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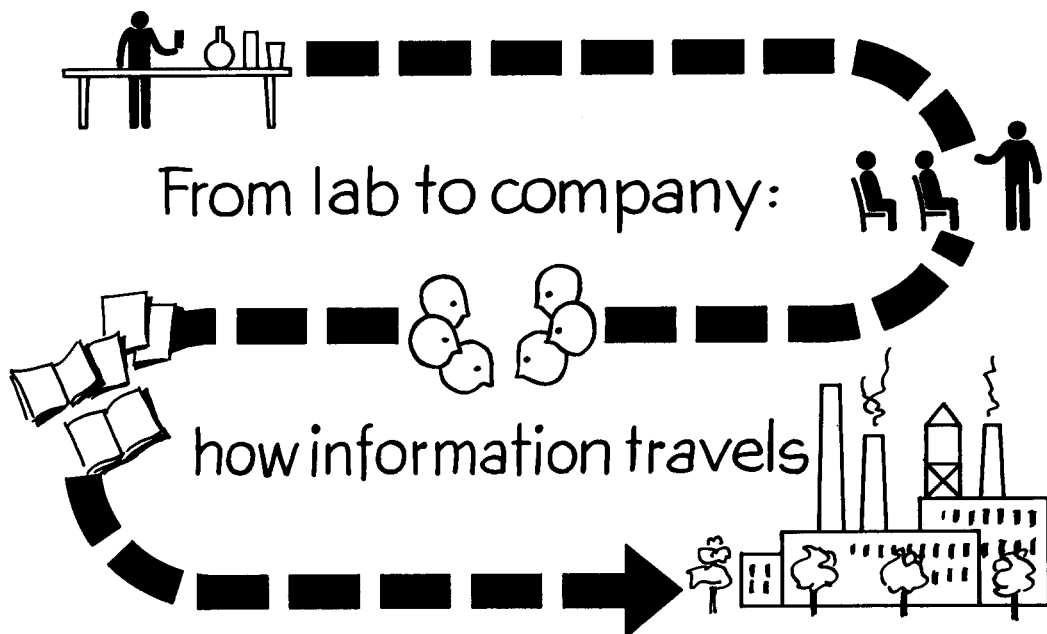
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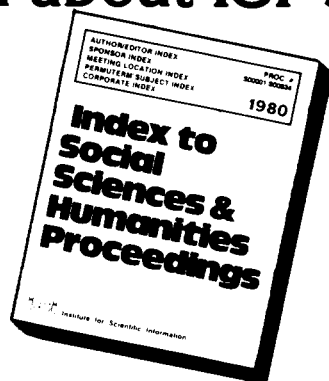
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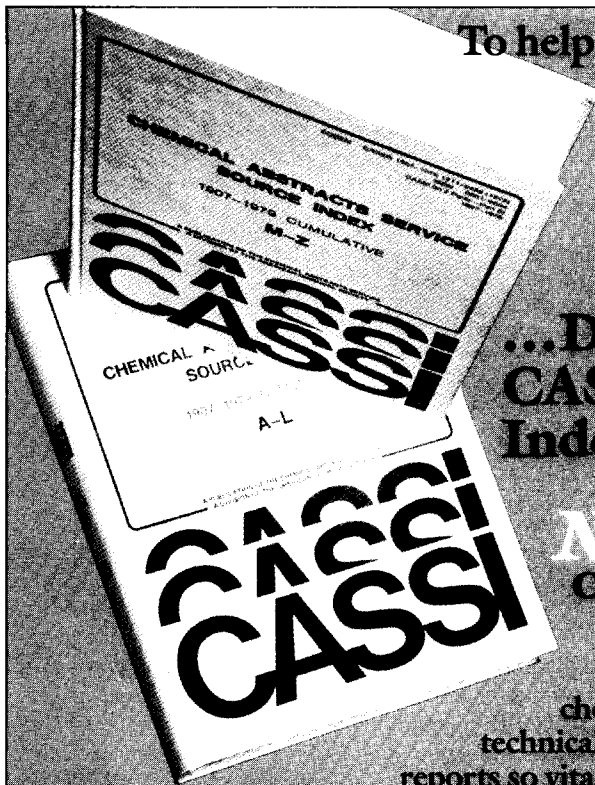
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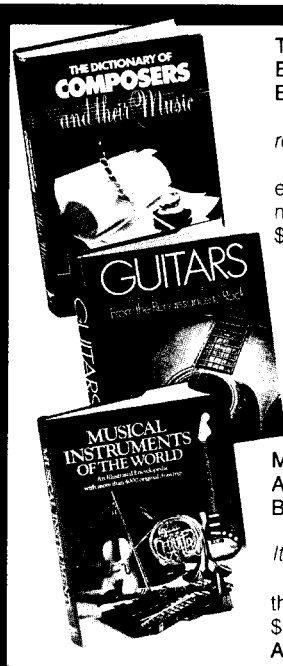
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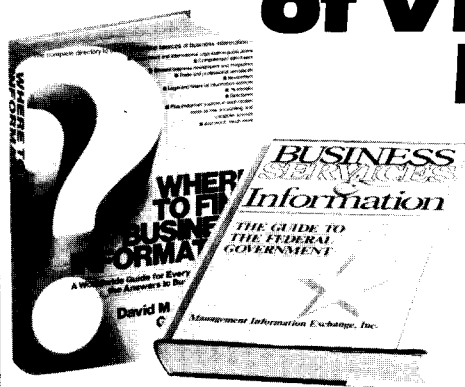
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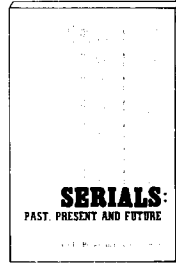
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I just got both December and January *SL* and find both issues eminently readable and informative. I do not have a technical background, and I delight to find articles like Schwartz's "Factors Affecting the Comparison of Special Libraries" and Coplen's "Subscription Agents" that I can use. Bravo! Bravo! Three cheers for the increased use of art, especially on the covers. And they were in good condition when they arrived, so the brown paper was *not* missed.*

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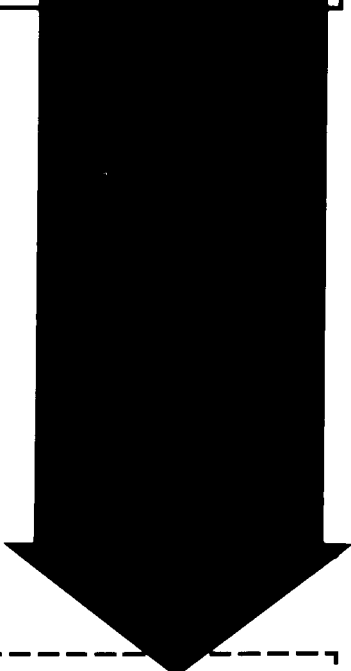
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Costs and Benefits to Industry of Online Literature Searches

Rebecca J. Jensen, Herbert O. Asbury, and Radford G. King

NASA Industrial Application Center, Denney Research Bldg.,
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■ A description is given of a client survey conducted by the NASA Industrial Application Center, U.S.C., examining user-identified dollar costs and benefits of an online computerized literature search. Telephone interviews were conducted on a random sample of clients using a Denver Research Institute questionnaire. Of the total 159 clients surveyed, over 53% identified dollar benefits. A direct relationship between client dollars invested and benefits derived from the search was shown. The ratio of dollar benefit to investment dollar averaged 2.9 to 1. Precise data on the end user's evaluation of the dollar value of an information search is presented.

IN NOVEMBER OF 1977, the NASA Industrial Application Center (NASA/IAC) at the University of Southern California with the cooperative assistance of the Denver Research Institute (DRI) undertook an extensive survey of both industrial clients and the NASA-Small Business Administration (SBA) Technology Assistance Program clients served by NASA/IAC. This survey was done as part of a continuing evaluation required by the Center's funding agency to identify the transfer of technology. The result of this survey

is the analysis of user-perceived costs and dollar benefits of an online computer literature search.

Costs and benefits of online searches are an important evaluation aspect for a library offering such services or for a system designed for technology transfer such as NASA/IAC. The costs of such services have been studied in various ways. Cost factors in a public library setting were examined on the DIALIB Project (1). Comparisons between manual and online searching in several subject disciplines have been

made (2). Terminal costs have been analyzed (3). The most often used approach to cost evaluation has been to analyze unit costs per search and to compare alternate systems (4).

Little progress has been made in the measurement of benefits. Ratios such as cost per hit, cost per question, and cost per user have been discussed as benefit (5). Performance measures (6) have been considered but not implemented. Measures of recall and precision have been discussed (7). "The value of a scientific and technical information system is ultimately established by how much and how effectively it is used—and not by the potential value of the information itself. A system evaluation then, must include talking with actual and potential users" (8).

The users' perception of cost and benefit is a necessary part of the evaluation of information systems. The end user of online services sees the cost of a literature search, i.e., the actual computer connect time and print charges. Another important part of the cost for users is the time necessary to review the citations and analyze documents in order to identify the application of the information. It is this time and effort that prove to be so costly.

also the dollar benefits of improving the technical aspects or the marketability of a product, process, or service.

The cost-benefit study done at the NASA/IAC focused on the users' perception of the dollar benefit derived from the search and their evaluation of the cost. No attempt was made to substantiate the dollar figures given by the client.

Methodology

A total of 160 search clients were included in the survey. This group represented 71 industrial clients and 89 NASA/SBA clients. All clients were served during the period of 1976 through March 1977. The interviews took place from November 1977 to January 1978.

A total of 125 clients were randomly chosen and assigned from a set of 200 clients in the NASA/SBA program. DRI was assigned 50 clients and the NASA/IAC 75 for interview. Previously interviewed clients from a December 1976 survey were excluded from the selection. The 89 interviews represent 33% of the searches run during this operating period under the NASA/SBA program.

The nature of the survey required that a person be assigned to the task as his major responsibility. . . . The DRI interviewers, of course, were not involved in the IAC activities and provided an unbiased source of interview materials. No significant difference appears in the results from the two groups of interviewers.

Benefits may be viewed differently by end users. Time saved as a function of how the information was gathered is a very real benefit. Some users see negative information—i.e., "nothing has been done"—as valuable. This is particularly apparent in a patent search and in cases where a "real" decision was influenced by the results. However, others do not see the worth in the lack of information on a topic. There are

The regular industrial clients were contacted on an as available basis from searches run during that period. The 71 interviews represent a significant sample of the total searches conducted. All interviews of industrial clients were conducted by the NASA/IAC staff.

The backbone of the survey techniques is the interview format developed by DRI. Interviews were conducted by telephone and clients were

not given advance notice of the interview or sent a copy of the interview sheet. The primary task of the interviewers was to encourage the client to evaluate how he used and potentially benefited from the search. The interviewers were given some suggested prompts to use for given questions and, in time, developed their own versions of the concepts. For example, if a client demonstrated reluctance or ambivalence in answering a question that requires the best approximate response, the interviewer could help by tossing out hypothetical figures for consideration, such as in the following exchange:

Interviewer: How many more man/hours would have been required to use an alternate to the IAC?

Client: Well, that would be hard to say.

Interviewer: Two times longer?

Client: Well, a lot more than that.

Interviewer: Five times longer? (And so on.)

or

Interviewer: You say there will be indefinite ongoing benefits. Could you give an approximate, yearly benefit figure?

Client: Well, that would be hard to say.

Interviewer: More than 10k?

Client: Well, a lot more than that. (And so on.)

The interviewers spent a good amount of time trying to contact the clients. Most of the clients interviewed in this survey are from small- to medium-size companies; a number of them are the president of their own company. The clients with the best benefits are often the successful ones who are busy all day and hard to pin down to a 15 to 20 minute discussion on the phone. Some of the most difficult to contact were clients who had the best benefit story to tell. In many cases, this

factor made it necessary to prioritize the information being gathered with respect to the available time with the client. Certain questions requested on the interview sheet were not always asked if interview time was limited. For this reason, no attempt has been made in this paper to cover questions other than the direct benefits.

The three primary data points for all interviews were:

- (a) the estimated costs and gross benefits, distributed over time, that the user attributed directly to receiving a specific information package;
- (b) the type of application achieved or expected for the technical information received;
- (c) the estimated chance of success for expected applications.

The applications were classified in four types or modes of utilization. The criterion for these modes are defined as:

- Mode 0—no application was or will be attempted.
- Mode 1—technical information was acquired with more efficiency or less time (i.e., less user costs) than from alternative sources for the information.
- Mode 2—economic benefits were realized, or are expected, from the user investing to apply the information content in improving a *current* product, process or service.
- Mode 3—economic benefits were realized, or are expected, from the user investing to apply the information content in developing a *new* product, process or service.

The nature of the survey required that a person be assigned to the task as his major responsibility. This person was not responsible for ongoing search activities, nor was he involved in any of the searches being discussed. The DRI interviewers, of course, were not involved in the IAC activities and provided an unbiased source of interview materials. No significant difference appears in the results from the two

groups of interviewers. All aspects of this cost-benefit survey of clients was conducted in a manner uniform with practices of the DRI Transfer Research and Impact Studies Project outlined in a 1977 report entitled, "A Summary of Cost-Benefit Studies."

Results

One difference between the NASA/SBA clients and the industrial clients was the number of clients (23) from the first group who did not intend and were not prepared to dig into the documents identified on their subject. They invested neither time nor money in the effort. Clients from the NASA/SBA group do not pay for the literature search, as do the regular industrial clients, and do not have an initial investment. These 23 clients have been dropped in this analysis, which reduces the total number of clients surveyed to 137.

Thirty-four (51.5%) NASA/SBA clients reported dollar value benefits from the search results; 13 (19.7%) reported benefits related to current products and 4 (6.1%), to new product development; 17 (25.7%) reported significant savings in time spent gathering valuable information to support their efforts (see Tables 1a and 1b).

Table 2 shows the relationship between costs and perceived benefits in dollar amounts. The NASA/SBA clients invested a total of \$36,673 and received current benefits of \$101,055. Those in benefit Mode 0 (no benefit) reported that they invested \$11,988. This is a marked difference from the clients who saved significant time (benefit Mode 1). These clients invested a total of \$1,960 and received \$10,095 of benefits for a ratio of 5.2 to 1. The clients who invested in a current project received a greater value for their expenses than the clients who were working on a new development.

The benefit to investment ratio for current products, processes, or services was 4.9 to 1, while information on new products produced a benefit-investment ratio of 1.2 to 1. Overall, the ratio of benefit to investment was 2.7 to 1. Follow-on benefits of \$373,500 were reported. The total of both current and follow-on benefits was \$474,555. (The ratio of benefit to investment for both NASA/SBA and industrial clients is shown in Tables 3a and 3b.)

The regular industrial clients reported benefits in 39 (55.0%) cases. Eleven (15.5%) were cases involving new products, 7 (9.9%) with current products, and 21 (29.6%) benefited from the savings in time.

Table 1a. Number of Clients.

Client	Current Benefits					5-Year Follow-On Benefits	
	All Modes Combined	Mode 0	Mode 1	Mode 2	Mode 3	Mode 2	Mode 3
SBA	66	32	17	13	4	4	2
Industrial	71	32	21	7	11	0	2
Total	137	64	38	20	15	4	4

Table 1b. Percentage of Clients.

Client	Current Benefits					5-Year Follow-On Benefits	
	All Modes Combined	Mode 0	Mode 1	Mode 2	Mode 3	Mode 2	Mode 3
NASA-SBA	100	48.5	25.7	19.7	6.1	6.1	3.0
Industrial	100	45.1	29.6	9.9	15.5	0	2.8
Total	100	40.0	23.7	12.5	9.4	2.5	2.5

Table 2. Dollar Costs and Benefits.

Client	Dollars Invested (\$)	Current Benefits (\$)	5 year Follow-On Benefits (\$)
NASA-SBA			
Mode 0	11,988	—	—
Mode 1	1,960	10,095	—
Mode 2	17,155	84,060	353,500
Mode 3	5,570	6,900	20,000
All Modes combined	36,673	101,055	373,500
Industrial			
Mode 0	5,931	—	—
Mode 1	8,865	38,110	—
Mode 2	10,292	72,750	—
Mode 3	62,720	152,690	500,000
All modes combined	87,808	263,550	500,000
Total (NASA-SBA and Industrial)	124,481	364,605	873,500

The industrial clients interviewed invested a total of \$87,808 and received total current benefit of \$263,550. Those clients who reported no benefit (Mode 0) reported that they invested \$5,931. Those in the Mode 1 section invested more time/effort/money at \$8,865. For this amount, they reported benefits totalling \$38,110. The clients in Modes 2 and 3 stated that more dollars were invested with a corresponding higher return. The benefit to investment ratio

of the industrial clients was 3.0 to 1. Follow-on benefits of \$500,000 were reported. The total of both current and follow-on benefits is \$763,550 (shown in Tables 2 and 3).

Effect of Client Investment

One of the relationships that appears from this study is that of client-invested dollars to current benefits. With one exception, more dollars invested produces more dollar benefit. The ratio of benefit to investment appears highest in the improvement of current products, processes or services, although industrial clients reported impressive results in the new development area. NASA/SBA clients received the least amount of benefit in the new product search. Investment by these clients on current projects gave a good return on their money.

A common denominator in both programs is that clients who had benefits invested their time and effort to pull out the pertinent information. The willingness to do this analysis and the knowledge of how to do it is critical to the application of the information. The NASA/SBA clients in benefit Mode 0 (48.5%) may have lacked these skills in the analysis stage. It is interesting to

Table 3a. Ratio of Benefit to Investment.

Client	Mode			
	All Combined	1	2	3
NASA-SBA	2.7	5.2	4.9	1.2
Industrial	3.0	4.3	7.1	2.4
Total	2.9	4.4	5.7	2.5

Table 3b. Ratio of Follow-On Benefit to Investment.

Client	Mode			
	All Combined	1	2	3
NASA-SBA	10.2	0	20.6	3.6
Industrial	5.7	0	0	8.0
Total	7.0	0	12.9	7.6

note that a similar percentage (45.1%) of the industrial clients also reported no benefit. However, this appears to be more of a reflection of the amount of time and effort spent (client invested dollars) rather than their ability to analyze the information.

Negative Results

Clients often fail to credit negative results on a search subject for having influenced their decision making. The negative result may indicate that a client's idea, reflected into the search subject, is not as feasible as he thought. In some cases the client changes course, but in others he is disappointed and does not feel that the results were valuable. Clients who do not find the type of information they expect often fall in two groups. One group is disappointed and does not feel that any benefit was realized. The second group looks at the lack of confirming information as a signal to reverse its direction of effort and change course quite drastically. This group identifies the experience as a real benefit and quotes it in real values. This is not to say that all searches produce results of value to the client, but in the "eye of the beholder" different responses are achieved. The client's ego may be bent a bit at times too, when he finds evidence that a new idea is not as good as it seems. Of course, there are also those who may be dreaming about benefits that will never materialize.

Search Definition

A certain pattern emerged among successful searches that was not readily visible in the interview data. Searches showing the greatest benefit were invariably those which focused on investigating a specific problem. For example, a client searching die tempering (because his current method was costly and slow) would be more likely to register a significant benefit than a client searching metal foundry simply to broaden his information base.

Time Saved

Time saved in the gathering of information is a benefit of value. Incomplete information was collected as to the perceived hours saved by the literature search. However, the data collected can be of use. Of the 17 NASA/SBA clients who reported savings of time, only 7 stated how many hours were saved. A total of 330 hours, with an average of 47 hours per client, was given. Out of 21 industrial clients, 14 stated that 777 hours were saved for an average of 55.5 hours per client.

Search Techniques

Search technique is another aspect of cost/benefit that can be discussed from the data gathered. The Denver Research Institute studied organizations that use varied techniques of searching. A comparison of the costs and benefits of each is of interest.

The "interactive" search technique is defined as one in which the client is present during the computer search or in close communication so that he is fully involved in the search process. Searches are conducted in this way at NASA/IAC at the University of Southern California.

Another technique used is the "selected" approach. This approach requires that searchers with technical degrees such as engineering, science, and so forth (not librarians), discuss the topic with a client and complete the search. When citations are retrieved, the searcher reviews the output, chooses the most appropriate citations, and then organizes them into a package which is sent to the client.

Another mode is the "unselected" search in which the client is sent a response to his written or verbal request. This type of search is the least expensive and is often used in batch searching, such as the MEDLARS system in the early 1970's.

On the surface, the interactive search appears to be the least cost-effective technique; however, this comes from

Table 4. Cost-Benefit According to Search Technique.

Search Technique	Cost Per Search Problem	% of Clients Reporting Benefit Mode 2 or 3	DRI Dollar Benefit/Client	Dollar Benefit to \$1.00 Invested
Selected	\$550.00	31.0	\$20,000.00	\$11.27
Interactive	\$150.00	25.6	\$20,000.00	\$34.13
Unselected	\$100.00	9.0	\$20,000.00	\$18.00

thinking about the "cost of the search" rather than the "benefit." Not being familiar with the search process, the client often takes more time for consideration. The client needs explanations and is sometimes curious ("How did you do that?" "What are we looking at now?"). Search costs do rise when the client is present. However, a closer look is needed at the costs and benefits of the different types of searching.

Table 4 shows the average cost per search problem and the percentage of clients who reported mode 2 of 3 benefit for the three search techniques. The Denver Research Institute's statistical analysis also shows that when benefits (mode 2 or 3) occur, the benefit per client is \$20,000 in current and follow-on benefits using *any* of the three search techniques.

The interactive search emerges as the most cost-effective technique in the DRI study.

Since all three techniques have the capability of producing this level of benefit, the next question is the cost involved to produce this value. The last part of the table shows the dollar benefit to one dollar invested in searching. The invested dollar reflects the cost of the total search process. This includes the cost of all searches, both those that did produce benefit and those that did not. This does not mean that if you hand me one dollar I can make \$11.00 to \$35.00 out of it. Remember that 45 to 50% of the clients reported no benefit. This does indicate that reportable benefit is available and that online searching

is a great asset for a company or organization.

The interactive search emerges as the most cost-effective technique in the DRI study. It is not the cheapest type of search but it does produce more benefit per investment. It would take almost two times the number of searches done in an unselected pattern to equal the benefits derived from the interactive searches. The selected search proves to be the least effective in terms of benefit per cost invested.

Several cautions are in order. An evaluation of this type must be done on a significant sample of searches. It is a statistical analysis and is dependent on such a sample.

There are appropriate times for all types of searches. The data on the relationship of client invested dollars to dollar benefits shows that it is important to spend time and effort on those projects or searches for which the company or organization is willing to invest in the analysis of the information. It is also worthwhile to involve the user in the search process, as in the interactive technique. The searcher cannot determine what the client already knows, what he doesn't know, and what he doesn't need. With the client present, the searcher can redefine the search around these parameters.

Choosing certain searches to receive more attention than others is a difficult process. Areas of primary concentration should be identified and known by the library staff. Other searches of less importance should certainly be done and with professional attention, but company priorities should be taken into account.

Evaluating Online Services

The results of this study gives some clues to procedures for starting online services. To use one search as a tryout for the online systems is inappropriate. The chances of receiving time savings or dollar benefits are no better than flipping a coin. One would do better to have outside information services such as the NASA/IAC conduct a number of searches first in order to demonstrate their benefits. Taking a poll among users on the usefulness of online services can be discouraging since a large number may report no benefit. A library or information center would do better to evaluate an online service in terms of reported benefits to the company.

Recommendations

An area that may be valuable to probe in a benefit survey is the degree of prior work that the client has done before coming to do a search. This is particularly true of the NASA/SBA programs that involve companies that have never done research of any kind to solve their problems. In some cases, the question being searched is not one the company has immediate plans to pursue with its own dollars.

in terms of dollars and cents, now and in the future. The interviewer must develop the skills that can put the client at ease so he will frankly discuss the search results and benefits. The interviewer must also be the type of person who can intelligently converse with the company president, the director of engineering, the director of marketing, or the employee who was responsible for the task. He must recognize potential benefit statements that are embedded in the comments and bring out the details for the record. This is a case where practice makes perfect.

The interviewer's lack of knowledge about the client and his subject is an asset when the client wishes to reflect his negative feelings about his search experience. In other instances, the interviewer can miss a significant point the client makes, because he is not aware of the actual situation. He is also not able to probe at the questions that were discussed at the time of the search.

A benefit survey should be made during the six-to-eighteen-month period after a search is conducted. The subject has a bearing on the optimum time to interview for benefits. Some information applications are primarily time saver benefits and others require time to allow the benefits to emerge.

The interviewer must develop the skills that can put the client at ease so he will frankly discuss the search results and benefits. The interviewer must also be the type . . . who can intelligently converse with the company president, the director of engineering, the director of marketing, or the employee who was responsible for the task.

The techniques of surveying for benefits proved quite effective in acquiring information on benefits to a large number of clients. The interview for benefit information is not a task that can be accomplished on a spare time basis. The approach requires an effective person on the phone who can direct the client's thought process toward evaluation of the search results

The benefit survey provides valuable feedback to the performing organization. In some cases, a small change in the approach to a search, indicated by comments from the client, can turn the results around. A greater emphasis needs to be placed on educating the client to get on the phone when search results don't uncover the type of information desired. With good feedback

and slight modifications of search strategy, the percentage of benefiting clients may well be improved.

The interviewing of clients for feedback of search results and benefits is a continuous task that should be supported to make the programs reflect the true values being produced. When the collection of feedback is done only on a part-time basis, the results are so distorted that it would be better not to do it. The data can be a very useful operational and marketing tool.

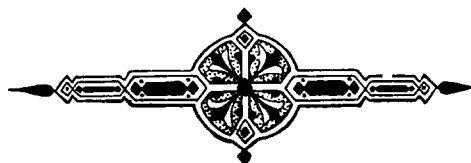
The evaluation of services provided by a library or an information center is a difficult task. User feedback and evaluation of the benefits derived is a necessary part of any such evaluation. The ability to measure these benefits in definable, concrete terms is one of the best ways to justify the expense of online searching. When confronted with substantial data that demonstrates the value provided by the library, upper management may be more likely to support this worthwhile service.

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Planning a Branch Library

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■ **Growing libraries, especially those of medium size, are often confronted with a problem of geographical segmentation of their user groups. This may result in an inadequate library service and also in accumulation of separate collections. The decision will have to be reached whether to start a branch library or to reinforce the main library efforts. A practical approach to solving this problem on a small scale, without a complex initial planning scheme or considerable expenses is suggested. The importance of meeting users' needs through the establishment of branch libraries, thereby providing a more personalized service, is emphasized. The discussion focuses on the commercial institution environment.**

AN INTEREST has been expressed by SLA members in branch libraries, primarily in planning them. A branch library can be defined as a subject collection located outside the main library. It can be administered either as a part of a centralized library system or as a part of a department within the parent organization.

During the planning stage, these questions frequently arise: Why should there be a separate collection? Can we afford all this duplication?—and so on. In determining whether to establish a branch library in a company, university or other organization, the most important considerations are its general purpose, its usefulness, and the ways to go about organizing it.

Establishing the Need

At times, separate collections have a way of originating by themselves, as is often the case with small, departmental collections. A group of eager specialists or scientists may start accumulating their own reference materials. There may be a multitude of "desk copies" that just have to stay there. Much depends on the situation and the nature of the organization. It may happen that such collections never become formalized or that they ultimately are transferred to the central library.

To determine whether there is a realistic need for formalizing a separate collection or for establishing one from scratch, the librarian should consider the following questions:

- a) Is the local user community engaged in specialized work?
- b) Does the distance to the main library present a problem or hinder users in accessing needed material in a reasonable time?
- c) Do the users feel that a branch library is essential to carry out their projects or meet organizational goals? (a very important consideration).

The group of specialized users may represent such activities as business statistics, toxicology research, chemical work, market research or solid state physics. They may start by subscribing to highly specialized periodicals or by accumulating very particular literature. Another case would be the formation of a new division or department composed of a variety of specialists who need their reference data within immediate reach.

Duplication of material may readily be justified in cases of geographical spread among user groups. The economic advantages can be established by a cost-comparison study—users' time and the immediate availability of all materials are the key points here. The main library may have to maintain a union catalog of holdings in addition to the local branch catalog, but savings can be realized through central processing, central acquisitions, and so forth.

Interviewing potential users is a core step in the librarian's background work for developing a proposal—the results will help to impress the management. It is important to get ideas from selected groups or key individuals on what material they need and what information services they really prefer. (Needless to say, diplomacy and communicative skills will come in very handy here). By summarizing these user views in a proposal, needed funds may be more readily realized.

Estimating the Cost

The initial budget will depend largely on the number of users and their particular requirements (extent of

subject coverage, and so on). The following plan for a small library serving about 100 to 200 users with about four to five years expansion can be used as an example. The specifications include principal space requirements, furniture/equipment, general materials, and the necessary manpower. Of course, this is just one approach and it may be only partially applicable, depending on the circumstances. The estimated cost figures given are hypothetical, since they are subject to geographical location and time factors.

Space—Ca. 576 sq. ft. (24 ft. × 24 ft.)—based on essential furnishings and on number of users

Furniture/Equipment—If possible, an approximate floor plan should be developed ahead of time along with a list of projected furnishings. It is beneficial to purchase at one time all or most of the initially planned furniture. This will encourage better space planning, better furniture matching, and economic realism. The furnishings in the hypothetical model would include:

- Five (5) six-shelf, single book stocks for reference section—special handbooks, encyclopedias, manufacturers' catalogs, and so on.
- Six (6) additional single book stocks to accommodate about 1,000 to 1,200 textbooks and other materials. (Identical back-facing shelves can be acquired later to form double-facing units for future expansion.)
- Eleven (11) total book stocks—average for steel or wood, divider-type, single shelving units. Cost: \$7,000.
- Four or five magazine racks for current periodicals display to hold about 100 to 200 titles. The main library can be made responsible for storing excess back issues. Cost: \$1,200.
- Four (4) five-drawer vertical files (the secure type) for reprints, pamphlets, reports, and so on. Cost: \$1,100.

- One (1) catalog card file, wooden (2 six-drawer levels with top and stand). Cost: \$600.
- One (1) large table (72") with about 6 chairs (or 2 small tables). Cost: \$1,200.
- One (1) desk with typing platform, electric typewriter, and a chair. Cost: \$1,700.
- One (1) book truck. Cost: \$200.
- Miscellaneous office supplies (circulation card box, small Kardex file, and so on). Cost: \$600.

General Materials—the essential tools for the start. A fair amount of professional handbooks, subscriptions, and textbooks will be needed in the beginning. About 40% of the magazines may be free, obtained through trade associations, and other sources. There also will be many donated books.

- Subscriptions—at least 50 paid titles. Cost: \$1,000.
- Reference books—about 200, @ average \$25.00 each. Cost: \$5,000.
- Other books—about 100 purchases. Cost: \$2,500.

Labor—One professional librarian. A new graduate with no experience may be preferred, since at this stage the job will probably include typing and some other clerical work. If non-professional labor is preferred in the beginning, the cost will naturally be lower. Cost: 13-14 K (depending on geographical area rates).

Total estimated cost: @\$40,000. The total cost reflects only essential furniture and first-year labor and materials. Building space and carpeting are not included.

Summary and Conclusions

As shown, the advantages of a branch library are 1) satisfying technical or other types of information needs in a more customized fashion, 2) providing a more accessible and personalized service to local users, and 3) saving users' time and money spent in calling or searching locally for information or in distributing technical literature among group members. Another important advantage is a reduction in the main library's work load, which may have become unreasonable.

Pointing out all these advantages, plus having the users convinced that they really need a library, will help librarians procure the necessary funds and gain the support of management in advancing their project.

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From the Research Laboratory to the Operating Company

How Information Travels

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■ **Chevron Oil Field Research Company (COFRC), one of Standard Oil Company of California's two research laboratories, has the responsibility for finding new or improved methods of locating and recovering crude oil and natural gas. A continuing concern is the successful transmission of research results on these methods from the laboratory to the various end-user operating companies throughout the world.**

Research results are transmitted from COFRC by informal communication, intercompany meetings, visits by COFRC personnel to operating company offices, distribution of written reports according to mailing lists, audiovisual presentations like videotapes and short films, and activities of COFRC's Technical Files. These transmission processes are reviewed with special emphasis on COFRC's Technical Files.

ONE OF THE MAJOR concerns of any corporate research facility is the transfer of new or improved technology to end-users. Even the most important breakthroughs are worthless if they are not successfully communicated.

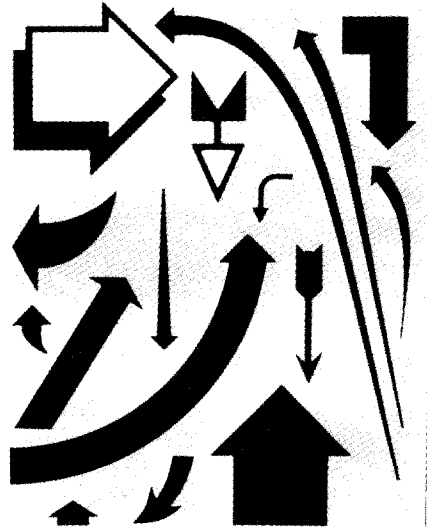
Palmer is now at Chevron U.S.A., Pascagoula, Miss.

Chevron Oil Field Research Company (COFRC), one of two Standard Oil Company of California (Socal) research laboratories, is responsible for finding new or improved methods of locating and recovering crude oil and natural gas. The transmission of these research results to operating company personnel worldwide is of increasing importance as technology changes.

Methods for Information Transmission

Information flows out from COFRC to other parts of Social via informal or formal channels. Informal channels occur either through individual contacts with COFRC researchers by telephone, letter or memorandum, conversations at meetings, or through individual contacts when a researcher is transferred to an operating company. Informal channels depend upon the operating company individual knowing whom to contact. The company cannot control these informal channels; they can only be encouraged or discouraged.

In contrast, formal channels are a result of official decisions on how information is to be transmitted and are under control of the company. Formal channels of communication available to COFRC include (1) intercompany meetings, (2) visits by COFRC personnel to operating company offices, (3) distribution of written technical memoranda according to mailing lists, (4) audiovisual presentations such as videotapes and short films, and (5) activities of COFRC's Technical Files. These processes are summarized in Table 1.



Intercompany Meetings

Intercompany meetings are held at COFRC or at other locations on a variety of subjects ranging from intercompany technical groups (ITG) to seminars that provide continuing education. Difficulties with this process include coordination of attendees' work schedules, travel costs, and the limited number of attendees that can be accommodated at

Table 1. Methods of Information Transfer.

Method	Disadvantage	Advantage
Informal	Need to know pertinent person.	Information goes where it is needed.
Formal	Information may not get to person who needs it; value not always evident.	Provides information to those who don't have informal contacts; corporate stamp of approval.
Intercompany meetings	Scheduling; time consuming; travel costs; limited audience.	Meeting those with like interest; face-to-face communication; input from operating companies to COFRC; COFRC gains understanding of operating company differences.
Visits to operating company offices	Time consuming; travel costs; limited audience.	Face-to-face communication.
Written reports	May not get to person who needs information; people don't take time to read.	Provides "hard copy" for future reference; cost-effective.
Videotapes and films	Requires specialized equipment.	Provides visual information; effective use of operating company time.
Technical Files	Time lag in indexing and sending out indexes.	Access to specific information.

one time. While meetings held elsewhere which include COFRC researchers face-to-face communication, the exposure to COFRC is limited to the COFRC researchers who attend the meetings. There are two additional benefits of meetings held at COFRC. One is actually seeing COFRC, the setting, the facilities, and possibly analytical work in progress. The second benefit is the chance to meet with personnel and establish informal contacts for future reference.

Surveys taken among attendees indicate that intercompany meetings provide "... a needed information exchange... between operating regions and the research companies..." and are "... quite successful as a means of communication and technical capability exchange."

Visits to Operating Company Offices

Visits by COFRC researchers to operating companies may be to (1) present the results of specific technical service projects done for the operating company, (2) further a COFRC research project by gathering information, (3) participate in a joint field trial, or (4) present a "road show" on results of research ready to be applied in the field. Scheduling tends not to be a problem. However, the time required for preparation, travel, and presentation is a problem since it is time taken away from research. "Road shows" are particularly time-consuming because the same information may be repeated at several different locations. Travel costs are also a drawback. Despite these problems, operating company visits are an effective way to communicate (1).

Written Technical Reports

Written reports vary from one or two page "informal" Items of Interest to voluminous Research Reports. Certain of the formal reports are automatically distributed prior to arrival in Technical Files. Most of the recipients of these reports receive their copies because of

Table 2. Address Lists for Distribution of COFRC Reports.

A. Specific Positions Common to All Operating Companies

Chief Development Geologists
 Chief Engineers
 Chief Geologists
 Chief Geophysicists
 Applied Geochemical Coordinators

B. Recipients Appointed By Operating Company*

RR 902 Dinoflagellate
 RR, Geological
 RR, Exploration
 RR, Geophysical
 RR, Offshore
 RR, Paleo, Catalog-Type
 RR, Paleo, Not Catalog-Type
 RR, Production

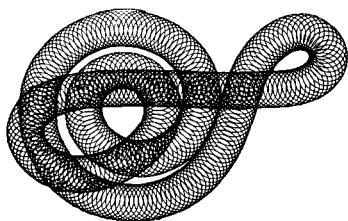
C. Recipients Are Members of These Special Interest Groups*

Deep Sea Drilling
 Formation Evaluation Committee
 Intercompany Technical Group on Applied Geochemistry
 Intercompany Technical Group on Drilling Methods and Technology
 Intercompany Technical Group on Gravity and Magnetism (Image)
 Intercompany Technical Group on Marine Geology
 Intercompany Technical Group on Offshore Operations
 Intercompany Technical Group on Paleontology
 Intercompany Technical Group on Photogeology, Remote Sensing
 Intercompany Technical Group on Production Instrumentation and Control
 Intercompany Technical Group on Stratigraphy, Sedimentation
 Intercompany Technical Group on Structural Geology
 Special Study Group on Offshore Research
 Study Group on Development Geology
 Study Group on Exploration Research
 Study Group on Production Research
 Special Study Group on Natural Gas Processing

D. Recipients Request to Be on These Lists

Items of Interest, Geochemical
 Items of Interest, Geological
 Items of Interest, Production
 Tech Reports Index
 Tech Reports List

*Specific position varies according to operating company.



Videotapes and Films

the position they occupy—either the operating company or the corporation having decided that certain positions can best utilize the information. Table 2 lists the names of the various address lists. A major difficulty is that persons occupying these positions do not all share the same view on the importance of transmitting information. They can block or “filter” the information. Items of Interest were intended to bypass this management filter. However, if an employee is not familiar with COFRC, he cannot ask to be placed on the distribution list for Items of Interest. Another bypass is sending hard or microfiche copies of reports to operating company information centers to which everyone has access. Here, the effectiveness of distribution is dependent upon the local operating company’s support of its information center.

During the 1974-1976 period, COFRC tried using videotape cassettes to transmit new research results to the operating companies. Research personnel were recorded discussing their new ideas and the videotape cassettes were then distributed to field offices in place of written memoranda and operating company visits by research personnel. A survey was made in 1977 to determine the opinions of operating company personnel toward videotapes, field visits by research personnel, and written technical memoranda as methods of transmitting research results (2). Table 3 summarizes the results of this survey.

The survey found that operating company visits following the distribution of technical memoranda were the best system for communicating research results. However, where limitations such as geographical distance exist, videotapes accompanied by related technical memoranda were viewed as an acceptable and effective communication method. The one perceived advantage of videotapes was its effective use of the operating company personnel’s time.



Table 3. Average Rankings of Technical Memoranda, Videotapes, and Field Visits for Transmitting COFRC Research Results.

Question Number	Transmission Aspect Tested	Average Rank*		
		Tech Memo	Videotape	Field Visit
4	Suitable for introductory information	5.65	7.23	7.31
5	Suitable for detailed information	7.47	5.53	8.00
6	Preferred method	6.54	6.45	7.85
7	Clarity transmitted information	6.59	6.66	7.73
8	Effective use opco time	6.98	7.13	5.97
9	Efficiency of method	7.43	6.87	6.13
10	Memorability of results	6.50	6.71	7.35
11	Maintenance of interest	4.08	7.34	8.82
12	Influence of method	4.59	6.99	8.90
13	Accessibility for reference	9.27	5.28	3.13
14	Width of distribution	8.62	6.61	3.74

*Rank measured on a scale of 1 (least) through 10 (most) for 220 respondents.

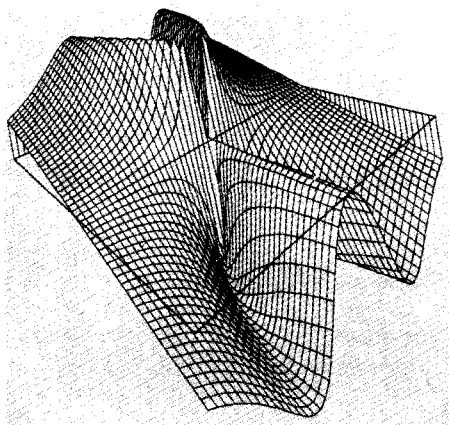
The production and distribution of films is currently a little used form of communication. It is most likely to occur when films are made as part of a research project to document the physical processes that are occurring. The films may be condensed to show the most pertinent portions of the research and presented as part of a "road show."

Technical Files

Technical Files is a part of COFRC's Technical Information Services. They provide access to the COFRC technical reports. Technical reports can originate outside as well as inside COFRC. Accession numbers are assigned to reports upon their arrival in Files or if the report is written at COFRC previous to the memorandum's printing. Reports are processed and included in a reports index as part of Technical Files' normal workflow. The reports titled "Technical Memoranda" include both formal reports so designated by the author and informal written material taken from the daily correspondence assigned to that category by Files personnel according to specified guidelines.

Each year an Annual Index is issued which goes to all the operating company information centers and to a few individuals who have requested it. The index consists of an accession number list with complete entries; an author list consisting of accession number, title, and date; and a subject list consisting of accession number, title, and date. The current system to provide access to the reports in Technical Files has developed from automation efforts started in 1970. In 1970 the subject index was a KWOC list produced by the local computer. Since 1971, assigned terms have been used to produce it. These assigned terms are taken from the vocabulary list cumulated from the annual indexes. New terms are added as needed.

Originally, the Key punch group prepared the IBM cards for entry of both data and job initiation requests. Files supplied coded data sheets to Key



punch. In 1974 producing the index was changed from a batch job initiated by punch cards to TSO. TSO is a program product supplied by IBM which allows the user to interact directly with the computer. Direct entry of data online by Technical Files started in 1975, and all keypunching of report data was eliminated. Also starting in 1975, the computer was used to produce the Monthly Reports Lists. Online bibliographic searching of the reports index started in 1976 when Technical Files issued a cumulative index for the period 1971-1975. Currently Technical Files can search online for all reports entered into the system since startup in 1971. Access is made to earlier reports through cumulative and annual indexes. The earlier reports need to be reindexed before they can be added to the current system because, prior to 1971, each report type had a separate numbering system and because of changes in indexing.

Theoretically, each month Technical Files issues a listing of reports received and logged in during the prior month. Currently there is about a three-month delay, part of which is due to lack of manpower in Technical Files. Because of delays and varying numbers of reports, two months may be combined into one list. For instance, the combined Aug/Sep 1978 Reports List was received by COFRC personnel on Dec 7, 1978. Part of the delay results from the

wide distribution throughout the corporation. Once Technical Files has generated the computer output for a particular month, copies of the list go to the administrative assistants to the vice presidents in charge of exploration and production. These two assistants review the security classifications of the reports and approve the report listing. They may delay returning the lists to Technical Files due to their many other assignments. Once Files has made any corrections, the list is sent to the Reports and Publications Expeditor for reproduction and distribution. Delay may occur here because the expeditor assigns it a lower priority than other current projects. Also, the print room frequently has a backlog of jobs.

The Annual Reports Index is a cumulation of the monthly lists and does not go through the administrative assistants. However, it hits all the other mentioned delays. The Annual Index has on occasion taken a month or so to be printed and collated. The same individuals appear on both the Annual

Index and the Monthly Report Distribution Lists. However, fewer and fewer individuals are receiving the Annual Index. Apparently the combination of Monthly Lists plus access to the Annual Index in local information centers is sufficient.

Requests for copies of reports come to Technical Files both from individuals in operating companies and from operating company information centers. The number of requests from operating companies during 1971-1978 is given in Table 4. There appears to be a definite correlation between issuing annual indexes and monthly reports lists and the incoming requests from operating company personnel. Technical Files does not supply copies of operating company reports to other operating companies but directs the requestor to the originating company. When a request is received by COFRC Technical Files, it is filed as soon as the workload allows, unless it is marked "Rush" and then it is filed immediately. Any report marked "Confidential" as well as all

Table 4. Number of Requests from Operating Companies for Reports to Technical Files.

Operating Company	1971 ¹	1972 ²	1973 ³	1974 ⁴	1975	1976 ⁵	1977 ⁶	1978 ⁷
Chevron USA								
Western Region		51	31	54	21	47	32	28
Central Region			12	26	23	25	23	32
Eastern Region		7	6	34	29	42	35	51
Corporation		6	5	6	4	2	4	14
Chevron Geophysical		1	1	14		16	14	12
Chevron Research		4	3	8	2	2	10	6
Chevron Resources					1	6	3	3
COPI		14	14	12	6	11	11	6
Other Chevron Offices		5	5	2		3	3	7
Chevron-Standard		6	1	18	26	24	17	21
WAPET		2		5	6	9	8	7
Miscellaneous					5	2	3	2
Total Number of Requests	38	108	78	179	123	189	163	189
Total Number of Reports Supplied	115	120	100	359	262	396	696	396

1. Detailed data not available.

2. Supplied 1970/71 indices in 1972.

3. 1972 index not distributed this year.

4. Monthly Reports List resumed.

5. 1971-1975 cum. index distributed in May.

6. Monthly Indexes very slow second half of year.

7. Monthly indexes remain slow, annual index distributed in July.

technical memoranda, technical notes, technical service, special reports, and research reports must be cleared by the security officer before Files can send a report to a requestor in an operating company.

Summary and Recommendations

Information flows from COFRC to the operating companies through a variety of informal and formal methods of communication. Under the formal channels available to COFRC, intercompany technical group meetings are effective and should continue. Where meetings are not possible due to reasons such as geographic distances, videotapes are an acceptable alternative. Technical reports are the most widely distributed and easily accessible communication channel. This is also the channel most easily "filtered" by management. After the initial distribution of technical reports, it is the

responsibility of Technical Files to provide access to them. The Technical Files portion of information transmission could be improved by 1) additional manpower to process reports, 2) reduction of delays by non-File personnel involved in the production of the Annual Index and Monthly Lists, and 3) increased circulation of Monthly Reports Lists to operating companies.

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PALMER

PRESTEL and the Trend Toward Personal Computers

Martha Boaz

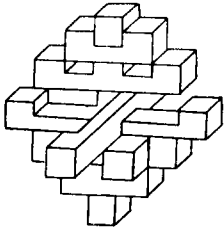
Center for Study of the American Experience, The Annenberg School of Communications, University of Southern California, Los Angeles, Calif. 90007

■ The use of personal computers to communicate information to large numbers of people has universal possibilities. Current efforts to expand the scope and availability of personal computer services are described, with special reference to the PRESTEL experiment in England. The library profession should support similar efforts in the United States, and study ways in which personal computers can be used to serve the library community.

COMPUTERS have been widely used by business firms and other large organizations for a number of years, but it is only recently that people have started talking about having computers in their homes. Computers can be designed for individual uses: for students, for employees in certain types of occupations or professions, and for many other services. Experts in the field of technology predict that computers will soon become as ordinary in the household as the television set and the kitchen sink. This phenomenon is certain to also affect library services. The library profession should look into

a tie-in with the home computer development and study its applications to library services.

The personal computer may become man's best friend according to John Gottfried, a free lance financial journalist who monitors the computer industry. The computer has the potential for a great many applications: "Using a unit called a *modem*, you can connect your computer to the New York Times Information Bank and draw out on your television screen any of 1.6 million abstracts from back issues of the *New York Times* or 60 other publications. The information is then stored in your



computer's memory. Research that might have taken a week can now be done in three to five minutes of computer time, at a cost of \$1.80 per minute. There is a similar program that allows you access to Dow Jones files for up-to-date information on any stock that interests you" (1).

Examples of specific services that are currently available are personal tax or mortgage calculations; direct purchase of goods or services by credit card; information about accident prevention, education, shopping; and many other types of information. The system can even play a part in the democratic process with terminals that serve as voting booths.

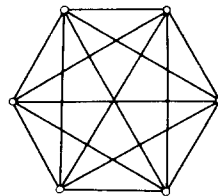
Gottfried also describes more playful uses of the home computer. It can be programmed to respond to vocal commands, such as a request that the lights be dimmed or the front door opened or the morning coffee turned on. Computers are capable of this now but the programming instructions and mechanical devices have not been perfected. Yet, all indications are that personal computers will soon be as common as the CB radio.

British Post Office System—PRESTEL

The British Post Office is experimenting with a system that aims, eventually, to supply millions of homes and offices with equipment that falls into the personal computer category. The British Post Office, which pioneered the British viewdata system—the world's first electronic publishing system—has recently launched a public service called PRESTEL. This system offers a wealth of information for both home and business use by way of the televi-

sion set and telephone. The PRESTEL service has been offered to residential customers in London since March 1979. Plans are underway to extend the service to London business users and, eventually, to users in Manchester, Birmingham, Edinburgh, and other parts of the country.*

The PRESTEL program is designed to convert the home or office television set into a terminal that can display graphics and words. The set is connected through the ordinary telephone to a central computer which can store hundreds of thousands of pages of information, ranging through news, stock market prices, encyclopedic information, timetables, theater guides, and almost anything published in books, magazines, or other printed form. The set has a remote control key-pad that resembles a pocket calculator. Each user is assigned a personal code number which is built into the receiver and is scanned automatically by the PRESTEL computer each time a call is placed. This number is used for identification and billing purposes.



Advantages of PRESTEL

One of the most valuable assets of the PRESTEL system is the ease of access to potentially unlimited banks of information. Although the volume is restricted now, the forecasts indicate a large growth potential. Even now the material is updated several times a day. Later it will go to a much faster system such as EPIC which is used by the New York stock exchange to provide continuous updating. Another advantage claimed

*The author visited the PRESTEL headquarters in London in July 1979 and obtained information which appears in this paper.

for PRESTEL is that it is interactive. This means that the user who receives information can communicate with the computer which has the stored information.

Financing

Information sources for PRESTEL include independent organizations such as advertising agencies, publishers, airlines, and official bodies. These groups pay a fee to the British Post Office for the use of computer storage and, in turn, charge users up to ten pence for each page. The charges are totalled automatically by the computer.

By the 1980s, it is predicted that millions of homes will be equipped to receive information and that the cost for the individual home will be nominal. It stands to reason that if the personal computer system is to reach a mass market, cost will have to be brought as low as possible. This will be possible only if there is mass production and widespread use. The British Post Office plans to make PRESTEL available as inexpensively as possible so that it will be accessible to a large majority of people for home use. Usage charges can be reduced during off-peak hours.

Worldwide Use

Standardization of equipment is an item in the cost picture. If different countries use the same machinery the cost will be lowered and compatibility of communication channels will be achieved. The British Post Office does not claim a monopoly on this system. One of the aims of PRESTEL is to ensure that international standards are adopted whereby all the systems are compatible with each other. The British system is being transferred to West Germany, Hong Kong, and Holland, but similar systems are being set up in France, Sweden, Canada, and Japan. It is indeed highly desirable to develop a universal terminal that can be used to link European, Asian, American, and

worldwide systems. Its success will depend on a service that is open to competition, simple to operate, cheap, and international-transnational in scope. The competition will extend to the provision of hardware, the software (information), and to the service itself.

Introduction Into the United States

PRESTEL will be introduced in the United States during the first part of this year according to Insac Corporation, the company representing the system on this side of the Atlantic (2). It will be established under license from the British Post Office to Insac (a software expert company formed by the British Government's National Enterprise Board). The network will be nationwide, packet-switched, and accessible for \$5 to \$10 per hour.

The system's initial applications in this country will be oriented toward business. It will employ an alphanumeric, audio-coupled terminal rather than a television, according to John Bately of Insac Corporation. Industry sources believe General Telephone and Electronics Corporation will be the American firm behind the system.

Comments by several people in different specialized professional areas indicate great interest in current developments in communication technology. Larry J. Kimball, director, Economic Forecasting Models, Graduate School of Management, University of California at Los Angeles, states that the home computer is introducing hundreds of thousands of people to the new technology without the mystery that sometimes surrounds the computer. The practice of data transmission over ordinary telephone, with one computer talking to another, is showing explosive growth. Kimball predicts that many changes will be introduced through the combination of television, computer, and typewriter. These will be social, political, educational. Business and scientific information, new educational materials, and even gossip will flow through the system. He also notes that instead of passively

accepting the transmitted signals, the user will be an active participant, sending back reactions that can be tabulated, compared with other responses, and returned immediately (3).

Commenting on the effect of advanced communications on the local community, Thornton Bradshaw, President of Atlantic Richfield (ARCO) believes that it will produce a more efficient use of energy which, more than any other factor, will shape the future of Los Angeles. He adds that audiovisual transmission might well determine population distribution and that public and private institutions will have unprecedented flexibility in arranging work-time and place, eliminating long commutes and rush-hour jams (3,p.4). Without doubt the home computer will be featured conspicuously in the relevant communicational and educational services involved.

Another forecaster on the community impact is Harlan Ellison, author of *Dangerous Visions*. He predicts that in the future we will not be able to afford public transportation. All the little bedroom communities in a city like Los Angeles will become isolated, theater and culture will die, and the suburbs will acquire much more of a neighborhood feeling, as in New York (3, p. 4). In view of this restricted, more limited geographical setting, the matter of communications will become much more important, and the home computer will be a vital force in the program.

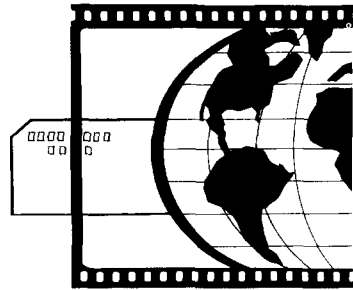
Educational Use of the Computer

The use of the home computer for educational purposes will be of great value. Students will be able to obtain information from a wide variety of sources and have the information transmitted to their home electronic systems. Tests can be given and the results sent back immediately. Tapes on foreign languages, history, economics, and other subjects will be available and the home computer will become an excellent teaching tool.

Potential Impact On Libraries

The use of personal computers should be of great interest to the library/information community. It will probably affect public attitudes toward libraries and may change libraries' patterns and styles of providing information. Libraries in the United States could take advantage of the work already underway in Great Britain and begin experiments with home computer services in this country.

The British Library Advisory Council was interested in the PRESTEL (earlier called "viewdata") system from its



beginnings and set up a plan to study ways in which it could serve the library community. A trial database was prepared, including frames about the British Library and a sample of the British National Bibliography. This was planned for three types of use:

- 1) Selected frames giving information about the British Library designed to promote its services and inform potential users about the resources and services available to them;

- 2) Frames with selections of references from BLAISE (MARC especially) containing subjects of general or topical interest, generated by use of intelligent terminals; and

- 3) Frames from the British Library that might be used as teaching aids for computer-aided instruction.

The Research and Development Department of the British Library is funding a study of the implications of PRESTEL for public libraries. This research is based on six public libraries: Birmingham, Norfolk, Bexley, Hounslow, Sut-

ton, and Waltham Forest. Each library has a PRESTEL receiver located in the reference library. The research team's plan is to explore the attitudes of the staff and users of the service; examine the management implications and effect on such items as stock requirements, budgets, and space use; and collect information on ways in which PRESTEL data may best be used in a public library.

The effects of the British experiment cannot be predicted at this time, but the concept is certainly provocative and challenging in its potential for far-reaching benefits. France is also working with personal computer services, and it is likely that announcements about experiments in the United States will be forthcoming soon. It is predicted that the cost of a small terminal will be in the \$100-\$200 price range within the near future.

The implications for all types of libraries are exciting. With the decreasing cost of technology and the improvement in services, the benefits of these services should be used by libraries. The services include these components: information, communication, education, entertainment, and data processing. Libraries should make use of these services to expand their functions and should work with (not against) the developers of the system. Otherwise, many of the information and reference functions of libraries may be taken over by information brokers. Thus, it is

important that librarians and information specialists hurry to be among the first to take advantage of "home information services." As someone has said, "It's Now—The Information age is upon us."

Suggested Studies

What are the implications for the public of a system such as PRESTEL? Research should be done in the trial use of this type of system in the following areas: 1) exploring the attitudes and reactions of users of the service and collecting data for possible future information needs; 2) examining business management and systems implications; 3) checking budget and cost factors, and, 4) investigating ways for improving the hardware and software for maximum utility for the future delivery of information.

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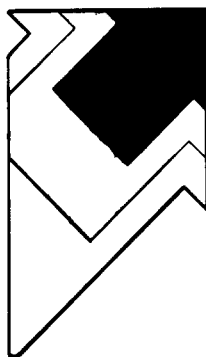
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Call for Participation

**72nd Annual Conference
Special Libraries Association
June 13-18, 1981
Atlanta, Georgia**



“Beyond Efficiency To Effectiveness”

Papers dealing with the 1981 Conference theme should help librarians look beyond the library to the library's market, its users. How to learn more about those users and their needs, how to approach those users, how to translate those needs into useful, pertinent services, how to evaluate those services to determine which should be continued or expanded and which should be discontinued, and how to communicate with management or the library's governing body to gain support for newly developed service programs—these are among the topics which will be covered in Atlanta. Because both organizational and personal effectiveness are important in accomplishing the above, both will receive major emphasis.

You are invited to submit a paper which illustrates the Conference theme or which makes a substantive contribu-

tion to the literature of special librarianship. Possible areas for development include:

- Research results
- Problem solutions
- Systems development or application
- Measurement of effectiveness (specific study)
- Performance measurements
- Library service evaluation
- Marketing studies

To have a paper considered for inclusion at the Conference, submit a synopsis of approximately 250 to 350 words which accurately conveys the scope of the paper, its depth, conclusions, the way in which it contributes to the Conference theme and/or to professional development, and the reason you feel the paper is significant. Full texts of papers may be requested for review before acceptance.

General Guidelines

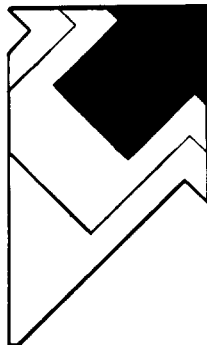
1. Papers should take between 10 and 30 minutes to present.
2. Papers may not have been presented previously to any national or international group or have been previously submitted for publication.
3. Papers will be accepted only if the author expects to be present and only if the synopsis has been submitted for evaluation.
4. In addition to the synopsis, include your name, address, and telephone number, and clearly state the title of your paper.
5. Papers are solicited from SLA

members who are interested in making a substantive contribution to the Conference. Nonmembers may coauthor papers with a member.

Panels

If, instead of a paper, your suggested topic would best be presented in the form of a panel discussion, you may submit your idea for consideration. Include in your written application the overall theme of the panel, how the topic will be approached, a synopsis of each speaker's discussion, and the qualifications of each speaker. Panels should take no more than one hour.

<p>Return by October 15, 1980 to: Jeannette M. Privat Seattle First National Bank P.O. Box 3586 Seattle, WA 98124</p>	<p>Yes, I want to participate in the 1981 SLA Conference. I have attached a synopsis of my proposed paper/panel.</p> <p>Name _____</p>
<p>You will be notified by the Conference Program Committee by November 12, 1980 as to whether or not your paper has been accepted. All papers accepted for presentation will be considered for first publication in <i>Special Libraries</i> and are the property of Special Libraries Association.</p>	<p>Business Affiliation _____</p> <p>Mailing Address _____</p> <p>City _____ State ____ Zip ____</p> <p>Phone No.(____) _____ Ext. _____</p> <p>Tentative title _____</p> <p>_____</p> <p>Additional Authors _____</p> <p>_____</p>



Audit Report

January 1, 1979–December 31, 1979

To the Board of Directors
Special Libraries Association, Inc.

We have examined the statement of assets, liabilities and fund balances of Special Libraries Association, Inc. as of December 31, 1979 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, 1979, 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.

Weber, Lipshie & Co.
Certified Public Accounts

March 28, 1980
New York, New York

SPECIAL LIBRARIES ASSOCIATION, INC. STATEMENT OF ASSETS, LIABILITIES AND FUND BALANCES DECEMBER 31, 1979

ASSETS	Combined (Memo only)	General Fund	Nonserial Publications Fund	Scholarship Fund	Research Grants- In-Aid Fund
Cash (Note 2)	\$443,169	\$364,683	\$ 44,416	\$ 27,561	\$6,509
Marketable securities, at cost (approximate quoted market value, \$198,602)	220,457	142,830		77,627	
Accounts receivable, net of provision for doubtful accounts of \$9,800 in General Fund and \$300 in Nonserial Publications Fund	36,180	29,697	4,965	1,518	
Interfund receivable (payable)—net		188	(1,644)	1,456	
Inventory of nonserial publications and insignia (Note 1)	62,306		62,029	277	
Prepaid expenses and deposits	36,849	36,849			
Furniture and fixtures, at cost, net of accumulated depreciation of \$15,391 (Note 1)	6,455	6,455			
	<u>\$805,416</u>	<u>\$580,702</u>	<u>\$109,766</u>	<u>\$108,439</u>	<u>\$6,509</u>
LIABILITIES AND FUND BALANCES					
Subscriptions, dues, fees and contributions received in advance (Note 1)	\$294,363	\$293,318	\$ 61	\$ 984	
Accounts payable—trade	18,527	18,527			
Withheld taxes and accrued expenses payable	32,697	28,080	4,617		
Income taxes payable (Note 1)	11,123	11,123			
Commitment (Note 3)					
Fund balances	<u>448,706</u>	<u>229,654</u>	<u>105,088</u>	<u>107,455</u>	<u>6,509</u>
	<u>\$805,416</u>	<u>\$580,702</u>	<u>\$109,766</u>	<u>\$108,439</u>	<u>\$6,509</u>

See accompanying notes to financial statements

SPECIAL LIBRARIES ASSOCIATION, INC.
STATEMENT OF INCOME, EXPENSES AND FUND BALANCES
YEAR ENDED DECEMBER 31, 1979

	Combined (Memo only)	General Fund	Nonserial Publications Fund	Scholarship Fund	Research Grants- In-Aid Fund
Income					
Dues and fees	\$435,774	\$435,774			
Subscriptions and advertising	151,189	151,189			
Net expenses for conference, less allocation below	(7,581)	(10,891)		\$ 3,310	
Net receipts from education program	13,902	13,902			
Net receipts from mailing list service program	18,417	18,417			
Interest, dividends and net gain on sales of investments	41,970	32,235	\$ 2,395	7,008	\$ 332
Sales of nonserial publications	40,188		40,188		
Gifts	19,980	4,890		15,090	
Miscellaneous	1,743	1,066		177	500
Total income	<u>715,582</u>	<u>646,582</u>	<u>42,583</u>	<u>25,585</u>	<u>832</u>
Costs and expenses					
Allotment of funds to subunits	77,821	77,821			
Salaries, wages and benefits	281,779	281,224		555	
Office services and occupancy costs	126,492	126,492			
Professional fees and services	20,064	20,064			
Travel and entertainment	34,268	34,268			
Member services and promotion	22,514	22,514			
Costs of periodical publication sold, including allocation below	222,968	222,968			
Costs of nonserial publications sold	31,576		31,576		
Scholarships and stipends	11,500			11,500	
Miscellaneous	1,497	322		872	303
Depreciation	1,252	1,252			
Allocation of above expenses to					
Costs of periodical publication	(76,480)	(76,480)			
Conference	(37,692)	(37,692)			
Other funds and programs	(17,352)	(27,851)	9,687	812	
Total costs and expenses	<u>700,207</u>	<u>644,902</u>	<u>41,263</u>	<u>13,739</u>	<u>303</u>
Excess of income over expenses before income taxes	15,375	1,680	1,320	11,846	529
Provision for income taxes	<u>11,133</u>	<u>11,133</u>			
Excess (deficiency) of income over expenses	4,242	(9,453)	1,320	11,846	529
Fund balances – beginning	<u>444,464</u>	<u>239,107</u>	<u>103,768</u>	<u>95,609</u>	<u>5,980</u>
Fund balances – end	<u>\$448,706</u>	<u>229,654</u>	<u>\$105,088</u>	<u>\$107,455</u>	<u>\$6,509</u>

See accompanying notes to financial statements

SPECIAL LIBRARIES ASSOCIATION, INC.

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.

Depreciation

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 as earned.

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. Pension expense for the year was approximately \$12,950.

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 provision includes approximately \$2,900 of additional Federal and New York State income taxes relating to the year ended December 31, 1977. The Association's remaining activities are exempt from Federal income taxes under Section 501 of the Internal Revenue Code.

2. CASH

The Association's total cash assets include \$409,354 in savings accounts, of which \$336,522 has been deposited in interest bearing time deposit accounts which have maturity dates ranging from March 1980 through April 1988, and are subject to interest penalties upon early withdrawals.

3. 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.

* *

OCLC A-V Users

Would those users of A-V records in OCLC who are interested in organizing a users' group please contact: Nancy B. Olson, associate professor, Memorial Library, Mankato State University, Mankato, Minn. 56001.

Preliminary Results of the Reader's Survey Questionnaire

As of Apr 25, 1980, a total of 1,105 questionnaires have been returned. A total of 13,437 copies of the Nov issue of *Special Libraries* containing the questionnaire were mailed. Of these, 12,242 were sent to the United States and Canada—our presumed area of primary response. The membership of SLA, at the time of the mailing, was 11,300. Of those responding 1,025 identified themselves as members; 57 said they were not members; and 23 did not answer the question. The response rate, therefore, is 9.0% for members and 8.2% for the total readership; 91.8% did not respond at all. This is certainly a disappointing response and the results cannot be considered a representative sampling of our readers. This point should be kept clearly in mind in considering the following statistics.

Question one asked respondents to rate *SL* on how well it meets their professional needs. A scale of 1 (low) to 5 (high) was provided. The following results were obtained:

5	52
4	238
3	440
2	245
1	109

If a mark of three or higher is considered to be a satisfactory rating, a majority of the respondents (730) felt that *SL* was, in subjective terms, "okay" or better. The remainder (344) felt that *SL* did not meet their needs.

Question two asked if "two publications, one devoted solely to articles and one devoted primarily to news items, would be of more use" to the respondent. The results are as follows:

yes	280
no	580
uncertain	194

It might be assumed that those who replied "uncertain" would be willing to try a two-publication format. In which case, 474 would be receptive. Still, any decision based on these figures is unwise. Favorable views received from discussions with members at Chapter meetings and financial reasons give a far better basis for such a change.

Questions six through nine were tallied for a preliminary feel of what kind of articles our respondents would prefer. Question six asked if the respondent relied "on *SL* to help . . . solve problems relating to day-to-day job functions." 357 said they did, 565 said they did not, 132 were "uncertain." It is interesting to note that the answers to question seven, on whether articles in *SL* "should be applicable on a day-to-day basis," indicated that 734 thought they should be applicable. 158 said "no" and 163 were "uncertain." Question eight asked: "Would you prefer more theoretical articles?" The results clearly reinforce the responses to questions six and seven. 742 said they did not want more theoretical papers, 209 said they did, and 121 were "uncertain." Question nine asked: "Would you like to see more research articles in *SL*?" Of those responding, 562 said "yes," 293 said "no," and 199 said they were "uncertain."

The totals of the responses to the different questions are not equal. Each respondent did not answer every question. Some responses were judged invalid if more than one answer was given for a question.

It can be assumed that many *SL* readers did not send in completed questionnaires because they received them after the deadline had elapsed. Perhaps another survey should be conducted. The response would more likely be valid and the results far more helpful.

HELP

Now is the time to let us know your thoughts about *Picture Sources IV*. Work has begun on updating SLA's reference monograph, *Picture Sources III*. We would appreciate it if you would take a few minutes to write down any suggestions about what you would like to see in *Picture Sources IV*. This can include comments on the organization

of the book, information to be added or deleted, and names and addresses of collections that should be included.

We want to make the book most useful to you. Please send your comments to: Arlene Farber Sirkin, 108 9th St., S.E., Washington, D.C. 20003 (202/544-6014, home; 202/697-5601, work).

IN MEMORIAM

Kenneth D. Carroll

Kenneth D. Carroll, professor, Library Department, Georgia Technical University, Atlanta, died on Nov 12, 1979 at the age of 57.

Born in Centralia, Ill. on Nov 21, 1921, he received a BS degree from Southern Illinois University and an AB from Indiana State University. He held three masters degrees: one in Library Science from Rosary College, one in Linguistic Science from The University of Michigan, and the third in Information and Computer Science from Georgia Institute of Technology. He also studied mathematics, navigation, and aircraft and ship design at Cornell University. He taught French at Colorado State College and the University of Michigan.

Before joining the faculty of the Atlanta University School of Library and Information Studies in 1976, he worked as information scientist for NASA Ames Research Laboratory Libraries in Moffet Field, Calif.; the American Institute of Physics; The Xerox Corporation in New York City; and the Lockheed Missiles and Space Company in Palo Alto, Calif.

He was an accomplished violinist who



performed with symphony orchestras in New York City, San Francisco, and Sydney, Australia.

A member of SLA since 1955, he served as president, San Francisco Bay Region Chapter; chairman, Metals/Materials Division (1966/67); chairman-elect, Documentation Division (1971/72) and chairman (1972/73); member, Ferguson Communications Award Committee (1971/73).

In 1978, he was the recipient of the Metals/Materials Division Honors Award in recognition of his many contributions to his profession and to the Association.



A Tribute to Kenneth D. Carroll

As his friend, I am particularly saddened by Ken's death. In retrospect, the twenty or so years that I knew him seem somehow suddenly shortened.

Even though we grew up in the same part of Southern Illinois and we both attended Southern Illinois University—at slightly different times—I never met Ken until the late 1950's when we worked together on projects for the Metals Division of Special Libraries Association.

By 1960 Ken had the foresight to begin to tell us then how things would be today in the information field. He saw very early the role that the computer could and would play in information handling. Despite the fact that he received numerous citations from his employers and the government agencies with whom they were contracting, Ken's true achievements and vision have not been as widely appreciated as they should have been. He was not the type of person to make a big thing out of his accomplishments.

As you know, he was a man of many facets: Linguist, musician, teacher, information scientist, manager, and librarian.

One of his efforts with SLA particularly stands out to illustrate his continuing interest in the

future of his profession—the students. In 1961, Special Libraries Association held its Annual Conference in San Francisco. Ken was the Program Chairman for the Metals Division. He conceived the idea to have a special social event during the Conference for the benefit of the Association's Scholarship Fund. He arranged for one of the larger California wineries to sponsor a wine tasting ceremony at the California Academy of Science in Golden Gate Park. The event was appropriately called "Sipping for Scholars." The Metals Division planned similar projects until the scholarship event was given Association-wide sponsorship a few years later. Several thousand dollars have been added to the SLA Scholarship Fund because of this annual evening of entertainment at the Conferences.

For myself, and on behalf of Special Libraries Association, I would try by this small remembrance to express the gratitude that we have for what Ken gave us when he was alive, the sorrow that we feel at his death, and the keen awareness we have that he had so much more to give.

James B. Dodd
President, SLA

Update on Library Photocopying

Section 108(i) of the new Copyright Law requires the Register of Copyrights to report to the Congress at five-year intervals regarding "the extent to which this section has achieved the intended statutory balancing of the rights of creators, and the needs of users. The report should also describe any problems that may have arisen, and present legislative or other recommendations, if warranted." The first report is due in January 1983.

Accordingly, the Copyright Office appointed its 108(i) Advisory Committee in November 1978 which includes two representatives from the library community, (Efren W. Gonzalez, SLA; Nancy Marshall, ALA) as well as others representing users of copyrighted material and copyright owners. The committee meets regularly with the Register and her staff to discuss how to measure the effects of Section 108 (as well as Section 107 as it relates to library photocopying) on all those concerned: copyright owners, libraries, and users. Currently under consideration is the possibility of an empirical study of these three communities.

Another mechanism has already been set in motion, that is, the series of regional public hearings starting in January at the ALA meeting in Chicago; in March at the ACS meeting in Houston; in June at the SLA conference and Medical Library Association Conference in Washington, D.C. Hearings may extend through the first quarter of 1981 so the Copyright Office will have given ample opportunity to all groups and the general public to comment on the "intended statutory balancing of rights."

Reprinted here are the SLA statements submitted in connection with the January public hearing. The first statement was presented by William S.

Budington, a past president of SLA. There was a question and answer period following the official statement and Budington referred several of the questions back to SLA for later response. The second statement consists of those responses.

Please consider these statements as a "refresher course" concerning the SLA position on several key aspects of the new law and library photocopying. For complete details you are referred to the SLA publication, *Library Photocopying and the U.S. Copyright Law of 1976—an Overview for Librarians and their Counsel*, dated September 29, 1977. It was supplied to all members at that time. Additional copies are still available at \$3.50 per copy from the SLA Order Department.

SLA Statement, 17 U.S.C. 108 January 19, 1980

The Special Libraries Association is pleased to respond to the questions posed in the December 17, 1979 Federal Register announcement of this regional hearing. This statement is made on behalf of SLA's membership which now numbers over 11,000 professionals working in libraries and information centers in public and private organizations requiring specialized information services.

SLA has been active in helping its members implement the new law as it relates to fair use and library reproduction. We are continuing to monitor the reaction of members to the effects of the new law on their operations. This is done through review of the literature on library photocopying practices, by informal discussions and reports from members, and by providing a forum for papers and discussions at Chapter meetings and our annual conferences. Our assessment of member actions and reactions are reflected in the responses to the eight questions which follow.

Question 1. To what extent has Section 108 changed library procedures? Has there been any significant effect on users' and librarians' access to information?

Few, if any procedural changes have been necessary by most of our members. Section 108 has made specifically lawful the fair use concept with which librarians were operating under the old law, briefly: One copy of an article from a

periodical or one excerpt from a book when requested.

Further, Section 108 has expanded the examples of fair use which are now specifically lawful, such as copies made of unpublished works for preservation, and of published works for replacement, including entire out-of-print works not reasonably available.

Any need for additional records or the posting of required notices is not considered a significant burden by members. However, there are some indications that the complexities of the new law have led to an occasional over-reaction that unduly restricts certain types of requests. The net effect of such restrictions is best assessed by the user in terms of the delay vs. the effective utilization of the information.

Question 2. To what extent has Section 108 affected established patterns in the publishing industry and the relationship between authors, libraries, and library users?

No significant shift in patterns among those affected by Section 108 has been noted to date.

Question 3. Depending upon the type of library involved, describe the effect, if any, of Section 108 upon the type and amount of copying performed by the library on its own behalf or on behalf of users. To what extent have publishers and authors experienced a change in the number of requests from libraries to reproduce works since the present law went into effect?

Our members generally operate libraries that respond to specific user needs and requests for information. Therefore, "copying performed by the library on its own behalf" is not a significant factor in considering the effect of Section 108. Virtually all copying is "on behalf of users."

In any event, our members generally have found that Section 108 permits continuing the kinds of service they have been supplying to their users in recent years, including requests for "fair use" reproductions.

Question 4. In what manner has the establishment of the Copyright Clearance Center affected your experience under Section 108? (The intent of this question is to elicit responses from publishers and authors on the one hand and libraries and library users on the other.)

While some of our members have joined CCC, it is apparent that many others have not found it necessary to do so because their library photocopying is within the bounds of fair use as defined in Section 107 or as specified in Section 108.

Until and unless there is a much greater participation in CCC by publishers, its usefulness to members who have joined it is limited. It is also annoying to realize that most of the fees paid to CCC by our members to date have not gone to the copyright owners, as expected, but have been retained by CCC to sustain itself.

Question 5. Describe the impact, if any, that Section 108 has had upon the replication of nonprint materials, including the ability of libraries to reproduce phonorecords and audio visual works dealing with news. In response to this question describe any problems which have been encountered as a result of the narrower exemptions for nonprint materials under Section 108.

There are no present indications that our members are having difficulties with nonprint materials due to Section 108. The partial exclusion of nonprint materials from Section 108 is not necessarily seen as a "narrower exemption" since they are clearly covered by the fair use exemption of Section 107.

On the other hand, large quantities of nonprint materials are not usually found in libraries associated with our members. This may change over the years if, for example, audio visuals become a stronger medium for publishers outside the traditional school and academic library markets.

Question 6. How has the CONTU "rule of five" worked in practice? How should periodicals more than five years old be treated?

Because of the stress of publicity accompanying the development of the CONTU Guidelines, there was a great deal of misunderstanding about their authority. With two years of experience and observation behind them, our members now recognize the CONTU Guidelines as being just that—guidelines. In the words of the conference report which contains them, "... their purpose is to provide guidance in the most commonly-encountered interlibrary photocopying situations ... they are not intended to be limiting or determinative in themselves or with respect to other situations ...".

Experience reports generally indicate that the "rule of five" encompasses the vast majority of cases. Similarly, it appears that requests for articles decline with their age and we see no need to extend the guidelines beyond their current five-year coverage.

Keeping records of interlibrary photocopy requests is a good management tool which our members have long used. In this way they determine when requests for recent articles from a particular journal rise to a level justifying a subscription because the cost of photocopies exceeds the subscription price, or because the sustained relevance of recent articles proves the need for a subscription, regardless of price.

Question 7. What is your opinion of the relationship between Section 107 ("fair use") and Section 108 ("reproduction by libraries and archives")?

This Question is of fundamental importance. We believe the relationship is simple and clear: Sections 107 and 108 together constitute the limitations on the rights granted a copyright owner in section 106 which directly concerns library photocopying. Section 107 restates the

judicial doctrine of fair use which is a general principle of law based on the rule of reason. Section 108 identifies certain specific copying situations which are conclusively presumed to be legal. In short, section 107 states the general rule without, however, affecting the general rule. This view of the two sections is, we believe, supported by the language in the statute itself as well as the comments in the various committee reports.

We believe the foregoing is important because it is only useful to discuss section 108 as part of the overall limits on section 106. Any particular photocopying situation may or may not be within fair use under section 107. However, if it falls within section 108 it is conclusively presumed to be legal and there is no argument. To this extent, Section 108 has been useful.

Question 8. If problems do exist, can they be resolved without resort to legislative amendment? If so, what are the problems, and how could they best be resolved? If not, what changes should be made in the law?

When the new law was first enacted, there was much concern and confusion on the part of our members regarding compliance with the law. In part, this was due to the law itself. Section 108 and the relevant congressional reports (including the CONTU Guidelines) are not, to say the least, models of clarity. There was also confusion because of the wide circulation of incorrect reports that the law constituted a basic change in the rights of librarians and users to make photocopies.

During the past two years, most of this turmoil has subsided. Our members now have had a chance to implement the law in their respective libraries. The initial flood of questions and concerns diminished as experience and understanding grew. There are no reports of service grinding to a halt, budgets overrun by new photocopy fees or widespread protests against Section 107 or 108. In short, the membership has learned to abide by the new law.

Accordingly, we do not recommend any legislative amendments, additional "guidelines" or other changes in connection with the five-year review and the report by the Register of Copyrights to the Congress.

**SLA Supplementary Statement
February 15, 1980**

The Special Libraries Association was pleased to present testimony at the January 19, 1980 Public Hearing on 17 U.S.C. 108. This supplement provides responses to three questions posed to our representative, Mr. William S. Budington, which he referred to SLA, and amplification of answers given to two others.

1. SLA Membership Division

Mr. Keplinger asked (Transcript page 157) for the division of SLA members "among special libraries in profit-making companies versus special libraries in other areas . . . Not specifically, but just in general." Since Mr. Buding-

ton's response was admittedly a guess, we wish to supply more specific information.

The SLA Salary Survey of 1979 contains a breakdown by type of institution in which SLA members work, as follows:

	% of Respondents
Federal Government	10
Other Government	6
Academic Library (General)	9
Academic Library (Subject Department)	13
Profit Corporation Organization	44
Non-Profit Organization	13
Public Library	5

We believe these data to be reasonably projectable to the entire membership. Comparison with responses to the same question in the 1976 Survey showed only a few percentage points difference for any one category.

2. Fair Use and Copying Beyond The CONTU "Rule of 5"

Mr. Keplinger asked (Transcript page 260) if fair use copying under the Section 107 exemption is permitted once copying permitted under Section 108, such as the CONTU "Rule of 5," is exhausted. Although Mr. Budington replied that from a personal point of view, ". . . I would say yes," he referred the question to SLA for study and reply.

Initially we wish to comment that, while the phrase CONTU "Rule of 5" seems to have achieved widespread usage, that the CONTU Guidelines are not "rules." The Conference Report specifically states that the Guidelines are not rules.

We must restate the fundamental fact that the fair use rights granted by Section 107 are independent of Section 108 and are not affected by Section 108. The right to make a fair use photocopy is a right belonging to the library user. If the photocopy sought by the library user is within the fair use exemption of Section 107, that right exists independent of Section 108 and is not affected by Section 108.

We must also restate the fundamental fact that the CONTU Guidelines are just that—guidelines. The conference committee report (at page 71) in introducing the text of the guidelines states, "The Conference Committee understands that the Guidelines are not intended as, and cannot be considered, explicit rules or directions governing any and all cases, now or in the future. It is recognized that their purpose is to provide guidance in the most commonly-encountered interlibrary photocopying situations, that they are not intended to be limiting or determinative in themselves or with respect to other situations."

If a particular photocopy request by a library user is within the fair use exemption of Section 107, the photocopy may be supplied by the library. This right of a library user exists independent of the number of copies previously made. We note again that the Revised Interlibrary Loan Form allows a requesting library to request a copy either in conformance with subsection 108(g)(2) and the "CONTU Guidelines" or in conformance with "other provisions of the copyright law" such as the doctrine of fair use.

The purpose of the CONTU Guidelines is to provide *guidance* in the application of Section 108 to a library's obtaining from another library, in lieu of interlibrary loan, copies of articles from relatively recent issues of periodicals. If more than 5 copies of an article in a particular periodical are requested, the situation may be reviewed to determine whether the interlibrary loans have become a substitute for a subscription or purchase. This is exactly the purpose of the guidelines—to give such guidance. It is important to remember that there can be innumerable reasons why a library user may request a library to obtain a copy of an article from another library. For example, six or more unrelated, single photocopies of the articles from a particular journal on separate occasions could be due only to a transient interest in the particular journal, and not be a substitute for a subscription.

3. *Library vs. User Photocopying*

Chairperson Schrader (Transcript page 269) paraphrased earlier testimony of Mr. Lieb by saying "... 108 would have to be considered to have a narrower application in the case of for-profit libraries or for-profit organizations than in the case of ordinary libraries, that the machines could not be regarded as unsupervised." Mr. Budington referred the matter to SLA for reply.

Mr. Lieb's testimony (Transcript page 104) is as follows:

MR. LIEB: ... we would add to this general statement that is made by the House that no use of equipment on profit-making organization premises can be regarded as not supervised. The equipment having been placed on the premises obviously is intended for use by the organization's employees in the course of their supervised employment. And, second, that subsection (f)(2), which charges the employee who uses the equipment with copyright liability if his use exceeds fair use, by that very token, under those circumstances, charges the employee's employer with the copyright liability either as a vicarious or as a contributory infringer. If an employee in the course of his business in a for-profit library makes use of a piece of unsupervised equipment and he does so in excess of fair use, his employer is responsible under the ordinary

common law doctrine of respondeat superior, not less than vicarious or contributory infringement.

Exempt photocopying of copyrighted materials in *any* library, whether, public, academic, school or located in a for-profit organization, must either be fair use under Section 107 or be within the provisions of Section 108. Whether photocopies made by an employee in any particular situation fall within or without these Sections depends upon the facts. There is nothing whatever in the statute or relevant Congressional reports which speaks of "vicarious" liability or "contributory infringer" liability. These are merely contentious legal positions which may or may not be relevant to any particular situation.

Probably the best response is to again quote from The House Report which states (at page 75):

Isolated, spontaneous making of single photocopies by a library in a for-profit organization, without any systematic effort to substitute photocopying for subscriptions or purchases, would be covered by Section 108, even though the copies are furnished to the employees of the organization for use in their work. Similarly, for-profit libraries could participate in interlibrary arrangements for exchange of photocopies, as long as the reproduction or distribution was not "systematic." These activities, by themselves, would ordinarily not be considered "for direct or indirect commercial advantage," since the "advantage" referred to in this clause must attach to the immediate commercial motivation behind the reproduction or distribution itself, rather than to the ultimate profit-making motivation behind the enterprise in which the library is located.

We also wish to comment on a difficulty we believe is present in this and other portions of Mr. Lieb's testimony: the blurring of the distinction between library photocopying and user photocopying. Libraries (public, academic, school, special) do not install photocopying machines for the purpose of encouraging users to infringe copyrights. Users have every right to copy for themselves within the fair use exemptions of 107 in their public library, their academic library, their special library, their office, and in their home. The burden of copyright compliance then lies with the user, not with the library.

4. *Eligibility of SLA Members To The Fair Use Exemption of Section 107*

Chairperson Schrader questioned (Transcript page 273) if "... there is any distinction to be made in consideration of the language of Section 107 that the purpose and character of the usage to be given weight, and the statutes specifically says: The purpose and character of the use, including whether such use is of a

commercial nature or is for non-profit educational purposes." Mr. Budington referred the question to SLA for response.

The SLA position is exemplified by comments found in the House Report (at page 66) indicating that 107 (1) is "... not intended to be interpreted as any sort of not-for-profit limitation on educational uses of copyrighted works. It is an express recognition that, as

under the present law, the commercial or non-profit character of an activity, while not conclusive with respect to fair use, can and should be weighed along with other factors in fair use decisions." We believe this is reasonable explanation of the statute which clearly does not eliminate any kind of use for consideration as a fair use when weighed against the purposes and factors (which are not exhaustive) stated in 107.

Copyright Office Regional Hearings

The schedule of regional public hearings by The Copyright Office on 17 U.S.C. 108 are:

January 19, 1980—Chicago
March 26, 1980—Houston
June 11 and 20, 1980—Washington, D.C.
October, 1980—Anaheim
January, 1981—New York

Advance notices appear in *The Federal Register* detailing time, location, deadlines for requesting permission to testify, and listing the questions for which answers are especially wanted by The Copyright Office.

SLA Election Returns

George H. Ginader has been elected to the office of President-Elect of the Association for 1980/81. Jane I. Dysart has been elected Chairman-Elect of the Chapter Cabinet. Julie Bichteler has been elected Chairman-Elect of the Division Cabinet. The two new Directors, elected for 1980/83 are Jacqueline J. Desoer and Sandra K. Hall.

The 1980/81 Board of Directors held its first meeting in Washington, D.C. on Friday, June 13. James B. Dodd automatically succeeded Joseph M. Dagnese as Presi-

dent; Dagnese will serve on the Board as Past President. Didi Pancake automatically succeeds to the office of Chapter Cabinet Chairman, and Ruth S. Smith automatically succeeds to the office of Division Cabinet Chairman.

Beryl L. Anderson and Pat Moholt will serve the third year of their three-year terms (1978/81) as Directors. Jack Leister and Mary Vasilakis will serve the second year of their three-year terms (1979/82) as Directors.

CHAPTERS & DIVISIONS

Central Pennsylvania Provisional

The spring meeting was held Apr 2 in Harrisburg. David E. Butt, Associate Professor of Speech Communications, The Pennsylvania State University, led a workshop on "Preparing and Delivering a Professional Paper."

Mid-Missouri

On Mar 13 members attended a banquet in honor of SLA's (then) President-Elect, James Dodd and Ralph Parker, the Chapter's nominee who was endorsed as an Honorary Member of SLA. Dodd spoke on networking and answered questions on the White House Conference, changes in the dues schedule, and changes in the Association's publications.

The Chapter cosponsored a Time management Workshop with the UMC School of Library and Information Science on Apr 25-26. The workshop was conducted by Vicki and Jim Straub, codirectors of the Center for Family and Individual Counseling in Columbia and Jefferson City.

Minnesota

The Chapter represented the Association at the All-Association Conference of the Minnesota Statewide Library Services Forum, held Apr 29-May 2 in Minneapolis. The Conference theme "Only One in 81" focused on methods to promote cooperation among library associations and their members.

New Jersey

The Chapter's internship program, in cooperation with Rutgers Graduate School of Library and Information Studies is underway. Two interns have been placed at Thomas R. Lipton Company and GPU Service Corporation, for which they will each receive three credits. The Chapter allocated \$500 to be divided between the two.

New York

At the May 15 meeting, William Jovanovich, chair-

man of Harcourt Brace Jovanovich, spoke on "Looking for the Others," a discussion on the altered use of the humanities in American culture. The meeting was held at the Graduate Center of the City University of New York.

New York Business & Finance Group

On Feb 6, the Chapter met at Standard & Poor's Corporation in New York City. Following a visit to the company's library, the members discussed the development of electronic methods of communication and its impact on the financial and library communities.

At an Apr 30 meeting Ron Copen, author of "Subscription Agents: To Use or Not to Use" (Dec issue *SL*), led a discussion on the pros & cons of their use. Representatives of subscription agents were on hand to answer questions and describe their services.

New York Museums, Arts & Humanities Group

"How to Make Minor Book Repairs" was the subject of a meeting held May 13 at the Metropolitan Museum of Art. Nancy Russel, restorer at the Museum's Thomas J. Watson Library focused her talk on the special handling of problem books to prevent further deterioration. A brief business meeting was also held to elect officers for 1980-81.

Newspaper Division

Members voted to change the title of the Division's bulletin. The bulletin, formerly called "Short Takes" will now be published as "News Library News."

North Carolina

The Chapter met on Mar 12 at the Public Library of Charlotte and Mecklenburg County Auditorium. William Webb, a management effectiveness consultant at the Charlotte Drug Education Center discussed "How to Handle Stress on the Job."

A workshop on cost/benefit analysis in

the special library was held May 2 at Blue Cross/Blue Shield of North Carolina. Led by Marion L. Hart, a librarian at United Virginia Bankshares, Inc., the morning session focused on making formal presentations to management and on zero base budgeting. In the afternoon David R. Dowell of Perkins Library, Duke University led a discussion on "Supervisory Evaluation of Library Employees."

Oklahoma

The Chapter sponsored a workshop on effectiveness skills for librarians on Feb 15. Jim Cremin, whose Quest Institute specializes in effectiveness training for women and business or organizational groups, led the workshop discussion.

The Chapter is currently gathering information for a directory of libraries and information centers in Oklahoma. Anyone with pertinent data is asked to contact: Kay Kittrell, Technical Information Center, Williams Bros. Engineering Co., 6600 S. Yale, Tulsa, Oklahoma 74117.

Pacific Northwest

At a Mar 7 meeting, Michael Parks, coeditor of *Marple's Business Newsletter*, presented a talk on the history of the newsletter and gave his views on the economy.

Members toured the Law Courts building and library in Vancouver B.C. on April 19. The Courts form part of an award-winning complex designed by the architect, Arthur Erickson.

Philadelphia

A joint meeting was held on Feb 21 with ASIS/Delaware Valley Chapter and Associated Information Managers/Mid-Atlantic Region. Robert Landau of International Development Center, Kensington, Md. spoke on "The Electronic Library."

Pittsburgh

A dinner meeting was held in Oakland, Feb 19. John McPherson representing the Government Printing Office bookstore described the new facility. Scott Bruntjen described the activities of the Pittsburgh Regional Library Center and discussed the Internal Revenue Service ruling that will permit industry affiliation with the Center.

The Chapter hosted a reception Mar 19 for School of Library and Information Science students at the University of Pittsburgh.

Princeton-Trenton

A joint meeting was held Mar 13 with the New Jersey Chapter in New Brunswick. The online users group heard a presentation by Stuart Kaback of Exxon Research and Engineering Company on searching patent literature. Following dinner, a discussion on "Specialization and Mobility in Organizations for the Special Librarian" was led by Marjory Courain, senior program manager, Management Development and Education Department, Merck Co., Rahway, N.J.

Actions of the Special Libraries Division of IFLA

Revised Terms of Reference

At the meetings of the Coordinating Board in Copenhagen, revisions were made to the Division's Terms of Reference. These changes were approved and submitted to the Professional Board at its meeting of November 12-13, 1980 in Stuttgart, Federal Republic of Germany. The revised terms of reference are as follows:

- To further the role of Special Libraries in serving the scientific, industrial, commercial, social, governmental and artistic bodies to which they are related, by providing a forum for discussion of aims, procedures and problems in the management and function of such libraries
- To undertake and promote projects of research and documentation relevant to the interests of special libraries, including the preparation of directories, bibliographies and glossaries, the development of information services
- To improve communication and to encourage every kind of co-operation between special libraries
- To work for improved training in special librarianship at both pre- and post-professional levels

Resolutions Approved in Copenhagen

The Special Libraries Division of IFLA deeply regrets the untimely demise in March, 1979, after a long illness, of Dr. Gunther Reichhardt, who served with distinction as the first Vice President and Secretary of the former Special Libraries Division from 1964 to 1971. Dr. Reichhardt also was the editor of *Special Libraries*

Worldwide, a collection of papers prepared for the then- Section of Special Libraries which appeared as number 1 in the series IFLA Publications. Dr. Gunther Reichhardt gave unstintingly of his time and his good advice; his readiness to make his vast knowledge available at all occasions made him a most valuable member of IFLA. We shall always remember him as a good and faithful friend.

WHEREAS, we record the death of Dr. Frank E. McKenna, Executive Director, Special Libraries Association on November 10, 1979, with deep regret.

WHEREAS Dr. McKenna served the interest of IFLA with dedication, particularly during the restructuring of IFLA in Oslo, Norway

WHEREAS Dr. McKenna, after the restructuring of IFLA became the first Chairman of the Science and Technology Section, and was a most valued member of the Coordinating Board

WHEREAS in Strbske Pleso he was indefatigable in his work for the First Worldwide Conference on Special Libraries held in Honolulu, Hawaii in June, 1979, and in which the IFLA Special Libraries Division participated

WHEREAS Dr. Frank E. McKenna's death is a grievous loss to the Special Libraries Division in particular and to IFLA in general

BE IT RESOLVED that IFLA record its sense of loss of so eminent a person in the world of international librarianship and information science and further, that a message of sympathy be sent to the Special Libraries Association for the irreparable loss of its former Executive Director.

AkLA 20th Annual Conference

The Alaska Library Association (AkLA) held its 20th Annual Conference in Juneau on Mar 9-12. The Conference was well organized—all the equipment worked—informative, and provided variety with zip. The Lt. Governor, Terry Miller, in his welcoming address informed us that by 1990 the state will have at least one billion five hundred million dollars in the permanent fund. Knowing that libraries have an effective lobby in Juneau he ended with, "I know you'll be in there to get your share for libraries."

Federal, state, academic and industry libraries were represented by librarians on panel discussions, presentations, and workshops.

The speakers used an assortment of show-and-tell techniques ranging from off-the-cuff presentations and informal papers to slide shows illustrating the main functions. The collections varied from the entire microform holdings of the Aleyeska collection of pipeline material to the more generalized collection of the Alaska Resource Library.

The wide range of holdings and accessions, the manner of classification, the modes of operations, and times of accessibility provided a once-over of the variety of material available for research in Alaska.

Jean Mattson

U.S. Bureau of Mines
Alaska Field Operations Center
Dorothy Lunsford
Alaska Dept. of Fish & Game

REVIEWS

Quantitative Measurement and Dynamic Library Service, Ching-Chih Chen, ed. Phoenix, Ariz., Oryx Press, 1979. 290p. \$16.50. ISBN 0-7201-0826-8.

In this era of Proposition 13, unending inflation, rapidly disappearing library space, and enticing new automated processes and services, the ability to quantify one's justifications for funds, staff, space, or new equipment is one of the more obvious advantages of applying quantitative measurement techniques to library management. Such methods could prove useful, not only to justify new projects but also to counter proposed cuts in services. The author does make it clear that while the various tools can aid in decision making, the decisions rest with the individual administrators.

In the introduction, the author states, "This book is intended for those library professionals who have no background in statistics but who are interested in applying quantitative methods to various library managerial problems." Thus, most studies included involve the use of simple statistical methods. This publication demonstrates that one does not have to have an extensive background in statistics to take advantage of these methods. The various studies included

in this book show that one is free to choose whatever method one decides is best suited for his/her purposes in his/her particular library situation. The point is, after all, not for us to be mathematically fancy, but to improve our ability to evaluate library services and thus make more intelligent management decisions.

This work has an interesting genesis. The author was involved in organizing a two-session Institute on Quantitative Measurement and Dynamic Library Service at the School of Library Sciences, Simmons College. The first session was held in November 1976. Presentations were made by Ching-chih Chen, F.W. Lancaster, Morris Hamburg, and F.F. Leimkuhler, each an acknowledged authority in different aspects of evaluating library services. In March 1977, the participants met again, and during this session of the Institute presented applications made in their own library environments of the concepts and methods iterated during the first session.

The book is a reflection of the highly successful Institute and is also organized into two parts. In the first part, Chen presents a general review of the nature and purpose of scientific inquiry and evaluation. She introduces some of the basic concepts of quantitative evaluation and suggests a num-

ber of applications to library services. Lancaster discusses in detail the evaluation of library services and offers critical evaluation of the limits and usefulness of the techniques. Hamburg's specialty is statistical methods, including sampling techniques and prediction models. His aim is to relate these to basic planning and decision making processes. Leimkuhler treats the application of systems analysis and analytical techniques, such as operations research, to library services evaluation.

The second part of the book is made up of ten papers presented at the Institute. Four additional related papers are included to round out the balance. The appendix includes a brief description of a study which was the product of a successful grant proposal by participants of the Institute. Library managers from special, academic, college, and public libraries tested their new-found skills. Four studies were conducted in special libraries, three were carried out in public libraries, and the remaining seven studies were done in academic or college environments.

A sampling of the titles will show the diversity of the studies. The special library studies include: "Journal Use—Study in a VA Hospital"; "Journal Use in a Community

Hospital"; "Survey of User Demands in an Industrial Corporation Library"; and "Conceptual Framework for the Performance Measurement of a Canadian Health Sciences Library." Other studies compared cost-benefit analyses of two book detection systems, the quantification of reference services, the quantitative measurement of space utilization, a study of non-resident borrowers, a comparison of circulation and in-library use of three academic libraries, and a study of the acquisition profile of the Yale University library system. Some of the studies revealed surprises to their authors. All were approached with the enthusiasm and innovativeness one can expect from librarians.

I liked this book not only for its intellectual content but also for its organization. The introduction is excellent. The book is enhanced by a list of contributors, a glossary of terms, a substantial bibliography, and a detailed index. I am sure special librarians can benefit from the examples of quantitative measurement of library services presented in this well-balanced study.

Scott Kennedy
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Designing and Space Planning for Libraries: A Behavioral Guide, by Aaron and Elaine Cohen. New York, N.Y., Bowker, 1979. 250p.

Books on the planning of library facilities traditionally cover many of the same topics, such as the physical layout of the space, choice of equipment, lighting and the like. This book has all the chapters one might expect plus two that at first glance may seem irrelevant. One would hardly expect to find in this work a chapter on the psychology of change or on the behavioral aspects of space. Yet both chapters help provide a better understanding of the basic processes involved in the creation of a library which combines the three elements the authors feel are essential—libraries should be functional, comfortable for both users and staff members, and also attractive. They then proceed to describe how to bring this about.

The chapters on the more technical aspects of library planning, such as those on lighting, acoustics, floor loading, energy conservation and the scientific aspects of

color, are very strong. Formulas and tables are used to make clear basic concepts that are often left to the architect to handle. Librarians may know intuitively that dark green walls reflect less light than ivory, but a table shows that the lighter color reflects eight times as much light. Although the book is quite readable, it is apparent that the authors were trained in the fields of architecture and behavior analysis. It is also apparent that they have had considerable experience in the designing and planning of libraries.

Since the book covers all types of libraries, those concerned only with special libraries might choose to skip over such descriptions as estimating the seating requirements for a general university library or the problems of making a gymnasium area over into a school library.

The book is profusely illustrated with drawings and photographs, four pages of the latter being in color. In addition there is a brief but adequate bibliography. In view of the excellent coverage on floor coverings and color it may seem inappropriate to

mention that there does not seem to be any warning to designers that solid color carpeting shows bits of lint or scraps of paper or soil much more than do tweeds or mottled colors. This is clearly a minor point and may actually have been covered elsewhere in the book, but it is a pitfall to be avoided by planners.

This book provides a wealth of information that is authentic and abreast of the times. Some readers may find it desirable to

A Do-It-Yourself Feasibility Study: New Manufacturing Ventures and A Do-It-Yourself Feasibility Study: New Retail Ventures, by Glen A. Husack and Rudolph W. Gibbons. Kitchener, Ontario Institute for Small Business, Inc., 1979.

These titles are the first two in a series of ten books published in 1979 by the Institute for Small Business, Inc. They are designed to assist the would-be or new entrepreneur in assessing the feasibility of setting up a new business and keeping it running. Other titles in the series include: *A Do-It-Yourself Feasibility Study: For Service Ventures*; *A Do-It-Yourself Marketing Plan*; *One Book Accounting System*; *Managing Your Cash Flow*; *How to Finance Your Business*; *Planning and Budgeting*; *Inventory Management*; and *Costing and Pricing*.

If the first two texts are any indication of the high calibre of expertise that went into developing this series, then the Institute has a winner on its hands.

These two texts resulted from a series of studies undertaken jointly by the Manitoba Institute of Management (MIM) and the Barbados Institute of Management and Productivity (BIMAP). Their strength lies in their simplicity and practicality. The format is that of a work-book. The reader is given questions and answers, calculations, examples, and worksheets to enable him to determine the feasibility of starting and maintaining a new business venture during the first five most critical years. The texts do not emphasize narrative, as does Maurice Archer's *Starting and Managing Your Own Small Business* or the Financial Post's *Running Your*

consult features of other works on the subject, such as the detailed checklist for layouts in SLA's *Planning the Special Library*. Nevertheless, the Cohens have written a welcome addition to the modest number of good books on library planning.

Ellis Mount
School of Library Service
Columbia University
New York, N.Y.

Own Business. Instead, they confront the entrepreneur with the hard, cold analysis of leaving the security of a steady job to strike out on one's own.

Nor is there room for lengthy legal or taxation discussions. The reader is plunged into considerations of such areas as market feasibility, including total market potential, market share, and value of sales; operating and financial feasibility, including building, fixturing and equipment requirements, cost of merchandise, plant and equipment requirements, material and labour requirements, budgeting for other expenses, and sales less expenses; and lastly, venture feasibility, including break-even analysis, return on investment, and *the final decision*: should I go ahead with the enterprise? In short, the workbook format allows one to analyse the possible financial success rate of a new business.

This modular, direct, analytical approach to the analysis of new, small business ventures is a welcome addition to the new wave of literature that has recently appeared encouraging risk takers to start up a new enterprise. Its beauty lies in its universal application beyond the Canadian audience. These texts are recommended for professional business school libraries, the libraries of corporations financing these businesses, and most definitely the business shelves of public libraries in municipalities of all sizes, where there is much or little industry and many or few enterprises.

Nancy Leclerc
Bank of Montreal Library
Montreal, Quebec

HAVE YOU HEARD

South African Library Organization

In January of this year, a new professional organization, the South African Institute for Librarianship and Information Science (SAILIS) was formed, superceding the South African Library Association. The constitution of SAILIS was drawn up in consultation with South Africa's major ethnic groups and guarantees that membership will be open to all librarians and information workers regardless of color, race, or creed. SAILIS will hold its first conference in Cape Town Sep 22-28, 1980.

Music Works in Progress

The Music Library Association is planning a fourth edition of *A Checklist of Music Bibliographies and Indexes in Progress and Unpublished* (MLA Index Series, no.3). The Association would like information on the current work of music bibliographers, librarians, and musicologists for inclusion in the new edition. Any information or questions concerning the project should be addressed to the editor, Dee Baily, 812 Carroll St., Brooklyn, N.Y. 11215 at the earliest possible date. The deadline for copy is Jan 1, 1981.

Postdoctoral Library Program

The University of Illinois Graduate School of Library Science is considering the establishment of a postdoctoral program in library and information science. Persons interested in such a program are requested to write to Dr. Charles H. Davis, dean, Graduate School of Library Science, 410 David Kinley Hall, University of Illinois at Urbana-Champaign, Ill. 61801.

Audio Restoration

The Country Music Foundation Library and Media Center in Nashville, Tenn. recently opened its new Audio Restoration Laboratory. The Laboratory is the most sophisticated facility in the country for restoring the sound on pre-stereo recordings to its original quality. One of the Laboratory's aims is to help stimulate the re-release of historical material in the field of country music.

Museums Guide

Museums New York, which first appeared in the winter of 1979, is a guide to the City's many gallery and museum exhibits. Pub-

lished monthly by Larry Warsh, it describes current exhibitions, lectures, and films plus information on museum gift shops and eating places. Charter subscriptions are available at \$11.95 for 12 issues from: *Museums New York*, P.O. Box 5081, F.D.R. Sta., New York, N.Y. 10022.

New NYLA Publication

Municipal and Local Documents, the proceedings of a workshop sponsored by the New York Library Association's Task Force on New York State Government Documents, has recently become available. The book focuses on the importance of public access to municipal and local information to achieve citizenship literacy. Included is a presentation by New York State Senator Major Owens, who also addressed the issue at the White House Conference. The 156-page volume is \$7.50 prepaid and can be ordered from: NYLA Publications, New York Library Association, 600 E. 42 St., Suite 1242, New York, N.Y. 10017.

Industry Database

The Harper & Row publishing company and Business Research Corporation jointly announced the development of a new industry information database. The project will include information sources and research services for approximately 35 industries in 18 countries and will be available for online searching using standard international systems. The information sources will also be produced in hard copy research guides, scheduled for publication in 1981 and 1982. For information contact: W. A. Benjamin, Business Research Corporation, Suite 206, 186 Alewife Brook Pkwy, Cambridge, Mass. 02138

Engineering Study

The Committee on Engineering Information of the World Federation of Engineering Organizations (WFEO/CEI) has prepared a study on "Engineer's Needs for Scientific and Technical Information." The study, done under contract with UNESCO, is available from the Secretariat of WFEO/CEI, c/o Hungarian Federation of Technical and Scientific Societies, H-1055, Kossuth Lajos tér 4/6, Budapest, Hungary.

PUBS

(80-039) **Organizing and Administrating the Small Hospital Library.** Wender, Ruth W., ed. Doug Boots, illus. Dallas, Tex., Talon, 1979. xii, 218 p. \$7.50.

A manual in looseleaf format designed to assist hospital librarians in providing medical information to health care personnel. Contains chapters on cataloging and classification; acquisitions of books, serials, free materials, and government publications; the National Library of Medicine; and audiovisual services. Profusely illustrated and with many bibliographic and reference listings. Order from: Carmel Bush, TALON RMLP, University of Texas Health Sciences Dept., 5323 Henry Hines Blvd., Dallas, Tex. 75235.

(80-040) **Guidelines to Setting Up an Expertise Index.** Hoey, P.O'N. (Research and Development Report no. 5519). London, British Library Department of Research and Development, Dec 1978. 37p.

Report on a survey of expertise indexes conducted during 1973-1975. Guidelines on how to set up such indexes are arranged in two sections: one describing the pros and cons of expertise indexes and the other on the mechanics of setting up an index. Includes 14 appendices on findings derived from the survey. Available from: The British Library, Research and Development Department, Sheraton House, Great Chapel St., London W1V 4BH (telephone: 01-636-1544).

(80-041) **Index to International Public Opinion, 1978-79.** Survey Research Consultants International, Inc. Hastings, Elizabeth Hann and Philip K., eds. Westport, Ct., Greenwood Press, 1980. xxiv, 386p. \$59.95. ISBN 0-313-22058-1, ISSN 0193-905X.

The first volume in a series to be published annually. References public opinion data collected by leading opinion research groups around the world. Contents are arranged by major topic category, and within each category by subgroups, country in which the survey was conducted, and date of survey. The volume is divided into four sections: single nation surveys; single nation surveys conducted by Gallup International Research Institutes; multinational surveys-adult; and multinational surveys-youth.

(80-042) **An Annotated Bibliography of Automation in Libraries 1975-1978.** Dewe, Ainslie, comp. London, Aslib, 1979, 1980. 76p. ISBN 0-85142-132-6.

A continuation in the series of bibliographies of library automation. Emphasizes library house-keeping operations rather than commercially available information services. French and German language materials are also included. Contains author and subject indexes.

(80-043) **Finding Time You Never Knew You Had.** Leach, Ronald G. *The Journal of Academic Librarianship* 6 (no. 1): 4-8 (1980).

"Examines the issues that relate to time management, allocation of time as a resource, identification of time wasters, and analysis of strategies available to improve time management." The author, who is Associate Director of Libraries, Central Michigan University, cites nineteen useful references on the subject of time management.

(80-044) **Library Trends.** v. 28, no. 3 (Winter 1980). Mason, Ellsworth E., issue ed. Single issue \$5.00.

Special issue on library consultants, with articles on consulting in staff development, computer applications, union-management relations, and collection development. Published by The University of Illinois Graduate School of Library Science. Available from Library Trends, Publications Office, 249 Armory Bldg., University of Illinois, Champaign, Ill. 61820.

(80-045) **Directory of Working Women: A Resource Guide for Women Returning to Work.** 2nd ed. Heim, A. Jane, comp. and ed. Naperville, Ill., A. Jane Heim & Associates, 1980. 79p.

A resource guide for women in the Chicago area. Includes a listing of working women who, on the basis of a questionnaire, indicated their willingness to speak with and advise women who are returning to work or changing careers. Also lists government agencies and business associations of special interest to women. Although this directory only covers the Chicago area, it could serve as a model for similar efforts elsewhere. Available for \$5.95 plus \$1.00 postage and handling from: A. Jane Heim & Assoc., 1228 South Cardinal, Naperville, Ill. 60540.

(80-046) **What Else You Can Do with a Library Degree.** Sellen, Betty-Carol, ed. Syracuse, N.Y., Gaylord Professional Publications in association with Neal-Schuman Publishers, Inc., 1980. 350+ p. \$14.95. LC 79-14852. ISBN 0-915794-40-3; ISBN 0-915794-46-2 (pbk).

Explores alternative careers for librarians outside of the traditional library setting. Opportunities in business, government, the arts, communications, and science/technology are described using first-hand accounts by librarians who have entered these fields.

(80-047) **Library Management Bulletin.** v. 3, no. 3 (Winter 1980).

Issue is devoted to time management with articles by Janet G. Hibbard/Who Controls Your Time?; Sandy Hall/How Superhumans Manage Their Time; and Ruth McCullough/How Do You Figure Your Time So You Can Manage It? Available from the Library Management Division of SLA. Order from: Valerie Lyons, Bulletin/Advertising Manager, Reference Library, Atlanta Journal Constitution, 72 Marietta St., N.W., Atlanta, Ga. 30303.

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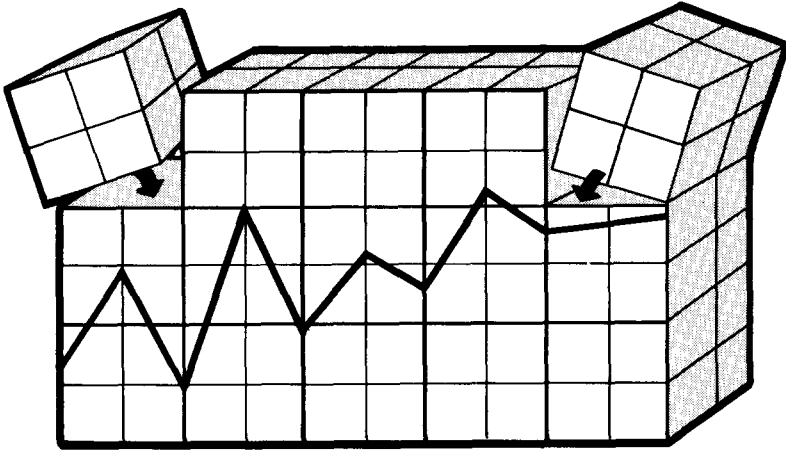
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الكتابة الإلكترونية

صنع أو إرفاق التكنولوجيا والصناعية والتجارية في يد مجموعة أد. إكس المشاركة من المترجمين الفنيين لتحصل عليها مترجمة إلى اللغة المرغوبة في صورة دقيقة وأنيقة، بسرعة فائقة و بأسمار مناسبة. كذلك تقوم بعملية تنضيد الحروف المطبعية والأعمال الأخرى المتصلة بها من مونتاج وإعداد للتصوير الفوتوغرافي وطباعة. كل تقوم بتسليم أعمالنا إلى جميع دول العالم. لقد بدأنا هذا العمل سنة ١٩٥٧ ومازالت تقوم به ليلًا ونهارًا حتى الآن. أرسل خطاب أو اتصل بمجموعة المترجمين المتخصصين الفنيين العالميين.

آد. إكس

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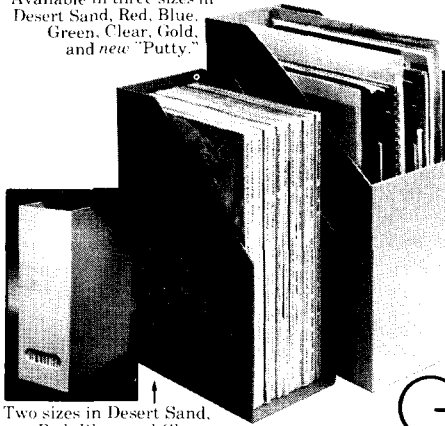
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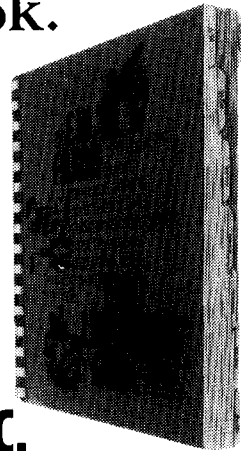
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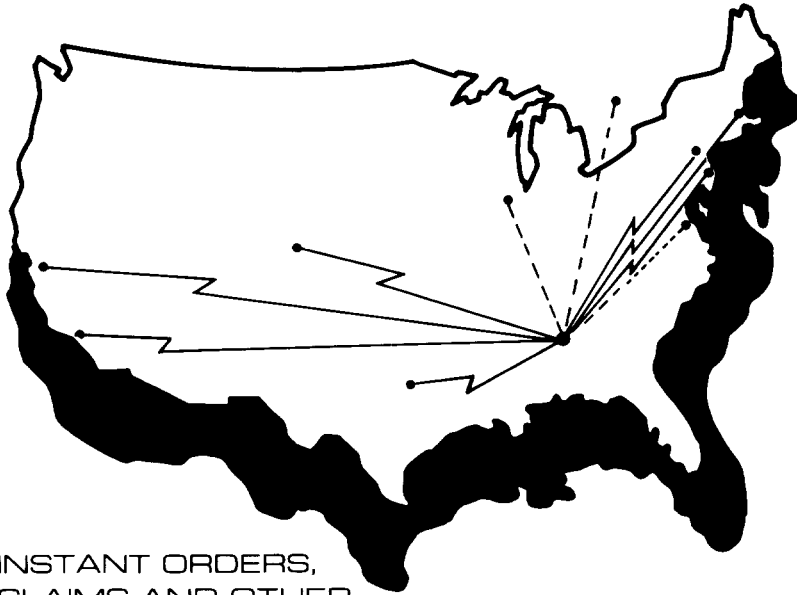
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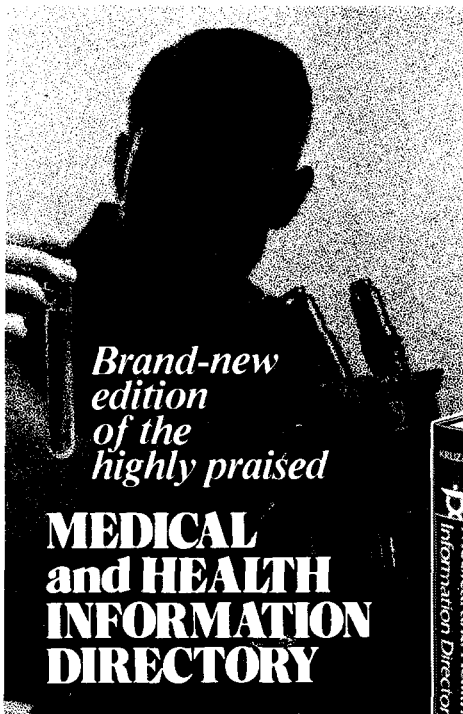
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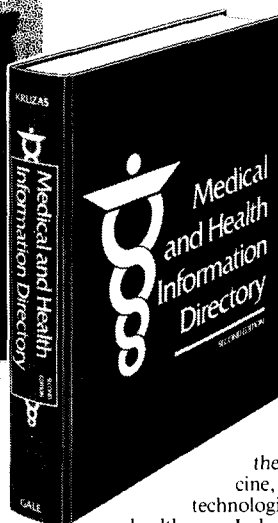
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