5000 N. Willamette Blvd., Portland, Oreg. 97203.

Philadelphia—The Chapter hosted a wine and cheese party on Sep 14. The festivities took place at the Library Company of Philadelphia.

The Anglo-American Cataloging rules were the topic of an Oct 19 meeting. John Hall, Drexel University School of Library and Information Science, was speaker.

The Poor Richard Room in the Benjamin Franklin Hotel was the setting for the Nov 15 meeting, concentrating on the integration of special library operations with other information services in the Franklin Institute.

Pittsburgh—The Blarney Stone Restaurant in Etna was the setting for an informative dinner meeting on Sep 12. Steve Mallinger, head librarian of the State Correctional Institution of Pittsburgh, spoke about information needs of inmates in a maximum security prison.

On Oct 19 guest speaker Gilbert M. Gigliotti, director, Technical Operations Staff of the Environmental Research Information Center (ERIC), U.S. Environmental Protection Agency, discussed technology transfer and the role of ERIC. Before the program, a Yugoslavian banquet was served to attendees at Sarah's Restaurant.

The Chapter welcomed Alphonse Trezza, executive director of the National Commission on Libraries and Information Science, as their speaker at a Nov 6 meeting which included dinner at the Top of the Triangle in the U.S. Steel Building.

The Chapter held a “Christmas in Hawaii” party on Dec 5 at the Mauna Loa Restaurant. Christmas songs were sung and performed in Hawaiian.

Princeton-Trenton—“A Reference Update: with emphasis on reference books of the last five years” was the topic of the first meeting of the season on Sep 20. Bernard F. Downey, librarian at Rutgers University Institute of Management and Labor Relations, reviewed business sources.
with emphasis on industrial relations. Barbara Flood, founder and president of Information Science Institute and Society (ISIS), and Ruth Pagell, research manager of ISIS and librarian at Cherry Hill Public Library, reviewed scientific and technical reference literature.

The Chapter sponsored a panel discussion on "Interlibrary Loan Networks in Southern New Jersey," on Nov 29, held at Princeton Country Club.

Dr. Gary Bronson of the Department of Data Processing at Fairleigh Dickinson spoke on "Minicomputers in Libraries" at the Dec 6 meeting.

Public Utilities—The fourth edition of the Union List of Serials for Public Utility Libraries was published by the Chapter in 1978. This edition consists of 39 contributing libraries with a total of 3,377 titles. Copies are $15 each. Send orders to Esther A. Reppucci, NEGEA Service Corp., P. O. Box 190, Cambridge, Mass. 02139.

Rio Grande—Members met on Sep 22 in Santa Fe to tour the special libraries of New Mexico state agencies. Included among the sights were the libraries of the State Planning Division, the Legislative Council Service, and the Supreme Court Law Library. A dinner meeting was held that evening at El Gancho Inn.

Rocky Mountain—The Chapter sponsored a micrographics workshop on Oct 22 and 23. The title of the workshop was "Micrographics: Merging Man and Machine."

Following a Sep 27 business meeting, members toured the Fitzsimmons Army Medical Center and Post Library, Denver.

San Diego—The Chapter held its first meeting of the 1978-79 season on Sep 21. The speaker was Dick Rider, a financial planner, who discussed the value of credit agencies.

The second Chapter meeting, on Oct 19, focused on library education in San Diego. Library technician programs and medical certification were among the topics discussed.

The Society of Technical Communication invited members to attend their Nov 21 meeting. The program concerned word processing.

San Francisco Bay Region—Chapter committee chairmen spoke at a Sep 19 wine and cheese party at the Hillside Club in Berkeley.

At an Oct 19 meeting, Anne Lipow of the University of California spoke on cooperative library programs at UC-Berkeley. Members discussed salary surveys for librarians at a Nov 8 meeting.

Sierra Nevada—"Fees for Library Services" was the topic of a panel discussion held Sep 12 following a Chapter meeting at the Woodlake Inn. Panelists included Peter Watson (Chico State College, California), who gave an overview of charging fees in publicly supported libraries; Fay Blake (University of California, Berkeley); and Theresa Cook (a supervisor from Placer County), who spoke on political decisions made on the issue of fees.

This year's Reference Update Workshop was given Nov 3-4 at Cal-Neva Lodge, North Lake Tahoe. Such areas of interest as reference interviews, government documents, medicine, law, physical sciences, humanities, and social sciences were covered.

In a joint program with California Library Association's Chapter of Academic and Research Librarians, the Chapter presented "Evaluating Library Personnel and Services" on Dec 9 at McGeorge School of Law in Sacramento. The program emphasized such topics as assessing the effectiveness of reference service, determining optimal collection size, using sampling and data collection procedures, and evaluating personnel performance.

Texas—A jointly sponsored program was held with the Texas chapter of ASIS from Sep 28-30 in Dallas. "Word Processing, Telecommunications, and the Office of the Future" was the topic under consideration. The program began with a showing of the film "Future Shock" and continued with coverage of trends, equipment, applications, new technologies, and micrographics.

Meeting in Austin Nov 3-4, members participated in a discussion of the changing librarian image, career planning, and what to do with a library degree besides be a librarian.

Addendum

The Picture Group of the Washington, D.C. Chapter is active and growing. The chairman is Grace E. Evans, Picture Research, 6307 Bannockburn Drive, Washington, D.C. 20034 (301/229-6722).

Also part of the Washington, D.C. Chapter is the Social Sciences Group. Louise J. Lusignan is chairman. Her address is 3119 N. Harrison St., Arlington, Va. 22207 (703/536-7833).
HAVE YOU SEEN?

FLAT/STOR File, a corrugated fiberboard document storage file, is available from Bankers Box/Records Storage Systems. An inexpensive alternative to all-metal cabinets, FLAT/STOR File is designed for large flat documents, such as blueprints, photographs, charts, and maps. An exterior metal frame and interlocking Chicago screw posts permit stacking of units. Available in four sizes. Write: Bankers Box/Records Storage Systems, 1789 Norwood Ave., Hasca, Ill. 60143.

A new grey scale vesicular microfiche duplicator, the OP47G, is the newest model from the Bruning Division of Addressograph-Multigraph (A-M) Corporation. The unit is designed to capture twelve tonal ranges from photographs and illustrations on low-cost vesicular microfiche duplicates. Using a heat process in developing, the unit needs no darkroom facilities. The duplicator is priced at $26,800 and an optional collator is $6,000. Contact: local A-M office, or Paul Scribner, Marketing Manager, 4001 Waverly Place, Suite 106, Newport Beach, Calif. 92660.

A lightweight office binding system is a new unit from James Burn Bindings, Inc. Weighing less than twenty pounds, the “Easy Bind” punches holes, inserts nylon-coated wire elements, and closes the binding. The wire elements have a twin loop design to allow the bound document to lay flat when opened, without spine damage. Wires are packaged in precut lengths and are available in a variety of colors. The unit can punch and bind documents from 1/8” to 7/16” in thickness; with an additional punch, thickness up to 11/16” can be bound. Available from James Burn Bindings, Inc., 586 Rutherford Ave., Charlestown, Mass. 02129.
Talos Systems announces the TeleScreen System, which provides real-time, interactive audiographics over any telephone. Designed for teleconferences and Educational Telecommunication Networks (ETN), the system projects an enlarged image of the remote graphics on a wall or screen for group viewing with simultaneous, interactive voice communication to bridge the gap between remotely located individuals and groups. The transmitter uses an electric writing system that converts correspondence into an electronic signal to be transmitted to one or more TeleScreen receivers. Available from: Talos Systems, Inc., 7419 East Helm Dr., Scottsdale, Ariz. 85260.

HAVE YOU HEARD?

Microforms Educational Package
“A Microcourse in Microforms” is an instructional program on microfilm and microfiche readers and printers. The program, a 10-minute 16 mm sound filmstrip, accompanied by a hand-out guide, was designed to relieve the librarian of the task of teaching students how to operate microfilm and microfiche equipment and how to find the material they need. “A Microcourse in Microforms” is also available in 35 mm slides accompanied by a pulsed, synchronized cassette tape. Photographed on location at Boston University and New York University, “A Microcourse in Microforms” is a production of University Microfilms International, 300 N. Zeeb Road, Ann Arbor, Mich. 48106.

Archives Canada Microfiches
The Public Archives of Canada has begun publishing its most important collections of documentary art on color microfiches. Each fiche is accompanied by a catalog containing a short biography and bibliography for each artist, as well as a detailed descriptive entry for each work of art. Orders for Archives Canada Microfiches Series I or Series II ($25 each series in Canada, $30 elsewhere) should be sent to the Publishing Centre, Mail Order Section, Martel Building, 270 Albert St., Ottawa, Ont., Canada K1A 0S9.

Fee-Based Information
Information Alternative has announced the release of The Directory of Fee-Based Information Services 1978-79, a directory of information brokers, freelance librarians and indexers, libraries, and other institutions that provide information services for a fee. This newest edition lists 188 services in the United States and Canada. The director is available at $5.00 prepaid from Information Alternative, Box 657, Woodstock, N.Y. 12498.

Middle East Abstracts
The Middle East: Abstracts and Indexes is a quarterly index to English language materials on the Middle East. A geographic approach is used since, in editor Amy Lowenstein’s view, the Middle East is an area where there is a great interaction between disciplines, i.e., politics, economics, and history are inexorably linked with sociology, psychology, and education. Cited material is arranged numerically under the broad headings of “General Interest,” “Arab–Israeli Conflict,” “Arab World,” or under the individual countries of the area. The first issue appeared in March 1978. The quarterly is published by Library Information and Research Service, 1717 Boulevard of the Allies, Pittsburgh, Pa. 15219.

Special Libraries
British Bibliographic Services

The British National Bibliography (BNB) has produced a tape-slide program outlining its services. Beginning with a brief description of BNB, the program outlines the recent developments in the control of serial publications and computer applications to cataloging. It ends with a description of BNB services and its future plans. The program consists of 76 color slides and an 18-minute commentary. Contact: The Administrative Assistant, Post Experience Courses, School of Librarianship, Leeds Polytechnic, 28 Park Place, Leeds LS1 2SY England.

New Wilson Position

The H. W. Wilson has announced the newly established position of Director of Customer Services at its Bronx, N.Y. headquarters. The position is held by Thomas J. Scibilia.

COMING EVENTS


Feb 19. Data-Base Use In Libraries—Now And in the Future, Congress for Librarians . . . St. John's University, Jamaica, N.Y. Contact: Bro. Emmett Corry, Division of Library and Information Science, St. John's University, Jamaica, N.Y. 11439 (212/969-8000, ext. 200).


GPO Continues Micropublishing Program

The progress of the Government Printing Office's micropublishing program was discussed at the Fall meeting of the Depository Library Council to the Public Printer, held Oct 9-11 in Alexandria, Va. A summary of that meeting states that the titles recommended for conversion to microfiche by the Council were presented to the Public Printer's Council of Micropublishing, which authorized GPO to proceed with the conversion process. GPO will next survey the depository libraries to determine the number of libraries desiring these titles on fiche.

The approved titles for conversion to fiche include the Bureau of Census Foreign Trade, Constructions, and Current Industrial Reports; Bills and Resolutions: House and Senate Appropriations Hearings; The Congressional Record, bound edition; The Federal Register, daily edition; and EPA, Environmental Protection Technology Series. Two additional lists recommended by the Council at the Spring 1978 meeting are still undergoing review by GPO.

In addition, GPO has received authorization to institute a mechanism for free replacement to depositories of microfiche which fade or deteriorate due to production or film defects. Microfiche which are lost or mechanically damaged will be replaced at $2.00 per title.

Diazol Film Recommended
Dr. Albert Materazzi, manager, Quality Control and Technical Department of GPO, presented a report on the archival stability of microfilm. Noting that research and public libraries usually cannot provide archival storage conditions for microfilm, Materazzi recommended that diazo film would be more effective than silver halide for the GPO micropublishing program. This opinion is contrary to the conclusions of the Government Documents Round Table of ALA, which strongly recommended the use of silver halide film [see Special Libraries, 69 (nos. 5/6): 228(May/Jun 1978)].

GPO has taken into consideration aging tests made by outside authorities and has itself conducted aging tests. It was found that diazo holds up well under heat and other mechanical stresses. GPO plans to survey a sample of depository libraries to build a profile of storage and usage patterns. Further aging tests are also being conducted.

The Micrographics Committee of the Council recommended that the distribution of silver halide fiche be discontinued, because of the new GPO program to provide replacement microfiche. It was stressed that a master file of silver halide fiche will be maintained at GPO for replacement purposes, therefore relieving regional libraries of the responsibility of providing replacement copies.

Cost-Saving Effects
John J. Boyle, Public Printer, commented on the interest of Congress in the GPO micropublishing program as a cost-saving measure. He has been asked by the Joint Committee on Printing to calculate the cost of production and distribution of the Daily Congressional Record in microfiche format. The committee also requested that Boyle suggest other ways that micropublishing could be used to cut printing and binding costs. If a decision is made to offer the Daily Record in both paper and film formats, Boyle said that the film format could begin with the first issue of the 96th Congress, first session, January 1979.

Boyle said he expects Congress to ask GPO to continue with other titles in microfiche format if this will produce substantial cost reductions. There would be no attempt to force depositories to accept fiche as long as the publication was also being offered in paper; it is unlikely that the Daily Record, bills, hearings, and similar publications would ever exist only in fiche format.

Law School Libraries
Another item discussed at the meeting was Public Law 95-261, which authorized law school libraries to apply for depository library status. At the meeting it was announced that eighty law school libraries are already depositories, and will be transferred to coverage under PL 95-261. This will create several openings for designations of new depositories.
CENADEM Begins Micrographics Publications

The National Center for Micrographic Development (CENADEM) in São Paulo, Brazil, is beginning a series of technical publications dealing with all areas of micrographics. CENADEM has developed this project in an attempt to improve microfilming processes in South America.

Authors may send published or unpublished articles, conference papers, and so on. All material selected for publication will be translated. One major problem in the development of microfilming in South America has been the lack of technical publications in the local language.

CENADEM requests that authors submit the complete text, photos and other illustrative material, a short biography, and a black and white photo of the author. Papers should be sent to:

CENADEM
Attn: Antonio Paulo A. Silva
Av. Sôo Luiz, 258—Conj. 1505
01046-São Paulo—SP—Brazil

REVIEWS


Perhaps one indication that a field of endeavor has reached a certain maturity is the production of training manuals for beginning practitioners. While map librarianship is still many years away from reaching its full splendor and glory, it has reached a stage of development in which the wisdom of the elders can be committed to paper and passed down to the struggling neophytes. Though there are other works, this is the first book published in North America for beginning map librarians; Harold Nichols' Map Librarianship (London: Clive Bingley, 1976) is a mediocre British effort, Roman Drazniowsky's Map Librarianship (Metuchen: Scarecrow Press, 1975) is a collection of readings, and the October 1973 issue of Drexel Library Quarterly was designed to be a stop-gap effort until something better came along.

Let us be honest and admit the book is not perfect; no beginning text can be. In discussing the particular basic works/sources of supply/practices, one is bound to make statements invalidated by time. However, if the discussion of the Anglo-American Cataloging Rules is to be weakened by AACR II, and if many of the other matters discussed are in the process of change, the work is still philosophically sound in its approach and judgments. There are the inevitable typographical errors and minor faux pas (as when the term "map" is used when "sheet" is meant), but nothing of a major nature, for a beginning text. In her desire to include current information, Larsgaard cites a few books based on a publishers' announcement—and the publisher has since reneged completely or at least changed the publication date. A source of minor annoyance is Larsgaard's use of "she" for the librarian and "he" for the client; it avoids confusion but invites charges of sexism.

The subjects covered by the various chapters are, broadly, selection and acquisition, map classification, map cataloging (including computer applications), care/storage/repair of maps, public relations and reference services, and the administration of a map library. The fifteen appendixes include a sample acquisition policy statement, a glossary of terms, several lists of publishers/distributors, selected manufacturers of equipment, and map libraries issuing accession lists. There is an index, bibliography, and supplemental reading list.

One of the great strengths of this book is Larsgaard's honesty. While she presents arguments for alternate practices and techniques, she also has the courage to reach conclusions. For instance, the beginner is told that the Library of Congress "G" schedule is the best systematic classification scheme for general libraries, and that in most cases only fools use vertical map storage by choice. The reader is given much useful information in a friendly manner and a witty writing style. This book is practical. While it will be of great value in library schools as assigned reading, it will also be of great value in the field, not only for map librarians, but for any librarian who deals with maps at whatever level. The highest compliment has been paid to this book: In discussing it informally, many map librarians have said, "I wish I had it when I was starting out."

J. B. Post
Map Librarian
Free Library of Philadelphia
Logan Square
Philadelphia, Pa. 19103

DECEMBER 1978

From the abstract: "The relationship of the various languages to each other is discussed, and is followed by a series of "Title Page Tips" including numbers (one to 31), days of the week, . . . months, seasons, and typical title page words for each of 14 languages, and by tables of "Library Language Relatives" for Romance and Germanic languages." Available from: Occasional Papers, Publications Office, 249 Armory Building, U. of Illinois GSLS, Champaign, Ill. 61820.


A selected and annotated list of science and mathematics books which supplements the AAAS Science Book List (3d ed.; 1970) for secondary school students, teachers and nonspecialist readers.

(78-079) **World Transindex: Announcing Translations in All Fields of Science and Technology.** 1 (no. 4) (1978). Monthly. Annual subscription $240. ISSN 0378-6803.

Announces translations from East European and Asiatic languages into Western languages, and from Western languages into French. Classified arrangement, with indexes of authors and source journals. Replaces World Index of Scientific Translations, Transatom Bulletin, and Bulletin des Traductions. Published by International Translations Centre, 101 Doelenstraat, Delft, Netherlands.


Introduction to management, discussing in turn each of the basic managerial functions: planning, organization, coordination, and control.


Introduction to acquisition, conservation, processing, and use of local history materials in both print and non-print media: books, newspapers, photographs, tapes, clippings, manuscripts and the like.


Marie Dooling
Verbum sat sapienti est!

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Tells how to find out about environmentally significant projects, which projects require impact statements, steps citizens can take before draft impact statements are released, how statements are reviewed, and how and when final statements are issued. Contains the full texts of the National Environmental Policy Act (NEPA), CEQ Guidelines on Preparation of Impact Statements, Federal Agency NEPA Regulations, and other important documents.

According to Charles Warren, "This excellent book gives citizens the information needed to make their participation in the impact statement process truly effective. It lays out clearly and accurately the particular points and techniques open to citizens to change federal plans and decisions. For this guidance, Professor Orloff, a recognized expert in the impact statement process, is to be congratulated."

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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.

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### ERRATA

Dec 1977, p. 461, bottom Figures for the 75th percentile rather than the medians for 1976 and 1977 were published for the West South Central, Mountain States, and West North Central Census Regions in the “1977 Salary Survey Update.” The correct median figures are given in the Dec 1978 issue, p. 501, bottom.

Sep 1978, p. 408, col. 2 Marguerite K. Moran was named director of the Technical and Business Information Center of M&T Chemicals, Inc., Rahway, N.J., not senior vice president.

Oct 1978, p. 335, col. 1 The names and titles of two Association Officers were transposed. Patricia Marshall should be listed as Division Cabinet Chairman-Elect and Fred W. Roper as Chapter Cabinet Chairman-Elect.

Nov 1978, p. 436, col. 2 Due to a printer’s error, three lines of text were repeated and three lines were dropped. The incorrect sentence in the section “A Definition of International Information Systems” should read as follows:

> ... ERIC and MEDLINE, both American systems which serve the international development community as a by-product of their work in meeting national information needs, and which do not systematically report developing country experience, cannot really be classed as international; nor can commercial services such as Social Science Citation Index.
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