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LETTERS

"Facts" Disputed

I wish to take issue with "Progress in the Philippines?", a letter written by Albert J. Milo of the Chicago Public Library [Special Libraries 69(no.1):7A (Jan 1978)].

Julie Bichteler's article, "Special Libraries in the Philippines" in your January 1977 issue is accurate and the impression given is correct. Filipino-Americans like Milo should be less easily disturbed by any "facts" about what's going on in the Philippines. Also, "intellectual freedom" cannot be suppressed—even in jails.

Besides, international lending institutions have been liberal with the Philippines because the country now has a much higher debt-paying capacity than it has ever had before.

Who now has "superficial knowledge of the socioeconomic conditions in the Philippines"?

Simeon Bonzon
Manila, Philippines

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Alexander C. Crosman, Jr.
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A Worldwide Population Information Network  
Status and Goals  

Helen K. Kolbe  
The George Washington University Medical Center, Paul H. Himmelfarb Health Sciences Library, Washington, D.C. 20037  

The rapid growth of world population and changes in government policies and programs have combined to bring about many changes in the area of population information. Not only has there been an increase in the amount of population information and millions of dollars devoted to research but also an increase in awareness of the need to improve access to population information. Information resources in population are located primarily in the developed, or information rich, countries. No adequate information flow has yet been established to and from the developing, or information poor, countries. In response to this need, emerging regional population information networks are already identifiable.

There are more than four billion people in the world today (1, p. 1). It took from the beginning of mankind until 1830 A.D. for the world's population to reach its first billion inhabitants. The second billion was added in 100 years, the third in 30 years and the fourth was reached in 1976—an interval of only 16 years (2, p. 8). If the present growth rate of 30 per 1,000 continues, there will be eight billion people by the year 2000. The recent trend toward a decline in birth rates, documented only recently, can be attributed to the availability and use of modern contraceptives encouraged by vigorous family planning programs in many countries of the world (3, p. J-205).

Effect on Population Information  
The rapid growth of world population with the resulting changes in government policies and programs have combined to bring about not only an increase in the amount of population information due to millions of dollars devoted to research but also an increase in awareness of the need to improve access to population information. Information resources in population as in other subject areas are located primarily in the developed countries, often referred to as the information rich countries. There is, it would seem, an inadequate information flow to and from the developing countries, or information poor countries.

Research inevitably stimulates publication and such was certainly the case in the study of population over the past decade and a half. The World Population Conference in 1974 and the studies created in preparation for it led to the United Nations Population Commission's expressed interest in the possibility of computerizing population information to improve access (4, p. 84). An Interim Steering Committee and Technical Task Force organized in September 1975
considered the feasibility and possible design of a worldwide population information system (POPINS) (5, p. 1). The report of the Interim Steering Committee was presented to the U.N. Population Commission in January 1977. The Commission authorized a further two-year feasibility study without commitment to proceed beyond the study.

Prior to and during the landmark POPINS study, numerous components of a worldwide population information system or network were undergoing expansion, development, or planning.

Components of an International Population Information Network

Before considering the components of a future worldwide population information network, it seems expedient to define an information network and distinguish between an information network and an information system. Becker and Olsen have stated:

In an information network, more than two participants are engaged in a common pattern of information exchange through communications for some functional purpose. . . . Telephone and radio networks are essentially communications grids that are independent of the intellectual content or information purpose of the message they carry. However, when the network is devoted to a specified and limited functional purpose and there is interdependence for information among the participants, then it seems logical to call it an information network (6, p. 290-291).

In light of this and other definitions, the development of cooperative arrangements among any, or all, existing or planned population information organizations lends itself best to the network concept.

Emerging regional networks are already identifiable. The most highly developed networks at present are in North America and Europe and cover the biomedical (family planning) and demographic aspects of population information. One is a professional association.

North America and Europe

The Association for Population/Family Planning Libraries and Information Centers-International (APLIC) was founded in May 1968 by 15 population/family planning librarians and information specialists who met in Chapel Hill, North Carolina under the auspices of the University of North Carolina's Carolina Population Center with a grant from the U.S. Agency for International Development (USAID) (7). APLIC's present membership, in its decennial year, represents more than 80 organizations in 13 countries of North America, South America, Europe, Asia, and Africa. APLIC has made significant contributions to improving the flow of population information. Each year APLIC brings together users, producers, and providers of population information through annual conferences and regular board meetings so that those who need information from other libraries and information centers know whom to contact and how. APLIC publishes the Proceedings of its annual conferences and a newsletter, The APLIC Communicator. The New York and Washington Chapters have compiled union lists of serials for each of their regions. These lists will be combined to form a North American union list of serials in population.

Aware of its international obligations, APLIC has sponsored training Institutes for population librarians in Asia and South America. The first was held in Bangkok in 1973 [in collaboration with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the Carolina Population Center, Technical Information Service] and the second in San Jose, Costa Rica in 1976 (in collaboration with the International Planned Parenthood Federation, Western Hemisphere Region and the Centro Interamericano de Adiestramiento en Comunicacion para Poblacion y Planificacion Familiar). At the request of the regional organizations, follow-up sessions are being planned for both Asia and South America.

APLIC has encouraged through financial and technical assistance the development of a sister organization in Latin America, the Asociacion Interamericana de Centros de Informacion de Poblacion (AICIP) and
hopes to see a similar organization formed in Asia within the next two years.

Population organizations in Africa have made inquiries about similar kinds of technical assistance which will be acted upon as soon as feasible.

Other APLIC services include the compilation of an *On-Site Orientation Directory*, training and technical assistance to developing country libraries, and regular contributions on population-related meetings to the quarterly publication, *World Meetings*. "In practical terms, the materials held in the collections of APLIC members constitute the bulk of the world's available information in population and family planning, and the experience of its individual members combines much of the available knowledge on the best way to handle this material" (8, p. 4).

The *Population Index*, a publication of the Office of Population Research, Princeton University since 1935, is a major source of population information. The *Index* provides an annotated bibliography of worldwide demographic literature in all languages for which titles and/or abstracts are available in a European language. Each quarterly issue has a maximum of 1,000 entries (5, p. 43–46). There is a cumulative index for the years 1935–1968. Plans to computerize the *Index* have been completed and the initial work began in June 1977. Linking the data base of the *Index* and the major computerized systems in biomedicine and family planning would provide a substantial international population information resource.

*POPINFORM* is an interactive computerized population information network initiated and coordinated by the Population Information Program, George Washington University Medical Center. The POPINFORM network consists of several data bases that can be searched separately or concurrently. The present file size is about 40,000 citations with abstracts and/or index terms. The subject scope is primarily biomedical with comprehensive coverage of contraceptive technology and family planning program evaluation.

The main files are contributed by the Population Information Program, the Center for Population and Family Health at Columbia University, and the Family Planning Evaluation Division of the Center for Disease Control (Atlanta) (9, p. 45–47). The International Statistical Program Center of the Bureau of the Census (Washington, D.C.) and the East-West Communication Institute (Honolulu) contributed small sample files of census data and population communication literature.

*POPINFORM* is maintained by Informatics, Inc. (Rockville, Md.) and uses the Recon IV software. The files are searchable separately or concurrently using free text or index terms. Each contributing organization maintains its own thesaurus or keyword list. Thesauri developed by the Center for Population and Health (10) and the Population Information Program (11) are based on the National Library of Medicine’s (NLM) Medical Subject Headings (MeSH).

George Washington University and Columbia University provide computer searches and hard copy backup without charge to developing country users. Services are available to North American users by subscription through Informatics.

Numerous on-line demonstrations of POPINFORM from Asia, Europe, South and Central America since 1974 clearly show the technical feasibility of sharing information through satellite communications and computer technology. The economic feasibility is still questionable (12). A more viable alternative to improve access in the developing countries is the proposed POPLINE.

*POPLINE* is an informal proposal to the NLM sponsored jointly by the Center for Population Research, NICHD and the Office of Population, USAID to add to the NLM information systems a comprehensive population information file consisting of Population Sciences: *Index of Biomedical Research*, POPINFORM and *Population Index*. The citations in these three files cover a major portion of the worldwide literature in population including basic research in reproductive biology.
applied research in contraceptive technology and family planning, and demography. The advantage of the proposed POPLINE as viewed by the sponsors are:

- The NLM information system which now reaches developing countries in Asia, Latin America and Africa is the most likely existing system to further expand services to developing countries.
- The location of POPLINE in the NLM system would increase dramatically the potential number of access points to a population data base, since MEDLINE is already available in more than 500 institutions. Many of the potential users of population information are located in the same academic, government and medical institutions.
- It would significantly reduce the cost of computer searches presently available through POPINFORM ($8–$15 per connect hour as compared with $50 per connect hour).
- It would bring into one system all the main bibliographic population information data bases currently being funded by the U.S. Government thereby creating a truly comprehensive North American regional population information resource.

The Demographic Data Retrieval System (DDRS) of the International Statistical Programs Center of the Census Bureau is the successor to the International Demographic Data Directory of which a sample file is included in POPINFORM. DDRS is a storage and retrieval system for tabular data. Approximately 95% of the entries are tables and 5% are bibliographic references to data or to articles containing data. Most of the citations refer to developing countries regardless of the geographical source or language. An analysis in May 1976 revealed that 64% of the tables were demographic, and 36% related to economics, education, health, or family planning. File size as of June 1976 was about 20,000. The system uses a mini-computer and microfilm reader-printer for storage and retrieval (5, p. 46–47).

The Technical Information Service (TIS) of the Carolina Population Center has been a major population information service since 1967. Unfortunately, the service was discontinued as of Jun 30, 1977 for lack of funding.

TIS published numerous library resource tools and a periodical entitled Overview: The International Journal of Population Libraries, (5, p. 36–37). TIS was a leader in the population library field, the founding organization for APLIC, and a major assistance agency to population libraries in developing countries. Graduates of the training program staff many of the population libraries in Latin America, Asia and Africa.

The International Planned Parenthood Federation (IPPF), founded in 1952, has a decentralized non-computerized information network within its own infrastructure. IPPF is a federation of 91 family planning associations (FPAs) located around the world with a central office in London. There is strong emphasis on providing information about family planning and related services to policy makers, professionals, and lay persons. To accomplish this, IPPF headquarters has organized its publications program, library, and filing system into an Information Department with four subdivisions: the Publications Unit, the Information Flow Section, the Audio-Visual Production Unit, and the Library and Documentation Service. Among the many IPPF information services and publications, the most unique (and useful according to IPPF officials) product is the IPPF Open File. The staff of the Information Flow Section scans and selects information on population from letters received from the FPAs and field trip reports from staff people. Open File is compiled daily for internal use in London, weekly for use by member associations worldwide, and quarterly for publication and general distribution as IPPF News (5, p. 37–40).

Latin America

Two recent developments in Latin America are of particular significance. They are the establishment in 1975 of the Latin American Population Documentation Systems (DOCPAL) and the formation in 1976 of a Latin American popula-
As of early 1976, the ESCAP Clearinghouse and Information Section had developed two networks, the Population Correspondents Network and the Population Library/Documentation Centre Network. The Population Correspondents Network consists of 296 correspondents and 85 alternate correspondents representing 381 organizations in 29 countries. The Population Library/Documentation Centre Network consists of over 100 population libraries in the region. Both networks entail a two-way flow of information to and from ESCAP which, in turn, provides information to interested institutions in other countries (5, p. 12-21). It is unlikely that an Asian population information network can be developed to meet the needs of the entire region, but it is highly probable that subregional networks will emerge which can eventually be linked into a functional regional network.

Asia

Most of the population information network activities in Asia have taken place under the aegis of ESCAP. The ESCAP region includes 35 countries and territories reaching from Pakistan to Japan with great diversities in political systems, geographic characteristics, ethnic composition, language, customs, religious beliefs, and economic development. Efforts to plan for the systematic collection and exchange of population information in this region must always take account of these diversities. The need to improve the flow of population information was first recognized at the 1955 Seminar on Population in Bandung, Indonesia; and reiterated at the First and Second Asian Population Conferences (New Delhi, 1963 and Tokyo, 1972).

As of early 1976, the ESCAP Clearinghouse and Information Section had developed two networks, the Population Correspondents Network and the Population Library/Documentation Centre Network. The Population Correspondents Network consists of 296 correspondents and 85 alternate correspondents representing 381 organizations in 29 countries. The Population Library/Documentation Centre Network consists of over 100 population libraries in the region. Both networks entail a two-way flow of information to and from ESCAP which, in turn, provides information to interested institutions in other countries (5, p. 12-21). It is unlikely that an Asian population information network can be developed to meet the needs of the entire region, but it is highly probable that subregional networks will emerge which can eventually be linked into a functional regional network.

Africa

In general, there is a lack of the basic infrastructure necessary to collect, organize, and disseminate population information in Africa although several important demographic research institutions are located in Africa, including the Cairo Demographic Centre; the Council for the Development of Economic and Social Research in Africa, Dakar, Senegal; the United Nations Institute for Demographic Training and Research, Yaounde, Cameroon; the United Nations African Institute for Economic Development and Planning, Dakar, Senegal; and the United Nations Regional Institute for Population Studies based at the University of Ghana. In 1974, the Population Association of Africa was organized for the purpose of initiating and coordinating research and facilitating communication among population researchers in Africa. The Association has been hampered by lack of funds but hopes to be able to publish a journal of demography in the near future (5, p. 28-33).

A Population and Social Sciences Library has been established at the University of Ghana. The library has built
up valuable holdings in population, conducted an inventory of population research activities, planned a training program for African population librarians, and developed a proposal for a Population Information Documentation System for Africa (PIDSA) similar to the DOCPAL model but incorporating a strong training component. Language is a major barrier in Africa but PIDSA proposes to establish a bilingual data base to serve Anglophone and Francophone Africa, excluding the Arabic speaking countries of North Africa. The PIDSA proposal is the first major effort toward networking in Africa, but to date it has not been funded.

**POPINS Proposal, the Model, and a Counterproposal**

The proposal for POPINS submitted for consideration to the U.N. Population Commission in January 1977 is now entering its second phase—a two year exploratory study of feasibility and system design. The recommendations of the Interim Steering Committee and Technical Task Force have suggested a model having a central coordinating unit, regional centres, and national centres. POPINS, as proposed, would be located in the United Nations Population Division. The Steering Committee recognized the need for adequate infrastructures in participating countries, the need for the strong support of national governments, and the importance of locating the system within a United Nations organization (14, p. 7, 41, 102–103).

The volume of documents in population is small—probably about 25,000 per year. Furthermore, the infrastructure for a population information network is in various stages of development from highly sophisticated in North America to embryonic in Africa. Financial resources for population information are severely limited with IDRC and USAID the principal contributors. For these reasons, a number of North American population information specialists believe that the most practical approach to a worldwide population information network is to continue to encourage and promote the development of local, national, and regional information resources including the training of documentalists and librarians. As these resources grow, functional regional networks will emerge which can later be inter-connected by a referral center when the need for information exchange among the various components warrants the establishment of a formal coordinating unit. The “building block” approach has been used effectively by the NLM and the referral center concept has been chosen by the United Nations Environmental Program (UNEP). For the next decade “the challenge that faces the [population] information community is to disseminate data and knowledge that are needed appropriately, accurately, and rapidly (15).

Given that goal and the present disparate capabilities of the potential participants in a worldwide network, it would appear that the best course to follow is an “evolutionary development responsive to user needs, whether it is simple interlibrary cooperation or a highly technical communication system (16, p. 498).

**Summary**

A strong North American–European network is coalescing rapidly. DOCPAL shows promise of bringing order to population information in Latin America. Asian network efforts are encouraging. The situation in Africa looks hopeful. The POPINS proposal will receive careful scrutiny during the next two years. Therefore, it seems reasonable to predict that within seven to 10 years a *de facto* worldwide population information network will be a reality.

**Literature Cited**


Received for review Jul 5, 1977. Revised manuscript accepted for publication Mar 13, 1978.

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Multi-Data Base Searching in Agriculture
A Cooperative, Computerized Service

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A cooperative program to provide selective dissemination of information service to three groups of land-grant university scientists working in the area of sorghum research was undertaken by the Agricultural Research Service and the National Agricultural Library. After one year, analysis of the retrieved citations and user feedback shows that no single data base is sufficiently comprehensive in coverage. In terms of maximum information yield and relative ease of effective profile construction, BIOSIS Previews and the Commonwealth Agricultural Bureaux file were the most productive data bases.

The data in this paper developed out of a cooperative effort of the Agricultural Research Service (ARS)* to provide Selective Dissemination of Information (SDI) service to a group of sorghum researchers identified and selected by the National Agricultural Library (NAL). The Agency for International Development (AID) funded the library, which in turn contracted to ARS, as well as several other units, to provide the desired services. The following paper is based on data from ARS and an evaluation of the project conducted by a private contractor (1). Because these data did not originate from a controlled test environment, they lack some rigor and should be interpreted accordingly. However, because they originated out of a real, service environment, they should be more useful in reflecting actual trends and patterns which might be encountered in analogous subject areas. The specific data on retrieval by individual profile are available from the author should anyone wish to review them. Approximations of some of the citation data by data base were made available to the contractor by ARS early in 1977. The data in this paper, however, reflect actual counts and include no approximations or estimates.

Description of Project

Over a 12-month period (June 1976–May 1977), computer based searches were provided by the Agricultural Research Service's Current Awareness Literature Service (CALS) to selected land-grant university scientists working in the area of sorghum research. Scientists located at Purdue University,
the University of Nebraska, and Texas A & M University were introduced to CALS by librarians located on their campuses. The librarians had received varying degrees of instruction in the use of CALS; librarians at two of the locations had attended brief training seminars conducted at ARS field locations as well as received copies of the User's Guide (2), and personnel at one location relied solely on the User's Guide. The librarians' mode of interfacing with the sorghum researchers also varied; in some cases, potential users were given a Guide and allowed to develop their own search profiles and, in other cases, the librarian worked closely in developing and revising the profiles. All profiles were then forwarded to the ARS information specialist who edited them for conformity to CALS system specifications (e.g., correct tags and data base codes) and for general accuracy of subject delineation. Because of the variation in training and participation of the librarians, the profiles varied widely in the quality of their composition. However, given the specificity of the area, i.e., sorghum research, retrieval precision was generally high.

The librarians participating in the project were urged to encourage the land-grant scientists to revise their profiles whenever they felt there were problems in their citation output. Because of this policy, which placed determination of retrieval effectiveness on the user, no attempts were made to measure precision on a citation by citation basis.

After gaining some familiarity with the Current Awareness service, many of the scientists made revisions to their profiles directly. In a few cases, where the scientist could not determine what was causing faulty retrieval he would contact either the project librarian or the ARS information scientist.

After the initial start-up period, during which potential users were contacted and profiles were developed, there was a total of 128 data base profiles submitted by 31 individuals. Because of the variation in coverage of the agricultural research literature, no single data base was identified or recommended to users as being comprehensive. Therefore, all users opted to search a combination of files. Because of arrangements between NAL and the land-grant librarians, subsequent ARS editing of profiles did not include review of data bases selected for search. Since NAL had a fixed amount of money from AID with which to cover ARS computer costs, it was decided by ARS to accept the profiles as submitted and to notify NAL when the predetermined cost limit was reached. Since computer costs were a function of number of profiles, number of data bases searched, and number of times (issues) searched, ARS made no recommendations to land-grant users in order not to affect their (potential) use patterns.

Relevant, available data bases were BIOSIS Previews, Chemical Abstracts Condensates, Food Science and Technology Abstracts, the full file of the Commonwealth Agricultural Bureaux (CAB), and the file of the National Agricultural Library (CAIN/AGRICOLA). [The National Agricultural Library file, originally designated CAIN (Cataloging and Indexing) and now designated AGRICOLA (Agriculture On-Line Access), is referred to henceforth as the CAIN file since the ARS Current Awareness service is not an on-line service but is operated in a batch mode.] Three users elected to search Government Reports Announcements (National Technical Information Service) in addition to several of the other bases.

Search profiles varied in length and complexity from three terms of a general nature, which simply requested anything on sorghum, to the more complex (cytogenetics and breeding of sorghum) and lengthy (164 terms). System parameters allow up to 250 65-character terms per profile with left and right truncation.

**Popularity and Productivity of Data Bases**

Since all data bases are converted to a common format prior to searching, a given profile can easily be structured to search multiple files. A range of 3–8 data bases was searched by each profile. The most popular selections were BIOSIS Previews (Biological Abstracts and BioResearch Index) and CAIN. The CAB file which
was searched by less than a third of the users had only recently been added to the CALS system. While many librarians are familiar with the individual abstract journals which comprise the file, such as *Review of Applied Entomology* or *Plant Breeding Abstracts*, they have some difficulty accepting the concept of the merged product. Perhaps this lack of recognition of what the CAB data base really was and/or a lack of knowledge of its availability were the reasons so few people included it. It was extremely productive for those who did use it. Table 1 lists the combinations of data bases searched. No limits or charges existed with respect to number of citations retrieved so users were not penalized for sacrificing precision for the sake of recall. [In a follow-up evaluation of the sorghum service project, only two users indicated that they were getting too many citations (1). The users did not specify whether the "too many" citations were non-relevant or relevant but had already been seen before or were not wanted for some other reason.] The average number of citations retrieved varied widely from data base to data base and within the three user groups. Table 2 gives total retrieved citation averages for the group as a whole by data base, while Table 3 shows the considerable variation among user group averages for each data base.

The significant variation among user groups in the average number of citations retrieved seen in Table 3 is primarily due to differences in profile construction rather than subject area differences or differences in coverage. Profiles from Group C were consistently more complete with inclusion of various kinds of synonymy such as common and taxonomic names as well as available numeric codes for each concept. Because both titles and indexing fields were searched, this added enrichment to the profiles and produced much more comprehensive retrieval. This was particularly true in the case of the CAIN file which includes only minimal indexing with the result that dependence on title (where maximum vocabulary variation occurs) is greater than for any of the other data bases.

<table>
<thead>
<tr>
<th>Table 1. Data Bases Searched</th>
<th>Profiles</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOSIS Previews</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Abstracts (BA)</td>
<td>28</td>
<td>24</td>
</tr>
<tr>
<td>BioResearch Index (BRI)</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>CAIN</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Chemical Abstracts Condensates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAO*</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>CAE</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Commonwealth Agricultural Bureaux (CAB)</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Food Science &amp; Technology Abstracts (FSTA)</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Government Reports Announcement (GRA)</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>BA, CAIN</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>BA, CAO, CAIN, FSTA (3 of 4)</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

*CAO refers to the odd numbered issues of Chemical Abstracts and CAE to the even numbered issues. Each series has different subject areas. For a complete delineation, refer to: *Subject Coverage and Arrangement of Abstracts by Sections in Chemical Abstracts*. Columbus, Ohio. Chemical Abstracts Service, American Chemical Society, 1975.

In terms of overall productivity, BIOSIS Previews is clearly the richest source with more than 50,000 citations retrieved (Table 2). On the basis of individual profile yield, however, the CAB file is the most productive. Had the same number of profiles been run against the CAB file as were run against BIOSIS, using the 148 citations per monthly issue per profile average (Table 3), the adjusted total for CAB would have been slightly greater than 50,000. However, since BIOSIS Previews consists of two issues of Biological Abstracts and one of BioResearch Index each month, the actual monthly average is 155 citations. BIOSIS and CAB appear to be equally productive both by average profile retrieval and total retrievals. Table 4 reflects adjusted averages based on total monthly citations received.

**User Findings and Recommendations**

Obviously, no single data base constitutes a comprehensive source. It
Table 2. Total Citations Retrieved by Sorghum Profiles

<table>
<thead>
<tr>
<th></th>
<th>Citations</th>
<th>Issues</th>
<th>Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOSIS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Abstracts</td>
<td>34,907</td>
<td>27 (biweekly)</td>
<td>28</td>
</tr>
<tr>
<td>Bio Research Index</td>
<td>16,507</td>
<td>12 (monthly)</td>
<td>24</td>
</tr>
<tr>
<td>Chemical Abstracts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAE*</td>
<td>252</td>
<td>29 (biweekly)</td>
<td>3</td>
</tr>
<tr>
<td>CAO</td>
<td>21,678</td>
<td>29 (biweekly)</td>
<td>16</td>
</tr>
<tr>
<td>CAIN†</td>
<td>27,104</td>
<td>15 (monthly)</td>
<td>30</td>
</tr>
<tr>
<td>Commonwealth Agricultural Bureaux‡</td>
<td>16,289</td>
<td>11 (monthly)</td>
<td>10</td>
</tr>
<tr>
<td>Food Science and Technology Abstracts</td>
<td>12,352</td>
<td>13 (monthly)</td>
<td>11</td>
</tr>
<tr>
<td>Government Reports Announcement</td>
<td>296</td>
<td>29 (biweekly)</td>
<td>6</td>
</tr>
</tbody>
</table>

*CAE includes primarily analytical chemistry while CAO includes biochemistry, toxicology, plant nutrition, and related fields and has a much wider agricultural audience.
†Four extra issues of CAIN were included in the search service since issues 75(no. 11), 75(no. 12), 76(no. 1), and 76(no. 2) were received by ARS in April 1976.
‡Only two months of 1977 data were included for CAB because of search program modifications which delayed processing.

Table 3. Average Number of Citations Retrieved per Issue by Data Base

<table>
<thead>
<tr>
<th>BIOSIS Previews</th>
<th>Chemical Abstracts</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BA</td>
<td>BRI</td>
<td>CAB</td>
<td>CAO</td>
<td>CAE</td>
</tr>
<tr>
<td>User Group A</td>
<td>18</td>
<td>22</td>
<td>91</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>User Group B</td>
<td>32</td>
<td>31</td>
<td>235</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>User Group C</td>
<td>57</td>
<td>77</td>
<td>208</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>System Average*</td>
<td>46</td>
<td>63</td>
<td>148</td>
<td>50</td>
<td>3</td>
</tr>
</tbody>
</table>

*The system average was calculated by dividing the total number of citations retrieved from the data base by the total number of profiles run. The user group averages were calculated by dividing the total number of citations retrieved from the data base for each user group by the number of issues searched and by the number of profiles for each group. Therefore the simple average of the three user groups is not equal to the system average.

Table 4. (Adjusted) Average Monthly Retrieval

<table>
<thead>
<tr>
<th>User Group</th>
<th>User Group A</th>
<th>User Group B</th>
<th>User Group C</th>
<th>System Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOSIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA</td>
<td>36</td>
<td>64</td>
<td>114</td>
<td>92</td>
</tr>
<tr>
<td>BRI</td>
<td>22</td>
<td>31</td>
<td>77</td>
<td>63</td>
</tr>
<tr>
<td>BA/BRI</td>
<td>58</td>
<td>95</td>
<td>191</td>
<td>155</td>
</tr>
<tr>
<td>CAIN</td>
<td>29</td>
<td>28</td>
<td>78</td>
<td>60</td>
</tr>
<tr>
<td>CAB</td>
<td>91</td>
<td>235</td>
<td>208</td>
<td>148</td>
</tr>
<tr>
<td>Chemical Abstracts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAO Only</td>
<td>22</td>
<td>44</td>
<td>244</td>
<td>100</td>
</tr>
<tr>
<td>CAE Only</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>CAO/CAE</td>
<td>28</td>
<td>44</td>
<td>244</td>
<td>106</td>
</tr>
<tr>
<td>FSTA</td>
<td>24</td>
<td>48</td>
<td>236</td>
<td>73</td>
</tr>
<tr>
<td>GRA</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
would have been interesting to determine the proportions of duplicate citations yielded by the various combinations of the data bases. Since no user commented (or complained) of overlapping coverage, one can assume that while its existence is annoying for economical and theoretical reasons, in reality the multi-data base system will probably not be changed due to user needs. For such a broad area like agriculture, however, cooperative efforts among BIOSIS, CAB, and NAL, like those of BIOSIS, Chemical Abstracts Service, and Engineering Index, could result in less overlap and improved coverage of those items which are handled.

Many of the users, as well as some of the librarians, were surprised at the existence of relevant citations in data bases not considered to be "agricultural," such as Chemical Abstracts. Nearly all the users found that the computer-based searches brought to their attention many journals with which they had not been familiar. As has been determined in two earlier ARS user studies, exposure to foreign literature was regarded by equal-size groups as both an advantage and a disadvantage. Perhaps the underlying thinking of those who regarded receiving foreign citations as a disadvantage was that 1) obtaining copies of the journal itself was often difficult and time consuming, and 2) obtaining translations once the article was obtained was difficult, time consuming, and expensive. Unlike Kreilkamp, who paraphrased L. H. Campey and stated "that . . . it (CAIN) appeared to be the best available machine readable data base anywhere in the world, needing, however, to be supplemented by alternative data bases" (3), the sorghum project statistics seem to point to a combination of BIOSIS and CAB as making the most effective contribution. To these two core data bases would be added any of the specialty data bases such as Chemical Abstracts or Food Science and Technology Abstracts as the search subject required.

In addition to citation yields, there are two other factors affecting the aforementioned recommendation. First is the in-depth level of indexing given to all BIOSIS citations including keywords and subject and taxonomic codes. This improves retrieval effectiveness while not increasing search difficulty since the printed code lists and indexing rules are widely available. The second factor is the high quality abstracts available with each CAB citation, thus providing the user with considerably more information than a simple citation.

The combination of extensive indexing and therefore "searchability" of the BIOSIS data base and the informative abstracts and superior coverage of the CAB file constitute a recommended core for any agricultural literature search activity. While the BIOSIS data base is already well known in the United States, the CAB file in machine readable form has only become available recently. (ARS introduced the CAB data base in the United States in 1975. Lockheed made the data base available in January 1977.) Hopefully, its user audience will develop in proportion to its demonstrated productivity.

Summary

Within the broad area comprising the literature required by agriculture scientists there is no single data base which is truly comprehensive. For scientists working in specialized areas such as food processing technology or chemical analysis of pesticides, a single data base such as Food Science and Technology Abstracts or Chemical Abstracts might be satisfactory for SDI service. But, for the majority of research areas, a combination of data bases is necessary to insure adequate coverage. On the basis of citation yields, ease of

†A questionnaire was distributed to all CALS users in 1973. A portion of it dealt with general suggestions and elicited many comments dealing with foreign journals. In the summer of 1977 a more specific questionnaire was sent to all CALS users at one of the major ARS regional laboratories. Under a general question dealing with problem areas, many users brought up the subject of foreign citations. An equal number brought up the subject under a question dealing with strengths in the system.
search profile construction, and information content of retrieved citations (e.g., includes abstracts with the citation), data from a study of sorghum retrieval activity indicates that the CAB and the BIOSIS data bases yield the highest return.

Literature Cited


Received for review Sep 22, 1977. Revised manuscript accepted for publication Apr 13, 1978.

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Commonwealth Agricultural Bureaux’ World Agricultural Information Service

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The Commonwealth Agricultural Bureaux was founded to meet the need among Commonwealth countries for a world agricultural information service. The journals, books, and services offered. Each institute and bureau comprising the organization collects and disseminates information in a particular branch of agricultural science. The identification of agricultural pests is another service.

EARLY this century, a number of Commonwealth countries recognized the need for information and identification services in agriculture. A series of conferences and committee meetings led to the formation of the Imperial Bureau of Entomology in 1913, the Imperial Bureau of Mycology in 1920, and a research centre at Farnham House in Farnham Royal, England, in 1927. The success of these culminated in the founding of the Commonwealth Agricultural Bureaux (CAB) in 1929.

Eight information centres (bureaux) were established at appropriate research stations in the United Kingdom to supply information on subjects such as agricultural parasitology, animal genetics, animal health, nutrition, fruit production, plant genetics, and soil science. Other centres were added through the years, and the Bureaux of Entomology, Mycology and Helminthology became institutes. CAB now comprises 10 U.K.-based bureaux, 3 U.K.-based institutes, and the Commonwealth Institute of Biological Control, based in Trinidad and Tobago. All the units of CAB provide information services; however, the institutes also undertake identifications and taxonomy. All three services are interdependent; the information services benefit from the taxonomic and biocontrol services, the identification services use the information services and cooperate in biocontrol, and the biocontrol services draw on the work of the other two.

Every five years, delegates from the 26 member countries meet in London to review the work of CAB and to determine policies for the next five years. Day-to-day control is vested in an executive council comprising representatives from member countries, and a full-time executive director has responsibility for running CAB. The usual administrative and accounting functions are centred at the CAB Head Office in Farnham Royal, together with the central sales department, a computing control centre, and a printing unit. Like the bureaux, CAB institutes have their own premises away from the head office. Each unit has its own director, professional staff qualified in the appropriate scientific disciplines and/or languages, and supporting clerical staff. CAB as a whole now employs over 350 people.
of whom about 150 are of professional standing.

**Information Services**

Each institute and bureau deals with its own particular branch of agricultural science and acts as an effective clearing house for the collection, collation, and dissemination of information. The information, compiled from world literature, is published in 24 abstract journals which have a monthly circulation of 30,000 in 150 countries. Since January 1973 the journals have been produced by computer-assisted processes. The consolidated data base now contains over 700,000 records, increasing by 12,000 per month. The complete data base is available in printed journal form, on magnetic tape for SDI or retrospective retrieval purposes, and online via the Lockheed DIALOG System and European Space Agency's RECON System. Seventeen specialized journals and over 200 annotated bibliographies per year are produced by CAB from the general data base.

The data base is produced by scientific staff in the bureaux and institutes scanning the world literature in up to 37 languages. English-language abstracts, written, indexed, and edited by scientific staff, are processed by computer to produce the 24 basic abstract journals and magnetic tapes. Each journal, such as *Plant Breeding Abstracts*, contains abstracts with full bibliographic details, including all authors, title in original language, translated title, journal name, year of publication, volume, issue, pagination, language of article and summaries, number of references, and address of first author. Monthly (or quarterly) subject indexes and author indexes are supplied, as well as annual cumulations.

**Users' Needs and How They Are Met**

Since they began, CAB's documentary services have developed to meet the changing needs of users around the world. Four main needs are recognized: current awareness—not only in the users' main subjects but also in areas around them; retrospective searches—for specific information on particular topics; state-of-the-art reviews; and advice.

Users' needs are met in various ways. The abstracting services now provide the data base with nearly 150,000 records annually; these are published conventionally and in machine-readable form. A number of specialized products such as distribution maps and descriptions of pests and diseases, one primary journal (in applied entomology), review articles, and card title services are offered. An extensive list of scientific books and reports is maintained. Enquiries by letter or telephone for specific items of information, photocopies of original articles, and aid with translations are met.

**Services Provided**

The editorial policy of the CAB information service was restated at the last quinquennial Review Conference held in 1975 and includes the following: the abstracting work should aim at covering literature appearing in all publications of sufficient scientific repute in the appropriate fields of interest. Thus CAB has wide subject coverage in all fields of agricultural science. Information is derived from 8,500 scientific journals, as well as conference proceedings, books, annual reports, patents, standards, and theses. Source papers not available firsthand may be obtained by reference to secondary sources. "Grey literature," i.e., printed material not published in the regular way, is processed when available. The literature referenced is in 37 languages. The major portion (57%) is in English. Russian, German, and French material comprise 25.5%. Another 9.9% is from other European languages. Approximately 2.2% is Japanese, the remainder comes from a variety of languages.

The importance of a source paper may be reflected in reference by citation only or by an indicative or informative abstract. Papers of poor accessibility or in difficult languages may be abstracted in more detail. As the number of papers increases worldwide, the need for "front-end" screening must increase if input costs are to be contained at acceptable
Table 1. Subject Coverage

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Covering Terms</th>
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<tr>
<td>Agricultural economics &amp; policy</td>
<td>Development &amp; agrarian reform</td>
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<tr>
<td>Agricultural entomology</td>
<td>Education &amp; extension</td>
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<tr>
<td>Animal breeding &amp; genetics</td>
<td>Environmental pollution, waste disposal &amp; conservation</td>
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<td>Animal feeds &amp; feeding</td>
<td>Farm buildings</td>
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<td>Animal health</td>
<td>Farm management</td>
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<tr>
<td>Animal physiology &amp; biochemistry</td>
<td>Fertilizers</td>
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<tr>
<td>Animal production &amp; management</td>
<td>Field crops</td>
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<td>Apiculture</td>
<td>Fish farming &amp; management</td>
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<tr>
<td>Control of pests, disease &amp; microorganisms</td>
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<td>Cooperatives</td>
<td>Food contaminants &amp; additives</td>
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<td>Crop ecology &amp; physiology</td>
<td>Foods</td>
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<td>Crop husbandry &amp; management</td>
<td>Forestry &amp; forest products</td>
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<td>Dairy science &amp; technology</td>
<td>Horticulture</td>
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<td>Development &amp; agrarian reform</td>
<td>Human Nutrition &amp; metabolism</td>
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<td>Education &amp; extension</td>
<td>Immunology &amp; immunogenetics</td>
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<td>Engineering &amp; field equipment</td>
<td>Irrigation, drainage &amp; water management</td>
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<td>Environmental pollution, waste disposal &amp; conservation</td>
<td>Laboratory equipment &amp; technique</td>
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<tr>
<td>Farm buildings</td>
<td>Legislation</td>
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<tr>
<td>Farm management</td>
<td>Marketing &amp; trade</td>
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<td>Fertilizers</td>
<td>Medical &amp; veterinary entomology</td>
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<td>Field crops</td>
<td>Medical &amp; veterinary helminthology</td>
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<td>Fish farming &amp; management</td>
<td>Medical &amp; veterinary mycology</td>
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<td>Food contaminants &amp; additives</td>
<td>Medical &amp; veterinary protozoology</td>
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<td>Foods</td>
<td>Microbiology</td>
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<td>Forestry &amp; forest products</td>
<td>Pastures &amp; fodder crops</td>
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<td>Public health &amp; hygiene</td>
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<td>Rural recreation &amp; tourism</td>
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<td>Soil management</td>
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<td>Storage of commodities</td>
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<td></td>
<td>Taxonomy</td>
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<td></td>
<td>Weed biology &amp; control</td>
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levels and scientists are not to be faced with an unmanageable quantum of references at output.

Indexing strings are designed to give users access to information in the printed journals; additional terms may be entered for retrieval from machine-readable versions of the journals. Indexes for the printed journals have evolved to suit the subject area covered by each journal. However, some bureaux already use a controlled or semicontrolled vocabulary for indexing, and a thesaurus based on a word list of about 25,000 terms is in preparation.

**Journals.** CAB publishes over 40 journals. Its printed products are divided into sections aimed at specific groups of users:

1. 24 main journals—broad subject coverage, 7,000–12,000 records each (e.g., Animal Breeding Abstracts).
2. 17 specialist journals—narrow subject area, up to 3,000 records each (e.g., Poultry Abstracts).
3. Over 3,000 bibliographies—especially compiled selections of abstracts for specialists (individuals or small groups).

New journals and new bibliographies are created in response to demand. For example, from 1978, Forestry Abstracts has been split into two and has widened its coverage to embrace all aspects of silviculture, forest products, and wildlife, including freshwater fish and fish farming. Other new journals are also being considered, and especially the proposal to make some of the specialist journals into combined primary–secondary journals of wider interest, especially to growers and producers. Amalgamation with appropriate primary journals is envisaged.

**Magnetic tapes.** Monthly tapes corresponding to some or all of the journals may be leased from CAB by organizations wishing to run their own SDI services, using their own software.

**On-line service.** In January 1977 on-line service was launched through Lockheed’s DIALOG system. Under the arrangement with Lockheed, CAB receives a royalty based on usage of the data base. Most users (ca. 65%) at present are in the United States, but there are significant numbers in Europe. The connect charge is $65 per hour plus $.15 per record printed off-line by Lockheed.

Since the whole record is stored in the computer, including the abstract, searching may be done on the title, index terms, and/or the abstract text. There are 15 other entry points for searching, e.g., author, author’s affiliation, serial name, language of original article, language of summary, corporate source, document
type, subject descriptors, publisher, and publication date.

CAB will be running two types of seminars in the United Kingdom and abroad. The first is essentially an introduction to CAB Abstracts, to give managers, administrators, scientists, and librarians an appreciation of what CAB Abstracts on-line can do; the second will be a one-day teach-in for experienced on-line users who need to know how to use the CAB data base to maximum advantage. Users’ panels are to be established so that we can learn of and respond to problems as they arise.

Retrospective searches. Searches in response to enquiries are done at CAB units and Farnham House. The standard charge is £25 for one-off searches plus £0.10 per reference printed out in full.

SDI. Searches may be repeated monthly to provide the latest information on particular topics (profiles).

Reviews. The amount of information available and the rate of progress is now such that many workers require state-of-the-art reviews rather than collections of abstracts. CAB attempts to meet these needs by publication of reviews prepared by experts in their fields. In the past, these reviews have been published in CAB’s abstract journals. The possibility of publishing review articles in special journal series or as regular books is now being considered.

Advice. Finally, the attempt is made to meet customers’ need for help and advice on a wide range of problems in agricultural information by dealing individually with the many enquiries that reach CAB—ranging from providing the address of someone publishing a paper abstracted in CAB’s journals, through obtaining photocopies of original articles and helping obtain translations of articles, to setting up new abstract journals or publishing books on a contract basis.

Relationships with Other Services

Others in the same or overlapping field, include the National Agricultural Library, Biological Abstracts, Chemical Abstracts Service, Information Retrieval Limited, National Medical Library, and the Food and Agriculture Organization (FAO). There have been studies to determine the overlap between CAB and other agricultural information services. In general, the overlap between CAB and CAIN is found to be 40% and between CAB and BIOSIS about 25%.

CAB is also a partner in the consortium, International Food Information Service, and is closely involved in editing and marketing Food Science and Technology Abstracts.

Identification Services

In addition to covering the world literature, the Institutes of Entomology, Helminthology and Mycology offer identification services to agricultural and biological scientists throughout the world. Samples of insects, mites, helminths, plant-parasitic nematodes, microfungi, and bacteria may be sent to the appropriate CAB institute for identification. In a typical year about 50,000 specimens are received for this purpose. Specimens are also catalogued for future reference. CAB publications connected with this identification work include Bulletin of Entomological Research, “Dictionary of the Fungi,” “Mycologist’s Handbook,” and “The Genus Fusarium.”

The Commonwealth Institute of Entomology has available, at the British Museum of Natural History, the world’s largest collection of tropical insects. Similarly, at the Commonwealth Mycological Institute, there exists a collection of microfungi, especially tropical.

Biological Control Service

Biological control is a method of controlling pests by exposing them to their natural enemies. Examples include control of cottony cushion scale by Vedalia beetles in California, or Chrysollina beetles to control St. John’s wort on the Pacific West Coast. When successful, this is the most economical method of controlling pests, and it is a method in which the Commonwealth Institute of Biological Control (CIBC) has specialized since 1927. CIBC has its headquarters in
Trinidad, and stations in India, Pakistan, Switzerland, and Ghana. Services are available to all countries and range from the supply of publications and information to the planning, supervision, and supply of full-scale control projects anywhere in the world. All aspects of the biology of pests and their natural enemies are studied, as a result of which the institute can select suitable organisms for a particular project and, if required, can collect or breed them for release in the target area in the numbers needed. Of course great care has to be taken to ensure that the organisms selected will confine their attack to the target pest.

Conclusion

The purpose of CAB is to act as a world agricultural information service, by providing journals and other documentary services, identifications, and biological control services. These services are provided to all parts of the world on a self-support basis.

Received for review Jul 25, 1977. Revised manuscript accepted for publication Mar 31, 1978.

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Planning for On-Line Search in the Public Library

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The DIALIB project involved an experiment in placing retrieval terminals in four public libraries in Northern California. After three years of experience, in which patrons were provided with free search for one year, one-half priced search for the second year, and full fee search in the third year, the authors delineate the requirements for on-line search and formulate guidelines useful for public libraries contemplating one search service.

The first year of the DIALIB experiment, which investigated on-line search in the public library, was discussed in an article in Special Libraries (1). The DIALIB experiment, has since been described in several reports (2–5). Briefly, four libraries in Northern California, members of the Cooperative Information Network (CIN), were selected to participate, and Lockheed Information Systems provided the project coordination and the DIALOG retrieval service. The study was evaluated by Applied Communication Research, a nonprofit behavioral research firm in Palo Alto, Calif. Some of the goals of the experiment were to investigate the usefulness of on-line search to the public, to determine the impact of on-line search on the library, and to determine whether the public was willing to pay part or all of the costs. Based on the results obtained, one of the main products of the study was the development of guidelines that would be useful for libraries contemplating on-line search service.

Use of On-Line Search

The authors found that the traditionally trained public librarian does have a variety of skills that are directly applicable to the kinds of skills required in on-line searching. These include the ability to form an adequate search query by consulting with the user and encouraging the user to communicate his needs fully. The traditionally trained reference librarian is already expert with complex manual tools—the-sauri, indexes, and others—and the skills developed with these tools are transferable to computer data base searching. There is considerable evidence that traditional reference librarians are willing and able to learn data base search techniques. In fact, many librarians involved in DIALIB became skilled on-line searchers.
There appear to be two problems. The first is training on specific data bases and subject skills. The second problem area has to do with subject expertise. For research queries of greater complexity than "simple fact" questions, many people feel that the searcher should be a subject expert. If a library does not have a subject specialist (e.g., science, technology, business), then this problem can be at least partially resolved by having the patron present for the search. (This assumes, of course, that the patron has some knowledge of the search topic area.)

In general, there appear to be few precise reference/information policies in public libraries which establish limits in terms of services offered, topics covered, patron eligibility, and allocation of staff time. Public libraries have been able to live with informal limits because the demands placed upon reference service have not been that great. One major result of the DIALIB experiment has been to focus attention on the reference function in the public library (6).

**Key Requirements for On-Line Search**

Using the findings given in the Evaluation Annex to the final report (5), a set of guidelines have been formulated for use by public libraries contemplating on-line search service.* Nine key requirements were identified.

*Establishing Scope and Limits of Service.* The first key requirement for a public library offering on-line searching is to define the scope and limits of service. Every library has some set of rules to define scope and service. Some rules are explicit, such as requiring cards to check out books. Other rules are implicit, for example, decisions as to how much time to devote to a particular type of question, such as a phone question. In addition, the library can also limit service without rules—by not making people aware of the service.

In offering on-line searching, the library must invest significant effort into establishing the scope and limits of the service. Issues which must be dealt with include:

- What are the goals and objectives of the service?
- Will the service be used to support internal operations, to provide service to patrons, or both?
- What limits should be established in terms of subject areas, costs, and staff time?
- Will user fees be used to limit service?
- Who will be allowed access to the service?
- When will the service be available?
- What kind of service will be provided?
- What level of publicity will be used?

These are major questions. Determining the scope and limits of the service has major impact on other decisions which must be made. It is important that the service should be structured by the goals and objectives of the library and the needs of its patrons, not by the potential of on-line searching.

**Staff Time Requirements.** The staff time requirements associated with the introduction and provision of on-line searching cannot be overemphasized. Throughout the DIALIB experiment, staff time was perceived by the libraries to be the major inhibiting factor. Searches average approximately one hour of staff time (for query negotiation, search preparation, searching, and post-search activities). In addition, time is required for promotion, accounting, and training of search personnel.

Libraries planning to introduce on-line searching must very carefully consider the impact on their staff. They must be prepared to add staff to support the new service or to divert staff from other activities if and when user demand develops.

**Staff Attitudes and Support.** Preconceptions and attitudes of library personnel toward fee-based service, and the role of reference services, play a great part in determining the direction and ultimate success of on-line searching.

More specifically, the attitudes and support of the head reference librarian and

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*A recent publication by the American Library Association (7) should also be consulted.
the library director are crucial to the success of on-line searching. Unless both are firmly committed to work for and support on-line searching, the probability for success is at best marginal.

The attitudes and support of the reference librarians who will serve as searchers are also important. However, their reactions toward on-line searching in the public library will be determined, to a large extent, by the activities and opinions of the head reference librarian and the library director.

In developing a plan for on-line searching, it is vital that emphasis be placed on establishing and maintaining the support of the library staff—from the administration to the reference service to the circulation department.

**Funding.** The financial requirements for on-line searching can be divided into three categories:

1) Capital (startup) costs include initial training, initial purchase of a computer terminal (if the terminal is purchased), purchase of documentation, and initial training costs.

2) Marginal (or variable) costs are those costs that can be associated with a specific search. They include retrieval service costs (based on terminal connect time and printing charges), communication costs, and search-related staff time.

3) Overhead charges are those charges that are specific to the on-line search service but cannot be associated with any specific search. These may include terminal rental (if the terminal is leased), terminal maintenance (included in the leasing cost), staff time for training (and also search-related staff time if not charged as a marginal cost), maintenance of documentation, and maintenance of training. Errors in searching can also be considered as an overhead cost.

Some specific cost values will clarify the subsequent discussion. The Cooper–DeWath study (5) shows an average cost of a search during the pay period as $26.44, including off-line and on-line staff time and search service cost (connect time and printouts). If we assume 30 searches per month, we obtain the figures in Table 1.

If we assume an annual budget of $500 for staff training, $500 for reference materials, and $500 for publicity, we see that the annual cost of an on-line search service performing 30 searches per month is $13,500.

A public library has the option of either supporting this cost from the library budget or grants, and offering the service to the public at no cost; or service can be offered at a fee that partially or completely covers the cost. If the service is supported by the library budget, then the library must develop policies which define and limit the services provided. In the free portion of the DIALIB project, the libraries did not place overt limits on the service. When they were confronted by rapidly increasing search requests, they opted for an implicit form of control—cutting off all publicity about the service. The lack of specific policies and rules for the online search service had a continued impact of the DIALIB project. This is an area which should be of prime concern regardless of whether the service is offered on a free or pay basis: the establishment of the scope and limits of service, as discussed previously, is strongly related to the funding question.

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Table 1. Monthly Cost of On-Line Searching

<table>
<thead>
<tr>
<th>(30 searches/month)</th>
<th>($26.44 per search) = $ 800</th>
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<tbody>
<tr>
<td>(30 searches/month)</td>
<td>($8 per hour) = $ 60 communication cost*</td>
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<tr>
<td>Terminal cost per month, including maintenance = $ 125</td>
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<tr>
<td>Total monthly cost</td>
<td>$1000 (approx)</td>
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</table>

*Most major cities in the U.S. have Tymnet or Telenet communications service to the search services at $8/hour or less.
**Need for Promotional Planning.** Promotional planning is an essential part of the development of the on-line search service. Failure to promote the service will keep it from reaching its full potential. Printed signs, brochures and public announcement can be effective. However, demonstrations of on-line searches to potential users has been found to be one of the most effective ways of publicizing the capabilities of on-line searching. Small, portable terminals are now available that allow off-site demonstrations to be given to school, community, and business groups.

**Need for Ongoing Staff Training.** The library must also invest in ongoing searcher training on data bases. The search services generally offer one- and two-day training sessions in the use of their systems, and training in the use of specific data bases is generally offered by the data base producers.

Lack of specific data base training was a common complaint among librarians across all libraries and all three years of the project. In obtaining specific data base training, the library will confront three problems:

- **Availability of training.** Data base providers generally offer training sessions only a few times a year in various parts of the country.
- **Availability of personnel.** Sending librarians to training presents a staff cost expense to the library.
- **Training costs.** Many data base providers charge for training sessions and, unless the sessions are available locally, training may require travel and per diem costs.

**Need for a Critical Mass of Searches.** A critical mass of searches is required to maintain searcher competence. Most librarians interviewed agreed that five to 10 searches per month were necessary to maintain search skills for each data base. Certainly it is possible to conduct searches on a less frequent basis; however, the librarians indicated that they felt under these circumstances they were less efficient.

Search competence is concerned with specific data bases rather than general skills required to deal with the search system. This suggests that rather than have one or two searchers handling all searches, it would be more effective to train a number of searchers and have each specialize in only a few data bases.

Centralized searching for a library network, or a library system with branches, is feasible. Data show little difference in client satisfaction with results when the search is negotiated at a branch rather than the searching library. The data also show, however, that branch libraries in San Mateo County sent in few searches. Thus, although maintenance of a centralized search facility may provide the necessary critical mass, careful attention must be paid to training and working with branch librarians in order to have the branches forward questions to the search center. Training should include familiarity with the on-line search service, an awareness of available data bases, and query negotiation.

**Document Support.** To provide effective searching, the library must be prepared to invest in and maintain adequate support documentation, such as thesauri. Documentation is required for the search services and for each individual data base. Some of this documentation is available free of charge; however, some must be purchased. Document cost for each data base used ranges from a low of $10 to $15 to a high of over $100.

There is a need for better data base documentation, search service documentation, and summary documentation, and such documentation must be periodically revised and kept up-to-date. In particular, we need: brief data base guides, as well as detailed data base descriptions; guides that show similar search commands in each major service; documentation that compares data base characteristics along common dimensions, such as language, scope, or types of documents included and excluded; tabular and summary documentations and comparisons for at-terminal use. Some work has been done in this area (for example, by the National Federation of Abstracting and Indexing Services and by the American Society for Information Science), but more is needed.
Table 2. A Checklist of Questions for Use as a Planning Guide

1) Should we offer on-line search service?
   - What goals will we attain by offering this service?
   - Do we have experience in in-depth reference service?
   - Do we have a potential user group?
   - Is the staff positive toward offering such service?
   - Are the databases offered by the retrieval services pertinent to the needs of our patrons?
   - Can we provide adequate funds for staff, search service costs, and terminal by either library budget or user fees or a combination of both?
   - If user fees seem necessary for budget support, can the fees be persuasively justified to funders, to the library staff, and to library patrons?

2) What level of service should we offer?
   - How many reference librarians can we devote to this service?
   - Do we want to actively solicit users?
   - What should our policy be for requests that come from outside of our service area, e.g., out of district users, request from other libraries?
   - Should we offer all available databases or concentrate on just a limited number?

Management and Evaluation. Another area which libraries should explore carefully is management and evaluation, particularly in accounting for staff time. It is essential that accurate data be collected to allow the library administrator to assess the impact of the search service on the public and on the library. This requires the establishment and maintenance of detailed procedures for recording staff time and activities.

If the service is to be offered on a fee basis, then additional procedures are required to govern the collection of funds. If the service is offered via a network, then it is important that a single, uniform system be developed to transmit requests to the searching library and to transmit search results back to the requesting library or to the patron.

Evaluation is extremely important. This includes evaluation of impact on the library, user impact, and the quality of the searches produced. It is essential that some procedure be developed to collect user feedback to assist in the evaluation. Unfortunately, procedures for assessing the quality of searches are still ad hoc in nature, and research remains to be done in this area.

Conclusions

A member of the DIALIB Oversight Committee, Douglas Ferguson, has commented on the project as follows:

The same constraints and choices apply to traditional reference service as apply to computer-supported reference service. When the similarities rather than the differences are emphasized, a price-free service structure can be made to work. The false dilemma that plagued the thinking of many of us, and I emphasize that this included myself, was not free vs. fee service, but total vs. balanced access to service. No library offers unlimited access to its
resources or facilities. Every library chooses what sources, how much staff time and talent and what access conditions it will offer to the public—and so does virtually every other public service organization. It seems to me that what results from these choices is a type of service that balances available resources across a spectrum of library services (4, Appendix G).

In this paper the authors have tried to indicate the questions that will have to be answered by public librarians contemplating the addition of on-line search services in order to integrate such service into the existing library structure.

Acknowledgments

The project, supported by the Division of Science Information, National Science Foundation, under Grant DS174-13972-A02, could not have been carried out without the hard work and cooperation of the participating CIN libraries (San Jose Public Library, Redwood City Public Library, San Mateo County Library, and Santa Clara County Library at Cupertino). The authors also wish to thank the Oversight Committee (consisting of Charles Bourne, Forrest F. Carhart, Jr., Douglas Ferguson, Virginia Ross Geller, and Albert H. Rubenstein) for their counsel and guidance.

Literature Cited


Received for review Nov 2, 1977. Revised manuscript accepted for publication Apr 3, 1978.
Indexing Laboratory Notebooks in a Chemical R&D Environment

Donna M. Mendenhall

Uniroyal Chemical, Naugatuck, Conn. 06770

A method of preparing computerized subject and author indexes for R&D laboratory notebooks is described. Wiswesser Line Notation is used as the subject entry capable of listing specifically and unambiguously the compounds described in the notebooks.

A LOOK through the sparse literature on the subject of chemical laboratory record keeping finds general works (1-5) and only one (6) that describes a method of retrieving information from laboratory notebooks by subject. It is common knowledge that these notebooks in chemical firms involved in research and development (R&D) contain the costly daily records of the scientists. The value of each volume has been estimated at about $5,000 (1963 dollars) in time and materials used to accumulate the record it contains (4). The value has been put into absolute terms by another author (5) who describes information, per se, as the only product of R&D. The Uniroyal Chemical Information Center Library has designed a system where all indexing data recorded by the chemists is rendered readable by optical scanning.

Description

In this library’s system, the scientists’ notebook records are supplemented by cards on which they enter the data indicated, with the possible exception of the Wiswesser Line Notation (WLN), which may be entered by a specialist. By examination of the input card (Figure 1) it can be seen that the chemists enter much indexing or retrieval information, which will be described in detail later.

These cards are filed in central locations in the laboratory area by the systematic names of the compound. Retrieval by the cards, then, is predicated upon the chemists assigning the correct nomenclature to the compounds.

WLN is a precise means of expressing in a unique, linear manner the structural formulas of chemical compounds. Its basic idea is the use of letters to indicate functional groups and numbers to express lengths of alkyl chains and the sizes of rings. As an indexing tool, the notation focuses attention on those significant parts of chemical structures that are most important to chemists. When coding compounds, starting points and choice of alternate paths through the structure are governed by the position of the letters in the alphabet, thus making use of a principle familiar to anyone who uses dictionaries, filing systems, and indexes (7). Figure 2 illustrates the use of WLN.

Because of the complexity of the notation, the procedure was to divide the preparation of the indexes into two routes. Figure 3 details the method used to enter all the information into the Biblioscan Indexes. The Biblioscan tapes contain
Figure 1. Compound Registry Card

LINC: ___________________ Amount: _______________ Structure: ________________________________

Can., Naug., Res. Cen. ________________________________

WLN: ________________________________

Name: ________________________________

Chemist: ________________________________ Notebook: _______________ pp. _______________ Emp. Form: _______________

Form: ________________________________ Odor: ________________________________ SOLUBLE IN: (i, sl, s, v)

Water: ________________________________

M.P. _______________ B.P. (mm) _______________ Acetone: ________________________________ Alcohol: ________________

IR: ________________________________ NMR: ________________________________

Acetone: ________________________________

Toluene: ________________________________

Elemental Anal.: ________________________________ Base: ________________________________ Other: ________________________________

Stability: ________________________________

Prior Art: ________________________________

Comments: ________________________________ Date: ________________________________

Figure 2. Wiswesser Line Notation

Ethacrynic Acid
[2,3-dichloro-4-(2-methylene-1-oxobutyl)phenoxy]acetic acid
[4-(methylenebutyryl)-2,3-dichlorophenoxy]acetic acid

\[
\begin{align*}
\text{OCH}_2\text{COOH} \\
\text{C}_1 \\
\text{C}_1 \\
\text{COCCH}_2\text{CH}_3 \\
\text{CH}_2
\end{align*}
\]

QV1OR BG CG DVY2U1
(Wiswesser Line Notation)

“bibliographic” information or citation related to the chemist’s laboratory notebook. The WLN route has been described elsewhere (8).

Method

The data recorded by the chemists was transcribed by typists using OCR-A typing elements, the pages (Figure 4) being then scanned-to-tape for computer manipulation. The illustration shows the simplicity of typing for optical scanning. Each line is a record. The vertical lines denote the ends of each field. These fields, to the left of the vertical bars in Figure 4, are sequentially represented by the boxes on the top of the flow chart in Figure 3. If a chemist does not fill in all the information in a given field, it is left empty. This is done by simply striking the vertical bar and proceeding to the next field. The fourth and fifth lines in Figure 4 show how empty fields are handled. To indicate the end of a record, another special character is used, the Y. When a typing error is made, the wrong character may be overstruck with the “blob,” obliterating the mistake and following it with the correct
Figure 3. Flow Chart of Information Input into Biblioscan Indexes

- LINC #
- MOLFORM
- CHEMIST
- LAB BOOK
- PAGE #

- CODE A
- CODE B
- CODE C
- CODE D
- M-FILM

- DATE
- SPECTRA

- ABOVE FIELDS TYPED

- SCAN TO TAPE

- FILE MAINTENANCE

- FIVE FIELD SORT

- ACCN# LIST AND OTHER FIELDS
- CHEMIST LIST AND OTHER FIELDS
- AG CHEM# AND OTHER FIELDS
- NAUG CODE LIST AND OTHER FIELDS
- RC CODE LIST AND OTHER FIELDS

- DATA CORRECT PRESENT?
  - NO
  - YES

- FIVE FIELD SORT

- ACCN# INDEX AND OTHER FIELDS
- FUTURE INDEXES
- CHEMIST INDEX AND OTHER FIELDS
- FUTURE INDEXES
- AG CHEM# INDEX AND OTHER FIELDS

- RC CODE AND OTHER FIELDS
- UNI CODE AND OTHER FIELDS
- MOLFORM INDEX AND OTHER FIELDS
- NAUG CODE INDEX AND OTHER FIELDS
Figure 4. OCR Input Form

The Fields

- Linear Input of Naugatuck Compounds (LINC) Number: This is the connection between the WLN Indexes and the Biblioscan Indexes. It is a serial or accession number. By means of it, the user can go to the Biblioscan LINC Number Index to find the name of the chemist who prepared the compound located by the WLN Indexes, and concomitantly, the laboratory notebook number, page number and the microfilm address, plus indication of any spectra run. In addition, the user can find codes assigned to the compound by other commodities or divisions of the corporation.

- Molecular Formula (MOLFORM): This is the field in which the empirical formula, atom count, is entered. This can be used as an index. It is in the Hill order, \( \text{C}_{12}\text{H}_{22}\text{O}_{3} \).

- Chemist: The name of the chemist who entered the compound into the system is located here, last name first, e.g., Able, IM.

- LABID, PG: The laboratory notebook identification and page number is typed into these two fields, e.g., BC101, PG13.

- Code A, Code B, Code C, Code D: These are some of the divisional or departmental codes assigned for screening or other purposes. These are shown as LATL, LW01, A101, C001.

- MICRO: This field indicates the address on microfilm of the laboratory notebooks, e.g., 1001.

- Date: The date that the chemist synthesized the compound is entered here.

- Spect: The Infrared (IR) or Nuclear Magnetic Resonance (NMR) spectra that may have been run are indicated in this field, if the chemist mentioned this routine operation.

Sorting

After the fields just described are typed, they are scanned-to-tape. Then, by means of an in-house multiple field sorting program, several preliminary indexes are generated and printed during the same operation. The primary index produced at this step is the LINC Number, in order, with the remaining fields subordinate; the second, the chemists’ names in alphabetical order, and then the various codes in alphanumerical sequence.

Proofing

By comparing all the fields of each index for inconsistencies, errors are located and the corrections keyed and re-entered for multiple field sorting.

The Indexes

The finished products list, in their appropriate orders, each of the separate codes, as seen in Table 1, the LINC Number, and the chemists’ names, as in Table 2. If the sorting routine needs to be run more than one time, depending upon the capacity of the sorting program, more
indexes can be produced, i.e., a date index could be generated which, when correlated with the numbers of compounds synthesized, could produce a time/productivity profile of R&D effort.

Summary

A detailed set of R&D subject retrieval tools has been devised. These indexes, when used together, serve as a desk top tool, which can actually be utilized to produce such information as the complete history of a given preparation from its date of first synthesis to its various screening or evaluation tests. This compound index can serve to prevent duplication of effort and provide detailed histories of R&D scientists' studies in a way a list of reports cannot. Stated in another way, these printouts serve as indexes for locating R&D information from the most basic documents, the researchers' laboratory notebooks.

Another less exotic, but equally useful, application of WLN in technical information centers may be as index terms for compound searches being run with increasing frequency on Chemical Condensates and other chemically based files. The standard 3 in. x 5 in. index card or punched card can be the beginning of a system whereby a WLN subject heading can be added for a complete record of searches done, such as the WLN, File Searched, Requestor, Number of Hits, Date Searched, SDI Number, and Search Strategy. Inasmuch as the WLN is easily read and alphabetized, quick reference to the file can be made prior to a search.

Finally, an inexpensive method of word processing which can be adapted to suit any information center or library has been described.

Literature Cited


Received for review Sep 20, 1977. Revised manuscript accepted for publication Apr 14, 1978.

Donna M. Mendenhall is librarian, Uniroyal Chemical, Naugatuck, Conn.
SLA Election Returns

Joseph M. Dagnese has been elected to the office of President-Elect of the Association for 1978/79. Fred Roper has been elected Chairman-Elect of the Chapter Cabinet. Patricia Marshall has been elected Chairman-Elect of the Division Cabinet. The two new Directors, elected for 1978/81, are Beryl L. Anderson and Pat Molholt.

The 1978/79 Board of Directors held its first meeting in Kansas City on Friday, June 16. Vivian D. Hewitt automatically succeeded Shirley Echelman as President; Shirley Echelman will serve on the Board as Past President. Jeannette M. Privat automatically succeeds to the office of Chapter Cabinet Chairman, and Virginia E. Yagello automatically succeeds to the office of Division Cabinet Chairman. Ellis Mount will serve the third year of his three-year term (1976/79) as Treasurer.

Aphrodite Mamoulides and Mary Lee Tsuffis will serve the third year of their three-year terms (1976/79) as Directors. Floyd L. Henderson and Doris Lee Schild will serve the second year of their three-year terms (1977/80) as Directors.

Revision of Profiles of Special Libraries

Plans are underway to revise and update Profiles of Special Libraries. This very popular brochure was first published in 1966; its compilation was by Prof. Ruth Leonard.

The SLA Board of Directors has asked Dr. Paul Kruse, recently retired from the School of Library and Information Sciences, North Texas State University, to undertake the preparation of a second edition.

The profiles of a number of types of special libraries are described in the first edition. The profiles were developed from a study of actual special libraries. Dr. Kruse asks that each Division suggest one or more libraries which best represent the subject interest and scope of that Division. These need not be the largest or the best; emphasis is on "typical." These suggestions should be sent as soon as possible to:

Dr. Paul Kruse
2207 Jacqueline Street
Denton, Tex. 76201.

If you did not submit your suggestions before the Kansas City Conference, please do so as soon after as possible.

Questionnaires will be mailed by Dr. Kruse to the libraries selected to solicit both factual and descriptive information. Subsequently, some of these libraries will be visited by him to obtain more detailed and pertinent information.

Your assistance is requested in this project—important to all SLA Divisions. Please send your suggestions directly to Paul Kruse at the above address.
Chapter Newsletters and Bulletins

One Editor’s Overview

Librarians are doing a lot of interesting things these days, but they are not sharing all the good news. This is one librarian’s conclusion, gleaned from several years’ perusal of various SLA Chapter bulletins. After reading copies of the 1973-1977 bulletins which were recycled by several Illinois Chapter Presidents, the author formed some overall impressions.

Appearance

The bulletins and newsletters (the terms are used interchangeably) appear as seldom as two times each year and as often as six. Almost all of them are 8 1/2 in. x 11 in., although a few are half that size. They range in appearance from attractive, with well-designed formats and good legibility, to unprepossessing, with manually typewritten pages, helter-skelter formats, and occasionally poor legibility. The Boston Chapter News Bulletin for July 1975 came very close to a journal-like appearance, while others missed giving this impression, in the author’s opinion, because they were produced via a photographic process such as xerography. Other bulletins used multilith or mimeograph, and some of these looked uninviting because of type show-through, perhaps caused by lack of opacity in the paper. The paper stock is generally good, usually white in color, and the ink is black with only a few exceptions.

More than half of the bulletins have separate covers, either white or colored. Some of these covers use large-size type giving the title, name of the chapter, date, volume, and issue—information which enables the cover to double as a title page. Others use an identifying logo or picture—and here, one cannot help noticing the beckoning appearance of several covers—the San Francisco Bay Region Chapter bulletin uses a photographic view of a mist-shrouded Golden Gate Bridge, the Texas Chapter bulletin uses a Lone Star on a screened background, and the Florida Chapter bulletin formerly used a simple sketch of a lone palm on a windswept beach and now uses gulls flying into a tropical sun.

A few bulletins use mastheads with and without color or logos. Most Chapter bulletins do not have special names, but some do: Courier (Toronto Chapter), Special Collections (Heart of America Chapter), Informant (Illinois Chapter), Focus (Cleveland Chapter), and Soundings (Long Island Chapter).

Content

The bulletins contain mostly brief items of information. The items include: minutes of a previous meeting, notices of library workshops or continuing education courses, advance notice of meetings, lists of Chapter officers and committee chairpersons (including library phone numbers), lists of books and materials offered in duplicate exchange (library remainders), reports on the various SLA meetings held throughout the year, Chapter bylaws being considered for revision, profiles of members’ libraries or descriptions of new libraries in the area, information about new reference works or notices about new holdings such as Harvard University’s acquisition of microfilm copies of books in the University of London’s Goldsmith Library, the qualifications necessary for holding a Chapter office, requests that qualified candidates for SLA Chapter offices step forward, notices of awards or news items about members’ activities and professional awards, news about regional library systems, messages from the Chapter President, and information about Chapter projects—for example, the Michigan Chapter collected books up to 10 years old for distribution to libraries in the Dominican Republic and Belize, and the Illinois Chapter Special Projects Committee paid the costs and expenses of a seminar on “Dialogue with Management.”

Membership Directory corrections, as well as names and addresses of new members, are frequently included in Chapter bulletins. In rare instances, information about the education and work experience of the new members may be given. Sometimes the entire membership of a Chapter is small enough to be listed in the newsletter, thereby making a separate Membership Directory unnecessary. Almost every Chapter bulletin includes a calendar of library-oriented events. These calendars may simply list the dates and names of forthcoming events, or they may give full program and registration information. When the requisite reservation forms are printed in the bulletin, one has to assume that the latter arrives far enough in advance to serve as the sole announcement given to members concerning these meetings. Occasionally, photographs of members, or a map, are included in the bulletins. These are not always necessary, but they are interesting for, as every librarian knows, a picture (or a map) is sometimes worth a thousand words.
One may wonder how some of these bulletins are able to pay their bills. It is obvious that the San Francisco and Texas Chapters defray some or most of their expenses with advertising, for their bulletins average 10 to 14 ads per issue. Advertising helps to fill up blank space, which is considerable in a few bulletins. Some of this empty space seems to be the unavoidable result of reproduction by methods which permit only one side of a page to be printed. Unfortunately, some blank spaces exist because the bulletin editors have difficulty finding sufficient news to report. To avoid this empty appearance, editors have inserted “fillers” such as pleas asking readers to send in news items, notices saying “This Space Available!,” graphics, and entire news releases from the Association office or from Conference committees inviting members to Denver, New York, or Kansas City.

**Special Features**

Occasionally, a quiz game on library topics has found its way into the pages of a newsletter. The Virginia Chapter had one testing the CAQ, or Chapter Activity Quotient of members, and the Rio Grande Chapter devised a Quick Quiz with multiple choice answers to test members’ knowledge of SLA organization and structure.

Two popular items in recent issues were comments on the new copyright law as it concerns libraries and information on what to do in a Conference city when not attending SLA meetings. A number of bulletins printed all or part of the PR sheets sent by the Denver Conference Committee—an indication that a committee can get big results with small effort simply by mailing publicity releases to bulletin editors.

Very few newsletters contain a list of advertisers or a table of contents. The size of bulletins ranges from six to 35 pages. More than a fourth of the newsletters are paged continuously from issue to issue.

**Impressions Formed by a Reader**

By perusing the bulletins, a reader can gain a fair idea of what is going on in the world of special libraries. Certainly, anyone who will want to write a history of the Association for its 100th Anniversary in 2009 will need to have some acquaintance with these bulletins, if only to gain an impression of the topics which were stimulating librarians at different times. The historian would have to read between the lines, however. For example, does the publication of a telephone number for a library job hot line mean that unemployment among librarians is high and that every opening is publicized? Or, does it mean that job openings are so numerous that applicants may dial a number to find out what is available before selecting the most desirable position?

Some bulletins have hardly any news. Does this mean that the SLA Chapters do little more than have monthly or quarterly dinner meetings? Or, does it mean that the bulletin editors have not gotten reports on the varied activities and concerns of the Chapter and its members? Future historians may have a difficult time deciding what situation is applicable. For lack of personal news in the newsletters, library historians may come to believe that librarians seldom marry and never have children. Otherwise they will have to conclude that Chapter bulletins contain only news of professional concern to members.

**Suggestions**

Beyond the examples already noted, what suggestions can one make for the bulletins? Include minutes of board meetings; editors should remember that a Chapter's executive board members represent, not an elite group, but the total membership of a Chapter, and that they are elected to conduct business that is more efficiently handled by a few than by the many. Reproduce annual reports of the Chapter President, as well as committee reports, so members can get an overall view of what the Chapter has done during the year. Report news about members' significant personal milestones, such as awards or publications inside and outside the library world. Let some member who has visited a distant library conference write up his or her impressions of the meetings and papers presented. And, be sure to include letters or comments from readers; request some if you never get any.

Ideally, the editorship of a bulletin should extend more than one year. Most bulletins seem to improve along with the editor’s experience and growing awareness of what information makes good copy. At present, the bulletins seem to change editors every year, but in the past more than two-thirds of the bulletins had editors who retained their responsibilities for at least two years.

**Conclusion**

Every Chapter should support a bulletin, however simple, and despite the cost. Bulletins can take the place of mailed announcements for meetings, dinners, and other forthcoming
events. They are also handy reminders of such events. Members who cannot attend a Chapter meeting should be able to find out in the bulletin what took place or was said there. A newsletter can create more professional interest and awareness of what is going on in the library world for all Chapter members in many areas. News of data bases, profit-making information services, and the new copyright law should alert our readers that the library world is ever changing.

Lenore Glanz
World Book–Childcraft International, Inc.
Chicago, Ill.
Editor, the Informant
Illinois Chapter Bulletin

Satellite Transmission of Invitation to Pacific Basin Nations to Participate in the 1979 SLA Conference in Honolulu

The PEACESAT* communication system via satellite in the Pacific Basin was used to link ground terminals in 12 nations for the final session of the Hawaii Copyright Institute in Honolulu March 27–28, 1978.

SLA Executive Director Frank McKenna had been invited to be a participant in several sessions of the Copyright Institute. During the two-hour satellite transmission he spoke on the topic “Librarians Look at the New Copyright Law.” At the end of his copyright discussion, he transmitted an invitation on behalf of SLA to the multination participants in the link-up to take part in SLA’s “Worldwide Conference on Special Librarianship” in Honolulu June 9–15, 1979. He described the Conference as an opportunity for person-to-person communications.

Such a satellite transmission to invite participation and submission of papers is a first for Special Libraries Association. Moreover, it predates the mailing of official announcements by more than two weeks.

The PEACESAT demonstration project is completing its seventh year; for the exchange of two-way traffic in an area that extends over one-third of the globe. The project is a prototype of a global system for health, education, and community services. Included in the project are library information uses and searches for printed materials. PEACESAT uses the NASA satellite ATS-1. This satellite was designed for weather experiments, but has, in addition, a limited number of communication channels for educational and similar uses.

Small ground terminals link educational institutions in 12 nations with coordinators at the University of Hawaii in Honolulu. Locally owned ground terminals operate at Wellington, New Zealand; Suva, Fiji; Lae and Port Moresby; Papua, New Guinea; Saipan; Trust Territory of the Pacific Islands; Pago Pago, American Samoa; Apia, Western Samoa; Rarotonga, Cook Islands; New Caledonia; British Solomon Islands; New Hebrides; Tarawa, Gilbert Islands; Niue Island; Kingdom of Tonga; and Santa Cruz, California.

McKenna had been invited to be a participant in the Copyright Institute’s sessions concerning the effect of the new U.S. Copyright Act. He was also the discussion leader of a seminar on problems of the Copyright Act for business and industry. Institute participants were Barbara Ringer (Register of Copyrights), Arthur J. Levine (Executive Director, CONTU), Milton Seligman (Professor of Law, University of Hawaii), Patsy Izumo (Hawaii Department of Education Office of Instructional Services Director), Peter F. Urbach (Acting Director, NTIS), Robert

*Pan Pacific Education and Communications Experiment by Satellite.
Goodman (Island Heritage Press), Robert Stevens (Chief, Cataloging Division, Copyright Office), and Ira W. Harris (Dean, Graduate School of Library Studies, UH at Manoa).

SLA member Viola G. Furumoto was the discussion leader of a seminar on the problems of the Copyright Act for biomedical sciences. Mrs. Furumoto is head, Science and Technology Reference, Hamilton Library, University of Hawaii.

The Institute was planned by Professor Sarah K. Vann, UH GSLS, who is also an SLA member. The sponsors of the Hawaii Copyright Institute were Graduate School of Library Studies, University of Hawaii at Manoa; the Hawaii Library Association; the Hawaii Association of School Librarians; the SLA Hawaiian Pacific Chapter; UH School of Law; Medical Library Group of Hawaii; and the UH GSLS Alumni Group.

AUDIT REPORT
JAN. 1, 1977-DEC. 31, 1977

March 23, 1978

Board of Directors
Special Libraries Association, Inc.
New York, New York

We have examined the statement of assets, liabilities and fund balances of Special Libraries Association, Inc. as of December 31, 1977 and the related statement of income, expenses and fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Special Libraries Association, Inc. at December 31, 1977, and its income, expenses and changes in fund balances for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Touche Ross & Co.
Certified Public Accountants

(Notes to Financial Statements are on page 274.)
SPECIAL LIBRARIES ASSOCIATION, INC.
STATEMENT OF ASSETS, LIABILITIES AND FUND BALANCES
DECEMBER 31, 1977

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>Total</th>
<th>General Fund</th>
<th>Nonserial Publications Fund</th>
<th>Scholarship Fund</th>
<th>Research Grants-In-Aid Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash (including $420,186 in savings accounts)</td>
<td>$440,844</td>
<td>$386,145</td>
<td>$39,476</td>
<td>$9,047</td>
<td>$6,176</td>
</tr>
<tr>
<td>Marketable securities—at cost (approximate quoted market value, $205,309)</td>
<td>209,379</td>
<td>134,422</td>
<td>—</td>
<td>74,957</td>
<td>—</td>
</tr>
<tr>
<td>Accounts receivable—net of provision for doubtful accounts of $800 in General Fund and $400 in Nonserial Publications Fund</td>
<td>37,454</td>
<td>29,324</td>
<td>7,134</td>
<td>996</td>
<td>—</td>
</tr>
<tr>
<td>Interfund receivable (payable)—net</td>
<td>—</td>
<td>4,678</td>
<td>(5,538)</td>
<td>860</td>
<td>—</td>
</tr>
<tr>
<td>Inventory of nonserial publications and insignia (Note 1)</td>
<td>73,576</td>
<td>29,159</td>
<td>73,115</td>
<td>461</td>
<td>—</td>
</tr>
<tr>
<td>Prepaid expenses and deposits</td>
<td>2,339</td>
<td>2,339</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Furniture and fixtures, at cost—net of accumulated depreciation of $13,134 (Note 1)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>TOTAL ASSETS (Note 3)</td>
<td>$792,751</td>
<td>$586,067</td>
<td>$114,187</td>
<td>$86,321</td>
<td>$6,176</td>
</tr>
</tbody>
</table>

LIABILITIES AND FUND BALANCES

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>General Fund</th>
<th>Nonserial Publications Fund</th>
<th>Scholarship Fund</th>
<th>Research Grants-In-Aid Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscriptions, dues, fees and contributions received in advance (Note 1)</td>
<td>$269,506</td>
<td>$268,412</td>
<td>$71</td>
<td>$1,023</td>
<td>—</td>
</tr>
<tr>
<td>Accounts payable—trade</td>
<td>38,381</td>
<td>38,381</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Withheld taxes and accrued expenses payable</td>
<td>12,270</td>
<td>3,332</td>
<td>8,938</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Income taxes payable (Note 1)</td>
<td>3,000</td>
<td>3,000</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Commitment (Note 2)</td>
<td>469,594</td>
<td>272,942</td>
<td>105,178</td>
<td>85,298</td>
<td>6,176</td>
</tr>
<tr>
<td>Fund balances</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>TOTAL LIABILITIES AND FUND BALANCES</td>
<td>$792,751</td>
<td>$586,067</td>
<td>$114,187</td>
<td>$86,321</td>
<td>$6,176</td>
</tr>
</tbody>
</table>

See notes to financial statements
## STATEMENT OF INCOME, EXPENSES AND FUND BALANCES

YEAR ENDDED DECEMBER 31, 1977

### INCOME:

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>General Fund</th>
<th>Nonserial Publications Fund</th>
<th>Scholarship Fund</th>
<th>Research Grants-In-Aid Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dues and fees</td>
<td>$387,317</td>
<td>$387,317</td>
<td>$ 0</td>
<td>$ 0</td>
<td>$ 0</td>
</tr>
<tr>
<td>Subscriptions and advertising</td>
<td>107,196</td>
<td>107,196</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Net receipts from conference, less allocation below</td>
<td>67,950</td>
<td>67,950</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Net receipts from education program</td>
<td>13,004</td>
<td>13,004</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Net receipts from mailing list service program</td>
<td>18,198</td>
<td>18,198</td>
<td>1,643</td>
<td>4,991</td>
<td>666</td>
</tr>
<tr>
<td>Interest, dividends and net gain on sales of investments</td>
<td>30,211</td>
<td>22,911</td>
<td>1,643</td>
<td>4,991</td>
<td>666</td>
</tr>
<tr>
<td>Sales of nonserial publications</td>
<td>65,004</td>
<td>65,004</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gifts</td>
<td>18,774</td>
<td>6,405</td>
<td>12,369</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3,232</td>
<td>3,142</td>
<td>90</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total income</strong></td>
<td><strong>710,886</strong></td>
<td><strong>626,123</strong></td>
<td><strong>66,647</strong></td>
<td><strong>17,450</strong></td>
<td><strong>666</strong></td>
</tr>
</tbody>
</table>

### COSTS AND EXPENSES:

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>General Fund</th>
<th>Nonserial Publications Fund</th>
<th>Scholarship Fund</th>
<th>Research Grants-In-Aid Fund</th>
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<tbody>
<tr>
<td>Allotment of funds to subunits</td>
<td>66,187</td>
<td>66,187</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Salaries, wages and benefits</td>
<td>226,746</td>
<td>226,746</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Office services and occupancy costs</td>
<td>114,947</td>
<td>114,947</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Professional fees and services</td>
<td>21,133</td>
<td>21,133</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Travel and entertainment</td>
<td>21,834</td>
<td>21,834</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>Member services and promotion</td>
<td>49,139</td>
<td>49,139</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Costs of periodical publication sold, including allocation below</td>
<td>182,838</td>
<td>182,838</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Costs of nonserial publications sold</td>
<td>31,888</td>
<td>31,888</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Scholarships</td>
<td>10,000</td>
<td>10,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Miscellaneous</td>
<td>1,845</td>
<td>123</td>
<td>1,222</td>
<td>0</td>
<td>500</td>
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<tr>
<td>Depreciation</td>
<td>891</td>
<td>891</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Allocation of above expenses to:</td>
<td>(63,263)</td>
<td>(63,263)</td>
<td>(63,263)</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Costs of periodical publication</td>
<td>(49,273)</td>
<td>(49,273)</td>
<td>(49,273)</td>
<td>0</td>
<td>0</td>
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<td>Conference</td>
<td>(21,344)</td>
<td>(37,415)</td>
<td>15,190</td>
<td>881</td>
<td>0</td>
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<tr>
<td>Other funds and programs</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Total costs and expenses</strong></td>
<td><strong>593,570</strong></td>
<td><strong>533,359</strong></td>
<td><strong>47,078</strong></td>
<td><strong>12,633</strong></td>
<td><strong>500</strong></td>
</tr>
<tr>
<td><strong>Excess of income over expenses before income taxes</strong></td>
<td><strong>117,316</strong></td>
<td><strong>92,764</strong></td>
<td><strong>19,569</strong></td>
<td><strong>4,817</strong></td>
<td><strong>166</strong></td>
</tr>
<tr>
<td><strong>PROVISION FOR INCOME TAXES</strong></td>
<td><strong>4,948</strong></td>
<td><strong>4,948</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>Excess of income over expenses</strong></td>
<td><strong>112,368</strong></td>
<td><strong>87,816</strong></td>
<td><strong>19,569</strong></td>
<td><strong>4,817</strong></td>
<td><strong>166</strong></td>
</tr>
<tr>
<td><strong>FUND BALANCES, BEGINNING OF YEAR</strong></td>
<td><strong>357,226</strong></td>
<td><strong>165,051</strong></td>
<td><strong>97,584</strong></td>
<td><strong>80,481</strong></td>
<td><strong>14,110</strong></td>
</tr>
<tr>
<td><strong>FUND TRANSFERS</strong></td>
<td><strong>0</strong></td>
<td><strong>20,075</strong></td>
<td>(11,975)</td>
<td><strong>(8,100)</strong></td>
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<tr>
<td><strong>FUND BALANCES, END OF YEAR</strong></td>
<td><strong>$469,594</strong></td>
<td><strong>$277,942</strong></td>
<td><strong>$105,178</strong></td>
<td><strong>$85,298</strong></td>
<td><strong>$6,176</strong></td>
</tr>
</tbody>
</table>

See notes to financial statements.
1. Summary of Significant Accounting Policies

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

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

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

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

Subscriptions, Dues and Fees: Membership in the Association, except for subscriptions to the periodical Special Libraries published by the Association, is based on either a calendar or a July 1 to June 30 year. Dues, fees and subscriptions are credited to income in the year to which the membership or subscription relates.

Pensions: The Association has a contributory group annuity retirement program with an insurance company covering substantially all qualified employees. There is no unfunded past service cost to be paid by the Association as of December 31, 1977, and expense for the year was approximately $10,300.

Income Taxes: The provision for income taxes is based on unrelated business income, which consists of net advertising income and net mailing list service income. The Association's remaining activities are exempt from federal income taxes under Section 501 of the Internal Revenue Code.

2. Commitment

The Association occupies offices under a noncancellable operating lease which expires in 1987. The lease provides for minimum annual rentals of $24,000, plus certain taxes and maintenance costs.

3. General Fund Balance

Total Assets of the General Fund are comprised of the following amounts: $440,175 for the General Fund, $136,773 for the Reserve Fund, and $9,119 for the Equipment Reserve Fund. (This note appears at the request of Ellis Mount, Treasurer, Special Libraries Association.)
IN MEMORIAM

Jim Criswell

Jim Criswell was a hyperactive delight, his mind racing, inventive, with a compulsion to communicate.

- He talked exuberantly.
- He questioned.
- He checked and double checked.
- He telephoned.
- He sent flowers.
- He hated to leave his work.
- He hated to leave a party.
- He told delightful yarns.
- He REALLY listened.
- He REALLY laughed.

He exercised a preposterous imagination and made outrageous puns. Jim loved to entertain, to keep about him a circle of merriment.

- He invented the situation of: “Honey, I’m bringing 20 people home for dinner tonight.” So sometimes he exasperated, but he never meant to, certainly.

He set no criteria for his friends, so they could always be just themselves in his presence, relaxed and comfortable.

- He was proud of his kids, adored his wife, felt secure with his religion.
- He was the kind of man who could make lifelong friends of other men, share good times, be around when needed.

He was known to decoy with jokes in order to keep from discussing his illness.

- Over 3 years ago he learned he had cancer. A week ago he was still challenging this only enemy—by attending his son’s basketball game.

Jim Criswell’s life was shorter than it should have been but it was fuller than most. He’s gone ahead of us to check—maybe double check—it out for us. And he may be agitated because there isn’t a telephone.

Overall, Jim Criswell was a marvelous and noisy fellow. It’s going to be hard to get used to all this quiet.

Beverly Harris
Houston Chronicle
Houston, Tex.

Notice: Anyone wishing to make a memorial donation should send it to the Jim Criswell Athletic Fund at St. Anne’s School or to Fondren Library at Rice University.

---

Edith Nisbet

It is with a heavy heart that I announce the passing of our friend and colleague, Edith Nisbet. She was immediate past Chairman of the Public Utilities Division of SLA and librarian of the American Gas Association (AGA).

Edie was a truly vibrant person who loved the great outdoors, so much so that she owned two horses which she loved to ride on weekends.

- Born in Paris, France, Edie became a naturalized American citizen. After serving in several positions, she came to AGA as librarian in 1970. Edie served in that capacity until forced by illness to resign in 1978. She was one of those responsible for forming the Library Services Committee of the Financial and Administrative Division, AGA, and making it into a permanent subcommittee of that division.
- Edie was a dedicated worker and no task was too small for her. Her charming laugh and her sparkling personality will be greatly missed.

Steven Jaffe

Pearl Charlet Orlando, librarian, Hewitt Associates, Libertyville, Ill. . . . died Oct 23, 1977. She joined SLA in 1951 and was a former editor of the Informant, the Illinois Chapter bulletin.
Helen F. Redman

Helen Field Redman, a founder of the Rio Grande Chapter, SLA, and its first President, died in Santa Fe, N.M. on Apr 25, 1978 at the age of 55.

Born in Boston, Helen was a Phi Beta Kappa graduate of Wellesley College in 1944. She graduated from the Library School at Western Reserve University, Cleveland, in 1947. She had worked at the Houghton Library at Harvard University and at the Western Reserve University Library before moving to New Mexico in 1947. She became assistant librarian of the Los Alamos Scientific Laboratory's Tech Library, then head of the Report Library in 1949, and Head Librarian in 1953, the position she held until 1970.

Her vital interest in her work was reflected in the many related activities in which she engaged, among them serving as chairman of various Atomic Energy Commission (AEC) committees to study corporate author entries, coordinate indexing and purchasing procedures, on the AEC Technical Information Panel from 1956–70, on the joint AEC–Department of Defense Atomic Weapons Technical Information Group, 1951–70, as a member of the American National Standards Institute subcommittee on technical report numbering, and as co-editor of the Dictionary of Report Series Codes 1962, 2d ed., 1972, both published by SLA. She served as director of the Technical Information Center Atomos en Accion exhibit, San Salvador, El Salvador, in 1965.

Helen was very interested in interlibrary cooperation, and served as chairman of the New Mexico Library Development Council from 1967–70, during the time that the Arthur D. Little Company completed a survey of New Mexico library resources and information needs, and the Coordinated Library System of New Mexico concept was developed. It was she who suggested, partly in jest, that the New Mexico Information System be called NEMISYS, which it is. She chaired the College University and Special Libraries Division of the New Mexico Library Association in 1955–56, two years before becoming the President of NMLA. She was New Mexico Director of National Library Week in 1961.

In addition to serving as the first President of the Rio Grande Chapter, 1957–59, she undertook to head the Chapter's first project, compilation of the Dictionary of Report Series Codes, mentioned above. She served willingly in many capacities in the Chapter, and last year wrote a Chapter history which was published in the Chapter Bulletin. Other SLA activities included service as Chairman of the Engineering Section, 1962–63, and of the SciTech Division, 1964–65. She was Chairman of the Association's Advisory Council from 1966–68, and presented the SLA John Cotton Dana lecture at Texas Woman's University in 1964.

Helen was a dynamic and fantastically capable person, who served as a constant inspiration to her colleagues, both older and younger, in the decades of the 1950s and 60s. Her loss will be felt by many whose lives and profession she touched deeply with her many constructive contributions.

Her years of interest in libraries and librarians in the state have prompted her colleagues and husband to choose as a memorial, contributions in her name to the New Mexico Library Association, P.O. Box 25084, Albuquerque, N.M. 87125, which will be used for scholarships, grants, or continuing education; the just-beginning era of interlibrary cooperation and networking in New Mexico will be her continuing memorial.

Lois E. Godfrey

Rose S. Sugar, retired in 1976, formerly librarian at Ernst & Ernst, Detroit, Mich. . . . died Jul 11, 1977. After retirement, she served as consultant for J. K. Lasser Company and Doeren Mayhew & Company. She had been a member of SLA since 1939.
COMING EVENTS


Jul 2-Aug 5. TWU International Summer Abroad Program . . . Birkbeck College at the University of London, England. Sponsor: Texas Woman's University in cooperation with the American Institute for Foreign Study. Visits to British libraries, presses, bookbinderies, and publishing firms. Contact: Dr. Samuel Marino, Librarian and Professor of Library Science, Texas Woman's University, Denton, Texas 76204 (817-387-3444).


Jul 24-Aug 18. Georgia Department of Archives and History, 12th Annual Institute . . . Atlanta, Ga. Co-sponsor: Emory University Division of Librarianship. Fee: $225 for non-credit, $576 for 6 quarter hours graduate credit from Emory University. Application deadline: May 15. Write: Training Officer, Archives Institute, Georgia Department of Archives and History, 330 Capitol Ave., Atlanta, Ga. 30334.

Aug 2-3. International Conference on Data Bases: Improving Usability and Responsiveness . . . Haifa, Israel. Contact: Allen Reiter, Technion, Department of Computer Science, Haifa, Israel; or Ben Schneiderman, University of Maryland, Department of Information Systems Management, College Park, Md. 20742.


Aug 8-17. Det Danske Selskab (The Danish Institute), Summer Seminar . . . Copenhagen, Denmark. In cooperation with the Royal School of Librarianship, Copenhagen. Theme: Libraries in Denmark: Structure and Extensive Activities. Write: Det Danske Selskab,
Kultorvet 2, DK-1175 Copenhagen K, Denmark.


REVIEWS


I wish that this book had been around when I became an art librarian over a decade ago. At that time, established art libraries faced problems of selection and acquisition of items from the onrushing torrent of visual arts materials. New art libraries and art librarians faced not only the problem of selecting, controlling, and making accessible the current material but also of acquiring the older back-up publications required by their clientele. There was a considerable time lag before scattered articles on the special problems confronting art librarians began to appear in library literature, and in the meantime art librarians were coping as best they could, learning on the job, searching for scattered gems of information and advice, looking for brains to pick, and finally forming their own self-help art libraries societies. Now here they are, just the right brains for picking, those of experienced British and two American art librarians, whose knowledge and expertise has been assembled in one package by Phillip Pacey with the sponsorship of the Art Libraries Society in the United Kingdom.

There will still be a certain amount of effort involved in picking these brains for this is not exactly a manual in the North American sense, organising the library into its various programs and services and providing a guide to appropriate procedures in each case. It is, rather, a guide to the collections of library materials that should be included in art libraries, arranged in chapters dealing with different categories of material. Some of this material will be found in many general libraries, some of it should be found in all art libraries, some of it will only be found in some specialized art libraries; but all of it has been the responsibility of some art librarian at sometime. From the art bibliographies and the quick reference material that every art library should have, to photographs both as study collections of reproductions of works of art and as art objects in themselves, to loan collections of works of art, and to trade literature needed by designers and commercial artists—it is all there, almost all that any practicing art librarian could ever need information about. It is always possible to find something to quibble about, but in view of the long outstanding need for this volume, and the value of its contents, it would seem invidious to criticize.

The fact that most of the contributors are British and that the emphasis is on the collecting practices of the studio art and design college library in the British Polytechnic should not seriously hinder the North American librarian in making use of the manual. There is no problem of translation from British English to American English, proving perhaps that the language of librarianship is international, and certainly that art library collections must be international. The information on procedures and practices is given at the end of each chapter, where acquisition methods, handling, housing and the use that can be made of each category of material are dealt with, in some cases briefly, in some cases extensively. In fact, so exhaustive is the detail in some chapters that North American librarians are going to be convinced that the burgeoning of the British Polytechnic was accompanied by an equivalent burgeoning in the numbers employed in their libraries. Some of the instruction does seem unnecessarily detailed—such as that given in the chapter on out-of-print materials on the need to telephone a second-hand dealer if anxious to obtain an item in his list! But perhaps it is better to put too much in, than to risk leaving out something that might be helpful to some librarian somewhere.

The editor has recognized the problems inherent in presenting the information on procedures at the end of each chapter on a sp
The librarian looking for a quick answer to a specific problem will be able to find in which chapter to locate it by referring to the subject entries in this index.

This publication is by any standards a valuable contribution to the body of library literature and, such is the dearth of publications in this specific subject area, there is no way that it can avoid becoming the bible of practicing art librarians, of teachers of courses in art librarianship in library schools, and of art bibliography in university art departments, at least until the immense feat of bettering it can be accomplished.

M. N. Balke
The National Gallery of Canada
Ottawa, Ont., Canada


The correspondence between the content of this book, essentially the proceedings of a conference on no-growth budgets, and its title, is not one-to-one. This is unfortunate. The reader looking for a book on budgeting in a library context will find most of the book not particularly relevant, though interesting, while those who would enjoy and benefit most from the work are likely to be deflected by the title.

The book might better be titled: "Fiscal Austerity and Library Planning," for that is the thrust of most of the contributions of this volume. The chapter by Jerome Yavarkovsky, "The No-Growth Budget—Bitter Pill of Opportunity," deserves wider dissemination. It is an excellent brief compendium of many of the ways in which libraries manage to waste money and dilute their efforts. The contribution by Robin N. Downes, "Critical Challenges in Steady State Financing: a Perspective," is precisely what it says it is, the best perspective this reviewer has seen on the issue of financial support for university libraries, and succeeds in clearly making the point that the recent past is not necessarily the norm.

For those interested in library budgeting, the book contains two pertinent contributions, one on zero-base budgeting, and the second on formula budgeting. The former, by Richard W. Denham is a brief, informative introduction to the subject. The latter presents a description of the Washington State Library formula budgeting system, a description that could benefit from additional context—it seems largely composed of graphic material for an oral presentation.
The contributions that comprise the balance of the book are innocuous. They have not weathered well the transition from oral presentation to book chapter. As springboards for discussion they may have served well, as contributions in and of themselves they lack meat.

In summary, this slim book contains a few good nuggets which the reviewer hopes will appear separately as journal articles.

Michael Koenig  
Institute for Scientific Information  
Philadelphia, Pa. 19106


This book is the result of a research effort sponsored by the National Science Foundation and directed by Professors Fry and White of the Graduate Library School at Indiana University. The research team was assisted by consultants, a reactor panel, and an advisory committee, which included the Executive Director of Special Libraries Association as well as representatives of publishers and other professional associations.

The purpose of the study was to investigate the viability of the present system of journals in communicating scholarly and research information. Studies were conducted of libraries and publishers by questionnaire and interviews. In order to gain perspectives on libraries, a stratified sample which consisted of 1,402 special, public, and academic libraries was asked to provide data on funding, budget reallocations, periodical titles added and cancelled, activities to counter decreasing budgets, and the impact of borrowing and lending on subscription decisions. These and other data gathered are presented in text and in tabular form for the years studied, 1969–1973.

Publishers were similarly surveyed to gain needed information on their operations for the years noted. In this manner, the commercial, society, and university publishers revealed the current state of periodical publishing, sources of income, actions taken to reduce costs, and other sources of revenue.

Fry and White conclude that the relationship between publishers and libraries is unstable and that some action is needed to augment the system before it collapses. Libraries, the authors argue convincingly, do not now, nor will they in the foreseeable future, have the revenues to support the publishers of our scholarly and research journals. On the other hand, publishers cannot be accused of reaping huge, or even substantial, profits from their publications. It is suggested that federal support to the libraries, the publisher, or the author will be necessary. Findings and conclusions on the number of new journal titles, cost reduction activities of libraries, subscription practices of publishers, and various other areas are presented, as are recommendations for additional research.

While a number of reports of the results of this investigation have appeared in the periodical press, this volume is highly recommended to the special library community, not only for the interesting and useful data presented but also for the details on the actions and practices of special libraries. Unlike other studies, the special library community is well represented in the sample and in the presentation of findings. Indeed, the comparisons of budget growth, periodical holdings, subscription trends, and the like for special, academic, and public libraries, as well as the in-depth look at the scholarly periodical press, are an excellent source of continuing education. This book is not entertaining, but it is informative and clearly written.

James M. Matarazzo  
Simmons College  
School of Library Science  
Boston, Mass. 02115
A special library isn’t like any other library. It’s a specialized research center with patrons who often demand immediate access to up-to-date information. To provide this information, a special library relies on its periodical collection, and, in turn, on its magazine subscription agency to insure that its holdings are current and complete.

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<td>Symposium Papers</td>
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(Special Libraries)
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