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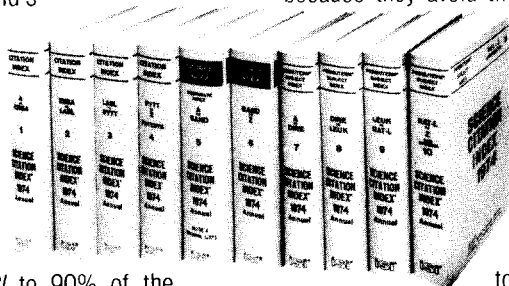
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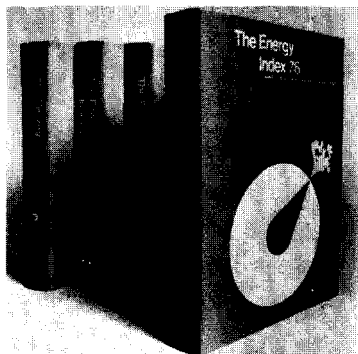
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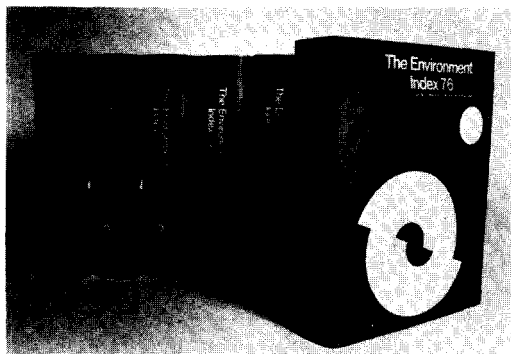
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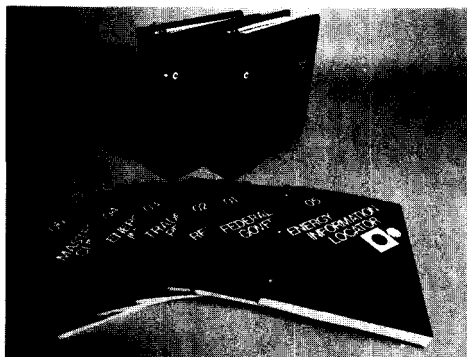
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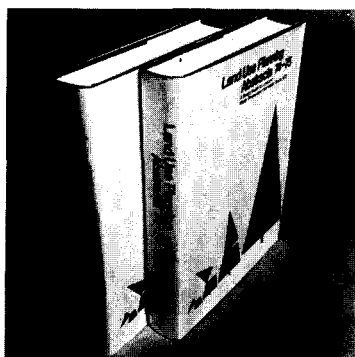
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LETTERS

NTIS and Special Libraries

In "Commentary on Knox, NTIS and Special Libraries" [*Special Libraries* 67 (no. 8): 397-400 (Aug 1976)], Irving M. Klempner has lifted the lid on a pot that has been simmering for some time. Is NTIS more interested in recovering costs than in transferring scientific and technical information to the public? Probably not, but the record is discouraging.

For example: the *escalation of user charges* has had a counterproductive effect. According to the results of a questionnaire sent to members of the Committee on Information Hang-ups ("Washington Letter, December 11, 1974", *Special Libraries* 66 (no. 2): 103, Feb 1975): "To cope with the budget squeeze, librarians are obtaining hard copy from sources, when possible, borrowing rather than purchasing, encouraging researchers to borrow from each other, curtailing library selection of documents, eliminating the routing of *Government Reports Announcements* (GRA) and the *Index* (GRI), or dropping the subscription altogether." We all know that librarians have funds to purchase information which is "required" for a project. In a budget squeeze, the "desired, but not necessarily required" information gets curtailed. The result is a diminished flow of serendipitous information to the end user, the kind of information which generates new ideas and leads to new research. This loss can never be measured.

Minimum processing for some reports has been proposed by NTIS. NTIS has contracts—interagency agreements—with over 140 federal government sources (as well as a number of state and local governments and non-government sources) to distribute their publications. A number of these source client agencies are beginning to select only what they consider high quality for input, and a number of the smaller agencies have dropped out because of the input processing fees. To counter this trend, NTIS has discussed with their clients the possibility of a "minimum processing" of documents deposited "for archival purposes only." Such documents would not be announced by NTIS but would be available on request. They would not be available on-line and would not be included in published searches but would be included in the NTIS Data Base. In other words, they would be a part of the costs to be recovered from users, but would not be announced. If they are not announced, how can users know that this older material exists? NTIS estimates that ap-

proximately 20% of their present sales is for older material.

Copyright protection of NTIS publications "for a limited term not to exceed five years" was written into Section 105 of H.R. 2232 by the House Judiciary Subcommittee on Courts, Civil Liberties, and the Administration of Justice. This limited copyright is to help NTIS recover costs by preventing unauthorized reproduction, especially by foreign countries. One assumes this also would prevent any library from reproducing sections of these publications for its own users.

Somehow all this suggests that recovering of costs has become a greater objective than the NTIS mission described in the law (15 U.S.C. 1151-1157), to collect information and make it available to industry, business, government, universities, and the general public.

Yet, we must be fair. NTIS makes available to us more than 800,000 reports, about 150,000 of which are in current shelf stock. These documents come from any source willing to pay the input processing fee. NTIS accepts the chaff with the wheat. A percentage are real loss leaders, items that never leave the shelf. As a matter of fact, GPO sends to NTIS publications they do not plan to reprint, so these will continue to be available for "printing-on-demand." NTIS also has agreements with foreign governments which bring in publications otherwise difficult to find or obtain. They do go out and try to collect from all sources the kind of information mandated in their original mission.

However, as long as NTIS has no control over the sales potential of the products it handles, to expect that operation to be self-supporting is unrealistic. This policy merely shifts the burden of the subsidy to the users. Users are paying for more than information. They are paying for the non-businesslike operational overhead, which should be carried by the government.

Ruth S. Smith
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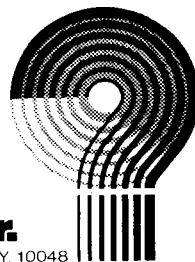
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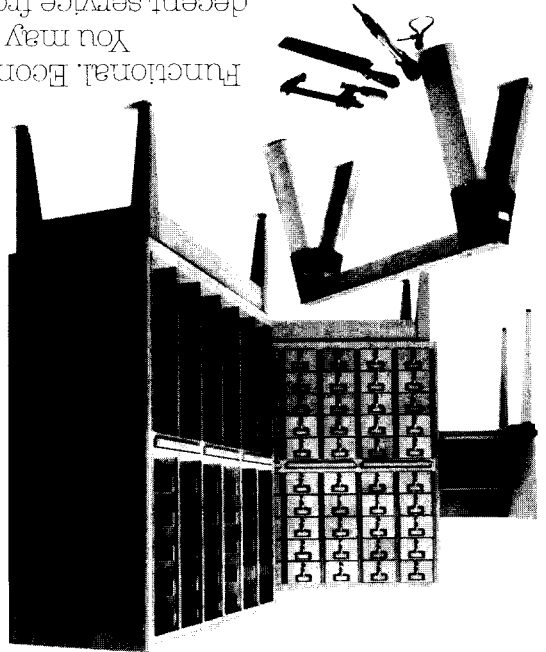
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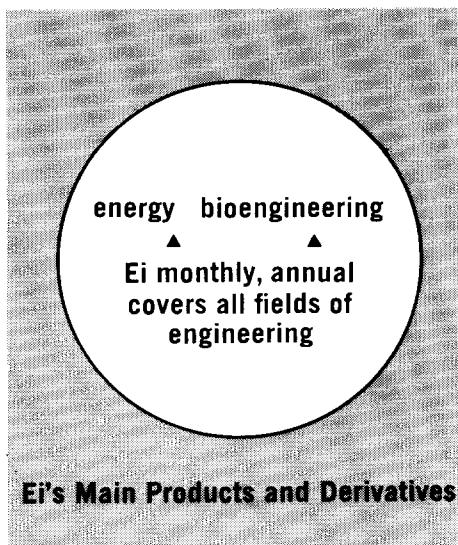
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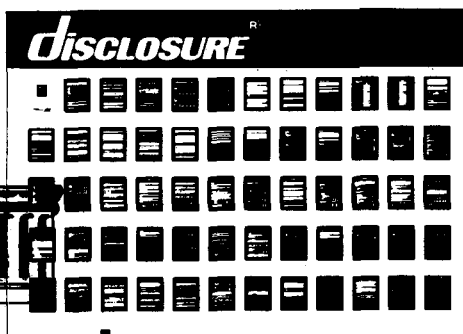
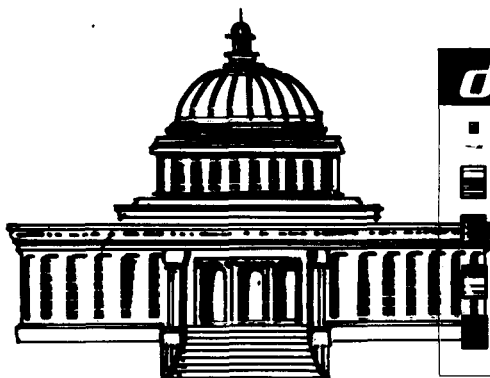
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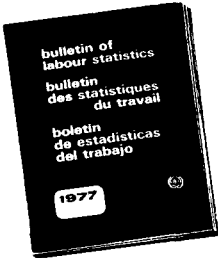
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The Management of Libraries as Professional Organizations

Miriam A. Drake

Purdue University Libraries, West Lafayette, Ind. 47907

■ Professional service organizations such as libraries, hospitals, and welfare agencies, exist primarily to provide services to consumers who cannot provide these services for themselves. Some of the major issues associated with the management of libraries as organizations are dis-

cussed, and the proposition is set forth that libraries are not providing effective information services because the goals and attitudes of library professionals are in conflict with the goals of libraries as organizations.

IN HIS ADDRESS to the American Library Association in 1975, Peter Drucker discussed the basic changes in librarianship which are coming about as a result of the shift away from "book worship" to the provision of information service (1).

The discussion which follows assumes that libraries exist primarily to provide information services. The proposition advanced is that libraries, especially large libraries, are *not* providing effective information services to consumers because the goals and attitudes of librarians are in conflict with the goals of libraries as organizations. The focus here is on the roles of professionals and managers in service organizations, in general—to demonstrate that libraries and librarians share these problems with other organizations, serving the needs of a defined clientele. The role of library management and its responsibility for changing organizational goals of libraries are considered.

The change in the mission of librarianship has significant implications for the li-

brary professional, the library administrator, and the managers of organizations employing librarians. There are great differences emotionally, intellectually, and professionally between the concept of warehouse maintenance and that of information provision. The warehouse function involves sentimental attachment to books rather than the active intellectual commitment needed to provide effective information service.

A survey of the library literature reveals a consistent and long term concern with professionalism and what it means. Generally, the approach has been prosaic and provincial. The material fails to give any insight into the relationship of the library profession to other professions or to the larger organizations of which libraries are but one part. Little attention has been given to the view of the library as a service organization or to the function of management in the context of a service organization.

Librarians have a double need to understand management in the context of

professional service organizations. First, in libraries which focus their objectives on information provision, the main working assets are library and information professionals. Contrast this with the traditional library in which the main assets are books and journals. Second, most libraries are part of and are funded by larger professional organizations, both not-for-profit and profit making. The emphasis here will be on the not-for-profit organization.

Librarians as Professionals

Wilensky states: "A profession is based on technical or systematic knowledge of a specific field which is acquired by its members through a prescribed course of training" (2). The profession determines both the content and standards of this training through its accrediting agency. In general, after the training period, professionals enter the marketplace to sell their time, training, and experience. They do not produce a product, they sell a service to those who do not possess this special knowledge. Customers and clients, whether associated with a hospital, law firm, or library, are buying knowledge they cannot supply for themselves. In library situations, the purchase decision may be based on choice or may be motivated by necessity. In medicine or welfare the decision, most often, is based on necessity.

Librarians differ from professionals in other fields in two significant respects—training and internship. Doctors, lawyers, and accountants go through a lengthy training period, often a formal internship or apprenticeship, and must pass formal examinations before they are admitted to practice. The librarian undergoes a very brief formal training period, no formal internship, and does not need to pass examinations before being allowed to practice. The librarian's internship begins when he or she takes the first job. Professional status for the librarian is not obtained when the degree is handed out or the exam is passed, as in law or medicine, but is earned over a period of time on the job.

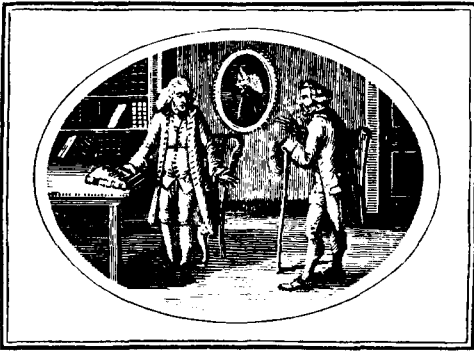
Libraries as Professional Organizations

Anthony and Herzlinger, write that professional service organizations are characterized by the dominance of professionals, lesser role of the marketplace, multiple objectives, politics, vague measures of output, and inadequate management controls (3). To the client or the parent organization they may appear to be self-serving, expensive, and bureaucratic. Librarians often see these negative characteristics in their parent organizations but rarely perceive them in the library. Widespread budget cuts by parent institutions, whether corporations, universities, or municipalities, are clear evidence that libraries are viewed as expensive and nonessential relative to other services.

The unimportance attached to libraries is due, in part, to ineffective and unresponsive performance which has resulted from the dominance of traditional library professionals who view the library as an end in itself. Their goals are centered on books, journals, and the niceties of cataloging, not on the people being served. The user is often viewed as an ignorant patron who needs enlightenment rather than as a client who comes to the library for service.

Unfortunately, the brevity and content of training for librarianship reinforce this view. The new librarian leaves school with a missionary attitude toward service but has not been given sufficient training and experience necessary for competent and effective information work in real organizations. In addition, the new librarian approaches his/her first job with the attitude that client-oriented services are neither suitable nor feasible in large libraries, but can be performed only in small special libraries. Two significant articles have challenged this view: Bundy and Wasserman in 1968 (4) and McAnnally and Downs in 1973 (5).

Doralyn Hickey has summarized the problem: "The special library model of client-centered information services is regularly envied but at the same time eschewed by the staff of other types of libraries who understand this model to be



• •

applicable only to small compact libraries" (6).

The formulation of client-centered objectives in large or small libraries is not a simple matter because most libraries serve two constituencies—funders and consumers. Obtaining the resources necessary to plan and implement customer service programs is contingent upon satisfying the needs of funders who may or may not be aware that the library user is a consumer rather than a supporting patron. The problem is exacerbated by funder demands for accountability and organizational effectiveness which have no solid framework or context. These demands by funders often create outrage in the minds of professionals in all fields who believe that their goals, values, and activities should not be questioned.

Librarians working in large institutions no longer have a complete monopoly in information provision. They are operating in an environment which is growing increasingly competitive. In many areas library clientele have a choice; they may use a library which is institutionally based or they may purchase services from the growing number of private firms which are offering information services on a fee basis. These profit-making enterprises are providing valuable services for which busy physicians, professors, business persons, and others are willing to pay directly. Persons purchasing these services receive the information they seek, usually at a reasonable cost considering the time it would take for these individuals to be educated to find the information themselves. Kotler

points out: "To the extent that consumers are able to choose among sellers, they will give their greatest support and loyalty to the seller who gives them the most satisfaction. Therefore the seller must strive to help consumers solve their real problems in a better way than competitors" (7). Currently, many libraries are unable to compete effectively because their goals are not centered on the "real problems" of consumers.

Profession vs. Organization

The professional, the organization, the market, and the relationships among them are important factors in analyzing current library management problems. Organizations have lives, values, and purposes of their own which may or may not be in congruence with the values and objectives of the professionals who work in organizations. Durbin and Springall believe "... the professional's training, intellectual inclination, and emotional composition tend to make him seek finite solutions to all questions. He categorically rejects compromise, as being unprofessional and therefore unsatisfactory. The organizational man, on the other hand, is constantly forced to utilize the techniques of compromise. . . ." (8). Bucher and Stelling make the same point: "... the career of the professional, both within and without the organization, depends on his ability to control his working conditions, whereas in other organizations one's career may depend on how well he can accept and work within the conditions set by the organization" (9). The problem as it relates to librarianship has been stated by Bundy and Wasserman: "As is equally true of professionals who practice in formal organizations, librarians are faced with conflicts inherent in the incongruence between professional commitments on the one hand, and employee requirements on the other" (4, p. 14).

The differences between organizational and professional goals and values produce major conflict in organizations, especially those which consist of a number of professional groupings. For example, in

universities and teaching hospitals the disparate values, attitudes, and operating modes often create insurmountable barriers to the achievement of the organization's objectives and produce continuing friction between librarians, teachers, doctors, and management.

In many libraries, the lack of interest in the life of the organization is reflected in the inability of the librarians to relate to the parent organization's goals, preoccupation with internal politics, and inability to adapt or change. At library conferences, one hears many discussions about patrons and service; however, librarians rarely discuss the specifics of service in terms of the consumer. The same situation, no doubt, exists at medical and legal conferences where procedures are discussed endlessly with little regard to satisfying the real needs of patients and clients. Happily, there are exceptions in the library field, ranging from public libraries which have instituted consumer information services to the corporate library which produces a variety of information products and research services for the corporate staff.

The Role of Management

The role of managers in not-for-profit service organizations is growing increasingly complex as professionals demand a greater voice in decision-making, funders ask for more specific accountability, and clients complain about officious and unresponsive service. Managers are accused of being rigid and dictatorial on the one hand and ineffective on the other. The squeeze on library management is coming from three sides: institutional management, clients, and library staff. University, government, corporate, and other institutional managements are demanding that the library justify itself by providing benefits in excess of cost.

Librarians, in pleading for more participative management, often are seeking greater freedom to pursue their professional ideals while clinging to the safe operating modes of the past. The traditional library ideal, as contrasted with the special library model, generally

does not satisfy the information needs of parent organizations or of library users. Similar situations occur in hospitals and law offices when the last person to be considered in operations or planning is the patient or client.

Given the conflict between professionals and the organization, the most difficult problem for management in Drucker's words, "... is how to imbue the staff with a sense of mission that overarches individual professional goals—to integrate them into an institution in which their professional goals are secondary" (1, p. 11). Achievement of this integration is likely to be a painful process for both

"... if professionals and managers are to achieve a meaningful existence for the library, librarians need to be integrated into the decision-making process."

management and library professionals; however, it is essential if libraries are to become effective service organizations. Goal congruence necessitates the abandonment of tradition, encouragement of innovation, and a commitment by the people working in the organization to change their behavior and attitudes.

The responsibility for providing direction and leadership in any organization is the major task of managers. Library managers, especially those who feel frustrated and insecure because of internal and external pressures, need to be made aware that they are responsible for leadership. Their failure to give direction and take up the challenge of customer-centered services exacerbates the severity of the pressures. It appears that in many libraries the managerial mode is to cope on a day-to-day basis without contemplating the library's purpose, future, or accomplishments. The major excuse offered by some library managers is that library performance and output cannot be measured; therefore, management cannot set goals and measure their achievement. Given the library professional's lack of

motivation to change and the inertia of management, it is unlikely that significant change in most libraries will occur until managers realize that they are responsible for the outcome of professionals' work in terms of organizational goals focused on satisfied customers.

The Manager's Burden

In order to fully assume this responsibility, managers need to free themselves of the daily routines and concentrate on appropriate questions and outcomes. They must define the library's goals and provide direction to library professionals and staff to achieve those goals. It should not be inferred that a dictatorial management style is being advocated. On the contrary, if professionals and managers are to achieve a meaningful existence for the library, librarians need to be integrated into the decision-making process. They should be made accountable for daily operating decisions which affect the achievement of the library's goals. In addition, they should be active contributors to the formulation of short and long-range plans. This type of participation can actively involve the staff in the life of the library while preserving the responsibilities of management.

The change to customer-centered services in libraries carries both burdens and risks for management. The major burden is management control which necessitates monitoring the system to see that resources are obtained and used effectively to achieve the library's goals. Management also has the burden of evaluating the performance of librarians and rewarding those persons who contribute positively to the organization as well as those who contribute to the library profession.

Change in any area of life involves risk and uncertainty. An innovative service concept, which looked exciting on paper, may fail in practice. Professionals in all fields very likely will resist any change in an organization which threatens their autonomy and security. McAnnally and Downs, in their study of university library directors, observed, "It may seem strange that the Director should be under attack

from his own staff, or fail to receive badly needed support in relations with the administration and faculty, but it is so in many cases" (5, p. 111).

Conclusions

The survival of large libraries in their present form is very much in doubt. Few organizations can outlast protracted conflicts between funders, managers, staff, and clientele. The manager of a large library, who is barely coping with current conditions, must plan and implement changes which will provide a purposeful existence for the library as an organization.

The "special library model" in which the objectives of the library are focused on the information needs of specific constituencies or clients, provides a framework for change. If applied carefully in large libraries, the special library model could produce satisfied customers, interested funders, and a challenging work environment for library professionals.

The successful implementation of the model is contingent upon three main elements—managerial commitment, leadership, and the integration of library professionals into the organization. Managerial commitment is the most essential factor in effecting change. If the manager does not truly believe that change is necessary and is not dedicated to a sustained effort to implement client-centered services in the library, the activities initiated by management become perfunctory and produce greater frustration.

Library management must demonstrate its leadership by sharing authority with library professionals and working with them in merging their professional goals into the library's organizational goals. In addition, management must support its professionals by allocating its scarce resources to facilitate the achievement of library goals.

The current frustration experienced by library professionals, clients, managers, and funders can be replaced by satisfaction. The large library can be changed but first it must focus its mission on people and give up the warehouse.

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Demonstration of Multi-File Interactive Searching for Transportation Information

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■ Potential usage of machine-readable-form transportation-oriented data bases and the level of service derived from on-line interactive file searching are relatively new avenues in the information handling methodology. Transport Canada Central Library proposed that they run a demonstration project for the Canadian Transportation Research Information Service to assess this new methodology. From January 1976 on, following an an-

nouncement of the service's availability to the Canadian transportation-oriented research community, requests have been processed and data on users and on systems collected and compiled. Results indicated sufficient interest to extend the project beyond its initial eight-month time frame, pending a decision to establish the service on a permanent basis. Statistics represent 13 months of operations.

BEFORE 1971, no attempt had ever been made to conceive and apply computerized transportation information services in Canada. The last five years, however, have been eventful. So much so that there is already sufficient background information to provide the rationale for a present course of action, namely the establishment of a demonstration project by Transport Canada's Central Library. A review of the most significant events which preceded Transport Canada's project proposal to the Executive Council of the Canadian Transportation Research Information Service (CTRIS) should provide a better awareness of the foregoing developments and also promote an understanding of the present situation.

Background

The Road and Transportation Association of Canada (RTAC) is responsible for developing and promoting the concepts of CTRIS. Through their technical committees, the suitability of sharing results of research was often discussed, which led to highlighting the problems encountered by researchers in obtaining relevant and timely information. The deliberations of these groups further led to the conclusion that existing information services did not adequately provide for the Canadian transportation research community's requirements.

In 1971, the Minister of Transport agreed to underwrite the cost of a study

Table 1. User-Related Information

1. <i>Geographic location (Province)</i> —		c. <i>General Background information is required</i>	194
British Columbia	20	d. <i>None of the above, explanation is provided</i>	17
Alberta	27	6. <i>User occupation</i> —	
Saskatchewan	2	Professor	56
Manitoba	5	Student	21
Ontario	333	Government	194
Quebec	105	Consultant	44
New Brunswick	11	Librarian	109
Nova Scotia	7	Engineer	54
Prince Edward Island	0	Other	32
Newfoundland	0	7. <i>Subject Specialty of User</i> —	
2. <i>Sector of Employment</i> —		Planning	55
Consulting	56	Psychology	19
Industry	57	Library Science	55
University	94	Economics	16
Associations	37	Management	18
Government	266	Other Fields of Social Sciences	15
Federal	218	Engineering	287
Provincial	30	Other Fields of Science	45
Municipal	18	8. <i>Subject of Search</i> —	
3. <i>Linguistic Background</i> —		Economics	31
French	23	Management	22
English	487	Planning	61
4. Did the request come directly from user or via the library/information centre?		Psychology	19
Via Library	230	Other Subjects in Social Sciences	31
Direct	280	Mechanical/Structural Engineering	27
5. Why does the user require information?		Civil Engineering	36
a. Prior to submitting a proposal for a research project	116	Railway	92
b. Program is underway, user wishes to verify if additional information is available	183	Marine	26
		Automotive	42
		Highway	62
		Other Subjects in Sciences	61

to determine the feasibility of a transportation-oriented data base in Canada. The study was carried out by RTAC which issued a final report, entitled "A Canadian Transportation Research Information Service," in March 1973 (1). In order to discuss this report, RTAC convened a meeting in September the same year.

A consensus was reached at this meeting that the data presented in the report did not adequately support its recommendation to establish a CTRIS-type service and that further study was necessary. The Executive Council was set up to meet this need.

In August 1975, Transport Canada proposed to the Executive Council of CTRIS to run, on their behalf, an eight-month demonstration project. The incre-

mental cost would be shared by RTAC and Transportation Development Centre (TDC), formerly Transportation Development Agency. The aims were to test existing data bases (primarily the Transportation Research Board files available through Transportation Research Information Service (TRIS) On-Line maintained by Battelle-Columbus Laboratories), and also to gather data on potential use of such services, on the type of information required, on the level of service to be derived from computerized systems, on operational and capital costs.

A letter announcing the project and inviting potential users was jointly distributed: by RTAC to the members of their research and technical committees; by TDC to the industrial sectors, consultants and universities; and by

Transport Canada to the federal, provincial and municipal governments and the library community. In all some 1,200 organizations were invited to use the service.

User-Related Data

The data collected up to the 25th of February 1977 indicates considerable interest. They demonstrate a usage greater than anticipated at the planning stage of the service. The Canadian transportation-oriented research community would therefore support data bases from which various systems and services would be derived.

For the convenience of a tabulated presentation, the information has been arbitrarily divided into user-related and system-related data. Throughout the first 13 months of operations, 510 requests from either individuals or group users were received. Geographical locations, sectors of employment, subject specialties, access characteristics, etc., are distributed as shown in Table 1.

A completely user-oriented approach was adopted as a general operating policy from the moment search analysts began to process requests. A choice of contact is left up to the user, either telephone or mail is acceptable. He must simply fill out a search request form. This allows effective communication as well as a definition and precision of the requirements of the search by the user. With each computer printout a letter is sent to the requester informing him how the search analysts succeeded in using his selection of terms, in interpreting his statements of the problem(s) with relation to file interactions. In this letter, the requester is asked to compile data on the number of relevant and useful records, the number of references completely new to him (i.e., knowledge of their existence being acquired as a direct result of using this service), which files have answered the questions, etc., and to await a telephone call from Transport Canada about a week after receipt of the printout(s).

When the search analyst collects the data, he also gives the user the option of initiating a new or modified request. This

Table 2. Search Relevancy Statistics (Jan. 31, 1977)

%	Number
90-100	40
80-89	14
70-79	21
60-69	20
50-59	29
40-49	31
30-39	28
Below 30	163
0	28
Total	374

last option completes the loop in the feedback mechanism. A new cycle or sequence of operations can be repeated indefinitely until a user finds what he is looking for or until he is satisfied the system(s) or the file(s) cannot do more for him.

In addition to TRIS On-Line provided by Battelle-Columbus Laboratories and their subset of the Transportation Research Board files, with a total of 74,694 records, CTRIS regularly accesses National Research Council of Canada's On-Line Enquiry, System Development Corporation's ORBIT, and Lockheed's DIALOG.

System-Related Information

From the inception of the project to the 31st of January 1977, 374 searches* were monitored. A total of 44,458 references were provided for these searches. A subsequent survey of users showed that the number of relevant references was 13,280. In addition, the number of new, relevant references was found to be 10,357. Table 2 shows the rate of relevancy achieved.

Table 3 indicates the files searched and the number of references retrieved from each. The total computer connect time involved was 225 hours.

*A search is defined as a request for information, received from an individual or a group of persons, dealing with one or more subjects, and for which one or more data bases are accessed to give a complete response, as evaluated by the user or group of users through feedback.

Table 3.

Files Used	Number of References
Transportation Research Board (TRB)	262
Engineering Index	105
National Technical Information Service (NTIS)	92
Smithsonian Science Information Exchange	15
Information Service in Physics, Electrotechnology, Computers & Control (INSPEC)	4
Chemical Abstracts Condensates	8
• •	

A total of 860 requests were received for full texts. This relatively low number of requests for full texts has several explanations. First, a portion of the clientele is scattered in remote regions and uses local library and document collections. Second, a completely foolproof control mechanism would be difficult to apply. The provenance of surrogates of information, at the phase users are presenting them to various libraries, is so varied that, normally, such information is not collected. Finally, records from Smithsonian Science Information Exchange (SSIE) do not refer to full text information, at the stage users are informed of ongoing projects.

Searching

Through the process of accessing several on-line systems on a regular basis, our search analysts were enabled to formulate general impressions with regard to various command languages, bibliographical record output formats, inverted index arrangements, etc. These impressions are trustworthy, considering that these search analysts were intensively trained in the use of those systems, and had no prior exposure to any one of them in particular. Thus they were free from preconceived ideas.

TRIS On-Line requires a librarian to specify, by a four-digit code, appropriate indices to which query terms (authors,

keywords, classification codes, etc.) are addressed (2). For a subject approach, the alternative consists of submitting the same terms as free text.

In the circumstances, we have found that either way brings about awkward on-sight or hands-on demonstrations. The four-digit code access involves repeated consultation of a table, whereas the free-text approach causes a large ratio of noise over a dearth of needed information. The latter case results from free-text terms, pulled from abstracts or summaries, which are not as discriminant, comparatively, as those from controlled vocabulary indices or from titles given to papers or reports by authors. The lack of discriminatory power causes an inverted index to be blown out of proportion before a file can be built up to an operational size base. The final effect is a few relevant records buried in a mass of unwanted bibliographical references. A user may just as well go to the printed version of the files for his search.

Either one of the following three suggestions would improve this system tremendously from the library's point of view. First, a definition of the various indexes by the use of letters instead of numbers could make them easier to remember. Second, the use of the same numbers for record elements or fields could be used regardless of the provenance of records, i.e., Highway Research Information Service, Maritime Research Information Service, Railway Research Information Service, or Air Transportation Research Information Service. The same numbers would serve to address the queries to all files at one time. Third, free-text terms would not be pulled from subject terms and mixed with those of the abstracts or summaries, when the files are built up. Separate indexes would provide a choice of access.

In relation to the data base coverage, small subsets of records transferred from many sources* create confusion and generate incomplete and unreliable responses. The following files were picked up at random in order to illustrate: NTIS,

*TRIS On-Line User Guide, Appendix C

EI, and SSIE. A five-year retrospective search against these files yields, in each individual case, a number of records different from the one indicated by TRIS On-Line:

File Name	Number of Records in Original File	Corresponding Number of Records Selected for TRIS On-Line
NTIS	24,428	7,595
EI	43,580	1,715
SSIE	18,772	574

The complete files produced this transportation-relevant information either by subject, terminal, way, or vehicle. The figures for TRIS On-Line can be verified by a search of the document source field.

Evidently, unless the selection criteria are known by us, some valuable information will be missed. Some general guidelines could be derived and applied in searching the data bases from the selection criteria.

The files seem to lack consistency if we judge by the geographic ranges,† for instance. The data in Table 4 were obtained for each specified range.

Obviously, the number of records for which the range is not specified, 3,414, literally nullifies the ones for which the said range is specified.

The marine and air transportation modes should be covered in the TRIS On-Line data bases. At present, the two experimental data bases do not provide sufficient scope for effective searching.

Conclusions

These problems have not prevented useful work, based on user feedback. Perhaps at this stage, CTRIS may evolve as a Canadian node in TRISNET (3). Some groundwork has been laid out in terms of both document exchange and information capture and dissemination; however, a

†TRIS On-Line User Guide, Appendix C

Table 4.

Range	Relevant Records
Urban Systems	153
Interurban Systems	259
International Systems	87
Rural Systems	6
Other Specific Ranges	Nil
Range Not Specified	3,414

greater emphasis must be placed on pooling resources and on planning, implementation, and evaluation of more formalized programs.

Besides Transport Canada, Canadian National Railways, RTAC, and TDC, other Canadian organizations should look into the possibility of document-record input to the Transportation Research Board files. There are only 1,186 records from Canadian sources in TRIS On-Line at the present time. This approach would be more realistic and cost-feasible than attempting to design local transportation information systems since the medium for transfer is already in operation with a community of receivers on the lookout for new knowledge.

The user response—also informal communication which developed as a result of operating the project—indicates that there is an audience for computerized information systems. A sufficient base is available to generate interest and to justify the system on a continuous basis.

Acknowledgment

We are grateful to Mr. Ben Jacobson of Northwestern University who advised us on the use of a telephone follow-up procedure to monitor the system application as the best option. As pointed out by him, in a telephone conversation, evaluation forms are rarely completed and returned by users.

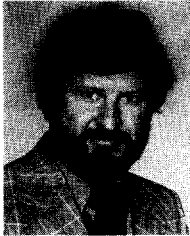
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The Inadequacy of Interdisciplinary Subject Retrieval

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■ Little has been published about the efficiency of commercial data bases in their retrieval of publications across disciplines. Therefore, the following study aimed to discover a) whether references from disciplines other than the researcher's own are being used in areas of interdisciplinary significance, and b) whether such references are indeed avail-

able through commercial services. The authors found that the four services tested did not provide adequate interdisciplinary access to the literature in the areas of abortion and death, which have been topics of great interest to researchers and practitioners spanning the disciplines of the social sciences and the health professions alike.

IT IS A TRUISM to say that in the last thirty years there has been an exponential growth in the volume of scientific research and reporting of that research in books and in journals. All the academic disciplines have been victims of, as well as contributors to, this state of affairs. In an attempt to cope with the burgeoning disciplinary literature, many specialized indexing and abstracting services have been developed, and no one knows better than the researcher or librarian how invaluable these tools have become in locating elusive sources. However, there are several problems that arise inevitably during the course of searching through these indexes which prevent the user from locating all or sometimes any of the materials being

looked for. One impediment felt by many scholars as well as librarians is that "each discipline approaches human behavior from its own characteristic point of view and applies its unique investigatory techniques" (1). Disciplines tend to be isolated from each other in method and theory and also in publications. The indexes and abstracts have followed along in becoming discipline specific.

Coinciding with this tendency, a unique jargon, or descriptive set of terms, has grown up around each discipline. These terms then often appear as subject headings in the indexes. As a result, even if scholars do find and use indexes to journals of other fields, they may be prevented from finding anything simply because of the barrier of jargon. Such a restriction on research was recognized by the director of Chemical Abstracts Service when he lamented the fact that "it has often been difficult for a scientist trained in one discipline to locate informa-

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tion through the indexes of a secondary service oriented toward another discipline. . . " (2).

Overlap

However, subjects of research interest do not always come neatly divided up into clear disciplinary categories. As long as there have been disciplines there has been overlap in interests between disciplines. "Man does not arrange his problems or divide them up neatly along lines laid down by academic disciplines. On the contrary, there is a great deal of overlap in the subject matter or topics considered. . . " (3). A particular document from one field may be significant because of its development of theory or methodology or because of its revelation of details to researchers within the same discipline. It may also be significant to those from another discipline and for the same reason—if they could only find it! "The need for communication between disciplines is even more urgent than it is usually said to be. . . . Yet interdisciplinary undertakings become steadily more difficult as the scholarly market grows larger and the house of intellect expands" (4).

How do scholars from one discipline find out about research in another? Or do they? One author decries the lack of "adequate data on the growth, trends, overlap, and gaps in coverage of primary literature by secondary services" (5). In this article we shall explore the coverage by indexing and abstracting services across discipline boundaries within the area we know best—that of the social and behavioral sciences and the health services.

The authors feel very strongly from experience in interdisciplinary (i.e., a subject of interest to scholars in several disciplines) literature searches at the interface of the social sciences and health services, that the reason for the lack of thorough coverage in all the relevant fields is the general unavailability of access by scholars to the literature outside their own disciplines. To test this hypothesis, two subjects of concern both to the social sciences and to the health fields, death and abortion, were searched in four commercial indexes: *Index Medicus*, *International*

Nursing Index, *Sociological Abstracts*, and *Psychological Abstracts* (6). We chose the topics death and abortion to see if, indeed, there is any significant interdisciplinary subject coverage by the above four standard indexes. Both topics are particularly appropriate because of their important social, psychological, economic, and clinical implications.

Sources for a Study

Index Medicus and *International Nursing Index* are standard indexes available to health professionals in every medical library. *Index Medicus* is an index to over 2,200 biomedical journals (and a few social science journals which are indexed selectively). *International Nursing Index* is the index for 200 nursing and 200 non-nursing journals, many of which are included in *Index Medicus* also. What kinds of references on abortion and on death and dying could be located if one has access only to these medical and nursing indexes?

Sociological Abstracts and *Psychological Abstracts* are standard sources in research libraries. The former indexes and abstracts 91 journals in the fields of anthropology, sociology, economics, law, and certain other subject areas; 277 other journals are partially indexed. The subject headings are key words, usually chosen by the author of the article. Otherwise, they are key words in the title. *Psychological Abstracts* indexes selectively about 900 journals. Articles are indexed under 4,000 subject headings derived from the *Thesaurus of Psychological Terms*. How satisfactory are these indexes in providing access to that literature which has potential importance across disciplinary boundaries? Will the health professional be provided with non-medical references on a subject with more than clinical application? Will the researcher gain entry to research outside the area of his/her expertise?

Methodology

The method of our analysis was as follows. The journal title of each entry was

noted and tabulated by discipline. Often several articles from the same journal appeared in the index. Each was tabulated. The numbers in the tables which resulted refer, therefore, to the number of articles in any one discipline which were indexed under the subject heading (whether for the topic of death or of abortion). Often, journals are published by associations formed to study a particular subject—for example, the National Council on Family Relations and the Gerontological Society. The publications of such societies have been included in the interdisciplinary category. Summarized in Tables 1 and 2 are the disciplines and areas covered for the subjects death and dying and abortion, and the number of references found for each by discipline.

What conclusions may be drawn from these tables? First of all it is important to realize that the actual *number* of references obtained from any of the indexes is not relevant for our purposes. The indexes all differ widely in the number of journals indexed, so the number of articles retrieved is bound to vary as well. What is pertinent is the number of fields that are represented by each index and the spread of references over these fields. The discipline represented in the name of each index usually showed the most references retrieved for both topics with two exceptions. *Sociological Abstracts* retrieved the same number of references on the subject of abortion in four fields. And, psychiatry references were retrieved much more frequently in *Psychological Abstracts* than were references from psychology journals for both topics.

It is useful to observe that the two indexes most accessible to the health professionals retrieved almost exclusively articles in their own fields. In these indexes was found the least breadth of coverage, despite the recognition of the need by Buck and others for more adequately prepared middlemen to bridge the gap between medicine and the behavioral sciences (7). Recently, the same complaint was voiced by Leroy Walters at the Kennedy Center for Bioethics. An analysis of Volume 2 of the *Bibliography of Bioethics* showed that only 24% of the

included references were from journals indexed by *Index Medicus* (8).

It should also be noted that there were no articles from sociology in *Psychological Abstracts* and no articles from psychology in *Sociological Abstracts*. Furthermore, the field of anthropology appeared only once in each of these two indexes for death and dying, and not at all for the subject abortion. Economics was retrieved only once by *Sociological Abstracts* (for abortion) and did not appear in retrievals by the other indexes. Law references were retrieved only in *Sociological Abstracts* for the subject abortion. There were no abortion references in the field of hospital administration, and only one reference to an article on death. In general, the interdisciplinary spottiness, indeed haphazardness, of coverage is quite obvious from examination of the tables.

Search for Solutions

At this point, the writers feel it necessary to state that the foregoing is not a castigation of the four indexes chosen for the study. It should, however, serve as a warning that interdisciplinary coverage cannot be presumed by the use of one or two or even more of the indexes to the published literature. We are not saying that each indexing and abstracting service should provide universal access. We do feel that librarians, particularly special librarians, have the opportunity to provide even more service than previously possible to clients as middlemen between the information and the user. As on-line data bases become accessible to more and more libraries, the middleman role will become more prominent. It is vital that librarians be aware of the limitations of each data base; that we realize that perhaps it is not sufficient to rely upon *Psychological Abstracts* for references on the subject of death; that the topic of abortion has a multitude of facets of which only a few at best are covered in any one index. When we choose the data bases for searching the answers to our clients' questions, let us do it with a knowledge of the depth and breadth of each data base; espe-

Table 1. Death and Dying—Interdisciplinary Coverage by Four Indexing Services

	Index Medicus	International Nursing Index	Psychological Abstracts	Sociological Abstracts
Anthropology	0	0	0	1
Biology	1	0	0	0
Economics	0	0	0	0
Hospital Admin.	1	0	0	0
Interdisciplinary*	6	1	6	5
Medicine	62	5	2	0
Nursing	5	46	1	0
Physical Therapy	1	0	0	0
Psychiatry	17	1	16	0
Psychology	7	0	6	0
Religion	0	0	1	1
Social Work	0	0	1	0
Sociology	0	0	0	8

* An example of an interdisciplinary journal is *Journal of Gerontology*.

Table 2. Abortion—Interdisciplinary Coverage by Four Indexing Services

	Index Medicus	International Nursing Index	Psychological Abstracts	Sociological Abstracts
Anthropology	0	0	0	0
Biology	2	1	1	4
Economics	0	0	0	1
Hospital Admin.	0	0	0	0
Interdisciplinary	4	0	6	4
Law	0	0	0	3
Medicine	251	6	3	0
Nursing	1	22	0	0
Philosophy	0	0	0	2
Psychiatry	6	1	8	0
Psychology	0	0	3	0
Religion	0	0	0	4
Social Work	1	0	1	0
Sociology	0	0	0	4

cially will this become essential when we pay scarce money for computer time and associated costs to access the on-line bases.

The nature and magnitude of the problem make it imperative to search for solutions. Fortunately, librarians no longer have to do this alone. *Chemical Abstracts*, *Biological Abstracts*, and *Engineering Index* are attempting to develop compatibility among themselves, and also to share their input. The American Institute of Physics provides copies of appropriate U.S. journal literature for inclusion in *Nuclear Science*

Abstracts (5). Furthermore, the National Federation of Abstracting and Indexing Services began a study of the problem in October 1974. Their mandate was to "examine the amount of journal article coverage overlap among thirteen major science abstracting and indexing services" (9). A fourteenth was later included. The federation realizes that it is not enough to merely compare lists of those journals indexed by each service, for it is well known that, even though the same journal may be indexed by several services, the article coverage may not be so duplicated (9).

The problem of overlap or lack of it will be of more and more concern to librarians, because indexing and abstracting services are bound to increase, particularly in the area of what one author calls "mission orientation" (10). And it is this orientation of "mission," or subject area, which cuts across several disciplines that has been of concern to the authors of this article. Perhaps the results of the NFAIS study and of other more specific ones (11) will help slow the increase of unnecessary interdisciplinary, "mission oriented," indexing and abstracting services, and at the same time provide a stimulus either for coverage of the disclosed "gaps" by the established services or incentive for a new service to develop to fill the need. It is time, as the indexing and abstracting services have become so widely available and very convenient as on-line facilities, that more effort be made to find out precisely what coverage we are getting and how the data bases must be combined to retrieve most effectively when an interdisciplinary subject is the query.

This study, of the accessibility of references with interdisciplinary significance in indexes and abstracts, was done to test the hypothesis that in general interdisciplinary access to research publications either does not exist or exists in only a very haphazard manner. There are several quite unfortunate results of this insular approach to research retrieval:

... the more one engages in research and study in the area, the more one becomes aware of the dangers and pitfalls of excessive parochialism ... and the attendant tendency toward excessive jargon, interprofessional alienation, and needless duplication of effort (12).

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Cartographic Sources and Procurement Problems

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■ Various sources of cartographic materials are discussed. In addition, some problems related to the procurement of these materials are investigated.

THE DEVELOPMENT of a cartographic collection depends on the acquiring of materials through gift, exchange, or purchase (1). A whole new dimension has been added to the problem of acquisitions by the phenomenal growth of cartographic collections (2) and the increase in number of sources from which the maps and atlases are obtained. This paper will concentrate on the sources for cartographic materials and some related procurement problems.

Map and Atlas Sources

Sources of cartographic materials to be acquired are varied; some sources are more important to one type of map collection than to another. The first step is to establish a procurement policy which states the type of cartographic collection one will acquire. Some acquisition policies will be broad and comprehensive in content while others may be highly specialized and perhaps limited in scope (3).

For current cartographic acquisitions, it is necessary to work with the sales catalogs and price lists of commercial, institutional, and governmental (4) publishers and with sources that are

meant primarily for selection, such as reviews and lists in the geographic and cartographic serials (Appendix A)*, accession lists from map libraries (Appendix B), the catalogs of out-of-print dealers in maps and atlases (Appendix C & D), and special subject or area bibliographies of maps and atlases (Appendix E). Maps and atlases are listed in or as supplements to many national bibliographies (Appendix F), but the major international work is the comprehensive listing of the *Bibliographic cartographique internationale* (5). One disadvantage is that maps and atlases are slow to appear in this bibliography as well as in the national bibliographies. *Cartinform* (6), a supplement to *Cartactual*, is a current listing of maps, atlases, and cartographic publications. It is issued bi-monthly and is a most useful source for cartographic materials. The *Catalog of Copyright Entries, Third Series, Part 6, Maps and Atlases* (7) is an important source for identifying new maps, atlases, and globes. For example, during fiscal year 1975, 338 atlases, 4 globes, and 1,804 maps were deposited in the Copyright Office and transferred to the cartographic collections of the Library of Congress. The *Monthly Catalog of United States Government Publications* (8) lists map catalogs and some United States Govern-

*Note: Only Appendix D is reproduced here. All other Appendixes are available from the author on request.

ment maps and atlases. The *Monthly Checklist of State Publications* (9) is another source to review, but all states do not cooperate in this voluntary listing and many state-produced maps are not listed. The *Unicn Catalog of Maps* (10), a useful guide to current cartographic acquisitions, is a listing of cartographic materials in 25 participating map libraries in Canada, United Kingdom, and the United States. A new acquisition and reference tool has recently become available to map collectors. It is the *Guide to U.S. Government Maps* published by Documents Index, Box 195, McLean, Va. 22101, at a subscription rate of \$60.00 per year. The first two publications issued during 1975 were a reprint of the *Location Index* from *The National Atlas of the United States of America* and a listing of selected U.S. Geological Survey maps on geology and hydrology produced from 1879-1974 entitled *Geologic and Hydrologic Maps*.

In 1968 the Library of Congress Geography and Map Division initiated a program to catalog current accessions of single-sheet maps. This program was first known as the machine-readable cataloging (MARC) II Map System. It is now known as "MARC Map." As of Jun 1, 1976, the MARC Map record included over 40,000 titles (11). The Library of Congress Cataloging Distribution Service provides a monthly subscription service for MARC tapes and printed catalog cards. Printed catalog cards are automatically generated from the tapes through the library's videocomp program. Approximately 400 titles per month are currently provided in the MARC Map Subscription Program (12).

One of the outstanding contributions toward compiling a universal and comprehensive reference tool has been made jointly by Edward Stanford Ltd. and Bowker Publishing Company. In 1974 they published *International Maps and Atlases in Print* (13), which attempts to list all maps and atlases known to be on sale and therefore available to the general public or map collections. Another useful reference source is *General World Atlases in Print 1972-1973* (13), a comprehensive guide to all available

general world atlases in the English language.

Two of the outstanding foreign dealers who specialize in cartographic acquisitions are: 1) Edward Stanford Ltd., Map Specialists, 12-14 Long Acre, London WC2E 9LP, England, and 2) Geo Center, Internationales Landkartenhous, Honigwiesenstrasse 25, 7 Stuttgart 80, Germany. Geo Center issues a subscription catalog with supplements listing foreign cartographic coverage by geographic area, scale, and subject content. Items listed include atlases, map sheets, and related cartographic materials. Some set map indexes indicating coverage are included. *Kartenbrief*, a guide to availability and cost of current maps in print and new maps and atlases, is distributed by Geo Center.

There are several dealers in the United States who do maintain fairly large stocks of maps. The Travel Centers of the World in California advertises almost 3,000 different maps representing some 80 other map companies around the world (15). Rand McNally has a Map Store in Chicago which sells Rand McNally maps, atlases, globes, selected USGS topographic quads, and selected maps from foreign publishers such as Stanford, Philips, and Kummerly-Frey (16). The Telberg Book Corporation specializes in geological maps and in maps produced in the Soviet Union (17). Telberg issues a "Map Depository Catalog" with frequent additions. Another dealer is the Map Store in Ridgefield, N.J. (18). Its catalog states that in stock are all of the topographic maps published by the U.S. Geological Survey, road maps and guides for most countries of the world, the International Map of the World (IMW) series, and world aeronautical chart coverage. The Map Store, Inc., in Washington, D.C. is a distributor of maps for Rand McNally and other leading publishers (19).

Selected U.S. Federal Map Sources

In the United States there are over 40 different federal agencies and departments which produce cartographic ma-

terials; only seven of these sources, however, are major map and atlas producers. (Appendix G & H). In 1973 a special task force on mapping, charting, geodesy, and surveying reviewed federal agencies providing varied and sometimes overlapping cartographic functions. Among other recommendations the task force advocated the consolidation of selected functions and programs under a new strong central mapping agency (20).

Major federal mapping agencies periodically issue map and chart catalogs and lists of cartographic publications. The U.S. Government Printing Office is responsible for selling over 25,000 different publications of which many are maps or map related and originate in various federal government agencies (21). GPO administers a depository library program through which selected government publications are distributed to libraries and archives throughout the country. A free monthly list of *Selected U.S. Government Publications* for newly issued, or still popular, publications available for sale is issued by GPO. The *Monthly Catalog of U.S. Government Publications* is a comprehensive listing of all publications issued by the various agencies and departments each month (8). Under the subject heading "maps and charts" in the *Monthly Catalog* is a selection of maps and map-related publications available for sale.

The Geological Survey (USGS) distributes free upon request, *New Publications of the Geological Survey*, a comprehensive monthly list of Survey's books, open-file reports, maps, and indexes (22).

The National Ocean Survey (NOS) issues a number of publications related to the production of charts (23). Examples include, information on nautical chart catalogs, *Catalog of Aeronautical Charts and Related Publications*, monthly lists of aeronautical charts, NOS publications, and some facsimiles of historical maps and charts in their collections.

The Soil Conservation Service publishes the county soil surveys in atlas format, issues a list of published soil surveys, and maintains a current map showing the



status of soil surveys in the United States (21, p. 121-123). The Forest Service issues the standard forest series maps as well as the recreation folders which are sold to the public and contain planimetric location maps. Maps can be obtained by writing to the respective regional offices (21, p. 118-121).

The Bureau of Land Management (BLM) produces maps at various scales and special purpose maps which include recreation maps and offshore leasing charts (24). Detailed cadastral maps are also produced in great numbers. BLM maps may be requested from the individual regional field offices.

The Federal Highway Administration (FHA) administers the federal-aid highway program of financial assistance to the states for highway construction (21, 26). Its funds are allocated to the states which produce annually new state, county, and urban highway maps by their respective transportation departments. These maps are obtained by writing to the individual State Highway Departments.

The Tennessee Valley Authority (TVA) has its own Maps and Surveys Branch which in cooperation with the U.S. Geological Survey produces maps in the Tennessee Valley area (21, p. 598-601). A price catalog and map indexes may be obtained from the Map Information and Records Unit in Chattanooga (26).

The Defense Mapping Agency (DMA) produces current maps and charts on foreign areas of interest to the United States (27). DMA maintains a carto-

graphic depository program with some 240 academic institutions and public libraries throughout the United States and Canada. DMA sells some of its maps to the general public and issues a price list for some items (28).

The Bureau of the Census (21, p. 142-144) map and atlas series and some selected maps and atlases produced by the Central Intelligence Agency (21, p. 85-86) are available for purchase through the U.S. Government Printing Office (21).

The Federal Insurance Administration, Department of Housing and Urban Development, (HUD), has produced several thousand page sized maps, 11 in. x 17 in. in size, showing the flood hazard areas throughout the United States at various scales (21, p. 267-268). These monochrome maps show municipal and county limits of cities and towns, street patterns and street names, railroads, drainage areas with flood hazard zones shown in stipple patterns. In addition, existing levees and sea walls are shown on some sheets. Some selected maps may have designated flood hazard areas in blue shades to indicate degrees of possible areas subject to flood.

Selected U.S. State Map Sources

In the United States at the state level of government, there are active mapping programs in each of the 50 states and territories. (Appendix I). Most states work in conjunction with the U.S. Geological Survey and the Federal Highway Administration to produce modern topographic, geologic, and transportation maps for their respective areas, usually on a matching funds basis. To cite just one example, as part of New York State's progressive mapping program New York's Department of Transportation publishes *Mapnotes* (29), a review of mapping and related activities within the state. At least two states, Colorado and Wisconsin, have appointed a State Cartographer to coordinate aerial photography, mapping, surveying, and geodesy within their respective areas. Many states have also produced thematic atlases, aeronautical and marine charts,

railroad and recreation maps. Most state governments produce a list of publications which include maps and some even publish map outline indexes showing the status of their area of coverage.

Other Selected U.S. Map Sources

There are many other potential cartographic sources in the United States besides the federal and state authorities. Practically every local level of government such as regional, municipal, county, or town, is a possible source for cartographic products. Academic institutions, nonprofit organizations, commercial map firms, and free-lance cartographers are potential sources for maps and atlases (Appendix J). International organizations can also supply cartographic materials (Appendix K).

Procurement Problems

One of the major problems for the map collector is the security classifications or caveats which are sometimes applied to current large-scale topographic map coverage in some countries. In the free world, long-standing tradition has made maps both numerous and relatively easy to acquire. This is particularly true for the countries of North America, Western Europe, Japan, Australia, and New Zealand, where the major map producing agencies are under civilian control and maps are available to the general public through numerous public and commercial sales outlets. The Soviet Union, People's Republic of China, eastern European countries, Egypt, Sudan, Libya, Algeria, Iraq, Syria, Pakistan, India, and Burma are countries which consider all maps 1:250,000 scale or larger as classified documents. Their major mapping agencies are under military control and basic policies are restrictive concerning public use or purchase of such items.

The United Nations' annual publication *World Cartography* contains articles relating to topographic mapping activities (30). Volume X reveals the development of large-scale map coverage throughout the world during recent times. For

example, the Soviet Union has been completely mapped with 26,000 sheets at 1:100,000 scale and 6,000 sheets cover the country at 1:200,000 scale. This publication also mentions a mapping project in progress in the Soviet Union consisting of 90,000 sheets at 1:50,000 scale coverage (30, p. 74). These maps have not been freely available outside the Soviet Union and are perhaps limited to a few Soviet citizens. The Lenin State Library in Moscow reportedly does not have current large-scale Soviet topographic map coverage in its cartographic collections (31).

By contrast the United States had completed in 1970 some 21,760 sheets at 1:24,000 scale; 6,100 sheets at 1:62,500; 2,117 sheets at 1:63,360; and 750 sheets at 1:125,000 scale map coverage (30). The United States Geological Survey map series are automatically deposited in some 1,200 academic and public libraries throughout the United States and in selected foreign map libraries. Official United States produced maps are also available through both public and commercial sales outlets.

There are many other problems relating to the acquisition of cartographic materials whether from domestic or foreign sources. Current cartobibliographies, annual reports from official mapping agencies, map catalogs, map indexes, and lists of maps and charts are often lacking, restrictive, or so limited in distribution that they may be useless for acquisition purposes. The availability of map coverage is not always announced except, perhaps, in the local press.

Censorship prohibits or restricts the export of all or selected cartographic ma-

terials. Sometimes there are limited editions or quantities of cartographic materials published due to shortages of paper, printing supplies, and budget restrictions. Xenophobia is a problem in many countries. Correspondence in foreign languages can present a problem in either the translation or communication process. A dealer or source may not be permitted to retain or use foreign currencies. Sometimes export taxes must be paid or licenses obtained, particularly if some retrospective cartographic materials have been purchased in a foreign country. Postal service is not always reliable and trustworthy.

Political considerations are sometimes involved in trade negotiations and may restrict or limit the number of items wanted. In some countries a personal contribution, or gift to the right authorities is a way of life and offers the only way to assure that a package or purchase will be processed through the intricacies of the bureaucracy.

Conclusion

In conclusion, the systematic acquisition of cartographic products is necessary to assure that research and reference materials are available to the user. There are numerous sources and references which can be used in the procurement of maps, atlases, and related cartographic materials, but problems are sometimes encountered during the acquisition process. One must be both resourceful and persistent in attempts to build a useful comprehensive cartographic collection.

Appendix D

Selected List of United States Dealers in Out-of-Print Maps and Atlases

Americana Mail Auction
George M. Rinsland
4015 Kilmer Ave.
Allentown, Pa. 18104

W. Graham Arader III
104 N. Lowrys Lane
Rosemont, Pa. 19010

Argosy Book Stores
116 East 59th St.
New York, N.Y. 10022

J. N. Bartfield Books, Inc.
45 W. 57th St.
New York, N.Y. 10019

Roy V. Boswell
P.O. Box 278
Gilroy, Calif. 95020

California Galleries
1 Wharf Road, Box 435
Bolinas, Calif. 94924

Cape Cod Books
Box 376, South Wellfleet
Cape Cod, Mass. 02663

Caravan-Maritime Books
87-06 168th Pl.
Jamaica, N.Y. 11432

The Cartographer
168 Governor St.
Providence, R.I. 02906

Herman P. Chilson
Dakota Books
505 Main St.
Webster, S.D. 57274

The Arthur H. Clark Co.
1264 South Central Ave.
Glendale, Calif. 91204

Richard Coker
P.O. Box 2001
Fort Pierce, Fla. 33450

John P. Coll
2944 Pine Ave.
Berkeley, Calif. 94705

Dawson's Book Shop
535 N. Larchmont Blvd.
Los Angeles, Calif. 90004

Peter Decker
45 West 57th St.
New York, N.Y. 10019

Elizabeth F. Dunlap
6063 Westminster Pl.
St. Louis, Mo. 63112

Edward Eberstadt & Sons
70 Park St.
Montclair, N.J. 07042

Samuel T. Freeman & Co.
1808 Chestnut St.
Philadelphia, Pa. 19103

Marshall Field & Company
111 N. State St.
Chicago, Ill. 60690

Goodspeed's Book Shop, Inc.
18 Beacon St.
Boston, Mass. 02108

Charles Hamilton Galleries
25 East 77th St.
New York, N.Y. 10021

Lathrop C. Harper, Inc.
22 East 40th St.
New York, N.Y. 10016

Harris Auction Galleries, Inc.
875 N. Howard St.
Baltimore, Md. 21201

R. L. Hart
1571 Springfield Ave.
Maplewood, N.J. 07040

John Howell—Books
434 Post St.
San Francisco, Calif. 94102

H. P. Kraus
16 East 46th St.
New York, N.Y. 10017

George MacManus Co.
1317 Irving St.
Philadelphia, Pa. 19107

Edward Morrill & Son, Inc.
25 Kingston St.
Boston, Mass. 02111

Kenneth Nebenzahl, Inc.
333 North Michigan Ave.
Chicago, Ill. 60601

Gerald A. Noble
Drawer E
Hiawatha, Iowa 52233

The Old Print Gallery
1212 31st Street, N.W.
Washington, D.C. 20007

The Old Print Shop
Kenneth M. Newman
150 Lexington Ave.
New York, N.Y. 10016

Walter Reuben & Company
(formerly Tejas Galleries)
601 Rio Grande
Austin, Texas 78701

Cedric L. Robinson
597 Palisado Avenue
Windsor, Conn. 06095

Bernard Rosenberg
200 West 16th Street
New York, N.Y. 10011

William H. Schab Gallery, Inc.
48 East 57th St.
New York, N.Y. 10002

John Scopazzi
278 Post St., Suite 305
Union Square
San Francisco, Calif. 94108

John Sharp
Drawer EE
Williamsburg, Va. 23185

The Shorey Bookstore
110 Union St.
Seattle, Wash. 98101

Sotheby-Parke-Bernet Galleries, Inc.
980 Madison Ave.
New York, N.Y. 10021

Henry Stevens, Son & Stiles
4-F Albee Ct.
Larchmont, N.Y. 10538

L. S. Straight
P.O. Box 106
New York, N.Y. 10016

Swann Galleries, Inc.
104 East 25th St.
New York, N.Y. 10010

C. E. H. Whitlock
15 Broadway
New Haven, Conn. 06511

The Windsor Collection
111 Canterbury Drive
Wilmington, Del. 19803

Zeitlin & Ver Brugge
815 N. La Cienega Blvd.
Los Angeles, Calif. 90069

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5. *Bibliographie Cartographique Internationale*. Comite Nationale de Geographie et l'Union Geographique Internationale. Paris, A. Colin, 1936- .
6. *Cartinform*, supplement to *Cartactual*, published by Institute of Surveying, Geocartographic Research Department, H-1367, Budapest, P.O.B. 76-Hungary. Bimonthly. (\$28.00 per year).
7. U.S. Copyright Office, Library of Congress / *Catalog of Copyright Entries: Third Series: Part 6: Maps and Atlases*. Washington, D.C., Superintendent of Documents, U.S. Government Printing Office (\$6.00 per year). v. 1- , 1947- .
8. U.S. Superintendent of Documents, Government Printing Office / *Monthly Catalog of United States Government Publications* (\$19.35 per year).
9. U.S. Library of Congress / *Monthly Checklist of State Publications*. Washington, D.C., Superintendent of Documents, U.S. Government Printing Office (\$21.90 per year).
10. Rountree, Robert W. and James A. Winkfield, comp. / *The Union Catalog of Maps*. Published bimonthly by the Berkeley Documentation Center, P.O. Box

- 361, Berkeley, Calif. 94701. Subscription price: \$25.00 per year. This service is now defunct.
11. Library of Congress / *Geography and Map Division Monthly Report*. Washington, D.C. 20540, Jun 1976.
 12. MARC Map Tapes are available at a subscription rate of \$400 per year. VideoComp Cards are available at five (\$.05) cents per card. Twenty-seven map libraries are making use of these services.
 13. Winch, Kenneth, ed. / *International Maps and Atlases in Print*. Published and available from R. R. Bowker Company, 1180 Avenue of the Americas, New York, N.Y. 10036, 1974, Price \$39.50.
 14. Walsh, James Patrick, comp. / *General World Atlases in Print*. 4th ed. New York, R. R. Bowker Company, 1973, 211p.
 15. Travel Centers of the World, 6311 Yucca, Hollywood, Calif. 90028.
 16. Rand McNally Map Store, 39 South La Salle Street, Chicago, Ill. 60603.
 17. Telberg Book Corporation, P.O. Box 545, Sag Harbor, N.Y. 11963.
 18. International Map Company, 595 Broad Avenue, Ridgefield, N.J. 07657
 19. The Map Store, Inc., 1636 Eye Street, N.W., Washington, D.C. 20006.
 20. U.S. Office of Management and Budget / *Report of the Federal Mapping Task Force on Mapping, Charting, Geodesy, and Surveying*. Washington, D.C., U.S. Government Printing Office, Jul 1973, 198 p. (price: \$6.80.)
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 23. National Ocean Survey. American Congress on Surveying and Mapping *Bulletin* No. 42:23-27 (Aug 1973).
 24. Bureau of Land Management. American Congress on Surveying and Mapping *Bulletin* No. 41:25-27 (1973).
 25. See current list of County General Highway Maps in issues of the *ACSM Bulletin*.
 26. Tennessee Valley Authority, Map and Surveys Branch, Map Information and Records Unit, 200 Haney Building, Chattanooga, Tenn. 37401.
 27. The Defense Mapping Agency. *ACSM Bulletin* No. 40:20-22 (1973). Penny, Howard W. / A Brief History of the Defense Mapping Agency. *Photogrammetric Engineering* 33 (no. 5):469 (1973); Nicoletti, Frank T. / U.S. Army Topographic Command College Depository Program. Special Libraries Association Geography and Map Division *Bulletin* No. 86:2-8 (1971).
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 30. United Nations Department of Economic and Social Affairs / *World Cartography*. Volume X, 1970, 113 p.
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Peace Corps Librarians in the Developing World

June Needle

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■ The experiences of five Peace Corps librarians in Colombia, Chile, and Kenya are described. Library conditions the volunteers found upon their arrival are recounted, as well as their accomplishments and hopes for the future.

PEACE CORPS volunteer librarian Elizabeth Krakauer found five incunabula lying on the floor of her office at the University of Los Andes in Bogota, Colombia. Volunteer Ellen Kay Gill was greeted by a room piled high with 5,000 books and journals on oceanography at the Universidad Catolica in Valparaiso on the coast of Chile. At the Medical Training Center in Nairobi, Kenya, the first thing that volunteer Tressa Bennett did was unlock the cabinets so the nursing and paramedical students could have access to the books.

Like an estimated 15 to 20 current Peace Corps volunteers with degrees or experience in library science, these three women opted for service in the developing world. They are among nearly 6,200 Peace Corps volunteers now working in education, health, agriculture, conservation, and business programs in 62 countries.

In 1961, one of the first Peace Corps librarians helped to extend library services into the villages of East Pakistan (now Bangladesh). Since then, the Peace Corps has responded to the requests of Latin

American, African, and Asian countries to provide volunteer librarians for universities, schools, government agencies, and nonprofit organizations. They are needed to establish new collections, organize existing ones, and train library staffs and students.

Qualifications and Training

According to John Huggins, a Peace Corps placement officer at ACTION headquarters in Washington, D.C., volunteer librarians of varied ages and experience departed last summer and fall for two-year assignments in the eastern Caribbean, Fiji, Lesotho, and Honduras. Following language training and cultural orientation programs, they will be working in school libraries, serving as resource librarians, teaching library science students, and joining the staffs of national universities.

The standard host country request, according to Huggins, may specify a degree in library science and a few years of employment in the field. But more and more frequently, countries seeking to upgrade the quality of their national libraries or to organize specialized collections are asking for volunteers with masters' degrees and years of experience.

What the volunteers may encounter on the job is another story altogether—everything from computerized equipment for cataloging to library personnel who have grammar school

educations. Dusting books, building shelves, designing cards, scrounging for books and periodicals, patiently training staff, and spending weeks and months cataloging may come closest to reality.

Volunteer in Colombia

Elizabeth Krakauer, 65, formerly of Boston, N.Y., holds degrees in psychology and anthropology as well as a master's in library science from the State University of New York at Geneseo. She has worked as a reference librarian and bibliographer at the State University of New York at Buffalo and at Yale University, and has headed libraries at Prescott, Bard, and Goddard colleges. Nothing could have prepared her for what she found in her tiny office at the University of Los Andes.

"It's the kind of thing every librarian dreams about," said Krakauer, who literally stumbled across five books printed in Germany and Italy in the 1400s. A widow, she joined the Peace Corps in March 1975. She has spent the past two years fighting to preserve and restore the incunabula as well as an additional 300 to 400 volumes she found. These volumes, many of them on the Inquisition, the Counter-Reformation, and religious persecutions, were printed in Western Europe between 1500 and 1800.

Krakauer enlisted rare book librarian Lorene Pouncey, an associate professor at the University of Houston, to identify the books. But in Colombia, she faced one frustration after another. Her colleagues did not initially share her enthusiasm about the find, and the university lacked funds to buy even petroleum jelly to rub on the old leather bindings.

Last fall, her efforts to gain student and staff support for the project were rewarded. The university allocated funds for an assistant and for needed supplies including a dehumidifier, a fumigation chamber, and thymol spray. Her newest assignment: to write a booklet describing the entire collection.

Her enthusiasm has been infectious. "One woman with a background in computers is learning how to catalog the rare books," reported Krakauer. "I met a law

student who asked me to teach him Latin. He's become so proficient that he is cataloging the 16th century Roman law books.

"The professional librarians here who go to library school don't do things such as dusting or cleaning books so I made a big point of showing me dusting books," she added. "I showed them how to clean the books using old stockings and a salt shaker filled with Ivory soap to clean the old parchment."

Krakauer said she savors the personal friendships she has made in Colombia but that "sometimes, it can be lonely." Nevertheless, she is setting up her life to remain in the Peace Corps for five years: "I'd like to identify all of the books we have found and let the world know what we have in Colombia. We have things here that are not in the Library of Congress or in the British Museum."

Volunteer in Chile

At the Universidad Catolica in Valparaiso, Chile, the fisheries school wasn't even sure what books and magazines were piled in stacks 15 feet high.

"Professors at the school, which is only a few years old, were well aware that the library was inadequate," said Ellen Kay Gill. A 26-year-old native of Burlington, Vt., Gill came to Chile in May 1975 after spending about one and one-half years as a Peace Corps volunteer librarian in Nicaragua. She received her master's degree in library science from Columbia University in New York in 1973 and joined the Peace Corps that same year.

"Many of the professors had studied in the United States at the University of Washington and the University of Oregon, which participate in an exchange program with the Universidad Catolica, and were exposed to excellent oceanographic libraries. That's why they requested a Peace Corps librarian to help enlarge and organize their facility," she said.

When Gill arrived, "There was no order, no system. If you knew what was on the top shelves, you could crawl up on a ladder and get it. Then again, it might not be there."

Her first task was to master the terminology of fisheries, marine food science, and oceanography. She wanted to continue use of the universal Dewey decimal system to organize the collection, but had no manual. She decided to classify the books by country of publication and then alphabetically by title.

Shortly after she came, the library received new quarters—a three-room laboratory. “Sometimes it got so cold and everything was in such a mess that I dreamt of a grand fire,” she said, tongue in cheek. “I’m really glad I stuck it out, though. I love the country and the people. Even the library work has been rewarding in many ways.”

One of her chief rewards has been the opportunity to work with a library science graduate who will be able to run the library when Gill completes her assignment. Trained librarians are at a premium in Chile and throughout the developing world. Many graduates of library science schools remain as teachers in the universities, leaving less educated persons to actually staff the libraries.

“I’m leaving this place in excellent hands,” said Gill.

Volunteers in Kenya

When Tressa Bennett, a 75-year-old widow from Kansas, Ill., started at the Medical Training Center in Nairobi, Kenya in January 1972, she found that none of the books were classified: “All were kept in locked cases for the various departments. Anatomy books might be in each case but could not be used by the students in any of the other departments.”

Bennett joined the Peace Corps after 31 years of experience as a high school English teacher and librarian in Illinois. She had a master’s degree in education from Eastern Illinois University in Charleston.

Her job in Nairobi includes ordering books and equipment, classifying collections at the University of Nairobi and the Kenyan Library of Congress, and supervising a staff of seven plus two typists at the Medical Training Center’s libraries for nursing and paramedical students. The

Figure 1. Elizabeth Krakauer displays some of the rare books she found in her office at the University of Los Andes, Bogota, Colombia.



Medical Training Center encompasses a number of other libraries devoted to medicine and public health, as well.

“Unfortunately, none of my staff have enough education to attend library classes,” said Bennett. “Four are on the high school sophomore level and three are on the senior level. There was a library school at Makerere University in Uganda, but UNESCO has withdrawn and now conducts six-month classes in Nairobi.

“The shortage of librarians is tragic. In January 1974, a decision was made by the Ministry of Health to give me six trainees for six months and then three each period to train prior to their entering the UNESCO classes. But due to a lack of money that plan was not executed.”

Bennett, who would like to remain in Kenya until 1978, offered some insight on what it is like to live in Nairobi.

“The first six months, I lived in the post-graduate nurses’ home and have been thankful because of the friends I made and the experiences I had,” she noted. “Four Peace Corps volunteers live in our compound here. Our landlord and wife have a car. We attend theater and other events together.

“I do not attend movies because there is so much to do for the library. All depends on me. I do not sit at the desk except in

emergencies. My statement is 'My government is not paying for me to do what you can do. And the Kenya government does not want me to do what you can do.' This is accepted as routine.

"I have cultivated African relationships much of the time," she continued. "I feel it is an opportunity to understand, and I appreciate the friendships. I have done this through young people and have visited shambas—tiny rural homes made of cow dung mixed with clay. The people have maybe one-fourth of an acre to cultivate for food for the year.

"Nairobi has a wonderful climate," she added. "It's 87 miles from the equator but 6,000 feet in altitude. It is a city of constant flowers. I have taken safaris to the national parks and enjoyed the wildlife to be seen.

"I have loved every minute of my work."

Bennett is one of about seven volunteer librarians in Kenya, which has one of the larger Peace Corps library programs. Volunteer Shirley Gray, 50, of Minneapolis, a library science graduate of the University of Minnesota, serves as a consultant at a medical research library in the capital city. Founded in 1910, it was the first medical library in Kenya. Now it is being geared to specialization in public health and research.

Gray, who worked previously with a nursing library, provides informal instruction for the staff, none of whom have professional library training. She is creating a card catalog on the American plan for the library's 7,000 volumes, and is introducing subject headings—"a new wrinkle to my colleagues."

"All this is an attempt to improve the delivery of medical information to Kenya's medical people," said Gray.

"The staff is interested in learning about my country as well as library science," she added. "I feel that the cross-cultural learning on both sides—theirs and mine—is as important as the professional learning."

Volunteer Gail Wadsworth, 29, of Hilton, N.Y., also works in Nairobi. She is assigned to Kenya's National Library Service (K.N.L.S.), the country's public

Figure 2. Ellen Kay Gill at work in the oceanographic library at the Universidad Catolica, Valparaiso, Chile.



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library system. She works in the main lending and reference library which has a collection of 23,000 books and periodicals as well as a children's collection which numbers over 8,000.

Wadsworth, who holds a master's degree in library science from the State University of New York at Albany, spent her first year of Peace Corps service in one of the provincial libraries. Since June 1974, she has been assigned to the processing department at the Nairobi headquarters. She is one of 12 trained librarians working in the public library system.

"A fact which is most encouraging for the future is that the majority of the readers are students, in both primary and secondary schools," she observed. "As most of the schools do not have adequate libraries, the students turn to the public libraries for reading materials. This causes history, geography, and particularly science and fiction (especially by African writers) to be the most popular books for borrowing.

"Children are among the most avid readers, and we are hard pressed to obtain enough picture books and books by local writers to satisfy them. With students of all ages reading so encouragingly, it is hoped that future generations of adults

will have the habit of reading and the time in which to continue it."

Wadsworth finds she is involved with a little of everything: ordering books, processing them, cataloging, and helping with in-service training of library staff and students.

She finds her working environment both pleasant and challenging: "K.N.L.S. is a developing organization, open to new ideas and changes. It is an organization much appreciated and much needed by the people of Kenya. As a public library system, it is attempting to meet this need by steady growth and expansion. Hopefully, in the future, all of Kenya will have access to its services, and there will be enough trained Kenyan librarians to adequately staff its branches and mobiles so that volunteers such as myself will one day no longer be needed."

ACTION

The Peace Corps is part of ACTION, the federal agency for volunteer service established in July 1971 to administer volunteer programs at home and overseas.

ACTION's domestic programs include Volunteers in Service to America (VISTA), Foster Grandparent Program, Retired Senior Volunteer Program (RSVP), Senior Companion Program, and University Year for ACTION.

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SLA Hall of Fame/1977

Grieg Garfield Aspnes

The special library career of Grieg Aspnes began in 1943 as the librarian of Brown & Bigelow in St. Paul; almost simultaneously he joined SLA. He is a charter member of the Minnesota Chapter established in April 1943. Since 1956 he has been research librarian at Cargill, Inc., Minneapolis.

He has served in many offices in the Minnesota Chapter, the Advertising Division and the Documentation Division. His active interest in library education led to his chairmanship of the SLA Education Committee. He also served as chairman of the SLA Awards Committee and the SLA Nominating Committee.

In 1951-52 he served *his* Special Libraries Association as its President. He was then described as "a very special librarian."

To list all of Mr. Aspnes' offices in SLA, to list his bountiful publications, and to enumerate his activities in many other professional organizations would take up a great deal of space.



ASPNES

Perhaps the very special contributions of Grieg Aspnes to SLA have been the many years of his activities in Consultation Service. This has resulted in the establishment of more than 50 special libraries in Minnesota—a record of accomplishment that is not documented for any other member of the Association.

Grieg's philosophy of "service to the right person at the right time in the right amount" will not end with his retirement. Thus, for all his services to SLA, it is fitting that Grieg Aspnes be named to the SLA Hall of Fame.

Rocco Crachi

A leader in the field of scientific and technical libraries, Rocco Crachi was an active member of professional library associations and a supporter of library education. He had been a member of Special Libraries Association since 1951.

In the Southern California Chapter he served as Bulletin Editor 1964-66, Treasurer 1966-67, and President 1968-69.

He was a member of the Aerospace, Documentation and Transportation Divisions. He had served SLA in many other capacities, including the Nominating Committee and the H. W. Wilson Company Chapter Award Committee.

Rocco Crachi will, perhaps, be remembered most as the Editor of *Sci-Tech News* from 1967 through 1971. In his editorials, he was usually ahead of most of us in calling attention to topics and problems, which later we all would have to face. In his first editorial he urged special libraries to start planning



CRACHI

seriously for regional cooperative centers. That was before cooperative networking was popular—and certainly long before special libraries began serious involvement in it.

He was chairman of the Science-Technology Division for the year 1975-76. As chairman he worked hard to make his Division's programs outstanding at the Denver Conference. He was the cordial and competent master of ceremonies, the dedicated and unselfish planner and coordinator, the extremely knowledgeable professional, the precise and fair parliamentarian, and the friendly advisor at the many

and varied meetings of the Sci-Tech Division. At the end of the Conference he was stricken at the Denver airport.

Rocco Crachi's associates have described

him as pragmatic and energetic in his organizing abilities. He will be remembered for his honesty, his forthrightness and his devotion to his job and to his profession.

Samuel Sass

Perhaps the library career of Sam Sass can be traced even from his years as a student at James Monroe High School in New York City. During this period he worked as a page in the New York Public Library. But his more formal library career began as science librarian at the University of Kansas.

In 1945 he organized the William Stanley Library at the General Electric Company in Pittsfield, Mass; and he remained at GE until his recent retirement.

Sam became a member of SLA in 1943. He has held appointive offices in the Western New York Chapter (now the Upstate New York Chapter), and was Chapter president in 1957-58. He served as chairman of the Engineering Index Project of the former Engineering Section of the Sci-Tech Division.

His participation in the SLA Professional Standards Committee, Admissions Committee, and the Special Committee on the Code of Ethics was evidence that he was a concerned member of the Association.

In Pittsfield he has been and continues to be one of the city's most active volunteer workers on matters of civic concern, and on social



SASS

service projects and civil rights projects. His activities include the Pittsfield Historical Commission, the Berkshire County Historical Society, the Town Hall Architectural Commission, and the Friends of the Berkshire Athenaeum. He continues to review books for the *Berkshire Eagle* and is well known for his frequent letters-to-the-editor of this newspaper as he expounds his views on matters of civic concern. SLA members will also remember Sam's letters-to-the-editor of *Special Libraries*.

For all his service to Special Libraries Association, Sam Sass has been named to the SLA Hall of Fame.

WASHINGTON LETTER

Telecommunications

Libraries and information centers have an important stake in the outcome of congressional efforts now beginning in both House and Senate to revise the outdated Communications Act of 1934—a monumental and time-consuming task that some have likened to revision of the 1909 Copyright Act, which preoccupied Congress for twelve continuous years before a comprehensive (and controversial) revision was finally enacted last October.

The Communications Act of 1934, with its countless piecemeal amendments over the years, is the basic statute regulating our country's interstate and foreign communications. This act established the Federal Communications Commission, and assigned it specific purposes, one of which was to regulate "interstate and foreign communications by wire and radio so as to make available, so far as possible, to all the people of the United States, a rapid, efficient, nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges . . ."

The main push in the 1930s was to extend telephone and telegraph services to the American people at reasonable rates. Today, according to testimony presented to both House and Senate Communications Subcommittees, chaired respectively by Lionel Van Deerlin (D-CA) and Ernest Hollings (D-SC), 95% of American households have low-cost telephone service provided by AT&T and some 1600 independent telephone companies. But here, the trouble begins, for AT&T claims that unless it is granted a continuing monopoly in the telecommunications industry, it will not be able to maintain low-cost telephone service; telephone bills for all Americans will rise if the FCC continues to allow competition in the industry.

Although AT&T has been pushing hard to influence Congress to enact anti-competitive legislation, increasingly the legislators seem to be taking a skeptical view of AT&T's proposed legislation which is called the Consumer Communications Reform Act, but is perhaps better

known as the "Bell Bill." For example, in a prepared statement for presentation to the Senate Communications Subcommittee, Sen. Gary Hart (D-CO) said the following:

Many people are now coming to realize that the Bell bill . . . is, in fact, an extremely radical measure that would give the largest corporation in the world carte blanche to determine the future of telecommunications in this country. By reversing many of the FCC's pro-competitive decisions of the last decade, the Bell bill would establish an AT&T monopoly across an industry that is playing a pivotal role in our emerging "information society" (1).

But despite the suspicious attitude of critics like Sen. Hart, many members of both House and Senate are being urged by their constituents to keep the cost of telephone service down, and approximately 50 representatives have this year introduced one or another versions of the Bell bill, thus adding their names to a growing list of sponsors. The small independent telephone companies, particularly, and their rural subscribers are vocal and active proponents of the Bell bill, since the cost of providing telephone service in rural areas is considerably higher. Rural telecommunications has been the subject of hearings in Sen. Hollings' subcommittee, and also the subject of a report from Congress' Office of Technology Assessment ("The Feasibility and Value of Broadband Communications in Rural Areas: A Preliminary Evaluation," April 1976—available from OTA, U.S. Congress, Washington, D.C. 20210).

The Bell bill, with its growing list of sponsors, is pushing Congress to make a major policy review of communications regulation. As House Communications Subcommittee Chairman Van Deerlin has said, "to achieve the potential benefits which the new technologies appear to hold out to us will require a legal and regulatory framework as imaginative and innovative as the technology itself. . . . John Richardson, Director of the Commerce Department's Office of Telecommunications, in a recent article, depicted three

possible communications futures: one shaped by *technology*, one by *market* forces, and one by *public* policy. In reality, we should seek a communications future shaped by all three”(2).

Van Deerlin has also made it clear that rewriting the Communications Act of 1934 will take time, that the process will be cumbersome, complex, and prolonged. He does not promise a new act this year or next, but he has promised that his subcommittee will begin the job—and indeed, they already have.

Innovations in telecommunications and the combining of communications and computer technologies are of great importance to libraries. In its recommended national program for the provision of adequate library and information services to all Americans, the National Commission on Libraries and Information Science envisions among major federal responsibilities, the exploration of computer use and the application of new forms of telecommunications. “In order to place people in more immediate contact with the total national information resources, a future telecommunications system might eventually integrate teletype, audio, digital and video signals into a single system. The greatest boon to national access to the public knowledge resource would be free or reduced rates for educational and cultural use of the Federal Telecommunications System and satellite communication channels, at least until the traffic has reached an economically viable level”(3).

The debate on our future telecommunications policy has begun in the First Session of the 95th Congress, with the initiation of studies and hearings to educate the legislators. No one should hold his breath waiting for the outcome, but neither should one ignore this congressional activity. The role of libraries in American society is a significant piece in the puzzle of communications regulation which Congress must eventually put together if we are to have the kind of imaginative and innovative future regulatory framework that Van Deerlin foresees.

Sara Case

1. “The Future of Telecommunications,” statement by Sen. Gary Hart before the Subcommittee on Communications of the Senate Committee on Commerce, Monday, Mar 21, 1977.
2. Address given by U.S. Rep. Lionel Van Deerlin at the Midwinter Meeting of the American Library Association, Washington, D.C., Feb 2, 1977.
3. “Annual Report to the President and Congress ’74/’75,” National Commission on Libraries and Information Science, U.S. Govt. Print. Off., Jan 1976 (GPO 213-361 0-76-2), p. 12.

HAVE YOU HEARD?

CIS Poster

Congressional Information Service has created a colorful poster highlighting the wide variety of information to be found in a library's government documents collection. A free copy of the poster may be obtained from CIS (booth #402) at the SLA Conference exhibits, or by writing: CIS Poster, P.O. Box 30056, Washington, D.C. 20014.

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Translations of Technical Papers

ICE Abstracts, published by the Institution of Civil Engineers, London, includes about 2,000 abstracts per year from major European and American civil engineering journals. Translations are being made available of the most significant papers abstracted from foreign language sources. Address inquiries to D. P. Murphy, Editor, *ICE Abstracts*, Construction Industry Translation & Information Services, 130 Foxrock Park, Foxrock, Dublin, Ireland.

Health Conference Proceedings

The *Proceedings of the Symposium on the National Health Planning Act*, published by the Columbia University Health Sciences Library, is available for \$6.00. Topics at the Oct 6, 1976 symposium included an examination of the act itself and its possible implications for health science libraries and librarians. Order from C. Lee Jones, Health Sciences Librarian, Columbia University Health Sciences Library, 701 W. 168th St., New York, N.Y. 10032.

New Format for NBS Monthly

Dimensions/NBS, the monthly magazine of the National Bureau of Standards, has a new look and a new format. In addition to general interest articles on such topics as consumer product safety and building technology, expanded sections contain the latest useful information for scientists, industrial managers, and manufacturers, plus complete NBS conference and publications listings. A year's subscription costs \$12.50. Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Chilean Bibliography

A catalogue is available from a Chilean bibliographic service offering access to out-of-print, rare books, as well as to the actual literary production of Chile. Write: Fontana Ltda., Casilla 5602, Santiago 2, Chile.

Oral History Institute

A practical course on oral history as a research and learning tool is being offered Jun 20-Jul 1 at the University of Vermont. Write for a catalog: Summer Session, Grasse Mount, University of Vermont, Burlington, Vt. 05401.

New Indexes for Energy Abstracts

A new subject index and a new author affiliation index are now features of *Energy Abstracts*, published monthly by Engineering Index, Inc. The publication also contains main subject headings and subheadings and an author index. Further information and/or a

sample is available from Engineering Index, Inc., World Engineering Center, 345 E. 47th St., New York, N.Y. 10017.

Library of Congress Appointment

Librarian of Congress Daniel J. Boorstin appointed Gilbert Gude, a former Maryland congressman, Director of the Congressional Research Service. The service provides Congress with extensive automated data, background studies, and assistance with committee analysis of ongoing legislation.

OCLC Study Funded

The Council on Library Resources, Inc. (CLR) has awarded a \$122,000 grant to the Ohio College Library Center for a six-month study of OCLC's governance and organization by the consulting firm of Arthur D. Little, Inc. CLR is a private operating foundation established in 1956 for the purpose of aiding in the solution of library problems, particularly those of academic and research libraries.

Music Therapy Index

The National Association for Music Therapy has published the first volume of *Music Therapy Index*, which covers the years 1960-1975. The index is designed as a resource for therapists, educators, and administrators concerned with the influence of sound, specifically music, on behavior. Price: \$19.95 for individual orders, \$29.95 for library orders. Address orders to: National Association for Music Therapy, Inc., P.O. Box 610, Lawrence, Kansas 66044.

Double Degree Program

The Division of Library and Information Sciences and the Graduate Division of the College of Pharmacy and Allied Health Professions at St. John's University offer a joint program of graduate study for drug information specialists. Graduates receive an M.L.S. and an M.S. in Pharmacology. For an application, write to either division, St. John's University, Jamaica, N.Y. 11439.

NAVA Voting Rights

For the first time in 20 years, all members of the National Audio-Visual Association's ruling body now have a vote in matters pertaining to the membership. Following modification (at NAVA's request) of a Federal Consent Decree which had prohibited sustaining members from voting in association matters, NAVA has changed its bylaws to allow the chairman of any committee or council to have equal voting rights with other NAVA members on the board of directors.

East Africa Bibliography

A subject bibliography on official publications of the East African Community (1926-1974), and of the East African region (1859-1974, issued by Great Britain or one of the three partner states), has been published by the Library of Congress in its program to provide bibliographic control of African official documents. *East African Community; Subject Guide to Official Publications* is available by mail from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 for \$6.65.

Disk Storage Case

KAS-ETTE/10 is the name of a new product—a case for storing and using small disks. Made of polypropylene, it holds 10 disks firmly during shipment, provides temperature and humidity protection, and doubles as a desk top file. The new library case is available at no cost with every 10 disks ordered from Group/3 (a division of Informatics, Inc.) at \$47.50 for the total package. Contact: Group/3, 21050 Vanowen St., Canoga Park, Calif. 91304.

Books on Developing Countries

Unipub has been appointed exclusive U.S. distributor of International Development Research Centre publications. The IDRC publishing program of over 50 titles covers agriculture, health services, information science, social science and human resources as they relate to developing countries. For a free catalog of IDRC publications, write: Unipub, Box 433, Murray Hill Station, New York, N.Y. 10016.

Unipub is also the exclusive U.S. distributor for Verlag Dokumentation publications, Munich, Germany.

Self-Instruction Manual

On-Line Searching; A Self-Instruction Manual, prepared by two Drexel University graduate library science students, is designed to instruct prospective searchers in the fundamentals of on-line searching, using the ERIC

data base. The manual is available at \$3.90 plus postage from the Drexel University Book Store, Philadelphia, Pa. 19104.

Library-Related Laws

A *Handbook of Laws and Regulations Affecting Public Libraries in New York State* is available at \$25.00 prepaid from the Nassau County Library Association. Make checks payable to: Handbook of Laws, 1060 Hicksville Road, Massapequa, N.Y. 11758.

Service to the Handicapped

The Library of Congress announced that four new subregional libraries have joined the national network of 150 libraries serving the blind and physically handicapped. The libraries opened in Louisville, Ky., Ft. Lauderdale, Fla., Brunswick, Ga., and Waterville, Me.

New On-Line Journal

The first issue of *On-Line Review*, a quarterly international journal for on-line users, appeared in March. Regular features include a news section on new data bases, new systems, equipment, search aids, and people, as well as an on-line update section covering the on-line literature appearing elsewhere. Annual subscription price is \$45.00 or \$25.00 for individual subscribers. Write: Learned Information, 200 W. 57th St., New York, N.Y. 10019.

Continuing Education Directory

The 1977 edition of the *Directory of Continuing Education Opportunities for Library, Information and Media Personnel* is available from the Continuing Library Education Network and Exchange. Nearly 240 programs in the area of library/media/information science are described. Price: \$15.00 to CLENE members, \$25.00 to nonmembers. Copies may be obtained by writing to Mary Baxter, Box 1228, 620 Michigan Ave., N.E., Washington, D.C. 20064.

COMING EVENTS

Jun 20-24. American Theological Library Association, 31st Annual Conference . . . Vancouver School of Theology, Vancouver, B.C., Canada. Contact: Dr. John B. Trotti, Librarian, Union Theological Seminary, 3401 Brook Road, Richmond, Va. 23227.

Jun 20-Jul 22. Medical Literature and Reference Work, Graduate Course . . . University of Illinois Medical Center Library, Chicago, Ill. Sponsor: University of Illinois Graduate School of Library Science. Tuition: \$88. Write: Richard F. Casper, Office of Continuing Education, University of Illinois, 300 W. Golf Road, Mt. Prospect, Ill. 60056.

Jun 25-29. American Association of Law Libraries, Annual Meeting . . . Toronto, Ont., Canada.

Jun 26-28. Church and Synagogue Library Association, Annual Conference . . . Southern Methodist University, Dallas, Texas. Theme: Communication is the Key. Write: CSLA, Box 1130, Bryn Mawr, Penn. 19010.

Jun 27-Jul 20. Copyright and Libraries, Graduate Course . . . University of Illinois Graduate School of Library Science, Chicago, Ill. Tuition: \$88. Write: Richard F. Casper, Office of Continuing Education, University of Illinois, 300 W. Golf Road, Mt. Prospect, Ill. 60056.

Jul 3-8. 9th Brazilian Congress and 5th Rio-Grandense Meeting of Library Science and Documentation . . . Porto Alegre, Brazil. Theme: Integration of Information Systems Viewing National Development. Write: Biblioteca Central, UFRGS—Av. Paulo Gama, s/n. —90.000, Porto Alegre, RS—Brazil.

Jul 4-Aug 27. 5th International Graduate Summer School in Librarianship and Information Science . . . College of Librarianship, Aberystwyth, Wales. Apply: Director IGSS 1977, College of Librarianship Wales, Aberystwyth, Wales, Great Britain.

Jul 10-15. 29th NAVA Institute for Professional Development . . . Indiana University, Bloomington. Theme: Pathways to Profits. Fee: \$195. Participation limited to NAVA commercial members. Write: National Audio-Visual Association, 3150 Spring St., Fairfax, Va. 22030.

Jul 10-16. Film/TV Documentation Workshop . . . American Film Institute, Center for Advanced Film Studies, Beverly Hills, Calif. Sponsors: University of California, Los Angeles and AFI. Fee: \$250. Write: UCLA Extension, 10995 LeConte Ave., Los Angeles, Calif. 90024.

Jul 11-12. National Commission on Libraries and Information Science, Meeting of the Task Force on the Role of School Library Media Program in Networking . . . Stouffer's National Center Inn, Arlington, Va. Write: NCLIS, 1717 K St., N.W., Suite 601, Washington, D.C. 20036.

Jul 11-Aug 5. Conservation of Research Library Materials, Graduate Course . . . Newberry Library, Chicago, Ill. Sponsor: University of Illinois Graduate School of Library Science. Tuition: \$88. Write: Richard F. Casper, Office of Continuing Education, University of Illinois, 300 W. Golf Road, Mt. Prospect, Ill. 60056.

Jul 16-17. Alternative Careers in Library and Information Services, Workshop . . . School of Information Studies, Syracuse University, Syracuse, N.Y. Contact: Maxine W. Davis, Alternative Careers Workshop, P.O. Box 331, Dewitt, N.Y. 13214.

Jul 25-Aug 5. Microforms for Libraries, Graduate Course . . . Graduate School of Librarianship, University of Denver, Colo. Tuition: \$225. Write: Admissions Office, Graduate School of Librarianship, University of Denver, Denver, Colo. 80208.

Jul 25-Aug 19. Georgia Department of Archives and History, 11th Annual Institute . . . Atlanta, Ga. Co-Sponsor: Emory University, Division of Librarianship, Atlanta. Write: Archives Institute, Georgia Department of Archives and History, Atlanta, Ga. 30334.

Jul 26-29. 6th International Conference on Mechanized Information and Retrieval Systems . . . Cranfield, England. Theme: Characteristics and Use of Data Banks and Data Bases. Write: Cyril Cleverdon, Librarian, Cranfield Institute of Technology, Cranfield, Bedford MK43 OAL, England.

Jul 31-Aug 6. 1977 Executive Development Program for Library Administrators, Course . . . Miami University, Oxford, Ohio. Sponsor: School of Business Administration, Miami University. Fee: \$295. Contact: Harry F. Brooks, School of Business Administration, Miami University, Oxford, Ohio 45056.

Aug 1-22. Archives in Northwest Europe, Study Tour . . . Dublin, Edinburgh, Oslo, Amsterdam, Brussels, London. Visits to public and private archival agencies, manuscript repositories, and libraries. Write: Archives Study Tour, Society of American Archivists, P.O. Box 8198, Chicago, Ill. 60680.

Aug 7-11. Urban & Regional Information Systems Association, 15th Conference . . . Kansas City, Mo. Theme: Information System Inputs to Policies, Plans, and Programs. Contact: URISA, 1313 E. 60th St., Chicago, Ill. 60637.

Aug 8-12. International Federation for Information Processing Congress 77 . . . Toronto, Canada. Theme: The Maturing Profession—Perspectives and Prospects.

Write: Canadian Information Processing Society, 212 King St. West, Suite 214, Toronto, Ont., Canada M5H 1K5.

Aug 16-20. International Law Librarianship, Course . . . Budapest, Hungary, Sponsor: International Association of Law Libraries. Theme: The Legal System, Its Materials and Documentation in the Socialist Countries. Contact: IALL Headquarters, Universitätsstrasse 6, 355 Marburg, Germany.

Aug 29-Sep 3. IFLA/UNESCO Pre-Session Seminar for Developing Countries . . . Antwerp University, Belgium. Theme: Resource Sharing of Libraries in Developing Countries. Write: Antwerp University Library, c/o Pre-Session Seminar, P.B. 13, B-2610 Wilrijk, Belgium.

REVIEWS

Designing a National Scientific and Technological Communication System, by Russell L. Ackoff, et al. (The SCATT Report) [Philadelphia] University of Pennsylvania Press, 1976. 173 p. \$12.00 ISBN 0-8122-7716; LC 76-20150.

That duplication, overlapping, confusion, and frustration form an integral part of the U.S. "system" for scientific and technological information is obvious to most discerning observers. Lee G. Burchinal, Head of Science Information Service of the National Science Foundation, in a foreword to the above volume, notes that while in the past our system for scientific and technological communication may have been functioning reasonably well, conditions have changed within recent years. Users, purchasers, packagers, and producers of information services are increasingly confronted with obstacles which tend to impede the proper acquisition, dissemination, and use of scientific and technological information. And while under our form of government we often cannot centralize functions or impose by decree needed improvements, the argument is advanced that we ought to be able to formulate and influence the voluntary adoption of an overall, ideal information system which, hopefully, would combine the best possible elements for maximizing access and utilization of scientific and technological information. The

proposed ideal system would enable us to "balance our democratic respect for pluralism with our managerial requirement for efficiency and effectiveness."

With a grant from the National Science Foundation's Office of Science Information Service, Dr. Russell Ackoff and his associates at the Bush Center of the Wharton School of Business, University of Pennsylvania, proceeded to design a National Scientific and Technology Transfer (SCATT) System. The system was to allow for the coordination, replacement or link-up of the multitude of the almost autonomous information subsystems now operational within the scientific and technological community. The search for the design of an ideal information system was focused, however, on a search for an "ideal-seeking" system. Expected to be neither static nor perfect, the system would have the capability of approaching the designers' view of perfection. The idealized design would thus represent a "relative absolute." It would be absolute in the sense that the design would reflect the designers' perception of our society's ultimate values and relative in the sense that the idealized design would acknowledge and make provision for the "currently imperfect information about, and knowledge and understanding of, the system being designed"—not to mention the designers' "less than perfect wisdom."

Having thus disarmed the more adamant past and potential critics, the designers proceeded to design the SCATT System, i.e., an ideal-seeking system based on a set of values and assumptions which are, of course, self-evident to the designers, open to question, and, by definition, subject to change.

One of the fundamental assumptions of the SCATT design is that "participative management and the market mechanism are effective ways of providing the SCATT System with continuous evaluation of its performance by its participants." Projected as a "not-for-profit" enterprise, the system would include, a National SCATT Center, approximately a dozen regional centers and more than a hundred local centers. Each SCATT center would be governed by a board and a director, with the national director requiring congressional approval. Taxpayer funds would be used to establish the total system. Once established, however, the system would become completely self-supporting through the imposition of user charges for all of its services. Such charges, it is argued, would provide the user with an effective means of expressing disapproval of SCATT System services, i.e., by "not purchasing them." The market mechanism would also assure the "responsiveness of the System to what the users want." Thus, while the enormous costs of setting up the SCATT System would be borne by every U.S. taxpayer, its services would be available to those who are able to pay the full service recovery costs. Indeed, some local SCATT centers are intended to be operated on a for-profit basis as bona fide business enterprises.

The SCATT design does not exclude subsidization of users, and at any rate, its designers note that individual scientists and engineers would not personally incur SCATT service costs. Rather it is their employers, universities, libraries, research institutes, etc., that would cover most of the costs. Moreover, SCATT itself could provide subsidies for certain groups of users. And yet, under the SCATT System, academic libraries would be required to be self-supporting. "Students and faculty members would be given an appropriate amount of credit, in voucher form, with which to pay the charges libraries would make for their services in or out of science and technology." "The libraries' income would come only from the redemption of vouchers and from cash payments made to them by consumers of their services." The SCATT System requires also "profit-and-loss accounting in each SCATT Center, whether local, regional or national."

With the imposition of the "market mechanism" and its system of vouchers and user charges, one can visualize a not-so-ideal scenario of the fledgling researcher or scholar, vouchers fully spent, begging for them, hands wringing or outstretched, scholarship, motivation or enthusiasm blunted or destroyed. Based even on the remotest possibility of the above scenario becoming a reality, the implementation of the "market mechanism" assumption may result in a cure worse than the disease. Clearly many unquantifiable factors relating to the human condition, human motivation, and overall creative environment within which research is to be carried out are yet to be fully analyzed and ought to be given more than business accounting treatment by the designers of an ideal communication system. The idealized SCATT System could just as well have been based on the assumption of the President's Science Advisory Committee (Weinberg) Report, accepted not too many years ago by another group of eminent scientists, scholars and business leaders, that the cost of disseminating research results represents an integral part of the cost of research and development activity. Obviously, a very different SCATT Report would have resulted with the embrace of this particular assumption.

From an entirely different vantage point, the SCATT Report represents an excellent review and analysis of the state-of-the-art with respect to systems design, technology, operation, economics and evaluation. Now in its sixth iteration, the SCATT document confronts and counters much of the criticism hurled at it in the past by numerous and vociferous critics. A number of excellent suggestions, e.g., the establishment of a Technology Exhibit Register, projected for future action, ought to be undertaken and carried out at the earliest opportunity.

Although uneven in the organization of its material and representing slow and difficult reading, I consider the SCATT Report to be essential and highly rewarding reading for all those concerned with planning and effective utilization of research results. The national information system for scientific and technological communication projected in this volume is novel in its approach, controversial in the extreme, and reflects an abundance of practical and far-out suggestions.

Irving M. Klempler
School of Library and Information Science
State University of New York at Albany
Albany, New York

PUBS

(77-052) **Scientific and Technical Information: Options for National Action.** Whalen, Bruce G. McLean, Va., Mitre Corp., 1976. 67p. \$1.35 (U.S. Govt. Print. Office, S/N 038-000-00303-8).

Report prepared for the National Science Foundation, Division of Science Information on the analysis of the scientific and technical aspects of PL 94-282, the National Science and Technology Policy, Organization and Priorities Act of 1976.

(77-053) **The Arts and the World of Business; A Selected Bibliography, Supplement II.** Georgi, Charlotte. Los Angeles, UCLA Graduate School of Management, 1976. 98p. (Study Center for Cultural Policy and Management in the Arts. Paper no. 33). \$5.00.

Second supplement to *The Arts and the World of Business* (Scarecrow Press, 1973). Available from: GSM Publications Services, Graduate School of Management, Univ. of California, Los Angeles, Calif. 90024.

(77-054) **Books in Series in the United States, 1966-1975: Original, Reprinted, In-Print, and Out-of-Print Books Published or Distributed in the U.S. in Popular, Scholarly, and Professional Series.** New York, Bowker, 1977. \$50.00. 2486p. LC 76-41665 ISBN 0-8352-0902-4

Approximately 9,370 series titles are listed. Includes author index, title index of individual books, and a series subject index.

(77-055) **Collective Bargaining and the Academic Librarian.** Weatherford, John W. Metuchen, N.J., Scarecrow Press, 1976. 147p. \$6.00. LC 76-45424 ISBN 0-8108-0983-4

Examines collective bargaining and its impact on the academic librarian.

(77-056) **Library Technical Services: A Selected, Annotated Bibliography.** Margill, Rose Mary and Constance Rinehart, comps. Westport, Conn., Greenwood Press, c1977. 238p. \$14.95. LC 76-27130 ISBN 0-8371-9286-2.

Includes over 1,200 entries, name and subject indexes.

(77-057) **Foundations, Grants & Fund-Raising.** Georgi, Charlotte, ed. Los Angeles, UCLA Graduate School of Management, c1976. 67p. \$5.00.

Bibliography includes approximately 300 entries. Available from: GSM Publications Services, Graduate School of Management, Univ. of California, Los Angeles, Calif. 90024.

(77-058) **Marquis Who's Who Publications: Index to All Books 1976.** Chicago, Marquis Who's Who, c1976. 535p. \$24.95. LC 74-17540 ISBN 0-8379-1403-5


Index to biographees listed in the current editions of thirteen Marquis Who's Who publications.

(77-059) **Microlist: An International Record of New Micropublications.** Vol. 1 (no. 1) (Jan 1977). 10 issues/year. \$50.00 (\$25.00 to current subscribers to *Microform Review*). ISSN 0362-1014

Covers books, monographs, serials, newspapers, government documents and collections. Author/title and subject listings. Published by Microform Review Inc., Alan M. Meckler, Publisher, 520 Riverside Ave., P.O. Box 405 Saugatuck Station, Westport, Conn. 06880.

(77-060) **Sources: A Guide to Print and Nonprint Materials Available from Organizations, Industry, Government Agencies, and Specialized Publishers.** Vol. 1 (no. 1) (Winter 1977). 3/year. \$60.00. ISSN 0145-2355

Listings are alphabetical by issuing agency, with title and subject indexes. Published by Gaylord Bros. Inc., Gaylord Professional Publications, P.O. Box 61, Syracuse, N.Y. 13201.




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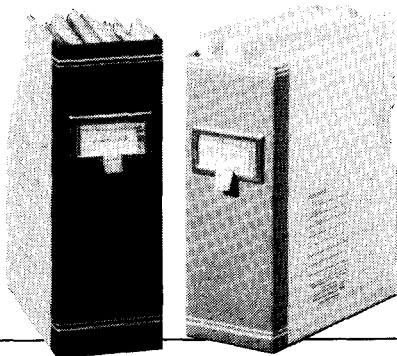
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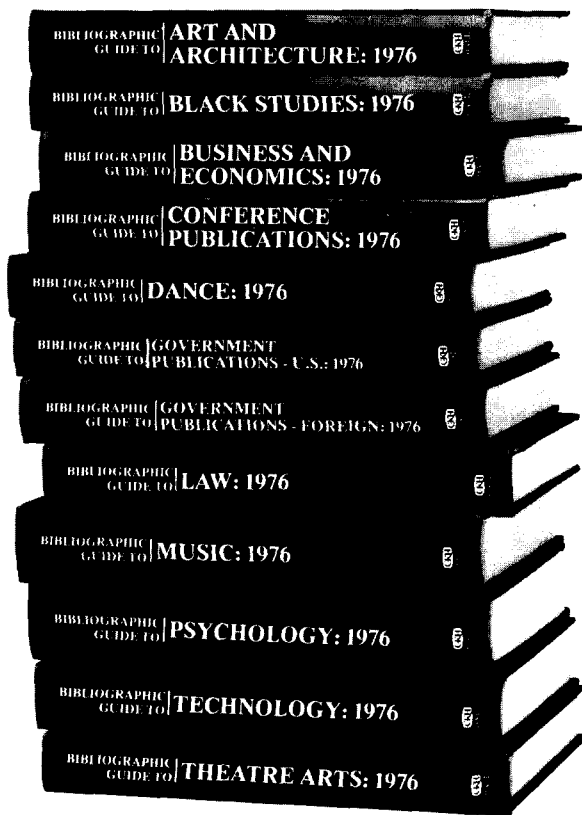
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