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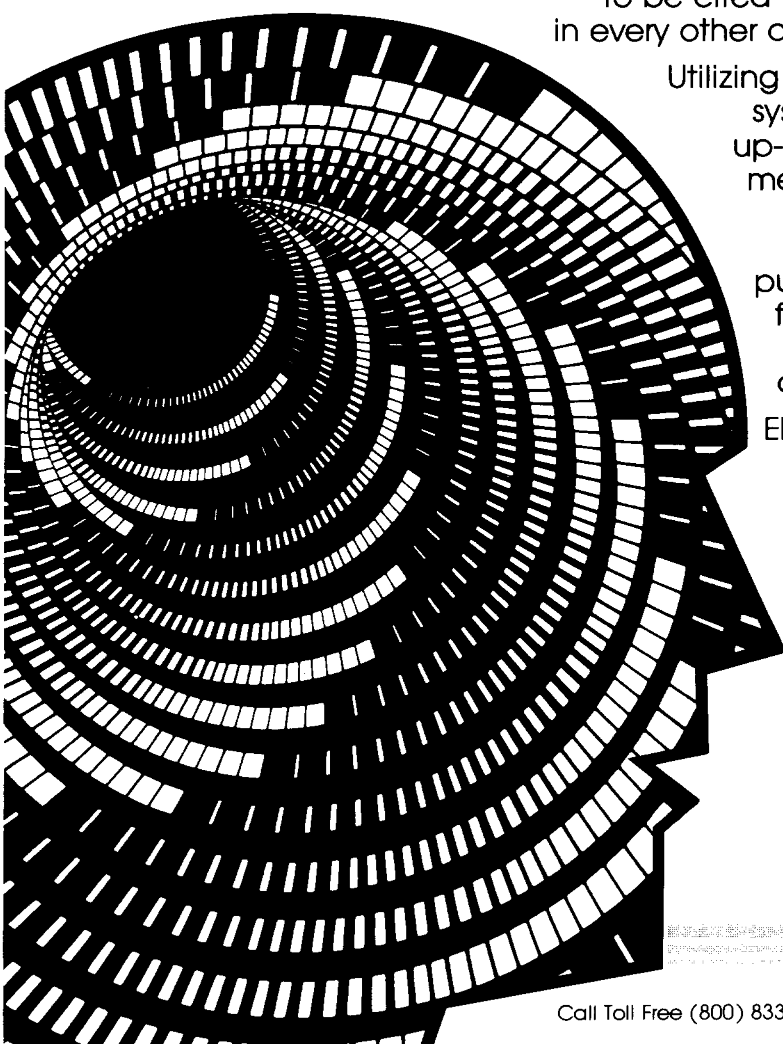

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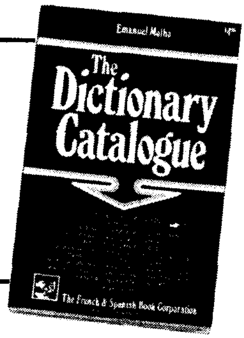

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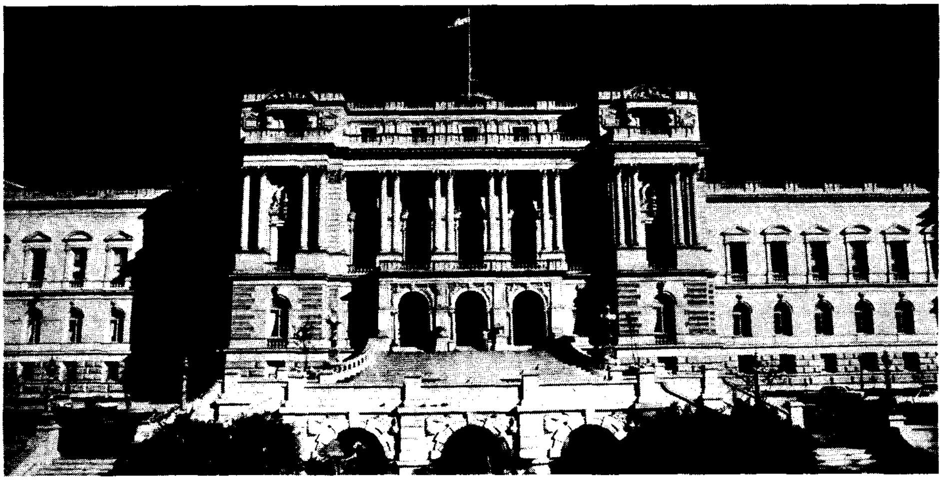

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LETTERS

Organizational Behavior

Ethel Auster's article, "Organizational Behavior and Information Seeking" [*SL* 73 (no. 3): 173–182 (July 1982)] was very informative. The special library, because of its interdepartmental view, is greatly impacted by management climate, and its effects cannot be overemphasized. Librarians and information specialists often do not understand what generates climate resulting in inappropriate actions when dealing with it. A better knowledge of what causes organizational behavior is certainly needed.

Very simply put, an organization's climate is created by the practices of its managers and the subsequent responses of its workers. It is important to understand that the climate not only causes but is also caused by behavior. The manager's actions often affect the expectations and beliefs of the work group. Awareness of what the behaviors are that define the organization's objectives and performance standards is needed for the library to be in tune with them.

Three items that affect behavior are the physical, cultural, and technical environments. The physical setting—exterior and interior of the building, workspace, lighting, etc.—all impact on behavior. The cultural environment encompasses the norms—unwritten rules of the organization which dictate what people should do in a given situation. The technical aspect of climate deals with man's relationship to machine and its resulting effect on behavior.

The library manager is in a good position to cluster the experiences from these environments and view climate with an integrated perception. This can be accomplished only if a conscious effort to analyze the factors that cause the present conditions is made. View the three environments, survey the staff, track actions, monitor results, and adjust accordingly. As Dr. Auster points out, additional research is needed—let's start now.

Robert P. Fallon
Librarian, Business Library
Prudential Insurance Company
Newark, New Jersey

SLA Name Change

I have been hearing for sometime now about the proposed name change for SLA—names that would incorporate into this association other ideas, other ideals, and in some cases, new responsibilities. I am not against change, and I am certainly not against accepting new responsibilities. But after giving this proposed name change some thought, I am beginning to think it is not the best way to deal with the situation.

I have talked to many people on both sides of the argument. Attempts have been made to convert me to both sides. Discussion has come forth, convincingly so, on both sides and indeed they both have good arguments.

What concerns me the most is that many persons in favor of the name change are trying to sell me on the idea that a new name will give a new image. I do not buy that argument. If we have a problem with our image, why don't we concentrate our efforts on changing our image? If people still perceive librarians as strange creatures with antiquated images, my gut reaction is that we should change their perceptions.

Only we can do that. You can call us all sorts of names, from information specialists to information managers, or a variety of names, but instead of attempting to fit the image to the new technologies and responsibilities, why not fit the new technologies and responsibilities to the image? Why not tell the universe that we are already information managers, record managers, and archivists? We know we do these things now, but if people only perceive us as the person at the check-out desk or the person who looks up reference questions, then let's tell them otherwise. Let them know who we are, what we are capable of doing, and what we are doing for them now.

If this massive job of public relations can be undertaken and completed, our image will be better focused, more positive, and more obvious. Then we can see if a name change is still necessary.

Ron Coplen
Librarian
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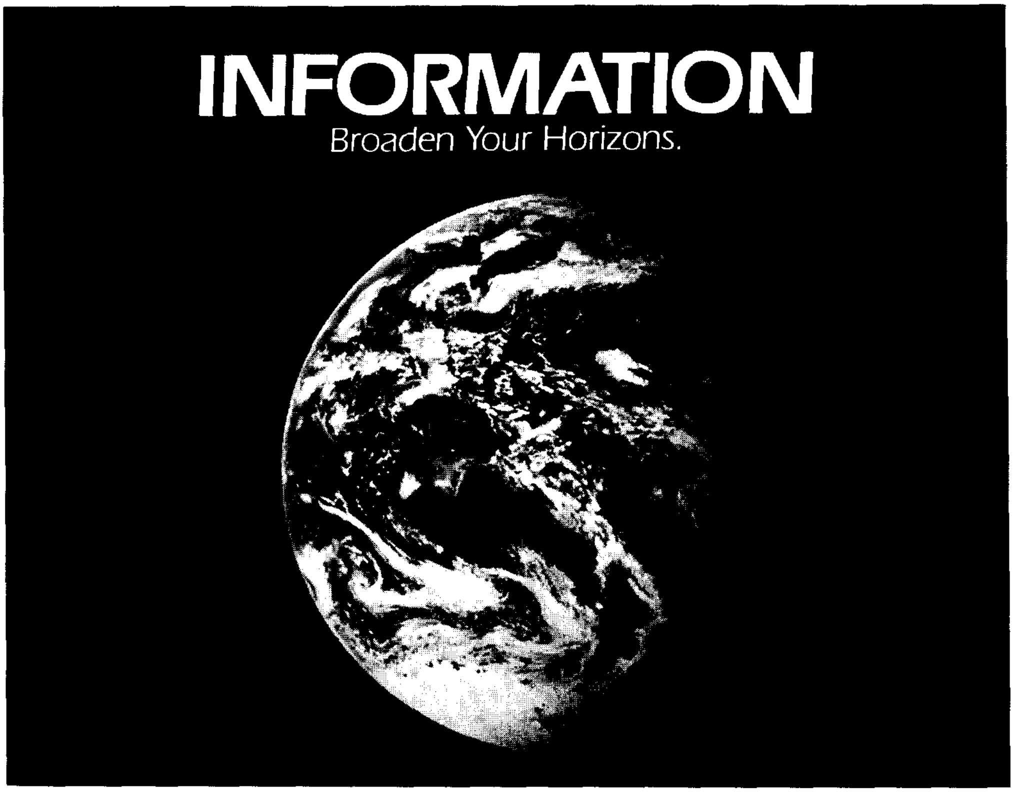

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How to Integrate and Manage New Technology in the Library

Joseph Becker

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■ As more and more technology permeates the special library and the broader environment within which it operates, a new requirement will emerge to integrate staff, equipment, and systems differently. Being a library manager in the special library of tomorrow means being part cost accountant, part planner, part information technologist, and part applied psychologist. Special librarians are destined to play an increasingly greater role in establishing connections between information resources and people in the coming "information society."

THREE TIMES in my career I have been asked to address a Special Libraries Association audience on the effects of new technology on the library and to paint a word picture of the implications for the decade ahead. The invitations have come roughly at five- and ten-year intervals. I am regarded as an information futurist, and I try to live up to this reputation. In fact, I must confide that I enjoy playing the role.

The keynote address I gave at the 1967 SLA Conference was covered in a New York *Times* report on May 31, 1967, as follows: "Becker forecasted data retrieval from homes and offices via computers and international exchanges of data by libraries via satellites." (*1*) I draw considerable comfort from that particular prediction. Since 1967, more and more libraries have acquired computer terminals for data retrieval, personal computers have entered American homes, and satellite communications are in daily use for networking information between and among countries. Indeed, the day is rapidly approaching when each person will have his or her own portable pocket calculator, portable cellular telephone, and portable information screen. Back in 1967, however, I'm sure some people in the audience thought my forecast about personal computer terminals was pure pie in the sky.

This article is based on a speech delivered during the SLA Annual Conference in Detroit on June 8, 1982.

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I have been asked to concoct a cookbook lecture on how to manage and integrate new technology into the special library environment. Notice, I have not been asked to present a "computer terminal lecture" but a "cookbook lecture." I have taken this to mean that I should use words that will *not fade* from the screen but will be an *enduring* recipe for managing technology in the special library of the future. This raises the first key question to be asked about tomorrow's special library. Will cookbooks and other books continue to exist? My forty years' experience with information technology leads to a reassuring answer about the fate of paper and print. While electronics will undoubtedly bring new informal means of communication into the library, electronics will not utterly replace printed communication as we have known it.

The idea of a paperless environment is not in itself as new or bold as we may think. It was actually broached in 1894, in an article featured in the October issue of *Scribner's* magazine, entitled *The End of the Book*, by one Octave Uzanne. (2) The author predicted that the phonocylinder would soon replace the book. Bibliophiles, he said, would become phonograph users, and their libraries would bulge with "phono-cylinders, bound in handsome morocco cases and adorned with fine gildings and symbolic figures". Uzanne concluded that wax would eventually replace print and that phono-cylinders would ultimately replace books.

The lesson to be learned from Uzanne is that there is something special about the book. Let us not forget its essential advantages. It presents a relatively permanent and portable record. It is also the ultimate in human factors design—it enables one to conduct a dialogue with knowledge in extreme comfort. Try curling up in a soft chair with a piece of microfiche, a computer tape, or even an intelligent terminal!

My son Bill likes to look upon the book as simply a technology way ahead of its time. He feels civilization just stumbled on an information technology whose inherent design was so advanced that it would not be obsolete for years and years. This explains, he says, the book's remarkable staying power against the onslaught of nonprint media.

Therefore, though the book is older than the computer, it has hardly outlived its usefulness. And, though it is not an electronic device, and may be in gradual decline, it is supremely engineered for human use—like the wheel. Moreover, like the wheel, I expect it to be around for a very long time.

Thus, when we speak of integrating and managing new technology in the special library of the future, it will be a library that possesses collections of printed information, as well as databases of electronic data. It also has computer viewscreens that bring distant collections of words and pictures directly into the library. In fact, as a backdrop for the remainder of this discussion, I will postulate some other features likely to be found in tomorrow's special library.

The greatest change, as I see it, will occur in the management of the library.

For internal work, the library will probably possess intelligent terminals containing microprocessor chips capable of handling ordering, acquisitions, online access to the public catalog, and circulation applications all in an integrated manner. The same kind of terminal will link the library, through communications, to external bibliographic utilities for cataloging and interlibrary loan purposes, as well as to numerous commercial and government databases for bibliographic searching and document delivery.

Databases will incorporate more text and therefore more information; the ability to search full text by computer will be infinitely more refined because comprehensive rules of syntax and semantics will be built into the computer programs. Expanded use of digital and video communications will enable the library to join various kinds of library and information networks, to establish online information exchange arrangements with users at their home and office personal computer terminals, and to reach outside commercial services in order to purchase materials and to inspect electronic journal articles and technical reports.

Reference work will be conducted through picturephones by means of two-way video screens and teleconferencing services between and among libraries. Word processing equipment, electronic mail, facsimile, lasergraphic printers, automatic microform and machine-readable tape retrievers, and computer controlled videodisc files will be commonplace as support equipment. End users will be able to read from and write on personal information screens with a new communications freedom that will enable them to bypass the library in certain instances.

Cost-Effectiveness

As more and more technology permeates the special library and the broader environment in which it operates, a new requirement will emerge to integrate staff, equipment, and systems differently from the way we do today. The greatest change, as I see it, will occur in the management of the library. I am convinced that tomorrow's special librarian will need to be grounded in more than just librarianship. In order to manage effectively, he or she will, in addition, need to be part cost accountant, part information technologist, part planner, and part applied psychologist. Let me describe these capabilities one at a time and tell you why I believe them to be important.

Unless cost accounting practices are introduced into the library, the librarian will have no way of measuring the cost-effectiveness of the technology once it is installed. Cost accounting is the foundation on which reliable quantitative measures of value can be developed. Without them, the library manager flies by the seat of the pants. This is not to say that librarians should stop using intuition in making management decisions. It simply underscores the point that survival in the changing world of technology demands use of analytic tools and reliable numbers as well as insight and personal opinion.

Good cost accounting practices can provide the justification for new technology before installation and after. It is the only basis on which to calculate a reliable return on investment before making a capital expenditure; it is also the only basis on which to calculate a reliable bottom line after operations are underway.

Furthermore, within the coming decade, technology will affect the administrative side of the special library, as well as its technical components. The widespread use of word processing equipment and minicomputers, and the introduction of electronic mail in library offices, already exemplifies this trend. Libraries, like other institutions, are applying computer and communications technology in hopes of increasing the productivity of their white-collar work force and thereby reducing the rising costs of labor-intensive clerical operations.

Because the new technology will affect both the clerical and professional side of library operations, the librarian must be prepared to manage new technology from both perspectives. Introducing good cost accounting practices into the library is an essential first step toward collecting hard numerical data that will enable the library/manager to measure the effects of technology on worker productivity and performance, and therefore, on staffing levels. It also provides the library/manager with ammunition for justifying additional technology purchases. For these reasons, new computerized information systems being introduced today have system-monitoring programs built into them which automatically keep track of activity and prepare periodic printed and graphic reports for management. Continuing collection and analysis of relevant statistics on machine use, employee output, and cost are therefore the first actions which tomorrow's special librarian can take in managing the new technology.

Technological Change

The second step to take has to do with staying abreast of technological change. A conceptual understanding of the implications of the new information technology will be crucial in managing future libraries and information centers. Not only because the librarian must plan strategically for technological obsolescence but also because he or she must make day-to-day decisions regarding the viability of equipment and systems already on hand. The stakes in both situations are high and the penalties of being surprised by technological change can be severe. In order to manage effectively, the special librarian must therefore acquire and maintain a basic understanding of information technology.

Understanding information technology means more than understanding, e.g., how a particular computerized circulation system works. What the librarian needs is an intellectual framework within which to evaluate the emerging technology in order to place new developments and trends in context.

This is not to suggest that special librarians double as physicists or engineers. But rather, that they seek to acquire a broad, conceptual appreciation of new information technology and an intellectual curiosity about its capabilities, implications, and consequences. In our society, our educational system does not train us to be proficient in more than one field at a time. Therefore, as a matter of enlightened self-interest, librarians may have to acquire this special technological knowledge on their own.

Planning

The third capability which the library/manager must master is planning. One of the great shortcomings of the data processing and information industries has been the inability of their managers to manage expectations. We must avoid falling into the same trap. No matter how sophisticated a specific device may be, technology alone rarely does the job. Technology provides opportunities; to be of use to a library, it must be incorporated into a system's solution for the problems of the library as a whole. Planning is the process by which this can happen.

Technology provides opportunities; to be of use to a library, it must be incorporated into a systems solution for the problems of the library as a whole. Planning is the process by which this can happen.

The planning process consists of making a careful analysis of the library's strategic mission, setting goals and objectives, surveying the current state of the art to meet explicit requirements, matching suitable technology to functional requirements, and arriving at an ordered list of potential applications. When this process is completed, it is then possible to define the resources required to execute the plan in terms of manpower, dollars, and equipment. The final step is to specify an appropriate time schedule for implementation.

This process is called strategic planning. It is a continuous process and can be invaluable to the library manager. If done well, it instills confidence in the library among top management, generates a mutual understanding of the direction in which the library is moving, and lays the groundwork for long-range financial support. From a technology standpoint, it provides a useful road map for the librarian by establishing equipment and system acquisition priorities that are consistent with the library's overall goals, the corporation's strategic objectives, and the availability of human and financial resources.

The librarian needs . . . an intellectual framework within which to evaluate the emerging technology in order to place new developments and trends in context.

The Human Element

The fourth set of skills required can be borrowed from social science and psychology. As library managers become more knowledgeable about information technology applications and more confident in their ability to handle them, they are likely to discover that certain nontechnical issues are of equal importance, namely, the human side of the equation, and such matters as people's resistance to change. In my experience this can take the form of anything from foot-dragging to outright opposition to sabotage. Invariably, change breeds uncertainty and uncertainty breeds job insecurity. Unless people who are affected by change are involved in the process they will either resist it or delay it.

Too often builders of new systems ignore the organizational, political, and human contexts within which they work. When they do, the result is a solution which, while technically elegant, may be organizationally unworkable and out of phase with staff and user expectations.

Effective technological change comes from within. It occurs when the people who are affected by change commit themselves to the same set of objectives as those held by the system designer. In our case, the library manager is the system designer. Therefore, it is his or her responsibility to involve top management, library staff, and prospective users in the change process. Librarians must make clear their roles as change agents, seek the continuous advice of constituents, and apply the best techniques social science has to offer to assuage the personal concerns of the people in the organization who are affected.

On the personal side, staff and users alike will want to know where they fit, what will happen to their present jobs, how change will affect their career advancement and their lives, and so on. People get cowed and put in their place when the "computerniks" start describing the world as *they* see it. Therefore, to be effective, library managers must establish credibility as compassionate human beings. They must present themselves as managers who understand and appreciate staff and user perspectives, as insiders rather than outsiders, as compatriots and not as intruders, as compassionate managers and not as tyrants.

Conclusion

To summarize, I believe the special librarian of the future will need to add several new arrows to her quiver before integrating technology into the library. As a minimum, the librarian must master the fundamentals of cost accounting, strategic planning, technological change, and behavioral science. Introducing and managing technology in the library is no longer an isolated question of adding a particular device or single piece of equipment. It must be viewed in a broader context as part of a larger process in which the societal and technical role of the modern library itself is changing.

Herbert A. Simon, Nobel prize winner, puts it this way: "In recorded history there have perhaps been three pulses of change powerful enough to alter Man in basic ways. The introduction of agriculture . . . the industrial revolution . . . [and] the revolution in information processing technology. . . ." (3) Alvin Toffler's reference to the "third wave" is a reflection of the same insight. (4)

While the world's information processing future remains indistinct, the signs are unmistakably clear that we are moving toward what many people in many countries are calling the information society. We are on the threshold of some sort of new era in the use of information. In this new information society, special librarians are destined to play an increasingly greater role in shaping and establishing new information connections among libraries, information centers, and people. New information technology can provide the stepping stones to this bright information future—this new frontier—before Toffler's wave arrives. I urge you, therefore, to walk on over. My prediction is that you will indeed make it to the other side and be challenged by what you find there.

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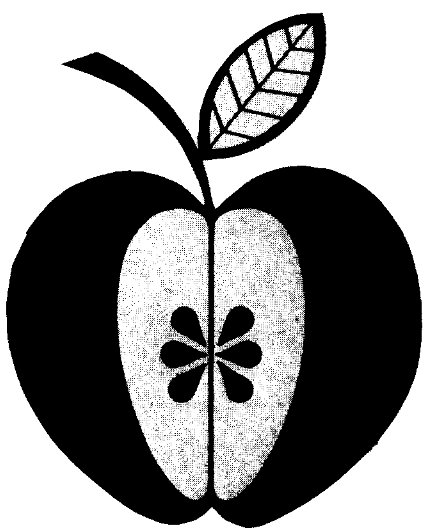

The Videodisc as a Library Tool

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■ **The National Library of Canada produced a videodisc between July 1981 and July 82. The videodisc player, a Disco Vision PR78 20/2 was interfaced with an Apple II (48K) microprocessor to provide keyword index access to the more than 1,200 stills of text in one of the four productions on the disc. The videodisc project was designed to demonstrate: the ability of the videodisc to store and present library materials in a variety of formats; the information retrieval capability of a combined videodisc and microcomputer system; and the use of the videodisc as a practical research tool. The disc is a two-sided, reflective constant-angular videodisc containing three embedded programs that provide over 50 access points to the disc even without the Apple II.**

IN THE SUMMER of 1981 the National Library of Canada (NLC) began work on its videodisc demonstration project.* Why would a library be getting into videodiscs? Isn't that something for the entertainment industry? That is a legitimate question. The answer can be found by examining a librarian's three major concerns—lack of storage space, lack of preservation and conservation measures, and access to the collection. The videodisc has the solution to all those concerns! One disc has 54,000 frames per side which means that you could store 54,000 photographs or catalogue cards or 13,500 pages of text per side. It has random access within seconds, unlike videotape where you have to play the tape from end to end until you find your particular item. Also, unlike videotape or film, it does *not* require special handling or storage! Therefore, it was decided to investigate these possibilities further, by embark-

*Phase two of the project began on Dec 1, 1982, where possible applications of videodisc in the Public Services branch will be studied. A detailed report concerning this project will be available from the National Library in mid-1983.

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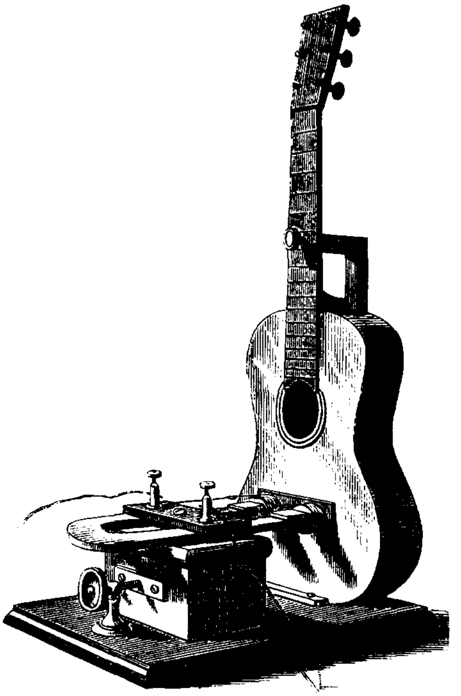

ing on a demonstration project which had the following 3 major objectives:

- to demonstrate the ability of the videodisc to store and present library materials in a variety of formats;
- to demonstrate the use of the videodisc as a practical research tool for Canadian studies; and
- to demonstrate the information retrieval capability of a combined videodisc-microcomputer system.

To date, the first two objectives have been successfully achieved. The third will be completed by the time this manuscript is published. It, too, could have been finished had it not been for the delay in obtaining equipment—both hardware and software. However, the delay did not affect the rest of the project because the two aspects, disc production and programming of microcomputer, were kept separate. The first two objectives were accomplished through the production of a two-sided constant-angular velocity reflective optical disc containing three embedded computer programs. It was mastered by Pioneer Video, Inc. (formerly Discovision Associates of Costa Mesa and Carson, California).

For the third objective, a Disco Vision player PR7820-2 has been interfaced with an Apple II plus (48K) microprocessor making it a linksystem. Extra storage space is provided by the addition of two disc drives. The Apple will be used to store and retrieve the bilingually integrated (English and French) index to the more than 1,200 stills of text stored on the disc. At present, the index terms to the stills are being entered into the terminal. This will provide random access subject searching for the user. Without the Apple II, it is a "stand alone system." The disc can be accessed through the various indexes programmed into the disc or, when searching for something in the stills, through a search of known items by using the frame search capability of the built-in microprocessor in the RCU (key pad), thus enabling the user to retrieve specific sequential images. The three internal programs allow users to choose the language in which they wish to work, either English or French, and which production or parts of a production they wish to access.

In this paper, the NLC's project will be explained with emphasis on disc production because, as was stated, the computer objective has not yet been attained. The disc production aspect of our project was divided into four stages: 1) design and media selection, 2) production, 3) post-production or pre-mastering, and 4) mastering.

The design and media selection stage includes such activities as the following: identifying the objectives of the project; choosing a topic, specifying the methods to be used for the project, preparing a project proposal and getting it accepted; choosing a project team, gathering the materials together; deciding on the order of the material; acquiring the necessary equipment, and selecting a production house. *The production stage* includes such activities as writing a storyline, creating a shot-list, filming, editing, sound recording and lip-synchronization. *The post-production stage* involves the transfer of program material from tape, film or slides to one-inch video tape. It involves color and contrast correction, cue insertion, and editing. These steps may be the responsibility of the end-user, the production studio, or the pre-mastering facility. *Mastering* is the process whereby a master disc is produced from the tape. This is a highly technical operation and is done entirely by a manufacturer in a plant. In other words it is entirely out of end-users' control.

There is no limit to the time that can be spent on any of these stages or even the number of stages. However, each of the stages has to be completed before the next can begin because each one is dependent on the previous one. Within each stage several activities can be occurring simultaneously depending on the availability of financial and human resources, as well as the amount of planning and scheduling you can control. Some people put great effort into storyboarding and flowcharting. This was not a necessity in the NLC project because one of the most experienced producers for videodiscs in North America, Michael J. Petro Ltd., was hired to program the discs. The limits would be defined by your experience and financial resources that would dictate how intricate a project you wish to design. The NLC project has taken just one year to complete, from July 22, 1981 when the project proposal was accepted to July 28, 1982 when the final disc was received. Although in actual fact, a great deal of work had been done prior to that time in preparation of the proposal and the ordering of the equipment.

The disc contains four productions. Side 1 consists of a 16 mm film, *Canada's National Library*, and a 35 mm slide show, *Canadiana*. Side II consists of two productions specifically made for videodisc—*A Walk Through The National Library* and the history of our national anthem 'O Canada'. In terms of storing and presenting different library materials, the *History of 'O Canada'* is the most interesting. It contains photographs both black and white and colored, music scores, manuscripts, letters to the editor, official publications, papers of government commissions, excerpts photographed directly from books, newspapers, and microfilm. It has items written in pencil, mimeographed and photocopied items all on different types of paper, a three-dimensional object, and stamps. In addition, there are a variety of sound recordings dating back to the late nineteenth century. It is also a fine example of a research tool of the future.

The newly created production *Walk Through The National Library* is primarily a public relations tool. The public relations side containing the 35 mm *Canadiana* slide show and the 16 mm film *Canada's National Library* are examples of converting different types of existing library materials and adapting them to the videodisc medium. Those involved in the project had thought that this would be the easiest side to do; but it proved to be quite difficult.

Design and Media Selection

The project team approach was used. The core group of the team consisted of the author, two technical advisors, an engineer, an indexer, and a music specialist. Depending on the work, other team members came and went. Since the National Library is a department of the Federal Government, certain basic regulations governed the teams transactions just as in most other large organizations. For example, the purchase of equipment had to be approved by the Department of Supply and Services. To hire a producer, the National Film Board had to give its okay. As part of a government-wide videodisc study, the team had to work with the Department of Communications. Having to interface in this manner with other departments was quite time consuming. The right people had to be identified and talked to; the project explained; and their role in the project defined. However, when working within such a large bureaucracy, a part of any project is being able to maneuver within that structure. The entire team staff including the actors in the productions, with the exception of the indexer, were in-house people. The indexer was recommended to us because she had just finished indexing the *Canadian Encyclopedia of Music* and had a music subject specialty. She was hired for six months and worked closely with the library's music specialist, the engineer, and the subject Analysis Division of the National Library. Wherever possible, cataloging conventions that applied to indexing were followed; however, due to limitations of the Apple, this could not always be done. Basically there are three indexes: an integrated English/French arranged for alphabetic (keyword) access, an errors index, and a numeric file in chronological order.

Production

The production house was chosen through tender. This activity caused a delay of at least one month. However, when the producer finally arrived it was well worth the wait. Until that point no one had had any videodisc production experience. However, the production team sent to work on the project had already made thirty discs for General Motors of Canada. Production of stage II of the project began in early January 1982. The producer had his own film crew consisting of a sound man, a camera man, an administrative assistant, an assistant camera man, a photographer, and himself as director/producer. Once the storyline was agreed upon, shooting was able to start. Due to the experience of the producer, the dialogue for *The Walk Through The National Library* was recorded two weeks before any filming was ever done. The resulting two hours of interviews was edited to a succinct seven minutes. A shot list was made from the edited interviews and then the actual shooting was done on location. This took three days mainly because the library is in three different buildings and in two provinces. Concurrently, the 1,200 stills for *O Canada* were photographed using a 16mm animation camera in one of the studios in the main building. The two minute reference scene in the *History of O Canada* was also shot in the library at the actual reference desk. It took a full day, mainly because the reference desk never closed. The sound was recorded in a separate location. The three minute piano scene in this piece was shot on location with sound. This took a full day, i.e., 8 a.m. until 10 p.m. It was exhausting but fascinating to witness the meticulous care that goes into film production. The initial films, or "rushes" as they are called in the trade, then had to be edited, color corrected and dissolves added in. The sound actually consists of four separate sound tracks: English dialogue, French dialogue, background music, and background sound effects such as street noises. All of these have to be synchronized with the film. Since the initial filming of the *History of O Canada* introduction was done in English, the French sound track was dubbed in at a later stage in a sound studio. Then the sound tracks and the film were transferred onto a 16 mm sound film.

Post Production

Side I, initially thought to be a simple conversion process, proved to be anything but. It was discovered that the slide show *Canadiana* was really two different productions—an English and a French version of different audio and video lengths. Only one version was needed on the disc. Furthermore, the formatting for slides is different from that needed for television (disc). Some updating was also required to show the 1982 cover of *Canadiana* and not the one used in 1978. The formatting problem was eliminated by putting *safety surrounds* on all the frames. The updating was done by making new slides of the '82 cover and then adding these to the existing slide series. The production then had to be completely redubbed and new cues inserted—a very expensive and time consuming job.

The film *Canada's National Library* proved to be rather elusive. Originally produced by a nongovernment firm in 1971, the film was being updated late last year by the National Film Board whose headquarters are in Montreal. It was rather difficult getting the films since English and French versions were being produced by different partsof the organization. When they were finally ready, it was found that a version without the credits was needed since both English and French credits had to go onto a common picture track. It was impossible to obtain such a version of the film because the original company had not bothered to keep a "clean copy." Hence our solution was to type set onto the film. This does not look as professional, but it satisfied the legal requirements which needed to be met. Next both the film and the slide show were transferred to 1 in. C videotape via a flying spot scanner.

On Apr 2, 1982, the producer and this author travelled to Costa Mesa, Calif., where the post-production studios for Discovision Associates are located. In its Video Processing Centre the *O Canada* production required the creation of a type frame. This was done via a Quantafort Character Generator hooked up to a Concepts Mini-Disc-Memory and a Tektronix 650 monitor. The original directional bilingual message which we had wanted was:

> The videodisc player will automatically return to the Sound Recordings Index upon completion of the selected recordings.
>
> To return to the Sound Recordings Index before your selection is complete press 1.

However, due to the size of the TV screen we were only able to fit the following bilingual message:

> To return to Sound Records Index before your selection is complete press:
>
> Halt - 100 - RUN/BRANCH

The message was written in capitals because the machine lacked French diacritical marks. This message will appear on the screen while the *O Canada* music is playing. It could have been added directly during the filming of the stills which would have required about 400 ft. of film. However, since it was not decided to add this message until after all the filming had been completed, it could only be done via the character generator. Then *The Walk Through the National Library* and *O Canada*, both on 16 mm low contrast film with two separate magnetic sound tracks (English and French), were transferred via the flying spot scanner onto 2 in. helical (1VC 9,000) videotape and to 1 in. type-C videotape as a back-up. This activity was monitored from a control room for image enhancement, color balancing, and safe areas. Image enhancement artificially creates sharpness; color balancing ensures that the colors are as they appear in nature, and safe areas involve ensuring that the framing has been done correctly. This was necessary because the material had been shot on 16 mm film and was now being shown on television. The sound tracks were checked for tone balance and found to be excellent, requiring no dubbing. The control room consisted of the following: a control room monitor (19" color BARCO) which is a very high quality monitor costing approximately $9,000 which is not high resolution in terms of lines but rather in dot size; a 9 in. black and white pre-view monitor with the various safe areas sketched on it to indicate how much of the picture is lost by transfer to television; an image enhancement monitor; two loudspeakers; and a central control pannel to which everything is connected via computer.

Like it or not, the disc is here to stay, particularly for industrial applications such as information storage and retrieval in a library information center environment, and for educational purposes in scholastic, commercial, and military establishments.

In addition, the resulting videotape was encoded on an Ampex 1 in. type C videotape editor. This means that color and sound level adjustments are made to customer preference; that color bars, picture/run time numbers, lead in/out pulses are added; and finally that control codes, command codes and white flagging encoding information is stored in the V.B.I. (vertical blanking interval). It is at this stage also that the frame numbers are added. This entire process can take up to three days depending on how well your producer has prepared the material ahead of time. For us it took just one day. Once all the encoding is complete, the audio and video signals, as well as the actual DVA signals, are quality checked. The resulting tape is called a Release Master or Check Cassette and is sent to the Mastering Plant.

Mastering

"The fourth stage is videodisc mastering which begins with the production of a glass photoresist master. Chosen because of its uniformity and freedom from blemishes the plate glass is ground and reground with an extremely fine abrasive to remove all pits and then optically polished and carefully cleaned. A thin uniform layer of positive photoresist is applied to the glass in preparation for mastering. Either videotape or film can be used as program source material, and all master recording is done in real time. The program material is supplied by a helical scan videotape machine. A blue beam of light modulated to carry the program material and critically focused by the optical system records the information on the photoresist-coated glass master disc. The sound and picture information are combined in an FM signal used to modulate a laser beam focused onto the photoresist layer of the rotating master disc. Discrete microscopic areas are exposed at rates of up to 10 million per second. Development of this exposed photoresist layer creates microscopic holes in a spiral pattern known as the track. Each revolution of the track is separated by only 65 millionth of an inch. The holes contain all of the information necessary to provide excellent picture resolution color, full fidelity sound, and synchronization signals. Once the master photoresist has been recorded and developed, the recording surface is metallized with an evaporated metal coating, after which additional electrochemical processing uses a nickel mother, as well as a submaster identical to the master. The final tooling called the stamper is a mirror image of the master and is used to manufacture the plastic replicas which produce in every detail the pattern on the master. Millions of these replicas can be produced with multiple submasters and stamper.

"The disc is replicated by injection molding. In this type of replication the stamper is placed in one half of a special injection molding tool, after which the two halves are clamped shut forming a cavity the exact shape of the finished videodisc. Hot molten plastic is then injected under high pressure to fill the cavity. When it has cooled and solidified, the mold is opened and the disc removed. Application of a metal reflective layer and plastic scuff-coating result in a finished side which is then bonded to another side to form the completed videodisc."†

As you may appreciate from the foregoing explanation, making this initial videodisc for the National Library was quite an undertaking. Like anything that is done for the first time, it has been largely a learning experience. For example, a year ago when this author was asked to take on the project, she had seen a videodisc once at a demonstration and had marvelled at the technology, promptly dismissing it as some futuristic media that one encounters when reading an enjoyable science fiction novel. Never in a million years would it have seemed possible that a practical application could have been found for use in the NLC. A million years can pass awfully quickly sometimes.

Like it or not, the disc is here to stay, particularly for industrial applications such as information storage and retrieval in a library information center environment, and for educational purposes in scholastic, commercial and military establishments. The Library of Congress is embarking on a three year multi-million dollar digital videodisc project. The Canadian Departments of Defense, Communications, the National Film Board, and the Public Archives are all doing either videodisc research or actual projects.

As Michael J. Pedro stated in his paper, "A Technical Assessment of Present and Near-Term Videodisc Technologies" (Videodisc Study Project, Ottawa, 1980)—which has since become known as the "bible" in videodisc circles—the videodisc will be held back by only one thing: the imagination of the people into whose hands its use will fall.

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†Disco Vision; Disc entitled "U.S. Demo."

Helping May Be Harmful

The Implications of Burnout for the Special Librarian

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■ Because the conditions in the helping professions, including those in special librarianship, dispose one to burnout, the authors have researched the professional literature to summarize what burnout is, conditions that could lead to burnout, and the most accepted resolutions for the problem. To the extent that special librarians can recognize—better yet, anticipate—what burnout is and how, when, and where it occurs, they will be better prepared to resist the ineffectual, wishful remedies that are sometimes practiced.

HELPING is an integral part of a special librarian's job. Librarians are by nature and education dedicated to meeting the needs of others. Such work may bring approval from those served as well as provide the professional with valuable internal satisfactions. Frequently, however, helping professions prove to be taxing to the people who perform these services. The demand to help those in need, the frequency of such demands, and the limitations of available resources often lead to stress. The professional's ability to deal with the emotional demands of the job are reflected in his or her sense of self. When unsuccessful, the individual may experience what is now called burnout. Because the conditions in many special libraries dispose one to burnout, the term is analyzed, and a discussion of the harmfulness of the condition is offered along with the most accepted solutions.

What is Burnout?

People have been *burning out* since the beginning of time—ever since humans have experienced disillusionment, exhaustion, boredom, depression, or frustration. Although this prob-

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lem has always plagued humans, the term *burnout* did not appear in the professional literature until 1974 with the first of psychoanalyst Herbert J. Freudenberger's articles on staff burnout. He acknowledged the dictionary definition for the verb *burnout* as "to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources." He further described burnout as having physical signs—for instance, quickness to anger, intensity of emotions, and overconfidence—and psychological symptoms such as boredom, resentment, and discouragement (*1*).

The research since Freudenberger's original article has deviated little from his concepts. There are, however, some intriguing expansions. Marshall and Kasman suggest that lack of creative involvement is a major cause of burnout (*2*). Ottenberg likens staff burnout to a form of "battle fatigue" (*3*), while Shubin describes it as a form of emotional exhaustion leading to "total disgust with one's self, humanity, everybody" (*4*). Jones stresses that one can be "in a rut" when ideas and solutions are at a standstill, are repetitive, and freshness is gone (*5*).

Maslach laments that the burnout definition has become so broad that the description covers almost everything. She does not agree that burnout is loss of creativity or boredom; rather, she puts emphasis on the meaning of emotional exhaustion resulting from the stress of interpersonal contact (*6*).

A positive outlook is stressed by Pines. He acknowledges that burnout can be traumatic, but if handled properly, a stimulus may emerge to promote change, growth, and improvement. He claims that burnout almost always occurs in the idealistic and enthusiastic individual (*7*). In concurrence with Pines, Freudenberger suggests it is impossible for an underachiever to burnout (*8*).

Cherniss studied change of attitudes and concludes that the initial period of the career, when one assumes the new role of professional, is when the greatest change in attitudes and behavior occur. Thus, he found that within the first six months to a year, many young professionals begin to experience burnout (*9*). However, Scrivens, in studying the teaching professions, contends that the phenomenon grows more acute with the length of service (*10*).

Based on the above discussion, obviously there is not a single concise definition of this phenomenon. Watstein adds that there are as many definitions of burnout as there are hypotheses about its causes and suggestions for its prevention (*11*). The term crystallizes something that people have always been experiencing but have found difficult to express.

How Burnout Is Harmful to the Worker

The implications of burnout to an institution or an individual worker can be costly. Some symptoms most often noted are low staff morale, job absenteeism, high turnover, and problems at home. People experiencing burnout often report increased marital and family conflict.

These depressing factors are catching and spread quickly through an organization. Discouraged workers often become pessimistic and cynical. Cherniss warns that interaction on the job with other workers who are under the same stress can result in a "collection of burnouts" (*9*, p. 20). Unfortunately, this can become a self-perpetuating cycle in that once a person has experienced burnout, it is difficult to effect a renewal of interest.

People who are bored or frustrated at work actually show differences in blood chemistry and can develop serious physical impairments. An abundance of research indicates that reactions to stressful work situations include headaches, problems with sleeping, gastrointestinal disturbances, ulcers, increased frequency of illnesses such as colds and flu, aggravation of allergies, back problems, and more. Besides the physical exhaustion which is characterized by low energy, chronic fatigue, and weariness, the worker may experience emotional and mental exhaustion which instigates feelings of depression, helplessness, hopelessness, and entrapment. Greenberg is concerned that burnout needs to be understood because of its potential to disrupt, limit, or ultimately end a person's day-to-day functioning (*12*). These implications are serious and should not be ignored.

Symptoms of Burnout

The symptoms of burnout are distinct and recognizable. In fact, Edelwich suggests that the burnout syndrome follows a pattern—a four-stage pattern.

First stage—enthusiasm. The initial period of high hopes, high energy, and unrealistic expectations—when the job sparkles with newness—introduces the first stage. At this point in one's career, the job promises to be everything. A neophyte often states the desire to help or serve people as the reason for choosing a certain career. "Disparity stems from the discrepancy between expectations and reality. . . . No job can be a total solution for one's life" (*13*).

Second stage—stagnation. After the initial burst of enthusiasm, frustration sets in. One becomes stalled by the ambiguity of hopes and dreams and by realizing the pay falls short of meeting obligations. In this stage, the person realizes life involves more than just the job. Personal needs, money, working hours, and career development take on new emphasis. Stagnation does not obliterate the job but causes the worker to question doing *only* the job. "At the heart of stagnation lies the feeling that one's career is at a dead end" (*13, p. 88*).

Third stage—frustration. Frustration simmers at the core of the burnout. This phase either creeps up slowly or hits as a moment of stark realization. One's effectiveness in doing the job and the value of the job itself are questioned. The limitations of the job do not just detract from personal goals, but threaten to defeat one's purpose in life. Emotional, physical, and behavioral problems can occur at this stage (*13, p. 29*).

Fourth stage—apathy. Apathy means "putting in the minimum required time, avoiding challenges, and seeking mainly to keep from endangering the secure position that compensates, however poorly, for the loss of job satisfaction" (*13, p. 29*). This is a typical and very natural defense mechanism against frustration. The disastrous effect of apathy is that when one turns off frustrating experiences, one may well turn off to people's needs and to one's own caring.

Obviously, no sharp lines of distinction can be drawn between these four stages of burnout symptoms. Often they overlap, or a person may go through one or two phases several times without progressing any further. A person may go through the complete burnout cycle several times in different jobs or even in the same job. Hopefully, the cycle may be interrupted by an intervention at any point.

How to Cope with Burnout

> To the extent that individuals and institutions can recognize—better yet, anticipate—what burnout is and how, when, and where it occurs, they will be better prepared to resist the ineffectual, wishful remedies that are often practiced today and to seek more realistic antidotes (*13, p. 14*).

In this statement, Edelwich stresses the importance of awareness—an awareness that this potentially debilitating condition is the beginning. One fallacy that Maslach points out is people believe that burnout happens only to bad people; therefore, a worker is reluctant to admit there is a problem (*6, p. 57*). All researchers have agreed that burnout is a fact of life, one that exists for any number of reasons, and one that must be dealt with.

An intervention can break the cycle of burnout. The solution may be self-initiated or may occur in response to an immediate frustration; however, the change may be more effective if carried out consciously and with a clear purpose. The intervention may be a temporary or a permanent change. Careful consideration should be given to the right intervention used at the appropriate time. Choose the interventions carefully; what works for one does not necessarily work for all.

Table 1 displays the most often cited interventions by prominent burnout researchers. Notice that Freudenberger gives a dissenting vote for meditation/yoga. He reasons that burnout is an emotional and mental stress, and meditation/yoga causes a mental "dropping." "Introspection is not what the burnt out person requires. He requires physical exhaustion, not further mental strain and fatigue" (*1, p. 164*).

Paradoxical as it may seem, a physically demanding activity can help alleviate burnout, which is also an exhaustion—a mental and emotional fatigue. A person who is in good physical condition can better withstand the onslaught of a virus, a spell of overwork, or even a quarrel with the boss.

Table 1 indicates that on-the-job training was listed by eight authors. Cherniss suggests a training program is needed to ease the professional slowly into a full workload with full responsibility. Also, an adequate training program can weed out those unsuited for the job, which may guard against a rapid turnover. An ongoing training program should not be overlooked. Well-designed programs help staff sharpen their skills and strengthen their confidence (*14*).

Self-awareness also rated eight votes. The important key to an intervention is to know oneself. To do this, one must be aware of negative responses and be willing to take responsibility, be aware of the pressures that one puts upon oneself, and be able to distinguish between problems that can and cannot be changed. Pines indicates the two most common mistakes are giving up too early and hanging on too long (*7, p. 165*). Timing is of utmost im-

Table 1. Most Often Cited Interventions by Prominent Burnout Researchers.

x = approved
y = disapproved

INTERVENTIONS	Carroll	Cherniss	Daley	Edelwich	Emerner	Freudenberger	Greenberg	Kafry	Kahn	McQuade	Marshall	Maslach	Moe	Munro	Pines
Improve Working Conditions	x	x	x			x	x		x		x			x	x
Positive Job Support	x	x	x			x	x	x	x		x			x	x
On-the-job Training	x	x	x	x		x			x		x				x
Self-awareness	x		x	x	x	x	x			x					x
Physical Exercise					x	x	x			x	x		x	x	
Set Realistic Goals		x		x	x		x						x		x
Vacation	x		x	x			x				x		x		
Hobbies				x	x		x	x			x		x		
More Education	x			x			x				x		x		x
Breaks During Work	x		x											x	x
Family Support				x			x	x			x				x
Workshops/Seminars	x					x								x	x
Decompression											x	x			
Change Jobs	x			x											
Improve Salary Levels	x													x	
Sense of Humor						x									x
Meditation/Yoga	x					y	x				x				

portance. Focus on the few things that can be changed. Set reasonable goals that will allow satisfaction from the job despite all obstacles. Put more emphasis on the successes rather than the failures; and when evaluating the situation, keep a time perspective—a realistic time frame for interpretation of progress.

Change of pace strategies are represented in the categories "Vacation," "Hobbies," "Breaks During Work," and "Decompression," shown in Table 1. An employee often cannot control the work hours, but should have control of leisure time. Maslach suggests that, as one leaves a demanding situation to go to another, one take a few minutes for decompression. This can be accomplished by the aforementioned program of exercise, by listening to music, by sitting in the park, or by just soaking in a hot tub (*6, p. 58*). These few minutes just to oneself should be chosen wisely because overindulgences or time spent in a tavern are false cures.

Earned time off from work should be used. Periodic rest periods and vacation of varying lengths replenish energies. Too often a stigma is attached to taking earned time off. "A distinction should be made, however, between sanctioned time-outs and irresponsible escapes that leave [one's clientele] unattended," warns Edelwich (*13, p. 38*).

If the situation seems desperate, perhaps the only feasible intervention is a job change. However, neither job hopping nor carrying sour attitudes and disillusionments into a new job serve the best interests of the worker. Possibly more education could be the answer, although this avenue may be a gamble. Added knowledge, though, should never be considered a loss. Some institutions provide workshops or seminars for improving skills while on the job.

Something fun to look forward to each day smooths the path—after all, the anticipation is most of the fun anyway. We must learn to laugh at ourselves—not several days after a situation but coincidentally. Freudenberger suggests "humor will cut the system down to size for you and make you vastly more popular with everyone around you" (*8, p. 179*). A sense of humor, without a doubt, is a prized possession.

These are just a few of the suggested interventions that may help to break the burnout cycle. The literature stresses that intervention will not just happen; it takes work and perseverance. Burnout cannot be controlled with a shot or a pill; there is no easy way.

Summary

Since 1974, there has been an upsurge of interest and publications on the subject of burnout. There is, however, a noticeable lack of burnout research for the library profession. A review of library literature disclosed a few references on the topic of job stress, and these tended to concentrate on physical working conditions rather than individual coping strategies. Within the last year, however, there have appeared three articles that specifically deal with burnout and the library profession.

Watstein reports on a workshop conducted for reference librarians entitled "Burn Out: Coping with the Stresses of Library Instruction" (*11, p. 1–3, 13–25*). Her unpublished manuscript contains an extensive annotated bibliography on the subject of burnout.

Three components contributing to burnout are highlighted by Neville as sources of frustration for services staff. The components listed are the individual's ability to handle a stressful occupation, traditional or organizational structure, and fragmented professional support (*15*).

In a recent article by Ferriero and Powers, burnout symptoms and suggested remedies are presented for the reference librarian as well as coworkers and managers (*16*).

Appearance of these articles in the library literature indicates an awareness of a potential problem in the library, and, as already indicated, awareness is the first step to coping with burnout.

After that, the best strategy is to know oneself; know that you can take charge of your life.

A professional is expected to be cool, calm and . . . perfect. A special librarian is a professional carefully indoctrinated with a professional value system. Learn to give help without the harmful effects. And remember, burnout can be a terminal or growth experience. It is up to you. Believe in yourself and your profession; know the potential and limitation of each—and grow!

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Long-Range Planning in Professional Associations

Agendas for Change

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■ **Long-range planning is viewed as an analytical tool for assessing a professional organization's effectiveness. It involves five steps: articulating the organization's goals; assessing the organization's ability to accomplish its objectives; formulating recommendations aimed at improving the organization's strength; achieving formal approval of recommendations; and implementing recommendations and monitoring progress. The Texas Chapter of Special Libraries Association recently completed a two-year long-range planning effort during which new goals were articulated in light of present-day environment, members' needs, and future challenges facing the professional information community. The various steps and methods used by the Long-Range Planning Committee are described and summarized (see Appendix), with special attention to the organization of data and the tools used in the analysis and presentation of findings.**

PROFESSIONAL organizations are both enriched and constrained by their nature: they are goal-oriented; they attract members who are united by a common vision; and they obtain their strengths from a volunteer membership characterized by diversity, dynamism, education, and training. However, professional organizations must be especially sensitive to their multi-dimensional character. To maintain their vitality and justify member commitment, they must be responsive to the evolving standards, attitudes, and values of their members and the profession they represent.

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Introduction

Long-range planning is an analytical process whereby organizations of all types may continually or periodically reassess objectives, articulate purposes, consolidate energies, and, as a result, serve members more meaningfully. It is a valuable tool for assessing organizational effectiveness because it provides a framework for thinking strategically about an association's direction and impact. In addition, the process itself encourages a disciplined approach to data collection, evaluation, and action plan development, implementation, and review.

The Texas Chapter of SLA recently initiated a long-range planning effort and is involved now in the implementation phase of the plan. The concepts, objectives, methods, and results of this activity, described here, have implications for other SLA chapters as well as all groups whose professional effectiveness demands that they remain responsive to changing needs and conditions.

The information profession in Texas is, in some ways, a microcosm of the dynamic environment affecting information professionals nationally. Inflation and a troubled economy often reduce travel and training budgets, staff size, and individual workload. The growing complexity of the profession itself requires more systematic efforts to understand and utilize new technologies and managerial techniques. The number of organizations competing for the special librarian's time increases constantly. Finally, members of the profession, as well as their managers, may have differing views of their own abilities and potential. While SLA members in Texas share these challenges with their colleagues everywhere, the sheer size of the state, the number and geographical dispersion of the membership, (with 550 members, the Texas Chapter is the seventh largest in the U.S.) and the recent development of many new special libraries in the Sunbelt created additional pressures to which the Texas Chapter was required to respond. Growing awareness of this dynamic and complex environment and a desire to ensure that the chapter was positioned to capitalize on its opportunities caused chapter president Mary Woods to establish a Long-Range Planning committee in 1980 to conduct a systematic inquiry into the nature, needs, and direction of SLA in Texas.

The Long-Range Planning Process

Rethinking the Texas Chapter's mission and examining its effectiveness in carrying out its goals required organized analysis, a discipline that is at the core of the long-range planning process. The process has five phases:

- Articulating the organization's goals and objectives.
- Assessing the organization's ability to accomplish its objectives.
- Formulating recommendations aimed at improving the strength of the organization.
- Achieving approval of the plan.
- Implementing recommendations and monitoring progress.

To accomplish the first phase, the committee's initial task was to develop a rich database of information about members' professional needs and the chapter's existing methods for attaining common goals. This phase combined fact finding and brainstorming which continued, in one form or another, throughout the effort.

Information-gathering activities included historical reviews of meeting topics, formats, and attendance figures; interviews with chapter "veterans"; discussions with leaders in other chapters; and a written needs assessment survey. Of particular value was the biennial needs assessment survey, which the chapter conducts to aid in program planning. The 1981 survey coincided with the long-range planning schedule, garnered a 41 percent return, and provided vital documentation about members, such as:

- Predominant subject fields of employment
- Experience levels

- Management support for SLA activities
- Cost concerns and travel restrictions
- Continuing education interest
- Local Planning Group participation
- Program topic interests

Mutual concerns, priorities, and potential action plans were debated in open forums and within the LRP Committee. Every effort was made to gather information and opinions from all sources, especially those who had broad or long-standing experience within SLA. Over time, the information in our database began to fall logically into two categories: external or environmental constraints and challenges; and internal, organizational needs.

Articulating New Goals and Objectives

In enumerating and analyzing the challenges facing the chapter, the LRP Committee was led to a re-evaluation of chapter goals and objectives which had been formally expressed many years earlier. The long-range planning process at this stage served as a tool for developing a plan which identified new priorities and focused chapter energies upon a manageable number of activities. In our view, the committee's task was to develop a planning document which would serve as a guide to future action, rather than simply a catalog of problems, issues, and wishes.

The committee stated two major goals to which the long-range plan would be dedicated: First, to serve the professional needs of its members by providing opportunities for members to improve knowledge and skills, facilitating communication between chapter members, and facilitating communication between the chapter and other groups and officers within the Association; second, to be the dominant voice for all information professionals in Texas by enhancing our image among institutional decision makers, and by promoting the value of professional information services to our various publics.

A natural sequel to this exercise was to determine how well we were reaching our objectives. In order to do this, we had to determine first, how well we were positioned to meet our members' needs and second, what impact we were having on our profession's image within the state.

Meeting Members' Needs

Our initial analysis indicated that the Texas Chapter's ability to meet its members' needs appeared to be hampered by two factors: a somewhat unwieldy organizational structure and a lack of consistent quality control mechanisms to govern our programs and publications, the two major member services. The long-range plan addressed both of these issues in some detail.

The organizational structure consisted of elected officers, committees, and local planning groups in the four metropolitan areas of Houston, Dallas, Austin, and San Antonio. The groups were originally formed to handle local arrangements for chapter meetings in their respective cities. In recent years the LPGs assumed a more important role in providing local programs for members and prospective members. The committee perceived these groups as a potentially powerful resource that should be supported and utilized more effectively by the chapter to accomplish its goals. The plan encouraged the executive board to increase its support of the LPGs in supplementing statewide meetings.

To address the issue of chapter structure, we used two diagnostic tools to help us identify organizational constraints. The first was a matrix of officer roles and responsibilities; the matrix listed reporting relationships, paperwork requirements, meeting attendance requirements, and the number of years of commitment required for each elected office in the chapter (Fig. 1). The completed matrix clearly showed that the bulk of chapter responsibility lay with the chapter president. Using the matrix, we were able to suggest some ways to redistribute or increase delegation of responsibilities and to reduce administrative workloads. Our analysis also led us to the conclusion that formal leadership training and orientation would ease the annual transition of officers. In addition, we concluded that the chapter should explore ways to alleviate the financial burden associated with officers' service.

The second diagnostic tool was the use of a Texas Chapter organization chart, which provided a graphic illustration of reporting relationships between officers and committees (Fig. 2). It indicated areas in which our organizational energy was being dissipated through confusing, inappropriate, or redundant efforts. The organization chart, coupled with an analysis of committee duties and recent accomplishments, enabled us to suggest ways of streamlining the structure while at the same time focusing upon our two major goals. Accordingly, we recommended the following measures:

- Realigning certain reporting relationships.
- Strengthening committees whose functions involve member services.
- Consolidating committees with complementary or minimal workloads.
- Abolishing committees with obsolete or inappropriate functions.

The new structure we recommended is balanced and more conducive to an appropriate allocation of our valuable human resources (Fig. 3).

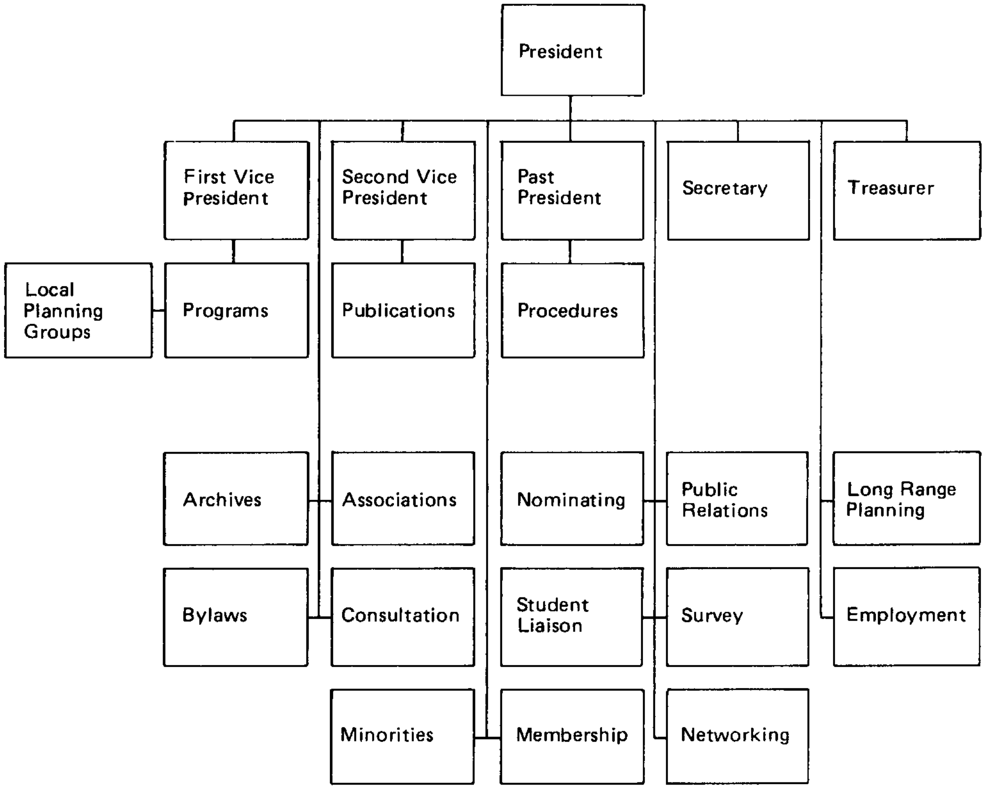
Analyzing Program Planning Efforts

Ensuring the development of high-quality chapter programs responsive to members' interests was seen as crucial to our first goal of enhancing professional development opportunities. The committee seriously considered the issues of worsening economic conditions and competing professional groups; both can impact member participation in SLA programs adversely. For this

Figure 1. Matrix of Officer Responsibilities.

	Total years of SLA commitment required	# of people reporting to officer		Administrative duties
President	3 1 yr. 1st V.P. 1 yr. Pres. 1 yr. past Pres.	19		Presides at all Executive Board and chapter meetings. Makes special and committee chair appointments, "chairs" all committees, coordinates work of all committees and office- primary liaison to LPGs attend- Mid-winter meeting.
First V.P.	3 1 yr. 1st V.P. 1 yr. Pres. 1 yr. past Pres.	5		Serves on Executiv- all chapter me- summer pla- budget d- writ-
Second V.P.	2	4		
Past President	3 1 yr. 1st V.P. 1 yr. Pres. 1 yr. past P-			

Figure 2. Old Organization Chart.



reason, it was especially important to strengthen the program planning process at the state and local levels to ensure high quality. Specifically, we encouraged strict advance planning and recommended that program topics be based upon the biennial needs assessment survey. The frequency of formal statewide meetings, previously held quarterly, was reduced to two, with a summer planning session/officer training and a winter continuing education course completing the schedule.

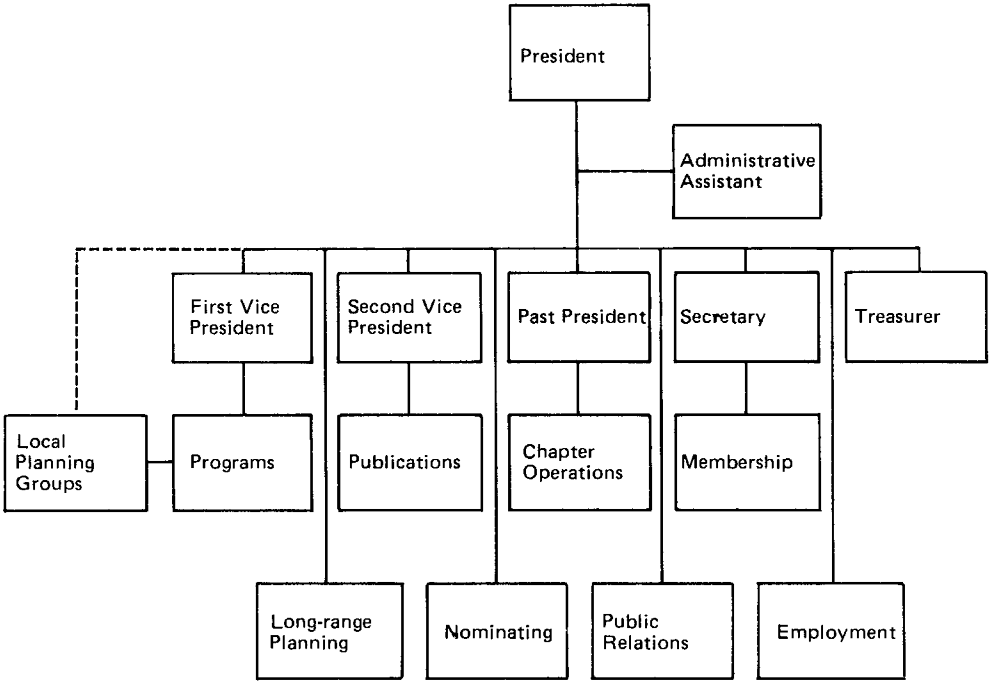
Publications

Our data revealed that nearly half of the chapter's revenues are dedicated to the publications program. The importance of the chapter *Newsletter* and *Bulletin* to a large and geographically dispersed membership is apparent. A formalized analysis of publications costs and benefits had never been conducted, yet it was clear that substantive and timely publications should be a chapter priority. A task force was recommended to determine the effectiveness of the current program, costs involved, makeup of the Publications Committee, and potential special publications projects to generate revenue.

Strengthening Our Image

Typically, professional associations provide their members with both concrete benefits such as publications and continuing education opportunities, as well as a less tangible sense of identity and shared values. The Texas chapter, like many SLA affiliates, had tended to emphasize the former; it lacked mech-

Figure 3. New Organization Chart.



anisms that projected a coherent image of special librarians within the state. The long-range plan attempted to achieve a better balance between these benefits by recommending that a task force be appointed to study ways to solidify the chapter's image within Texas, strengthen the chapter's impact upon the Association, promote the value of information professionals to institutional decision makers, and establish the Texas Chapter as the dominant voice for special librarians within the state.

While Texans have held important positions within the Association (most recently Marilyn Johnson as program chair of the Detroit conference and Chapter Cabinet Chair-Elect) and have had a voice in Association forums, there had been an underutilization of formal communications channels between the chapter and the Association. Strengthening these channels was seen as an important facet of increasing the chapter's voice in Association activities. A more clearly defined presence was seen to be beneficial in improving the administrative relationship with the association, representing Texans' concerns on national information policy issues and association plans, and capitalizing on the organizational identity of SLA members by strengthening the chapter's visibility within the Association.

To achieve these objectives, we recommended that the executive board name a subcommittee to improve our communications with the Association. It was also suggested that chapter forums at statewide meetings be instituted to obtain member consensus on issues of importance to the profession; officers could then draw upon these discussions in representing the chapter to the Association. In general, however, the committee felt that increased use of existing mechanisms would ensure a more productive interaction.

Perhaps the most significant benefit of membership in a professional association is the image of the profession itself that the organization conveys externally. Promoting our contributions as information professionals was seen as one of the major responsibilities of the Texas Chapter. The internal structural reorganization was designed as a strong foundation to support a new strategic vision for the chapter: establishing SLA as the dominant voice for information professionals in the state.

Our analysis indicated the need for a formalized marketing effort to communicate the profession's value to institutional decision makers and to articulate the purpose and benefits of SLA membership to outsiders. The existing public relations and consultation activities of the chapter were important components of this effort, but Public Relations Committee activities had often been ill-defined and internally directed until 1981–1982, when the committee solicited a proposal for an advertising campaign. Requests for consultation, a potential opportunity for promoting the value of information services, suffered from a lack of manpower and was not a chapter priority.

We recommended that a substantial task force effort be launched to develop a systematic plan for enhancing the image of the profession within Texas. This task force has now been appointed and charged with identifying and documenting objectives of a formal, externally directed public relations campaign to develop specific action steps, identify funding alternatives, and work within and through the public relations program at the Association level. By these means, the chapter will be able to implement a program that communicates our aims and abilities to our various publics.

Finalizing the Plan

During the early winter of 1981, the Committee began to address the reality of logistics in presenting our findings and recommendations to the Chapter Executive Board/Advisory Council. A detailed timetable was established for internal committee work; the schedule included presenting a discussion draft to the Executive Board/Advisory Council at the February quarterly meeting. Reactions to the discussion draft presentation would then determine specific methods of publicizing the evolving plan to the chapter membership. The timetable culminated in presenting final recommendations in a formal plan at the annual chapter business meeting in April. It was essential, in the meantime, to publicize fully the concepts and proposed recommendations to the entire membership in order to achieve full consensus and support.

Techniques which proved successful in publicizing the plan were threefold. First, a draft of the plan was mailed to all members in March with a request for written feedback. Second, "town hall meetings" were held in Houston, Dallas, Austin, and San Antonio, with a member of the LRP Committee present at each meeting to explain concepts and answer questions. Third, we doggedly adhered to our original timetable, thereby avoiding delays which would have extended the committee's work past the current year. Had this happened, the learning curve associated with a new LRP committee, as well as with new chapter officers, would have unnecessarily hindered development, approval, and, of course, implementation of the plan.

As the document developed, it was reviewed by many chapter members who suggested useful improvements. The Association By-Laws Chair was consulted several times for technical advice. By the time the plan was finalized and presented to the executive board, it was truly a group product.

Gaining Approval and Establishing Implementation Mechanisms

In April, at the chapter annual business meeting, the plan was approved by the executive board, and later by the membership. Beginning in the summer of 1982, with newly elected officers in charge, the chapter procedures manual was revised to conform to the new committee structure and readjusted officer responsibilities. At the summer planning meeting new officers and committee chairs were oriented to their duties and charged with swift implementation of the adopted long-range plan. The Long-Range Planning Committee continues in operation this year with two major duties: to monitor LRP implementation and to assist where necessary, and to coordinate special projects, especially those that generate revenue.

This process of review and revision revealed many strengths as well as weaknesses within the chapter. The recommendations were designed to consolidate member energies and to focus them on the accomplishment of those activities of real importance to our members. The long-range plan itself is a document which initiates a continuing cycle of evaluation and readjustment. Successful implementation of the plan will promote a vital organizational structure and will enhance our ability to respond to changing member needs and a dynamic external environment. Its primary value lies in enabling us to meet future challenges and opportunities from a position of strength.

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Long-Range Planning Committee Members, 1981–1982: Sally Bethea, Chapter President; Claudia Bird, Committee Chair; Robin W. Johnson; Mary S. Woods; Linda Heck.

A copy of the full text of the finalized long-range plan may be obtained by writing or calling: Claudia Bird, Deloitte Haskins & Sells, One Main Place, Dallas, TX 75250 (214/748-6601).

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Appendix. Step-by-Step Summary of the Long-Range Planning Process.

1. Establish firm timetable.
2. Gather data.
   Review organization goals and objectives.
   Assess external environment.
   Conduct needs assessment survey.
   Provide opportunities for open discussion and debate.
   Compile list of concerns, issues, constraints.
3. Organize information.
   Construct organization chart, matrices.
   Develop categories of issues.
4. Analyze input.
   Prioritize current needs.
   Assess organization's ability to meet needs.
5. Identify current goals.
6. Develop recommendations.
   Focus recommendations on major goals.
   Construct integrated action plans.
   Test conclusions.
7. Achieve consensus.
   Publicize the plan.
   Provide forums for debate.
   Modify recommendations.
8. Gain approval.
   Finalize document.
   Promote concepts and conclusions.
   Make formal presentation.
9. Implementation.
   Monitor progress.
   Evaluate impact.

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■ Government and industry standards and specifications are increasingly used in courtrooms as proof that manufacturers comply with nationally accepted rules for the quality of their products and for the use of testing and production methodologies which represent state-of-the-art technology. The forensic engineering librarian must understand the imperatives of standards-producing organizations and monitor their progress in developing new standards and revising old ones. Planning for acquisition and maintenance of a standards collection should encompass mechanisms for automated information retrieval to facilitate comparative analyses of requirements from multiple sources.

THE SPANNING of the continent with railroad track was achieved in Utah at a historic moment in 1869 when the Union Pacific Railroad workers, laying track west from Omaha, met the Central Pacific workers, laying track east from Sacramento. Can you picture the scene on that long-anticipated and sunburnt day if the track had not matched up? Twenty-six years later, in 1895, a standard for laying railroad track was published. This is one of many examples in which "standards" existed in the form of good engineering practice long before they were formally written.

The standards literature today exists in several formats and encompasses the design, safety, and uniformity of manufactured products, manufacturing processes, and environmental conditions. In recent years, attention has focused on safety standards which are used as evidence in products liability lawsuits. This paper will summarize efforts to identify, acquire, and organize a standards collection, with emphasis on the provision of information services to the staff and clientele of a forensic engineering consulting firm.

The Forensic Engineering and Science Center at Triodyne provides expert

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testimony in court cases which involve accidents caused by defective products, by equipment failures, and by careless handling or misuse of consumer products and industrial equipment. This group is retained by law firms and attorneys, by manufacturers and injured parties, and by insurance companies. Engineering tests and analyses are done on a great variety of manufactured products and manufacturing processes. Frequent reference is necessary to standards, codes, and specifications in force at the time a product or process was created. While it may seem reasonable to assume that the existence of good safety standards and conformance to those standards eliminate accidents, that is not the case in the real world. The safety engineer, and therefore his or her information services staff, must confront a complex body of facts to discover the scientific basis for the cause of an accident.

The Nature of the Standards Literature

Voluntary engineering consensus standards originally promoted interchangeability of parts to facilitate mass production, but soon were extended to cover safety and performance requirements. The American Engineering Standards Committee was established in 1918 by five leading engineering societies and three departments of the federal government. This committee, a predecessor to the American National Standards Institute (ANSI) was responsible for producing standards which are still used in the courtroom today. To reinforce the point that standards have been with us for some time and are needed to help society function smoothly, we might take note of the original voluntary standards—the Ten Commandments.

Defining the terms *standards, specifications,* and *codes* seems to be necessary, since there is much confusion about what each term means. Engineering standards may be defined as rules for the quality, size, shape, performance, definition, and testing methodology of manufactured products. The system which produces engineering consensus standards is voluntary because those who participate in it generally do so on a voluntary basis and because standards developed by this system are intended for voluntary use at the option of the consumer or the manufacturer. They are called consensus standards because diverse groups—manufacturers, merchandisers, technical experts, and consumers—must agree on what the standards are intended to accomplish and what must be required to gain a desired result. Consensus must be more than a majority opinion and be as close as possible to unanimity as the separate interests of the diverse groups will permit (*1,2*). Considerable effort is expended by standards organizations to achieve broad representation on standards-writing committees, as well as to attract volunteers with significant experience in state-of-the-art practices in specific fields.

Codes are systematic and comprehensive statements of rules related to one subject (for example, the National Fire Code). Such rules may or may not have statutory force. Building codes which have been adopted by political jurisdictions are statutory. The Code of Federal Regulations includes the regulations issued by Federal Government agencies which have been granted issuing authority by Congressional statutes. The Code consists of fifty titles, of which three are frequently used in safety engineering: Title 29 for Occupational Safety and Health Administration (OSHA) regulations (*3*); Title 49 for Department of Transportation regulations (*4*); and Title 16 for Consumer Products Safety Commission regulations (*5*).

Specifications refer to governmental requirements for materials to be purchased for official use. The United States government is the world's largest bulk purchaser. This, combined with a deep pocket, enables Uncle Sam to dictate special standards of quality and performance to his suppliers—standards that are often more stringent than voluntary ones. The National Standards Association estimates that over 39,000 U.S. military documents and 6,500 federal documents—including standards, specifications, and commercial item descriptions—were in force as of October 1981 (*6*).

The terms *standards, specifications,* and *codes* are used interchangeably, but there are important differences. Courts take judicial notice of state and federal statutes and municipal ordinances more readily than they do of voluntary standards, since they overcome rules of evidence. If a standard is not statutory, it cannot be admitted in some states as evidence; in other states, to have it admitted as evidence, hearsay arguments must be overcome. The voluntary standards system has played an important role in developing standards which have become mandated through government regulation. One example is found in OSHA's first efforts, which were to mandate many voluntary standards. Another is found in municipal building codes, which are often based on National Fire Protection Association standards. Some voluntary standards have become statutory by being incorporated by reference into governmental regulations; these are noted in the *Code of Federal Regulations* and in municipal and state statutes, but are not always identified in the voluntary standards themselves.

The great amorphous mass called the standards literature is difficult to define with any degree of precision. The content and format of standards are often overlooked when quoting the size of the mass. The March 1982 printout of the National Bureau of Standards (NBS) *KWIC (Key-Word-In-Context) Index of U.S. Voluntary Engineering Standards* includes an estimated total of 28,000 current U.S. standards (*7*). The NBS makes a rough estimate that 500 revisions, additions and withdrawals change this total monthly (*8*). The Standards and Specifications database, offered by the National Standards Association, contains records for about 98,000 current and retrospective standards, codes, and specifications. Information Handling's TECHNET database contains about 35,000 current standards (*9*). What is not known is how many of these estimated totals take into account only discrete standards which have no equivalents listed under other issuing organizations or how many are standards with content identical to that in other standards. For example, ANSI C33.13 and UL 560 are equivalent standards dealing with electric home laundry equipment.

Standards are published in formats ranging from single sheets to 100-page pamphlets, to looseleaf notebooks with regular updates, to multivolume, hardcover editions. They can be obtained in microfilm or microfiche and someday perhaps in full-text, online editions. We have indeed come a long way from the clay tablet.

Triodyne's Standards Collection

Forensic engineers are particularly concerned with machinery guarding, fire prevention, electrical controls, properties of materials, foreseeable misuse, failure to warn, human factors in equipment design, equipment retrofitting and modification, consumer product safety, and recommended manufacturing practices. Triodyne collect standards from American National Standards Institute, Underwriters' Laboratories, American Society for Testing and Materials, National Fire Protection Association, Society of Automotive Engineers, American Society of Agricultural Engineers, American Society of Mechanical Engineers, National Electrical Manufacturers' Association, Consumer Product Safety Commission, National Highway Traffic Safety Administration, and OSHA, to name only a few.

Our collection must be retrospective as well as current, since some accident-causing machinery is very old and still in use. Standards and codes in effect at the time this machinery was manufactured are needed to show state-of-the-art technology and the intent of the manufacturer to produce a safe product. In addition, we have been asked to document the means by which manufacturers were made aware of the existence of standards at given points in time. Such documentation has been accomplished by locating announcements of new standards in the industrial periodical literature, then identifying those libraries which held the pertinent titles prior to the date of manufacture.

The development of the system of voluntary engineering consensus standards began over sixty years ago and has been effective in promoting and communicating technological advances.

The collection development policy is based on demand purchasing, on acquiring all early editions of standards for highly durable equipment, and on purchasing in anticipation of need. An attempt is made to collect all standards, codes, and specifications for case-related products and processes. For some artifacts (products which have been involved in accidents), we buy Canadian, British and ISO standards, in addition to domestic ones. When imported products are artifacts, it is necessary to use the standards of the importing country.

Hardcover editions of standards are catalogued and treated as monographs. These include, for example, the various building codes, the National Fire Code, SAE Handbooks, Agricultural Engineering Yearbooks, ASTM standards, the ANSI Elevator Code, and the Code of Federal Regulations. All other standards are collected in duplicate and treated as pamphlets. We maintain a Master Standards File arranged by alpha-numeric designations (e.g., ANSI A14.1 or UL 57). Duplicates of the Master File copies are filed in subject files.

The access tool for this collection is a card file containing cards for code/designation numbers, for sponsoring and approving organizations, and for multiple subject headings. Cross-references are used for equivalent standards and for catalogued standards. An online retrieval system is being developed to include all of the above with greater in-depth indexing. It is essential for us to be able to find within the standards the minutia covered—for example, the use of gloves or hair nets by machine operators, concepts such as "guarding by location," and interpretations of requirements for electrical controls in certain environments. The need to capture such minutia quickly is one of the reasons for devising an in-house retrieval system, since existing commercial systems use broad subject headings or only titles in indexing.

Purchasing of current standards is usually done directly through the standards-producing organizations. This is facilitated by memberships in ANSI, NFPA, ASTM, ASME, ASAE, and SAE. Underwriters' Laboratories standards can be picked up at the UL headquarters in suburban Northbrook. Many can also be borrowed from Chicago-area libraries, including the John Crerar, University of Illinois at Chicago Circle, and the Chicago Public Library. Superseded or retrospective standards are a different story. Some standards-producing organizations can supply them only after long delays and excessive copying charges; others cannot supply them at all. A few organizations have self-destructed, leaving a legacy of orphan standards. We then must rely upon commercial standards supply organizations, the Engineering Societies Library, the National Bureau of Standards Library, or the manufacturers we are representing. Occasionally, we have been able to locate copies reprinted in the trade literature.

Information Services-Standards

The most challenging aspect of the Triodyne standards collection is not in its acquisition and management, but rather in the provision of standards information services. After inspection of accident sites or artifacts, analysis of accident details, and a review of the allegations of each case, Triodyne engineers submit requests for standards and codes which were in effect at the time of the product's manufacture. What happens next depends on whether standards exist for the product, whether they are already held, how old they are, and how fast they are needed.

To identify existence of a standard, it is presently necessary to consult numerous sources; for example, first, the card index to Triodyne's collection, then the NBS KWIC Index (or earlier NBS indexes), the catalogues of the major issuing and standards supply organizations and online to the Standards and Specifications database.

If we are still unsuccessful, we turn to the appropriate professional society or trade association and ask whether a standard exists for, say, broom-making machinery. When all else fails, we ask the manufacturers whether they are aware of existing or developing standards on the subject. We look forward to the time when there will be a single source listing "all" current and superseded standards using "all" of the current and obsolete terminology imaginable.

Many problems surface after standards are located. Sometimes titles are found to have little bearing on content. In other cases, a standard is miscited and does not really include a specified product within its scope. In other instances, clients ask for standards by code numbers which turn out to be incorrect. Standards can be vague and misleading and it is necessary to find interpretations in the literature which provide clarification and prove intent of the issuing organization. When the literature yields no help, members of the standards-writing committees are contacted for clarification.

It is sometimes found that there are different requirements in different standards for the same product. One example concerns the depth of water in which swimming pool slides may be installed. In some situations where there are differing requirements it is necessary to obtain documentation on who served on the committee that formulated the standard and to learn what may have biased the requirements in what way. Unfortunately for those of us who research the background data on standards, the rationale and justifications for specific requirements are not usually published for subsequent review and evaluation.

Lack of available in-depth subject indexes precludes efficient retrieval of information on machinery subcomponents and on design concepts. A tedious, manual search is required to locate information on which standards specify, for example, that machinery guards should not be used when the guards themselves create a hazard or on when it is not advisable to depend upon an audible warning signal.

Recently, concern has been expressed about whether standards-writing committees should write with litigation in mind. There are some standards which attempt to establish responsibility because different groups —judicial, regulatory, and consensus— have each taken various positions on responsibility before and after the fact. As an information scientist trying to locate statements which cover the point at which the manufacturer of one component in an assemblage of components is no longer liable for the design of a completed product, this author can testify that the frustration level becomes untenable. Such frustration is probably exceeded only by that felt by the engineer who goes into court and learns that compliance to standards and codes is regarded as a necessary but not sufficient condition for prevailing in a product liability lawsuit.

The U.S. Department of Commerce chaired an eighteen-month Interagency Task Force on Product Liability study and published a Final Report in 1977. Following up on facts gathered during this study, the Department published a Draft Uniform Product Liability Law in 1979 which was intended to balance the interests of product users and sellers and to provide a model law for use by the states (*10*). The relevance of compliance with legislative or administrative standards is one of the aspects of product liability specifically outlined in this model law. An acceptable standard is characterized in this model law as follows: first, it was developed as a result of careful, thorough product testing and a formal product safety evaluation; second, consumer as well as manufacturer interests were considered in formulating the standard; third, the agency responsible for enforcement of the standard considered it to be more than a minimum safety standard at the time of its promulgation; and finally, the standard was up to date in light of the technological and scientific knowledge reasonably available at the time the product was manufactured. These criteria are useful to the information scientists, but unfortunately the Uniform Product Liability Law has not yet been adopted.

Summary

The development of the system of voluntary engineering consensus standards began over sixty years ago and has been effective in promoting and communicating technological advances. Standards may be as simple as a consumer product instruction label or as complex as the specifications which enabled the successful Columbia Space Shuttle Mission. The body of standards literature defies precise description and easy accessibility and presents endless challenge to the engineering information specialist. Whatever flaws exist in the bibliographic control of standards will surely someday be eliminated by recommendations of an ANSI Committee (assuming that half of the Defense budget will be available to carry them out). In the meantime, we can be secure in the knowledge that we have carefully conceived guidelines for the design, safety, and uniformity of the products we use and for the environment in which we live, recognizing at the same time, that there will always be among us those who will sustain injuries when they choose to go up the down escalator.

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Automating Technical Processes and Reference Services Using SPIRES

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■ The capabilities, cost-effectiveness, and flexibility of SPIRES (the Stanford Public Information Retrieval System) and the advantages it offers managers of small- to medium-sized libraries/information centers are examined.

THERE ARE MORE than 15,000 database systems installed in the United States today, each of which employs a software package known as a database management system (DBMS). Of these database systems, approximately 1,000 are information retrieval services available to subscribers—a number which is up from 400 only three years ago. Approximately 50 companies market 54 different DBMS packages to generate $150 million each year in revenues (*1*). In addition, the three major bibliographic database brokers in the United States—DIALOG, Bibliographic Retrieval Services, and System Development Corporation's ORBIT—offer private files services to their subscribers.

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One DBMS—SPIRES (the Stanford Public Information Retrieval System)—offers managers of small- and medium-sized libraries and information centers the ability to automate technical processes and search services in an efficient and cost-effective manner. As a software package, SPIRES is capable of performing the same retrieval functions and of producing the same types of printed products as much larger and much costlier systems, such as MEDLINE or ERIC. Yet, because it is a generalized software package, initial programming and development costs can be kept to a minimum.

The experience of the Title I Evaluation Clearinghouse with SPIRES in automating a small collection of materials on the evaluation of compensatory education programs has been rewarding.* SPIRES has been used effectively for both online search and retrieval purposes and to produce a variety of printed products, including a holdings catalog, a card catalog, and an author-title-subject index, as well as for various other purposes that have re-

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sulted in considerable economies in staff and materials resources. SPIRES is widely available and places the power of the computer and the enhancements of information technology within the reach of even the smallest operations. It does so, moreover, in a way that competes favorably with many of the more costly, less adaptable commercially available systems.

The Title I Evaluation Clearinghouse

Title I of the Elementary and Secondary Education Act (ESEA) of 1965, administered through the U.S. Department of Education (USED), is designed to meet the needs of the nation's educationally disadvantaged children. Congress appropriated more than $3 billion for Title I programs in 1980-81 to serve some five million children in more than 13,000 school districts. It is the largest federal educational program ever inaugurated and may well be one of the largest government programs to have a compulsory evaluation component—results of evaluations performed in local classrooms are eventually reported on the floor of the U.S. Congress.

In 1976, USED established 10 regional Technical Assistance Centers (TACs) to provide technical consultations to the states in all aspects of Title I evaluation. The Title I Evaluation and Reporting System (TIERS) was developed to provide state education agencies with procedures for examining program effectiveness and to provide the states and USED with information designed to improve planning and informed decision making. The TACs assist states and local school districts in implementing this evaluation and reporting system.

After three years of operation, a performance review of the TACs was commissioned by USED. While the review looked with favor upon TAC efforts, it also noted that "the TACs are producing materials (e.g., test reviews, training materials) that have considerable value for Title I evaluation and beyond. By coordinating the collection, storage and retrieval, updating, and distribution of these products, [USED] could greatly enhance the Technical Assistance System" (2).

The mandate for operation of the Title I Evaluation Clearinghouse stems from the need to control information proliferation and duplication in a specialized field of knowledge—compensatory education programs and their evaluation. The Clearinghouse collects materials on program evaluation, psychometrics, data utilization, and quality control, as well as on general topics from the disciplines of education and psychology. The types of materials collected range from regularly published monographs and reports to fugitive documents and audiovisual materials. The Clearinghouse provides reference and document delivery services to USED and the other TACs, the state departments of education, local school districts, and educational researchers in colleges and universities.

The organization of the Clearinghouse is modeled as closely as possible on ERIC operations. Document accessioning and identification are based on ERIC procedures and the Clearinghouse Thesaurus is adapted from the *Thesaurus of ERIC Descriptors* produced by the Educational Resources Information Center. The Clearinghouse Thesaurus expands upon ERIC terminology to include terms unique to Title I program evaluation.

In October of 1982, federal funds for compensatory education became available to states and school districts through Chapter 1 of the Education Consolidation and Improvement Act (ECIA) of 1981. Under this new legislation, the TACs continue to provide technical assistance on educational program evaluation to their clientele and the Clearinghouse continues to serve as an integral part of this service delivery network. The Clearinghouse's collection development policy has been expanded to include microcomputer software packages of relevance to educational program evaluation.

SPIRES and the Title I Evaluation Clearinghouse

Contractual agreements with Stanford University's Center for Information Technology (CIT) give the American Institutes for Research (AIR), where the Clearinghouse is located, access to SPIRES, the same technologically sophisticated information retrieval system software package employed by a nationwide research library cataloging network, the Research Library Information Network (RLIN).

SPIRES is used as an online information retrieval system and has been relied upon to produce a variety of printed products. Chief among these is

Figure 1. Sample Page from Title I Evaluation Clearinghouse Research Documents Notebook.

CD00034

AUTHOR(S):	Hinkley, Ronald H. Beal, Richard S. Breglio, Vincent J.
TITLE:	Student Economic and Educational Status and Receipt of Educational Services
ISSUING AGENCY:	Santa Ana, California, Decima Research
DATE:	June, 1978
NO. OF PAGES:	130 p.
TYPE:	Monograph
NOTES:	Technical Report #3 from the Study of the Sustaining Effects of Compensatory Education on Basic Skills
DESCRIPTORS:	Sustaining Effects Study Socioeconomic Status Demography Selection Achievement Teacher Judgements Program Length

ABSTRACT:

The third technical report in a series on the sustaining effects of compensatory education on basic skills consists of the Participation Study itself, an Executive Summary, and a Technical Summary. Students and parents in 242 elementary schools were studied to determine the relationship between economic status and educational achievement on the one hand and selection for Title I and other compensatory education (CE) programs on the other. Data were collected for the Title I and non-Title I compensatory education students on their educational achievement, family economic status, basis of selection for the CE programs, teacher ratings, attendance, time actually spent in reading and mathematics instruction, time spent with regular and non-regular teachers, class size, and individual instruction. It is concluded that selection for CE programs is proportionally higher for the poor and for the low-achievers than for the non-poor and high-achievers, but that the majority of low-income and low-achieving students are not included in any CE program. It is also concluded that regardless of economic or achievement category, teacher judgement plays an important role in selection for a CE program. There is a significant relationship between students' economic status and both their educational achievement and the amount of time spent in school. In terms of services received, no difference is reported between the poor and the non-poor in hours of instruction from the regular teacher, although the poor receive more non-academic compensatory services. The non-poor, on the other hand, are more often exposed to early childhood educational programs. (DR) a set of notebooks that contain single-page document summaries, i.e., bibliographic information, cataloging, and abstract, for every item in the collection—one for research documents (Figure 1) and one for workshop and audiovisual materials. Clearinghouse staff use a dictionary card catalog to manually access the Clearinghouse records. This card catalog is also produced by SPIRES from database records and is printed at Stanford University facilities. Much more widely distributed than the card catalog is a separate author-title-subject index (Figure 2). These printed products from the Title I Evaluation Clearinghouse have been distributed nationwide.

SPIRES is used, of course, to perform searches of the Clearinghouse collection in response to reference queries. In addition, it is accessed directly by the other TACs through TELENET, a commerically available telecommunications network. A primer (3), available in hardcopy and on videotape, was prepared to instruct TAC staffs in online searching techniques.

SPIRES has also been used to produce various products for bibliometric analysis of the Clearinghouse collection. The Title I Evaluation database on SPIRES has been run against a PL/I program at the Stanford facility to produce a postings list of subject descriptors which has been used in thesaurus construction. Another PL/I program took these postings and arranged them by frequency of occurrence.

This hierarchical list of descriptor postings (Figure 3) displays the most used through the least used index terms in the collection and readily supplies an objective measure of the collection's scope. Hierarchical lists of descriptor postings run at various intervals can thus be compared to gauge shifts in collection development emphases over time. SPIRES also keeps a permanent record of the dates when individual records were added to the system and when they were last mofidied. Other system capabilities can be used to further analyze database usage patterns and which provide an effective database monitoring system.

All information supplied by users at log-on can be subjected to detailed analysis to determine the average length of search sessions, the most popular times during the day when users access the system, and many other statistics of use to the database manager. In addition, SPIRES "traces" all interactive search sessions, i.e., keeps a permanent record accessible to the database manager of the search commands issued by a user when accessing the database. This data can be used on an individual or aggregate basis to determine such useful information as whether subject or author searching is the chief search strategy employed, the subject concepts most frequently searched, whether thesaurus terms or keywords are used for subject searching, and to determine any commonly occurring errors in search strategy formulation which should be earmarked for correction through user training.

Advantages of SPIRES

One enthusiastic reviewer described SPIRES as "the first realistic intimation of what tomorrow has in store for the information science professions" (4). SPIRES is "a generalized interactive information storage and retrieval system. It is capable of handling both bibliographic data and numeric and structured data. . . . SPIRES allows a user to create, update, maintain, interrogate and display stored information" (5).

Sophisticated information retrieval system software packages have been around since the late 1960s. The new twist to SPIRES is that it makes this type of advanced software available to the small- or medium-sized information center. Previously, such programs were available only to the largest federally funded information retrieval operations, such as the National Library of Medicine. Such large systems could both justify and afford the immense outlay for design, development, debugging, and implementation of informa-

Figure 2. Sample Page from Subject Index of Title I Evaluation Clearinghouse Author-Title-Subject Index.

SUBJECT	ACCESSION NUMBER
POLITICAL ISSUES	CD000337
	CD000451
	CD000492
	CD000630
	CD000660
	CD000684
	CD000705
	CD000720
POST TESTING	CD000110
	CD000547
PRACTICE EFFECTS	CD000825
	CD000826
	CD000907
PREDICTION	CD000547
	CD000624
PREDICTOR VARIABLES	CD000015
	CD000305
	CD000342
	CD000359
PRESCHOOL EDUCATION	CD000047
	CD000516
	CD000522
	CD000558
	CD000596
	CD000835
	CD000893
	CD000980
PRESCHOOL EVALUATION	CD000012
	CD000043
	CD000047
PRESCHOOL TESTS	CD000665
	CD000976
PRESCRIPTIVE READING INVENTORY	CD000342
	CD000642

tion retrieval systems. "The usefulness of sophisticated database and information retrieval systems has been demonstrated by a multitude of specialized online systems—credit card data, airline reservations, etc. But the cost of developing such systems is high, and little of the investment in one specialized system is transferable to any other. SPIRES was developed to meet the need for a generalized database management system—one that could serve as a bibliographic database, a medical database, or any of a variety of administrative and research applications. Since development costs are spread over its many users, a generalized system brings database services within the reach of smaller applications" (*6*).

The development of SPIRES was closely linked to a project to automate the Stanford libraries—Bibliographic Automation of Large Libraries on a Timesharing System (BALLOTS). "The libraries and the computer center at Stanford have long been on the cutting edge of research into library automation and information retrieval" (*6*, p. 236). From its inception, SPIRES has had two long-range goals. The first is "to provide for a user-oriented, interactive online information storage and retrieval system for a variety of research groups" (*7*). The second goal is "to support the automation efforts of university libraries . . . by contributing to common software development (*7*, p. 2). In addition, the design and development of SPIRES was based upon an in-depth study of its user community (*8*).

SPIRES was chosen for use at AIR by the Title I Evaluation Clearinghouse after a feasibility study (*9*) had been conducted to determine its value in relation to another commercially available software package—DIALOG's Private File Service. This feasibility study primarily compared costs between the two alternative systems, examining online access rates, costs for offline prints and for online storage, and charges for file updates. An average search, i.e., one which required 15 minutes of connect time and resulted in 25 citations being printed offline, cost $11.25 on DIALOG and $2.10 in SPIRES. These figures reflect rates in effect in October of 1979 when the feasibility study was conducted.

Since that time, DIALOG has restricted its Private Files operation to clients with holdings of more than 5,000 records and could thus not even be considered an alternative by many small information centers. Major cost categories for SPIRES database maintenance as of August 1982 are as follows (assuming that records approximately the length of that in Figure 1 are batch-processed at night):

- Access: $6.00 an hour online connect time;
- Offline Prints: approximately $.05 per record;
- Storage: $.02 per record per month;
- Updates: no minimum charge since the cost of updating a file consists only of access and file building charges;
- File Building: $.15 per record; and
- Average Search Cost (based on 15 minutes of online connect time and 25 citations printed offline): $2.75.

Based on a set of criteria developed by Wos (*10*), SPIRES was selected as the most advantageous software package available. In addition to cost considerations, these criteria include:

Simplicity: SPIRES is easy to learn and to use. The system was initially complex to install for an operation of the size of the Title I Evaluation Clearinghouse but, once in place, it has been readily maintained and updated. An important system capability recently added to SPIRES, the File Definer (described below), makes initial programming and implementation of a SPIRES file a relatively simple process.

Flexibility: SPIRES is able to perform a wide variety of functions and is capable of producing a limitless variety of output formats. In comparison, many commercial systems are quite rigid, i.e., once records are entered into the system, methods of access and output are strictly controlled.

Comprehensiveness: The special needs of the information center's environment must be met. SPIRES is able to perform a variety of information retrieval functions. More importantly, these functions can be modified or expanded to meet special needs.

Efficiency: SPIRES has required a minimum of programming effort in comparison with the energy that would be expended to develop system software from scratch. Furthermore, the prepackaged "File Definer Subsystem" requires little programming expertise and thus further reduces the personnel time required to set up a SPIRES file.

SPIRES meets all of these software selection criteria. It offers, in addition, several advantages not usually thought

Figure 3. Sample of Frequency Listing of Descriptor Postings.

EVALUATION DATA UTILIZATION	140
NORM-REFERENCED MODEL	81
ACHIEVEMENT GAINS	76
SCORES	67
CRITERION REFERENCED TESTS	65
TITLE I EVALUATION AND REPORTING SYSTEM	65
SCHOOL DISTRICTS	64
VALIDITY	64
OBJECTIVES	59
PARENT PARTICIPATION	58
EVALUATION HAZARDS	57
PROGRAM EFFECTIVENESS	57
COMPARATIVE ANALYSIS	56
METHODS	56
SELECTION	56
RMC MODELS	55
RESOURCE ALLOCATIONS	54
MODELS	53
DECISION MAKING	51
NORMAL CURVE EQUIVALENTS	50
ACHIEVEMENT TESTS	49
NEEDS ASSESSMENT	48
TEST SELECTION	47
RASCH MODEL	45
REPORTS	44
DATA COLLECTION	43
TESTING	43
ACHIEVEMENT	42
PROGRAM ADMINISTRATION	40

of with reference to commercially available information retrieval software packages. The primary advantage offered by SPIRES is in-house control of all aspects of database maintenance and updating. This affects almost all operations in a variety of ways. In addition, search capabilities are as great as those offered by other bibliographic database systems. Every element of the bibliographic record is readily identified and searchable.

Just as important, since the SPIRES file is in machine-readable form on the computer at Stanford, its records can be run against general-purpose programming languages, such as PL/I or COBOL, for a detailed analysis of their contents. This is especially useful as a bibliometric tool to support the production of specialized publications based on the database contents. In SPIRES, records are not only searchable they can be analyzed in great detail on an aggregate basis in order to examine underlying trends and characteristics of a body of literature.

Furthermore, the SPIRES database can be updated daily as new records are processed. Updating procedures include additions, deletions, and modifications to the existing database. This update capability means that processing lags can be completely eliminated and that the most recent information will always be available.

SPIRES is most powerful in comparison with other systems when it comes to output capabilities. One of the chief advantages of SPIRES is the ability to print any of the information in the database in a limitless variety of formats. SPIRES output capabilities are flexible enough to handle very long elements, to indent, and to justify left, right, or both left and right margins. Records can be sorted according to any record element and, within each record, elements may, for example, be sorted, edited, numbered, forced to upper case, or highlighted.

Another advantage is SPIRES's capability to perform all of the search functions normally associated with bibliographic databases: multi-dimensional subject searching based on Boolean logic, the ability to retrieve on any bibliographic element, truncation, text-word searching of titles and abstracts, and so on. SPIRES can also handle variant forms of personal names—John Smith or J. Smith or Smith, and so on—as well as variant forms of dates. SPIRES can even search for personal names phonetically.

Sophisticated information retrieval system software packages have been around since the late 1960s. The new twist to SPIRES is that it makes this type of advanced software available to the small- or medium-sized information center.

Moreover, SPIRES is also able to interface with internal word processing systems. In-house word processors can be used for daily data-entry, editing, and to produce hardcopy of new records for manual proofing. Once fully edited, records can be transmitted from a word processor to Stanford at a high-speed telecommunications rate (120-characters per second). This results in a considerable savings of dollars that would otherwise be spent on computer connect costs to perform online editing. This use of in-house minicomputers in combination with an external software system presents exciting possibilities for information control: "Minicomputers provide information services with a powerful tool through which improved access to information resources can be achieved and their utilization further extended and this service can be performed at a price and a level of system complexity which many users can afford" (*11*). SPIRES fully interacts with WYLBUR, the Stanford text-editing language, should it be necessary to perform editing when modifying records already in the database.

Finally, SPIRES is cost-effective. As has already been demonstrated, it costs less to access than many commercial databases in terms of connect time and SPIRES charges for storage, file updates, and the like compare favorably with other database management systems. Furthermore, computer users are becoming increasingly more aware of the personnel costs in any data processing operation which are now at the point where they may exceed hardware and software costs. The massive developmental effort that went into SPIRES and the focus of its system designers on user accessibility have resulted in an end-product which requires comparatively little programming or systems design effort. The preprogrammed "File Definer Subsystem" allows even nonprogrammers to set up files. Even TELENET telecommunications charges are much less on SPIRES than on many other commercial systems. New SPIRES records can be processed overnight at Stanford, thereby taking advantage of especially low night-time rates. SPIRES also allows the same degree of accessibility that most large computer systems do, all-night and weekend access with infrequent system failures.

SPIRES Programming

There are two behind-the-scenes programs that support file maintenance and updating, as well as the search and retrieval capabilities outlined above. The "File Definition" specifies, among other things how the data in a file are to be organized; how SPIRES should index the data; how the indexes are to be created, coded, stored, and searched; the restrictions there will be, if any, on who can use the file and what computer accounts may use the database. SPIRES can be instructed to expect a specified number of occurrences of any element and to reject records that do not meet established requirements. The "File Definition" describes the framework or structure of the database file; it is the foundation on which the database and its indexes are constructed. It also indicates how elements are to be transformed on entry, retrieval, and for searching purposes.

Flexibility: SPIRES is able to perform a wide variety of functions and is capable of producing a limitless variety of output formats. In comparison, many commercial systems are quite rigid—once records are entered into the system, methods of access and output are strictly controlled.

The "File Definer Subsystem" can greatly simplify the process of writing the "File Definition." Once a user provides basic information about the bibliographic elements contained in a file's records and specifies indexing requirements, the "File Definer" generates a complete "File Definition." For every five lines of user input, "File Definer" may create about 30 lines of "File Definition." Even for databases with complex requirements, the "File Definer" can create a skeleton "File Definition" that can later be expanded.

Batches of records are submitted to SPIBILD, the SPIRES file-building processor. File-building can be initiated with one command per batch, with processing not to begin until the low overnight rates are in effect. Records can be added to a SPIRES file on an individual basis when it is necessary to get them into the system quickly.

Output options are governed by a set of formats that comprise the other half of the program set necessary to utilize SPIRES. These formats enable a single record to be output in many ways.

In addition to the usual log-on security procedures (account number and frequently changed keyword), SPIRES allows the database manager to specifically define which users can gain access to his SPIRES file and to limit access to certain information by some users. These "file privileges" determine whether a file is for public or limited access, whether a user can update a file or merely search in it, whether a user can use all of the indexes available or only certain ones, and whether or not a user can view only certain portions of or all of the elements in a record.

Efficiency: SPIRES has required a minimum of programming effort in comparison with the energy that would be expended to develop system software from scratch.

SPIRES is "user friendly" and has a variety of system aids built into it that are designed to train the new user and to lend assistance to experienced users with more complex search or system-specific questions. The HELP command can be issued when a searcher is lost; it offers useful suggestions on what steps should be taken next or points out actions the searcher should have taken previously in an online session. The EXPLAIN command provides over 3,000 summaries of SPIRES concepts, commands, syntax, and error messages. It will also display, on request, specific examples of how a particular command should be used. SPIRES also provides an online tutorial and online system documentation. Off-line, consulting services and a wealth of hardcopy system documentation are available. SPIRES system documentation consists of both introductory primers and detailed reference and instruction manuals. A bibliography of SPIRES documentation resources appears below.

SPIRES Availability

SPIRES is currently in use at approximately 35 sites around the world, mostly universities in the United States and Canada, as well as in the United Kingdom and West Germany. These locations act as licensed service centers to make SPIRES available to support educational and nonprofit research endeavors. SPIRES is available commercially through Online Business Systems in San Francisco. Further information on SPIRES can be obtained by contacting the Database Management Group at the Center for Information Technology at Stanford University.

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The Library Committee

How Important Is It?

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■ The author proposes that a library committee, the value of which has been debated by library directors, is an important asset. The committee can provide technical expertise, moral support, advice on major decisions and guidance during the implementation of major projects. Since the effectiveness of the library committee is dependent on its charter, purpose, and composition, guidelines in establishing and interacting with a library committee will be considered. As an example, the author uses her experience in a research center.

AN IMPORTANT RESOURCE often overlooked by the library director is the library committee. It can be a valuable adjunct in supporting and advising the library director and in keeping both users and upper management apprised of the library's activities. Since there is a paucity of current literature on this topic, this paper will review the library committee's purpose, membership, and functions. In addition, a discussion of its benefits to the library, and the author's experiences, will be presented.

Charter

A formal charter, written jointly by senior management and the library director, is the first step in creating the committee. It should delineate the committee's purpose, membership, and functions.

The principal purpose of the committee is to advise, support, and guide the library director and to serve as a linkage among the users, the library, and the management. It is essential to distinguish between advisory functions, which are in the domain of the library committee, and administrative functions, which belong to the library manager. The library director should not surrender managerial responsibilities. For example, library committee members may be encouraged to recommend books for the collection, but the librarian should be responsible for maintaining the integrity of the collection by selecting books meeting the

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total needs of the organization. Undue reliance on the committee members can result in an uneven distribution of books in different subject areas.

Representation

To serve the needs of all users, representation from each major department or division is ideal. However, the composition of the committee, its size, and the interest of its members are more important factors. It is common, in the author's experience, to have nine to ten members, including the library director, the director's superior, and a representative from senior management. A larger committee becomes unwieldy and loses its effectiveness.

The members are often appointed by the president or chief operating officer of the organization, thereby giving the committee credence and an official standing in the organization. The library director should be consulted in nominating individuals who would best serve the library by contributing their expertise and knowledge of major projects. For example, it is especially valuable to have the director or associate director from the organization's central computer facility on the committee when the library plans to automate its operations.

Of major importance is representation from the organization's senior management, preferably the financial vice-president and the library director's superior. Such representation provides senior management with insight on the users' needs and with feedback on the library's resources in meeting their needs. Constant reinforcement by users on the importance of timely information to the organization's mission or profit will foster better understanding of the library's resource requirements.

For continuity and stability, the terms of office may be staggered and sometimes lengthened if a major project requires long-term assistance from and commitment by members. Staggered terms of two or three years for regular members is a good solution; ex-offico members are retained indefinitely.

Frequency of Meetings

Since meetings are usually called as required, an agenda should be prepared by the library director and chairperson. When necessary, documentation supporting the items on the agenda should be compiled by the library director and distributed to members for their review.

In addition, an annual meeting summarizing the past year's accomplishments and outlining the new year's goals is essential for maintaining a viable committee. Charts, graphs, and other data illustrating the library's activities can depict a trend toward increasing demands for library services. This annual meeting also gives the library director an opportunity to communicate the library's contributions to the organization's mission, projects, and profits, and to expound its vital role in the organization.

The joint determination of the library's goals and objectives by the library staff and library committee is a means by which resources can be distributed in a systematic manner; it also assists in focusing on projects of top priority. It should be reiterated that the role of the committee is advisory; it should not be concerned with internal or administrative details for the implementation of the goals and objectives.

Provisions should be made for a secretary to take the minutes of the meeting because it is difficult for the library director to give an effective presentation, discuss alternatives, listen, and take notes. Before copies of the minutes are distributed to members, the librarian and chairperson should approve the contents for accuracy.

Benefits

The benefits of working with a library committee far outweigh the liabilities. An active, interested committee can provide the library with meaningful support, sound advice and guidance, and act as liaison between users and management. It can also serve as a sounding board for innovations and as an advocate for implementing new technology. The expertise and specialized background of members can be used by the library for furthering its aims and those of the organization. Since meetings can be a medium for communicating the value of the library to senior management, they can ensure a more enlightened attitude toward the library. In the past, some library directors have been reluctant to interact with library committees, fearing the takeover of administrative functions by the committee. The author believes this fear is not justified if the library staff and library director are fulfilling their functions and are actively meeting users' needs and using cost-effective measures in the operation of their information center.

The Author's Experiences

The author has been interacting with a library committee for approximately six years at M.I.T. Lincoln Laboratory, a Federal Contract Research Center. M.I.T. Lincoln Laboratory performs research in advanced electronics, aerospace technology, solid-state physics, computer science, communications, and optics. The library has nine professional librarians and fourteen support personnel. Its collection of 300,000 technical reports, 70,000 monographs, 2,200 periodical titles, numerous archival documents, military and industrial standards and specifications, and maps is used by approximately 1,200 users; 50 percent of the technical staff have doctorates and 27 percent have master's degrees.

The library committee is composed of five members, including the chairperson, all of whom are appointed by the director of the laboratory. Nominees are recommended by the chairperson, library manager, and other committee members. In addition, the library manager and an assistant director of the laboratory serve as ex-officio members of the committee. At the request of the library manager, the head of the administration division, to whom the library manager reports, is invited to attend meetings as an ex-officio member. Although the official term of office for the five members is two years, several members have remained on the committee for over five years. During the past six years, the stability and support of the membership have been valuable during the implementation of several computer systems, including the DTIC Defense RDT&E Online System, Faxon's LINX Online Serials Management System, OCLC's Online Cataloging System, several online bibliographic retrieval systems, DMS Online System, NASA's RECON System, and an archives management system for indexing and retrieving Lincoln Laboratory publications. In addition, the library initiated a major reclassification project from the Dewey Decimal classification to the Library of Congress Classification System in 1979, began processing the OCLC tapes in 1980, and has been generating author, title, subject, conference keyword, and call number printouts since 1981. During this period, the library also received support from management to utilize the laboratory's central computer for various administrative functions such as preparing procedures manuals, recovering funds, updating schedules, writing reports, creating files of statistical data, and generating routing labels.

An active, interested committee can provide the library with meaningful support, sound advice and guidance, and act as liaison between users and management.

The library manager has been fortunate in obtaining good advice and support from the library committee members. The chairperson has been actively interested in the latest technological developments, and an associate group leader from the Central Computer Facility has provided expertise in computer systems. Of paramount importance has been the guidance and continued support from the head of the administration division as well as from senior management.

The relationship among library committee members, senior management personnel, and the library staff can best be described as a synergistic one, each bringing expertise and knowledge for a common goal—that of contributing to the fulfillment of the organization's mission.

The library committee has been meeting approximately three times a year, depending on the library manager's and the chairperson's requirements. Irregular meetings are preferred since it is felt that only substantive matters should be addressed by the committee. The first meeting of each calendar year is devoted to a summary report of the library's accomplishments during the past calendar year and the library's goals for the new year. The entire library staff is involved in submitting their accomplishments, compiling data, and determining short- and long-term goals.

Library committee members are informed before, during, and after the implementation of major projects. Before any major program is presented to the committee, the library manager and library staff do a considerable amount of research and preparation. For example, before the library embarked on its reclassification project from the Dewey Decimal Classification to the Library of Congress Classification System, the library committee members were given the pros and cons on undertaking the project concurrently with the implementation of the OCLC system. Furthermore, they were informed of the library's future plans in automating the circulation system. With this long-range objective in mind, the library was able to obtain approval from management for a supplemental budget increase to purchase bar-code labels and two TPS 300 bar-code readers for entering unique item numbers in the OCLC record. In addition to the library manager's recommendation, statistics regarding staff requirements, the expected completion date of the project, costs, and other data were outlined for their review.

Progress reports are given to the committee members for the duration of major projects. As new systems are installed and new services are introduced, the committee members are given demonstrations on the features of the equipment and are involved in assessing the value of new services.

The library manager does not consult the library committee about operational decisions, but only regarding major projects such as plans for automation. Also, the head of administration is always kept abreast of the library's plans, activities, and accomplishments. Although it is time-consuming to obtain consensus from the library staff, library committee, and senior management, the time devoted is an investment yielding future returns. After a thorough analysis of problems and issues, consideration of alternative solutions, and after a decision is made, there is greater commitment by everyone.

If there are any problems, such as not meeting a target installation date, the Committee and top management are kept apprised of the library's actions in expediting the system.

Library staff members and the manager attend technical seminars presented by divisions in the laboratory, thus keeping the library staff informed of the current research programs and providing the necessary knowledge for effective collection development, information retrieval, and current awareness services.

The relationship among library committee members, senior management personnel, and the library staff can best be described as a synergistic one, each bringing expertise and knowledge to a common goal—that of contributing to the fulfillment of the organization's mission.

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Circuit Riding

A Method for Providing Reference Services

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■ The Circuit Rider Librarian Program is a unique, shared services project for eight hospitals in Maine. Circuit riding is a method of delivering reference services that is appropriate for groups of institutions with limited library facilities. A discussion of the design and implementation of this program is followed by a cost analysis of the user services and a description of the user evaluation survey. Combining circuit riding with online search services has resulted in high user acceptance.

THE Circuit Rider Librarian Program is an outreach effort of Central Maine Medical Center (CMMC) in the south-central region of Maine. It is a unique shared services project for eight hospital libraries. The project, begun in 1979, is funded for three years by the National Library of Medicine (NLM).*

Introduction

Circuit riding programs were introduced in the 1970's to provide library services to groups of hospitals which individually would not have been able to offer the same quality of information services to their physicians and employees (*1,2*). Circuit riders are professional librarians, generally affiliated with resource libraries at medical centers, who periodically travel to a number of smaller hospitals to provide library services. This method of delivering reference services is appropriate for groups of institutions which are located in the same geographic area.

Circuit riding programs tend to fall into two categories depending on the types of services offered. In the first category, the circuit rider functions as the hospital's librarian, taking care of all library-related matters such as collection development, reference, and interlibrary loan. This type of program makes no provision for training in-house personnel to assume any library responsibilities. In the second category,

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the circuit rider functions as a consultant, advising in-house library managers. This second type of program focuses on development of the library and library personnel rather than on direct services for users.

The Circuit Rider Librarian Program combines features of both of these categories. It offers direct user services as well as training of in-house personnel to deliver, or facilitate in the delivery of, user services. Additionally, this project introduces on-site access to computerized bibliographic databases.

The need for improved biomedical information services in this region was apparent from a consideration of the hospital libraries and the information-seeking habits of the potential users.

At the beginning of the project, only two of the eight hospitals employed full-time professional librarians. The others allocated a few hours of an employee's time to library matters. The part-time library managers had primary responsibilities elsewhere within their institutions and had received their library training on the job. The average number of journals subscribed to by these libraries was thirty-six and the average amount spent on books, journals, and staff time in 1979 was between $8,000 and $9,000. None had local access to MEDLARS, a computerized bibliographic database of biomedical information produced by NLM (3).

In the mid-1970s, CMMC offered MEDLARS searches to health professionals affiliated with the hospitals in the south-central region of Maine. However, only 60 searches were performed for this group during the year preceding the program's implementation. This low usage of MEDLARS suggested that health professionals in this area did not have convenient access to biomedical information. To examine this assumption a survey of physicians was conducted during the early stages of the project. Of the 247 surveys delivered, 40 percent were returned. Although more than 60 percent of the physicians indicated a weekly need for information, only 28 percent used their hospital library's collection on a weekly basis. Fifty-three percent of those surveyed indicated that they were familiar with MEDLARS, but only 26 percent had ever requested a MEDLARS search.

From the assessment of the hospital libraries in the area and the information-seeking habits of the physicians it was concluded that increased availability of biomedical information services was warranted. Circuit riding was chosen as a feasible delivery method for increasing local access to professional library services.

The demonstrated need for improved biomedical information services, coupled with an opportunity to test a new method of delivery, determined the goals of the Circuit Rider Librarian Program. Project goals are:

1. To introduce hospital personnel to MEDLARS and other information services.
2. To encourage library development in the individual hospitals.
3. To develop a regional network in the area which would facilitate the delivery of library services.
4. To provide hospital administrators with cost-effective alternatives for meeting the future library service needs of their users.

Program Implementation

The Circuit Rider Librarian Program offers regional information services by dividing the eight participating hospitals into two groups, or circuits, and assigning a professional librarian to each circuit. Each hospital is visited weekly for approximately one-half day. Circuit riders bring portable computer terminals with them for searching the MEDLARS database during visits. If the journal articles identified by the searches are available at CMMC, the program staff offers to photocopy the articles for the users. A toll-free telephone number to the CMMC library is available to users and library managers. This allows information requests to be phoned in to the program staff at any time during the week and increases the access to reference services from a half-day to five days per week. Formal MEDLARS demonstrations are available and may be scheduled at the convenience of a particular department or committee. Usually these formal demonstrations involve separate trips to the hospital for this specific purpose. Use statistics for these and other user services during 1981 are presented in Figure 1.

During a typical hospital visit the circuit rider has contact with both library users and the library manager. Personnel are alerted to the arrival of the circuit rider by an announcement over the public address system. The circuit rider circulates throughout the hospital to meet physicians and employees. Periodically, informal demonstrations of MEDLARS capabilities are conducted for interested employees. Users are encouraged to visit the library to discuss their information needs. All urgent patient care questions are handled during the circuit rider's visit. The circuit rider and the library manager work on information requests generated that week. Some of the library managers initiate searches using printed indexes; others are beginning to learn online searching. At least a portion of each visit is set aside for activities related to library development, such as book selection or setting up a vertical file.

Cost Analysis of User Services

Over the three-year period from 1979 to 1982, CMMC was awarded approximately $184,000 by NLM to implement the Circuit Rider Librarian Program (see Figure 2). Central Maine Medical Center and the participating hospitals contributed approximately $14,000 for the same three-year period.

The program staff analyzed the direct costs of providing reference services during 1981 and the effect of use on these costs. All indirect and overhead costs were excluded, as well as costs directly associated with library development. The average costs and the breakdown of these costs are outlined in Figure 3.

Figure 1. Use Statistics for User Services, 1981.

SERVICE	NUMBER
Searches	852
Articles	2,140
Visits	263
Toll-free calls	1,135
Newsletters	12
Demonstrations	31

Figure 2. Budget Breakdown for Three-Year Circuit Rider Librarian Program.

Salaries & Benefits	$126,175
Evaluation Consultant	9,000
Equipment	1,625
Supplies	2,400
Travel	16,625
Telephone, Printing, Mailing	28,150
	$183,975

The average cost of a search provided by the circuit riders during 1981 was $12.91. The fifty minutes of staff time was spent conducting a reference interview, preparing the strategy, running the search, delegating the photocopying of available articles, and packaging and delivering the results. In October, 1981, the online connect charges for MEDLINE, the primary file in the MEDLARS database, were increased from $8 nonprime/$15 prime time to $15 nonprime/$22 prime time. These changes were incorporated into the cost analysis.

The average cost of photocopying an article from the CMMC journal collection during 1981 was $1.23. Since the program was interested in determining only the direct costs of providing the outreach activities the costs of the journal subscriptions, serials control, and storage were not taken into account.

No cost breakdown is provided for the WATS lines since this service involved only a single monthly charge of $383.

In order to determine the amount of funds spent during 1981 for direct user services, the following calculation was performed for each service: *Number of Uses × Average Cost = Total Cost.* The summation of the totals for the services can be found in Figure 4.

User Evaluation

The design of the Circuit Rider Librarian Program included an evaluation component. The program staff was interested in assessing the perceptions of three groups—users, administrators, and library managers—throughout the project. To illustrate the user-evaluation component of the program, the objectives, methodology, and results of an evaluation survey conducted mid-project are presented below.

Figure 3. Direct Costs of Providing User Services, 1981.

	Staff time	Connect	Terminal	Mileage	Printing	Mailing	TOTALS
Searches	7.00	3.82	1.81		.28		12.91
Articles	.77				.46		1.23
Demos	37.30			11.46			48.76
Visits	40.85			11.46			52.31
Newsletters	193.79				52.00	25.77	271.56

Figure 4. Total Direct Costs of Providing User Services, 1981.

SERVICE	NUMBER	COST	TOTAL
Searches	852	$12.91	$10,999
Articles	2140	1.23	2,632
Visits	263	52.31	13,758
Calls	1135	4.05	4,597
Newsletters	12	271.56	3,264
Demos	31	48.76	1,512

The objectives of the user-evaluation survey were threefold:

1. To determine users' overall satisfaction with program services.
2. To determine users' satisfaction with the search services in particular.
3. To determine the relative importance of the various services as perceived by the users.

Questions on the survey addressed the issues of satisfaction, service priorities, access, turnaround time, communication between user and librarian, and anticipated frequency of future use.

The survey period covered three months, October through December of 1981. Evaluation forms were attached to the results of all searches returned to users during this period, as in the survey done by McGee (*4*). A user who requested more than one search during this period received an evaluation form attached to the results of only the first request. Any user not responding within two weeks of receiving the form was sent a reminder and a second copy of the form. The survey questionnaire and methodology were pretested during September 1981. No major flaws were detected.

Of the 117 evaluations distributed during the survey period, 91 were returned, for a response rate of 78 percent. This response rate compares favorably with the rate of response to a user evaluation reported by Warden (*5*). Overall satisfaction with the program (100 percent) was not significantly different than satisfaction with the specific search results being evaluated (97 percent). Searches and photocopied articles were rated as the two most important program services.

The most frequent purpose for a search request was patient care (41 percent) followed by education (30 percent), administration (14 percent), and research (13 percent). Fifty-seven percent of the respondents anticipated requesting MEDLARS searches at least once a month. The composite results can be found in Appendix 1.

Although no between-hospital differences or between-user group differences were statistically significant, some trends seemed notable. While over 75 percent of the physicians anticipated using MEDLARS monthly or more frequently, only 39 percent of allied health workers, such as physical therapists or X-ray technicians, anticipated such use. Anticipated future use seemed to be related to satisfaction with the printout. Sixty-seven percent of very satisfied users anticipated monthly use, whereas only 25 percent of satisfied users anticipated such use.

Future Options

Throughout the program, users expressed concern about the availability of information services following the termination of grant funds from NLM. Various options for continuing services were designed that took into account the service priorities indicated in the user evaluation survey. Cost reductions in future options were achieved by eliminating the position of the project director and by reducing the evaluation component of the program.

Six options and their fees were presented to the hospital administrators and library managers in the summer of 1982 (Appendix 2). At these meetings the administrators were provided with both use statistics of program services within their institutions and the results of the user evaluation survey.

During the Summer of 1982 CMMC applied for a grant-in-aid from the Bingham Associates Fund and was awarded $10,000, which will partially fund the continuation of the Circuit Rider Librarian Program. This grant-in-aid lowered the costs of all of the future options for 1983 and was incorporated into the fees listed in Appendix 2. Administrators are expected to choose options by the end of 1982.

Conclusions

The method of delivery employed by the Circuit Rider Librarian Program allows groups of institutions to receive professional information services and assistance for library development without large investments in collections or professional library personnel. Circuit riding has proven to be appropriate for institutions previously characterized by low usage of library services. Moreover, it has achieved high user acceptance, which has encouraged the administrators of the participating institutions to seek options for continuing information services.

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* * *

Appendix 1. Composite Results of User Evaluation.

Circuit Rider Librarian Program User Evaluation

1. For your purposes, were you able to submit this information request within an acceptable period of time?
   (99%) Yes
   (0%) No. If no, please explain:
   (1%) No answer
2. Once you had submitted your request, did you receive this printout within an acceptable period of time?
   (100%) Yes
   (0%) No
3. One factor which strongly affects the results of a search is the communication between the requester and the librarian. Based on the results of your information request, how well did you and the librarian communicate?
   (96%) Communicated well
   (3%) Communicated adequately
   (1%) Communicated poorly. If you and librarian communicated poorly, please explain:
4. Overall, how satisfied are you with the printout you received?
   (84%) Very satisfied
   (13%) Satisfied
   (3%) Not satisfied. If not satisfied, please explain:
5. MEDLARS/MEDLINE is a relatively new means of getting medical information. How useful do you find this method in comparison with other methods you have used?
   (89%) More useful than other ways
   (6%) As useful as other ways
   (0%) Less useful than other ways
   (5%) No answer
6. How often do you plan to use MEDLARS/MEDLINE?
   (57%) Monthly or more frequently
   (36%) Several times a year
   (1%) Rarely
   (0%) Probably will not use again
   (6%) No answer
7. Indicate the importance to you of these services of the Circuit Rider Librarian Program:

	Very Important	Somewhat Important	Not Important
Circuit Rider Newsletter	15%	54%	15%
Demonstrations of MEDLARS/MEDLINE System	29%	36%	19%
MEDLARS/MEDLINE searches available	81%	6%	1%
Photocopies of articles from CMMC Library	77%	13%	1%
Toll-free number to call in information requests	50%	30%	8%
Weekly visits by a Circuit Rider	67%	21%	4%

8. Overall, how satisfied are you with the Circuit Rider Librarian Program?
   (89%) Very satisfied
   (11%) Satisfied
   (0%) Not satisfied. If not satisfied, please explain:
9. Please feel free to make additional comments below:
   Synopsis of comments:
   Positive about system 8%
   Positive about service 8%
   Positive about both (or not distinguishable): 32%
   No comments: 50% Suggestions 3%

Appendix 2. Postgrant Options Proposal, 1983.

Circuit Rider Librarian Program Central Maine Medical Center
Post-Grant Options Proposal
1983

Circuit Riding Programs:

A. Continue *all* services currently provided with *weekly* visits. (Requires a minimum of five hospitals.)

Services for Library Users:	*Services for Library Development:*
Unlimited MEDLARS searches	One-on-one problem solving
Unlimited photocopies of articles	Consulting
Weekly circuit rider visits	Quarterly workshops for library managers
Toll-free WATS lines	
Demonstrations of MEDLARS system	
Monthly newsletters	
Other PR	

Hospital Fee—$6,900

B. Continue *core* services currently provided with *weekly* visits.

Services for Library Users:	*Services for Library Development:*
Unlimited MEDLARS searches	One-on-one problem solving
Unlimited photocopies of articles	Consulting
Weekly circuit rider visits	

Hospital Fee—$5,300

C. Continue *core* services currently provided with *biweekly* visits.

Services for Library Users:	*Services for Library Development:*
Unlimited MEDLARS searches	One-on-one problem solving
Unlimited photocopies of articles	Consulting
Bimonthly circuit rider visits	

Hospital Fee—$4,600

D. Continue *core* services currently provided with *monthly* visits.

Services for Library Users:	*Services for Library Development:*
Unlimited MEDLARS searches	One-on-one problem solving
Unlimited photocopies of articles	Consulting
Monthly circuit rider visits	

Hospital Fee—$3,900

Non-Circuit Riding Services:

E. MEDLARS searches

Call-in individual searches, receive searches only.

Search Fee—$13.50 per search

F. Consulting

Professional library consulting visits only, four times per year.

Hospital Fee—$550

Keyword in Title Indexes

Effectiveness of Retrieval in Computer Searches

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■ A study was done to test the effectiveness of retrieval using title word searching. It was based on actual search profiles used in the Mechanized Information Center at Ohio State University, in order to replicate as closely as possible actual searching conditions. Fewer than 50% of the relevant titles were retrieved by keywords in titles. The low rate of retrieval can be attributed to three sources: titles themselves, user and information specialist ignorance of the subject vocabulary in use, and to general language problems. Across fields it was found that the social sciences had the best retrieval rate, with science having the next best, and arts and humanities the lowest. Ways to enhance and supplement keyword in title searching on the computer and in printed indexes are discussed.

TITLES can be notoriously poor at indicating the contents of the articles they head. A random check of a page from the *Social Sciences Index* produced titles such as "Back to Bed," "Fine French-German Duet with a Few Fuzzy Notes," and "Europe's Ostrich and America's Eagle." These titles range from totally unhelpful to providing such limited information as to the content of the articles as to render them useless when relied upon for subject access.

Suppose a client came to a librarian and wanted a review of the recent literature on "trace elements." Using the September 1980 quarterly cumulation of the *Applied Science and Technology Index*, the librarian would find that there are 18 articles listed under the subject heading "trace elements." If, however, the same 18 items were searched on a hypothetical database using keywords in titles, only eight of these 18 articles would be retrieved. The others would be missed because their titles did not use the phrase "trace elements." Instead, they used such terms as: trace metals; trace constituents; trace organic compounds; nickel, copper, selenium, cadmium, thallium, and lead; element geochemistry; and so on.

Perhaps at this point, the client might say, "Well, what I really want is methods of analyzing trace metals, especially chromatography." The next approach might be to pull all articles under "chromatography." Here there would have been more success. There were 86 articles under this heading in the *Applied Science and Technology Index*, and had the hypothetical database been used, 62 of them would have been retrieved. Other titles were missed because such words as "testing," "analysis," "processing," "determination," "new technique," and others, were the only clues to the chromatographic process. One title, irretrievable using the keyword approach, was "Operation Supersleuth: A Mirror on Societal and Scientific Progress."

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Use of Keyword in Title Files

When research or reference needs ("I need a review of the recent literature on . . .") are searched on computer files, the databases of choice are often the *Science Citation Index* and the *Social Science Citation Index*. Although these two files were designed for citation searching, their interdisciplinary coverage makes their title word access valuable for people who want a thorough review of the recent literature on a topic.

At the Mechanized Information Center in the Ohio State University Libraries, these databases are extensively used as the information specialists assist students, faculty, and researchers in doing thorough literature searches. In the use of these files, the question regularly arises as to the effectiveness of these title word searches.

Literature Review

A review of the literature showed various studies of the effectiveness of title words for indexing purposes. Titles in printed indexes were examined, usually with terms from their associated subject headings. Results ranged from a high of 86% recall in a study using *Index Medicus* (1) to the much lower rate of 11–68% in another study using three other medical indexes (2). The problem with this kind of test searching, as Feinberg points out (3), is that since studies of indexers have shown that indexers rely a great deal on titles for their subject analysis, searching titles using associated subject headings terms loses its validity. Feinberg also points out that the decisions to include synonyms are subjective and questionable. Nearly all the studies reviewed relied on this approach for studying the effectiveness of title word retrieval.

Several researchers examined the possibility that the scientific or technical nature of the article had a bearing on the usefulness of titles for retrieval. Lane (1964) reported a study which compared titles from technical (*Engineering Index*) nontechnical (*Education Index*), and general (*Readers' Guide to Periodical Literature*) indexes. He concluded that the more technical the field, the more likely it was that the titles would be useful for retrieval (4). Sedano (1964) suggested that it was not the technical area so much as the technical nature of the individual article which resulted in useful keywords in titles (5).

The Study

The study was set up to approximate as closely as possible actual search conditions. Keywords and synonyms were selected from actual searches done at the Mechanized Information Center. This was done by reviewing some of the many thousands of searches done over the last few years and selecting thirteen topics in each of the three major disciplines—science, social science, and arts and humanities. The topics were selected on the basis of popularity so that several (3–10) of the original searches could be combined to develop a single search profile with a good number of the terms with which a user comes to the search interview. The science profiles averaged 16 terms per topic; the social sciences averaged 10 terms, and the arts and humanities averaged 12 terms.

Printed subject indexes were used as databases. Reviewing a dump of an online file would be the only method of actually searching a computer database for both retrieved and nonretrieved items, and it is inadequate. It would be impossible to judge from the titles in many cases what the nature of the article might be. Using a print index as a database has the advantage of having all article titles assembled under subject headings, linked with "see" and "see also" references.

Three indexes were chosen for inclusion in the study, so the possibility that science and technology titles are most descriptive of their contents could be examined. The October 1980 quarterly cumulations of the *Applied Science and Technology Index*, the *Social Sciences Index*, and the *Arts and Humanities Index*, all H.W. Wilson publications, were used. The *Applied Science and Technology Index* was the largest; it indexed 311 journals. The *Social Sciences Index* covered 263 journals, and the *Arts and Humanities Index* included 250 journals.

Method

Each search profile consisted of a number of words culled from three to 10 original searches. All terms were truncated as in the original searches. Each term in the profile was searched to see if it were used in a subject heading. If it was, then all titles listed under that heading were included in the study, as well as all "see" and "see also" references. Each term in the profile was searched through all the titles thus identified.

For the purpose of judging recall, the total number of titles retrieved by the profile terms was compared to the number of articles listed under the subject headings and their associated "see" references.

One of the social science searches was done on the general topic of "minorities." The search, as compiled from nine originals, included the following terms:

race	Negro	ghetto
racism	minority	colored
racial	prejudice	ethnic
black$	Afro	

Each was looked up as a subject term. Of these, the following were found as subjects:

black$	prejudice
ethnic	race

There were a total of 69 articles listed under these headings. Each of the terms in the original search was then searched for in the titles of the 69 articles; 33 of the titles had one or more of the profile terms. This search resulted in a recall rate of less than 50% of the relevant articles.

Some of the articles which were not retrieved had such keywords as:

poor	discrimination
poverty	unemployment
equality	ex-slaves

Obviously, some of these terms should have been in the original profiles. Other terms, such as unemployment, were too general to have been searched in connection with this topic. Other titles listed under these subject headings had no indication of their relation to the topic:

"Rate of return of schooling and the business cycle"
"Changing trends in hypertension control"
"Two faces of issue voting."

Results

The result of searching 39 profiles across three subject areas was that an overall average of only 41% of the articles of interest to a user were retrieved. The possible sources of the low recall rate were later examined to see whether problems could be pinpointed and consequently circumvented.

The results across the major fields were surprising. The researcher had expected that the science profiles would out-perform the others; instead, the social science searches produced the best overall recall, 48% of the titles were retrieved. The science profiles retrieved 42% of the relevant titles, and the arts and humanities, 31%.

Because two of the indexes used had many more "see" references than the third, the results were calculated without the "see" references. In the two files where there were many "see" references, the recall rate went up (social sciences to 54%, arts and humanities to 38%), while science, with the fewest "see" references, went down to 39%.

Originally, all proper names were excluded from the study. However, the *Arts and Humanities Index* included so many that a separate search was run on them. A random check of 16 names produced 51% recall of last names from titles. Consequently, the arts and humanities recall rate would have been higher had proper names been included in the original search.

The results obtained in this study suggest that there is more involved in successful retrieval by title words than the technical or scholarly nature of the article or the field. An overview of another search, this time in the sciences, may point up some of the problems involved.

A search done on the topic of electronics used 14 terms, e.g., comput$, microprocessor$, and included 1,447 articles, of which 441 were retrieved by the search—30% recall. Since the topic is obviously technical, the low recall rate must be explained in some other way. First, the four clients whose profiles were used to compile the present one did not include such frequently used terms as:

circuit$	nets
chip$	interactive
processor$	CRT
micro$	IC
mini$	LSI, VLSI, etc.

Many of the titles which were not pulled were of a news reporting or business nature:

"Joseph delay could lose Inmos 300,00 daily"
"Japanese make quality-control pitch"
"US losing ground in the lab"
"Stitchwire: connections for the future."

Others were of a highly specific aspect of the more general topic:

"14-bit S-D converter gets smaller"
"Augmented raster speeds E-beam unit"
"Symmetric and asymmetric encryption."

As shown in the previous example, one of the sources of failure to retrieve articles was in the terms provided by the user-specialist interviews. First, the low retrieval rate was not due to the quantity of terms provided from the interviews. A review of the terms showed that 54% of all the terms considered relevant by the users and specialists did not show up in any titles. However, users' and specialists' ignorance of the vocabulary being used by specialists in their fields led to significant loss of retrieval. Some of the more obvious ones included the terms "minis" and "micros" instead of "minicomputers" and "microcomputers," and "TMI" for "Three Mile Island." There were also, of course, many cases where terms were simply overlooked, such as "village" in a search for anything on "rural life."

In addition, failure to truncate led in some cases to loss of otherwise retrievable materials. In other cases, the terms provided by the user were in titles in a form that prevented their retrieval, either because they were in a variant form ("electrooptics" instead of "electro-optics", "plating" instead of "electroplating," "waste water" instead of "wastewater"), or the concept was expressed as as its opposite (as in "colonies" instead of "decolonization," "certification" instead of "decertification," or "cooperation" versus "uncooperative").

Managing the Problems of Title Word Indexes

This study suggests that, considering all the problems with title words, users' lack of knowledge of the needed terminology, and specialists' limitations, title word searching will produce less than 50% of the potentially relevant materials. Even with the best efforts of users and specialists, this rate will not be significantly higher. In many instances, however, this recall is more than adequate for the user. Many students and faculty do not require the entire body of literature on a topic, because they are using the search to provide themselves with an idea of the kinds and amount of material being written on a topic, or to get an introduction to a topic, or to find an entry point into the literature.

Where more extensive recall is required, steps can be taken to supplement a search of a file which relies heavily on titles. A search of a related file which does provide subject indexing can be done; a citation search on authors retrieved from the original search will pull more related materials; bibliographies in retrieved materials can provide both additional materials and more keywords for further searching on the computer file. These approaches are also effective with users who need materials on topics with which they are so unfamiliar that they cannot supply many keywords. A first search in this case can be followed with another after the user has examined pertinent materials from the first search and returned with additional keywords and authors' names.

This study suggests that . . . title word searching will produce less than 50% of the potential relevant materials.

At the Mechanized Information Center, when a patron needs to do a search and is not familiar with the language of the topic, the individual is sent to the card catalog or to printed indexes to look for keywords. Occasionally, students will have with them class bibliographies or a textbook with bibliographies. These help pinpoint keywords.

Any searchers of title word indexes can aid in improving recall by being aware of the need to elicit a good range of keywords, by using the various backup methods mentioned above, and by being as aware as possible of the vocabulary being used in their subject specialities. Thesauri or the *Library of Congress Subject Headings* are valuable tools to aid in this effort.

Especially useful for searchers who work in specialized areas is a frequent review of relevant current journal titles as a means of monitoring new vocabulary and use of terms as they appear in the literature. This can be done by using *Current Contents* (*6*) or arranging to scan new journals as they arrive in the library. A general reference librarian searching through many kinds of indexes for a wide variety of topics will be less served by this method since the coverage is simply too broad.

Several articles have appeared recently in the literature on ways to enhance searching on the *Social Sciences Citation Index*, one of the title word indexes (*7,8*). These articles recommend several methods, such as limiting by journals in the required area. For example, a search on the word "management" through the whole file would produce hundreds of useless hits; limiting the term to titles in a few major business journals might produce the needed results.

Conclusion

In spite of progress made in encouraging journal editors to provide informative titles for the articles they publish, and authors to write them, there will remain many materials of value which will be nonretrievable through the words used in titles. It is probable, however, that those articles which are of value to a discipline will be retrievable by other methods, e.g., citation indexing, searching in other files, or author searching.

In spite of their low retrieval rate, keyword indexes will continue to be widely used because they are much less costly to prepare than are subject indexes and because they can be made available much more quickly than can the subject indexes. Because of their timeliness and economy, title word indexes will remain an important element of indexing, and will be heavily used, at least until such time as the various forms of computer-generated indexing are perfected.

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Increasing Subscription Costs and Problems of Resource Allocation

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■ The problem of rapid increase in the cost of serial renewals, how substantial it is, how it affects the collection as a whole and how to deal with resource allocation within the book budget is examined in this paper. The study is done in the context of an academic business library.

ONE COMMON PROBLEM all librarians who have responsibility for collection development face is that of maintaining the level and quality of the collection with the funding available. A more critical element of this situation is the ever-increasing cost of serial subscriptions. The following study was undertaken to determine how substantial the problem is, how it affects the library collection, and how to allocate resources for serial renewals.

Methodology

A sample of one hundred serial titles was selected to find out the extent of the price increase in the last seven years, 1975 to 1981. A list of the titles used in the sample is shown in Tables 1, 2, and 3. These are basic titles which most academic business collections subscribe to. The one hundred titles were split into three groups: A) United States and Canadian periodicals, B) periodicals from countries other than the United States and Canada, and C) reference services.

One of the assumptions is that the rate of increase is not the same for the three different groups. Group A consists of 50 titles and groups B and C 25 titles each. In each case the price of the 1975 subscription and the 1981 subscription was noted and the change calculated in percentage. In most cases prices were in U.S. dollars. Non-United States and non-Canadian titles, in most instances had a domestic price and an external price, usually in U.S. dollars. This partly took care of the changes in exchange rates. In groups A and B the prices were verified from the periodicals themselves wherever possible or in some instances from the *Business Periodicals Index* and the *PAIS*. In group C the prices were taken from York University payment records and so reflect the lower Canadian exchange rate as well.

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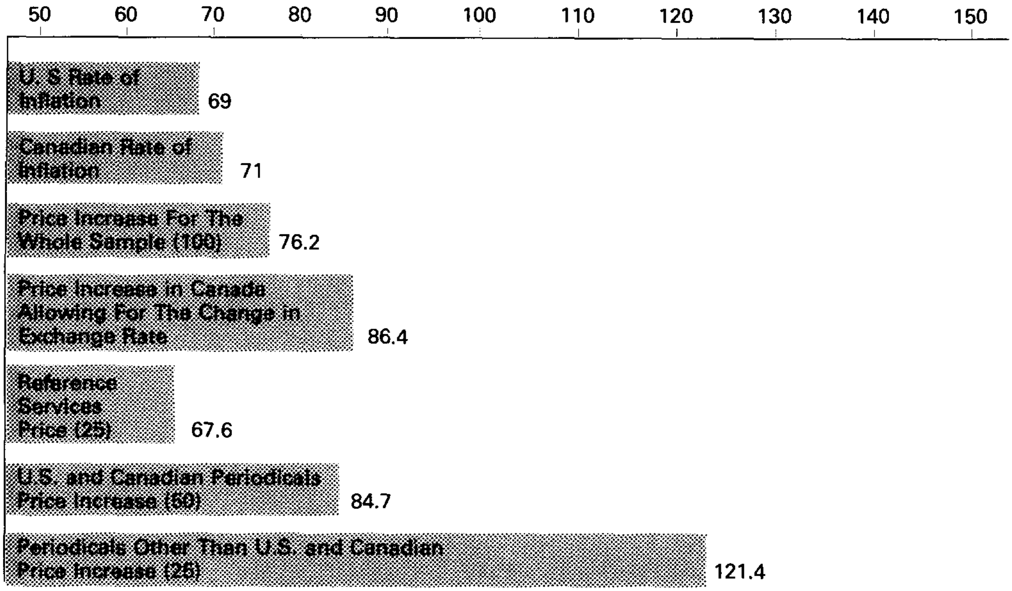
Figure 1. Percentage Increase.



YEARS 1975 to 1981

Analysis of Data

In group A, United States and Canadian periodicals, the average increase in subscription cost between 1975 and 1981 was 84.7%. Out of the 50 titles, 8 are Canadian. The changes in the exchange rate therefore will not be significant to U.S. libraries. Four titles or 8% maintained their prices. Eighteen titles or 36% have an increase of 100% or more.

In group B, a sample of 25 non-United States and non-Canadian periodicals, the average price increase between 1975 and 1981 was 121.44%. There was no title which maintained its price. Fourteen titles, or 56%, had increases of 100% or more. All the prices are in U.S. dollars.

In group C, of 25 reference services, the price change between 1975 and 1981 was 67.6%. This is in spite of the increase calculated in Canadian dollars. Two of the titles or 8% maintained their prices and six or 24% had an increase of 100% or more. Four titles are Canadian. The percentage of Canadian titles is the same as in group A, i.e., 16%.

Another factor was also examined during the analysis. The number of titles in groups A and B offering reduced individual subscriptions were ten or 13.3%. There is none in group C. On an average the reduction in individual subscriptions was 28.8%. At least in this subject area, the subsidization of individual subscriptions by library subscription was not high.

Conclusions

The average price change for the three groups together is 76.2%. When compared to the rate of inflation as measured by the consumer price index in the United States and Canada, this increase is higher. The consumer price index in the United States went up by 69 percentage points between 1975 and 1981, and in Canada it went up by 71 percentage points during the same period.* The serials price increase was 7.3%

*Consumer Price Index: All items, U.S.A., 1975 = 100, 1981 = 169.0; Canada, 1975 = 100, 1981 = 171.0. Source: *OECD Main Economic Indicators*, July 1982, p. 174.

Table 1. Group A. United States and Canadian Sample of Business Periodicals.*

No.	Periodical Title	Annual Subscriptions 1975	1981	Percentage Increase 1975 to 1981
1.	*Academy of Management Journal*	$ 20.00	$ 24.00	20%
2.	*Administrative Science Quarterly*	20.00	40.00	100%
3.	*American Economic Review* *Journal of Economic Literature*	34.50	105.00	204%
4.	*Banker's Magazine*	38.00	54.00	42%
5.	*Banking*	11.00	20.00	81%
6.	*Barron's*	25.00	81.00	224%
7.	*Business Horizon*	10.00	19.00	90%
8.	*Business Quarterly* (Canadian)	10.00	16.00	60%
9.	*Business Week*	21.50	49.95	132%
10.	*C A Magazine* (Canadian)	10.00	20.00	100%
11.	*C P A Journal*	18.00	24.00	33%
12.	*California Management Review*	10.00	15.00	50%
13.	*Canadian Business* (Canadian)	11.00	18.00	63%
14.	*Canadian Business Review* (Canadian)	15.00	15.00	0%
15.	*Canadian Journal of Economics* (Canadian)	15.00	36.00	140%
16.	*Columbia Journal of World Business*	20.00	32.00	60%
17.	*Conference Board Record (Across the Board)*	30.00	30.00	0%
18.	*Cost and Management* (Canadian)	7.50	15.00	100%
19.	*Federal Reserve Bulletin*	20.00	20.00	0%
20.	*Financial Analysts Journal*	16.00	39.00	143%
21.	*Financial Executive*	15.00	22.00	46%
22.	*Fortune*	15.00	39.00	160%
23.	*Harvard Business Review*	18.00	27.00	50%
24.	*Industrial and Labour Relations Review*	10.00	16.00	60%
25.	*Industrial Marketing*	10.00	20.00	100%
26.	*Industrial Relations*	8.00	13.00	62.5%
27.	*Journal of Accountancy*	15.00	20.00	33%
28.	*Journal of Accounting Research*	18.00	30.00	66%
29.	*Journal of Advertising Research*	30.00	50.00	66%
30.	*Journal of Business*	16.00	27.00	68%
31.	*Journal of Business Administration* (Canadian)	3.50	16.00	35%
32.	*Journal of Finance*	20.00	35.00	75%
33.	*Journal of Marketing*	30.00	40.00	33%
34.	*Journal of Marketing Research*	30.00	45.00	50%
35.	*Management Accounting*	18.00	21.00	16%
36.	*Management Review*	16.50	35.00	115%
37.	*Management Science*	32.00	65.00	103%
38.	*MSU Business Topics*	6.00	6.00	0%
39.	*Monthly Labour Review*	22.35	22.50	.6%
40.	*Oil and Gas Journal*	14.50	34.00	134%
41.	*Oil Week* (Canadian)	16.00	23.00	43%
42.	*Operations Research*	20.00	65.00	225%
43.	*Personnel*	15.00	28.50	90%
44.	*Personnel Journal*	16.00	55.00	243%
45.	*Public Personnel Management*	15.00	25.00	66%
46.	*Quarterly Review of Economics and Business*	8.00	19.00	137%
47.	*Review of Economics and Statistics*	25.00	56.00	124%
48.	*SAM Advanced Management Journal*	13.00	16.50	26%
49.	*Sloan Management Review*	12.00	26.00	116%
50.	*World Oil*	8.00	15.00	87.5%
	TOTAL	$858.35	$1,585.95	84.76%

* $^{8}/_{50}$ or 16% Canadian.

more in the United States and 15.4% more in Canada than the respective inflation rates. The adverse exchange rate in Canada is worked into this. It is interesting to note that the increase in the price of reference services is below the increase for regular periodicals and the increase in group B is 52.44% more than the U.S. inflation rate.

In Canada there is an added difficulty caused by the adverse exchange rate. The Canadian dollar was worth 22% less in relation to the U.S. dollar between 1975 and 1981.† When this 22% is added to the 1981 subscription rates of all titles in groups A and B except for the 8 Canadian titles, the price increase is 149% as compared to 104.7% for the United States. In other words the escalation in serial subscriptions for Canadian libraries is more like 86.4% in the last seven years when the whole sample is taken into consideration compared to 76.2% for the U.S. (see Figure 1).

†Source: Federal Reserve Bulletin, Table 3.28, Foreign Exchange Rates. 1975 U.S. $1.00 = 0.9829 Canadian, 1981 U.S. $1.00 = 1.1990 Canadian.

Ratio of Serials to Other Publications

In the case of most libraries in Canada and the United States, the funding increase has not even kept up with the rate of inflation. It is not difficult to see why most libraries are in such a dire predicament trying to allocate resources. If the book budget does not keep pace with the general level of inflation and the subscription prices go up at a significantly higher rate than inflation, obviously the amount available for other purchases is going to dwindle year after year.

There is no hard and fast rule as to what proportion of the book budget should be spent on monographs as opposed to serial renewals. When funding was relatively unrestrained, if a library had in practice established a ratio, it is as good a measure as any.

At York University, in economics and business, together, 61.7% of the total book budget was spent on serials in 1976/77;

Table 2. Group B. Periodicals Other than U.S. and Canadian.

No.	Periodical Title	Annual Subscriptions 1975	Annual Subscriptions 1981	Percentage Increase 1975 to 1981
1.	*Abacus*	$ 10.00	$ 30.00	200%
2.	*Accounting, Organizations and Society*	60.00	120.00	100%
3.	*Banker*	23.50	90.00	282%
4.	*British Journal of Industrial Relations*	20.00	37.50	87%
5.	*Director*	31.00	75.91	144%
6.	*Economist*	44.43	85.00	91%
7.	*Euromoney*	60.00	89.00	48%
8.	*European Journal of Marketing*	42.00	147.00	250%
9.	*European Research*	93.00	53.00	87%
10.	*International Currency Review*	90.00	185.00	105%
11.	*International Labour Review*	15.95	20.00	25%
12.	*International Management*	26.00	40.00	53%
13.	*International Review of Administrative Sciences*	28.00	54.00	92%
14.	*Investors Chronicle*	43.54	95.14	118.5%
15.	*Journal of General Management*	22.21	46.55	109%
16.	*Journal of the Market Research Society*	11.10	30.36	173.5%
17.	*Journal of the Operational Research Society*	40.00	150.00	275%
18.	*Management Decisions*	51.00	144.00	182%
19.	*Management International Review*	26.00	48.00	84%
20.	*Management Services*	26.00	71.05	173%
21.	*Management Today*	33.32	50.60	51.8%
22.	*Omega*	75.00	160.00	113%
23.	*Personnel Management*	28.88	48.32	67.3%
24.	*Petroleum Economist*	39.00	78.00	100%
25.	*Rydge's*	23.50	30.00	27.6%
	TOTAL	$893.43	$1,978.43	121.44%

66.6% in 1977/78; 66.3% in 1978/79; and 72.3% in 1979/80. Excluding the Law Library, the average percentage spent on serial renewals for the York University Libraries in the last five years (1976/77–1980/81) is 47.3% of the total book expenditure.

It is apparent from these figures that the economics and business subject area demands a higher proportion of serial publications. It should be noted that York University is largely a social sciences and humanities university and does not have disciplines like medicine and engineering. Basic physical and natural sciences are represented by a science library which is included in the statistics quoted.

Strategies for Resource Allocation

Based on this analysis the following strategies can be employed, often in combination, to meet the problem of resource allocation.

Table 3. Group C. Reference Services.*

No.	Title	Annual Subscriptions 1975	Annual Subscriptions 1981	Percentage Increase 1975 to 1981
1.	*American Institute of Certified Public Accountants. Professional Standards*	$ 90.00	$ 119.00	32%
2.	*Best's Insurance Reports. Life/Health and Property/Casualty* (including *Reviews*)	285.00	320.00	12%
3.	*Bureau of National Affairs. Collective Bargaining*	262.00	350.00	33%
4.	Canadian Business Service (Canadian)			
	a) *Investment Reporter*	95.00	165.00	73%
	b) *The Blue Book of CBS Stock Reports*	150.00	150.00	0%
5.	Commerce Clearing House *Accounting Articles*	140.00 (/77)	210.00	50%
6.	Commerce Clearing House *Capital Changes Reporter*	195.00	360.00	84%
7.	Commerce Clearing House Canadian Ltd. *Canadian Industrial Relations and Personnel Development.* (Canadian)	90.00	160.00	77%
8.	*Directory of Shopping Centres*	90.00	223.88	148%
9.	*Daily Stock Price Record, N. Y. S.*	85.00	189.00	122%
10.	Diamond Foreign Tax and Trade Briefs	95.00	175.16	123%
	Trade Briefs	14.00	68.32	
11.	*Exporter's Encyclopedia: World Marketing Guide*	120.00	290.00	141%
12.	Investors Management Sciences, Inc. *Financial Summary*	450.00	650.00	44%
13.	*Financial Post Corporation Service* (Can.)	570.00	1,638.00	187%
14.	*Management Compensation in Canada* (Can.)	275.00	330.00	20%
15.	*Million Dollar Directory*, V. 1 & 2	250.00	460.00	84%
16.	*Moody's Manuals Special Library Service*	515.00	895.00	73%
17.	*Principal International Business*	300.00	356.00	18%
18.	*Predicasts*	375.00	475.00	26%
19.	*Poor's Register of Corporations*	140.00	245.00	75%
20.	*Standard and Poor's Industry Surveys*	244.00	446.00	82%
21.	*Standard Directory of Advertising Agencies*			
22.	*Standard Directory of Advertisers*	157.00	228.00	45%
23.	*Thomas' Register*	100.00	317.00	217%
24.	*Value Line*	219.00	280.00	27%
25.	*Vicker's Guide*	300.00	300.00	0%
	TOTAL	$5,606.00	$9,400.36	67.68%

* 4/25 or 16% Canadian.

Impress on the funding authorities, with the support of strong documentation, what is involved in maintaining the status quo. In many cases in the face of strong evidence and given a commitment to quality library resources, the funding authorities may well provide the required funds. This is the ideal and optimistic solution.

An alternative method is to base acquisition on a stable ratio used when funds were relatively free. Decide on the optimum ratio for your library and use it. Cancellations should be made in an increasing order of priority: relevance to the teaching and research program, usage, number of times cited, duplication of an area covered, etc. This is a politically difficult option. It can be painful, but is sometimes inevitable. It is what librarians end up doing not out of choice but out of pressure of circumstances.

The third option is to let the market place and technological innovations at least partially solve the problem. This implies that the publishers of different formats fight it out among themselves for the scarce library dollar, or in other words, libraries substitute one form of publication for a less expensive form like microform, online retrieval, and so forth.

Libraries are already cancelling some of the indexing and abstracting services, as well as periodical subscriptions. Instead they are using the same services online with searches and document delivery when there is a request, often passing the costs on to the user. In other instances when periodicals are available in hard copy and microform, only the latter is subscribed to at a lesser cost and/or with a saving of binding costs.

This option will lead to great dislocations in the collection before a new stability is reached (if ever). It also involves at least a partial abdication of responsibility by librarians as well as an attitude of pessimism and cynicism.

Future Possibilities

There is every likelihood that just as in the course of the 1970s, online searching and information retrieval became commonplace reference tools, electronic publishing of journals will become widely prevalent by the end of this decade. Every stage from inputting the first draft to finalizing an article after comments from colleagues, editing, refereeing, and final acceptance will be done online. An index entry or abstract will appear in the journal database and, if requested, an offline printout of the article will be supplied to the user for a fee. If such a revolution occurs in publishing, which is quite probable, analysis such as this will be completely superseded.

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Career Advisory Service

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■ **In a continuing effort to improve member services, the Association office staff has, for the past two years, offered a career advisory service during the Special Libraries Association Conference. This survey is an attempt to examine what has been done so far, what possible alternatives might be considered, and what improvements will help the service in the future. The advisors and the advisees, each with seperate questionnaires, have supplied valuable information, which is discussed and analyzed. Appropriate conclusions are drawn so that the service will be as useful and effective as possible at future conferences.**

IN 1981, at SLA's Atlanta Conference, Dr. Mary Frances Hoban, manager, Professional Development for SLA, inaugurated a new service for members—a career advisory service. Basically, it was an attempt to match persons who have career questions and concerns with those who might be able to give sound advice.

The persons who were seeking career advice (the advisees) wanted counseling on a variety of topics: Which job offer should I consider? Where or how should I start looking for a job when I get out of library school? Should I change jobs after only one year? What considerations should I keep in mind for a mid-career job change? How can I advance in my specific field? What value is there (if any) in a lateral move? There were also questions concerning specific areas of special librarianship, i.e., business, advertising, museums, government agencies, academic institutions, and so on. These questions indicated that career counseling should be designed to meet not only the needs of library school students ripe for their first job but of any person at any level of his/her career who might need advice and assistance.

To best match persons seeking advice with the most effective advisors, Dr. Hoban and Wanda Kemp, SLA manager of Information Services, compiled a list of established librarians, recognized managers, and also specialists in the many areas of special librarianship. After announcing the service in *Special Libraries* and in various conference mailings, the staff began arranging consultations based on a form the advisees had been asked to submit prior to conference. The form included information about when they were available for consultation at the conference and what kind of advice they were seeking. These specific requests were then matched as closely as possible to the expertise and skills of the librarians who had volunteered to help.

At the Atlanta Conference, the advisors met with Dr. Hoban and Wanda Kemp to set some basic parameters for this first-time endeavor. A specific area was set aside in the job placement area. Advisors could use this area or they could select any area in which they felt more comfortable.

At the end of the Conference, a wrap-up session for the advisors was held. Most of the advisors and the Association staff felt

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that the service had been a positive and helpful one and should definitely be continued for at least one more year. The service was offered once again in 1982 in Detroit and again was considered successful.

It was decided that a survey of all who had participated in the career advisory program during the two times it had been offered would be helpful for the future planning of the service. The survey (in questionnaire form, to both advisors and advisees) would solicit information about what both groups felt was good about the program, what problems could be avoided, and what features could be improved upon.

Methodology

Two questionnaires were devised, one for the advisors and one for the advisees. Each of the 19 advisors who participated over the period of two years returned the questionnaire. There were 37 advisees who signed up for the service in 1981 and 48 in 1982 for a total of 85 persons seeking to use the career advisory service. Twenty-six (or roughly 30%) of the advisees returned the questionnaire.*

Preparation/Background

Prior to the Atlanta and the Detroit Conferences the service was announced in *Special Libraries*, in the pre-conference mailings, and again at the conferences. Twenty-three (88%) of the advisees responding indicated that they had found out about the service through the pre-conference mailings. One called SLA and was told about the service, and one (.04%) heard about it at the conference. One respondent commented that "better publicity might help, although this might undermine the program by increasing the interviewing to unmanageable portions."

Matching People

Another key concern was whether the staff had been successful in matching the advisee with an advisor who might most help give the advice needed. There will always be some problem in this matching process because people may not really know what they want to talk about; perhaps they just need to talk to someone; or they may just need some reassurance that they are on the right track.

Of the advisees who responded to the questionnaire, 12 (46%) thought that they had been matched well, with comments such as: "the advice was most helpful . . . [and] gave me a new idea about where to apply for jobs after receiving my MLS and which course would most fit my career goals". . . "The match was most appropriate and added substantially to the credibility of the interview" . . . "my advisor was very sensitive and offered what I thought to be sincere counseling . . . he made it easier for me to make a decision."

Before the conference each advisor was given a list of advisees and the time selected for the interview. The advisor was given a basic information sheet which included the name, present position, and the stated reason for seeking advice. While this information was sketchy at best, it was a basis for beginning the interview. Problems occurred when the match was made at the conference, with no advance planning for the advisors.

It should be noted here that as each advisee signed up for the service and was assigned to a specific advisor, each was given a one-hour time period for discussion. One problem that emerged, over which there was no control, was that advisees or advisors in some cases did not show up. Most of the time the service worked as scheduled, but for those few times when an advisor did not appear on time, the person seeking advice was assigned to someone else. The opposite also happened; some advisees did not show up, and there were "walk-ins" (statistics were not available as to the number of walk-ins). While they were not refused, they were assigned to an advisor who had not seen their résumés or information sheets before the consultation.

It is not surprising, given these occasional unscientific matches, that 10 (38%) of the advisees were not sure that the match was good. Some of the respondents commented: "The interviewer was not aware of what my concerns were" . . . "information on pre-conference questionnaire was too general to assist the Association Office in a good match for my specific problem". . . . "I wanted help on which education courses to take, not on special libraries jobs."

When asked this same question, the advi-

* In the following survey report, the percentages given do not always add up to 100% owing to partial or omitted responses to the survey questionnaire.

sors were almost unanimous in their positive feelings about the matching process. Eighteen persons (95%) felt that they were matched well, and only one person did not. If an assumption can be drawn here, it seems that the persons seeking advice were less comfortable and certain in this process than were the advisors, who were all settled professionals willing to help those with less secure futures.

Preparation for the Interview

The advisees were asked if they had prepared in advance for the interview, and, not too surprisingly, a large percent—17 persons (73%)—did prepare, while 6 (23%) did not. The methods most used to prepare were: 1) to write out specific questions and answers that might come up in the interview—11 persons (42%); 2) to write out, update, and bring a copy of a current résumé to the interview—6 persons (23%); and 3) to think out the pros and cons of a job change and job/career goals and objectives—5 persons (19%). Other ways in which persons prepared included talking to people in the field of interest (2 persons), rehearsing their present problem and reasons for the need to change (1 person) and making sure to allow time at the conference for the interview (one person).

Of the advisors, 11 (58%) did prepare in a variety of ways, which included: reading résumés, reviewing some literature on interviewing and résumé writing, checking the SLA and ALA job vacancies, preparing a bibliography, and outlining a structure for the interview. Eight persons (42%) did not prepare in any way (this probably includes those who were assigned the walk-ins). Most of the advisors felt that the résumé provided was sufficient to conduct the interview (15 persons, 79%), while one did not think it was sufficient.

The advisors were also asked if they felt the advisees had prepared for the interview. Seventeen (89%) said "yes" and two (11%) said "no." Comments included: "My two advisees didn't show up and I took unknowns, so neither was prepared". . . ."this person had little understanding of special libraries". . . ."had not formulated specific questions". . . ."first year out of library school and had no parameters."

When the advisors were asked if they would have liked more information about the advisees, 9 (47%) said "no" and 8 (42%) said "yes." Comments included: "One person came with no résumé". . . ."Would like to know what they had already done in terms of career development and exploration". . . ."A clearer statement into what, specifically, they were looking for would have helped."

When asked the same questions in a slightly different manner, the advisors responded somewhat differently. The question asked, "Would a more structured form, prepared in advance, help get the interview off to a start?" (This might include such things as: What does the person perceive as his or her immediate concern? What has he/she done so far? What plans does he/she have for the future?) The responses to this question resulted in nine "no's" (47%) and 6 "yes's" (32%), but this time there were more comments. These comments included: "Experienced interviewers don't need this information—others might". . . ."The questions asked are the basis of the rapport". . . ."Not too sure—the questions helped open up the discussion". . . ."Too much in writing doesn't leave anything to discuss". . . ."Two people talking—one with experience—is all that is needed". . . . "It might save time if both knew what was expected in the interview". . . ."I just asked questions . . . and they worked."

When the advisees were asked if they would have preferred a more structured form, 21 persons (81%) responded that it was not necessary, while four (15%) said it might help.

Types of Advice

Advisees were given a list from which they might choose the kind of career advice they were seeking. (Many chose more than one type of advice so the percentages do not always add up to 100.) The areas of concern and the number of replies were:

Areas of Concern	*Persons Responding*
Mid-career change	8 persons (35%)
Questions about specific areas of special librarianship (business, museums, academic, advertising, etc.)	7 persons (27%)
Job change at beginning of career	6 persons (23%)
First job considerations	4 persons (15%)

Advanced in field	4 persons (15%)
Value (if any) of a lateral move	3 persons (12%)
Leaving special libraries	3 persons (12%)
Going back to school	2 persons (<1%)

Additional comments included: "I am a public librarian and wanted information about special libraries". . . ."I wanted information about online database vendors". . . . "Need guidance on choice of library school (career change) . . . Wanted to find out about the possibility in special libraries to see whether to actually go to library school."

Sample Kit

The question was asked, "Would a kit with sample résumés, area hot lines, a possible bibliography to include information on job hunting, résumé writing, etc., be helpful?" Both groups, advisees and advisors, liked this idea—16 advisees (62%) replied "yes" while eight (31%) answered "no"; 13 advisors (68%) said "yes", and 6 (32%) replied "no."

Most of the suggestions for items to include in this kit were received from the advisees. They included a list of large companies who hire regularly; skills needed in specific types of libraries; *"What Color is your Parachute"* and other books on career options; interviewing techniques; sample cover letter for résumés, both form and content and sample résumés; how to gracefully terminate a job; how to explain a bad job experience; and two kits, one for beginners and one for mid-career changes. The negative comments included: "We should all have these things by now". . . ."Talking was the most valuable and this stuff is already available". . . ." Entry into the 'old boys club' is what is really needed." One person liked the idea very much and suggested that such a kit be available at all times for purchase (at cost) from the Association. Additional comments included: "Please, I'm overwhelmed already," and "This information is already around—SLA should not waste its time doing this."

Comments from the advisors suggested that SLA provide descriptive materials on types of libraries, as well as include a list of journals, newspapers, etc., which carry library job listings.

The Interview Environment

Because of the newness of the career advisory service, the staff needed to know several things in order to make future plans for as comfortable an experience as possible. One concern was to choose a place for the interviews to take place that would be acceptable and comfortable to both advisees and their advisors. During the Atlanta and Detroit Conferences, the Association Office set up some booths near the job placement center. They were within a large curtained area, with each cubicle containing a table and two chairs. After viewing the area, some of the advisors felt that they looked too much like confessionals and that this might hamper the service. It was agreed that the consultations could take place wherever the participants felt most comfortable. While many advisements took place in the booths or near the area (14), others took place in the coffee area nearby (2), or in an area away from the interview place (4), the lounge areas (1), hotel suites (3), and the hotel lounge (1). For the most part, the respondents were comfortable wherever the interview took place. When asked "Were you comfortable in the area of your interview?" 20 (77%) of the advisees said "yes," and only 3 (16%) responded "no." They offered such comments as: "A small conference room might be better". . . ."Some place more informal". . . ."A less sterile place." For most, the content of the consultation was far more important than the location.

Interviewers—Known and Unknown

Among the many questions the survey hoped to resolve was one concerning how advisees might react to being assigned to an advisor they knew. The advisors surveyed felt that we are all professional enough to not let this get in the way during the interview process. Although not many advisees answered the question, of the three who did, two believed that they would be comfortable if assigned to someone familiar and one felt s(he) might be uncomfortable.

Assuming that most advisees did not have advisors they knew in advance, the question was asked, "Would you prefer to be interviewed by someone you did not know"? Seven respondents (27%) answered "yes" and 3 (12%) answered "no," offering the following comments: "Someone unknown provides more objectivity". . . ."An unknown person makes it easier to express frustrations and feelings". . . ."An interviewer who knows you might be more aware of your aptitude and concerns". Three persons (12%) said it did not matter.

One-to-One vs. Group Sessions

The one-to-one method of interview was used both times the service had been offered. The survey attempted to answer if this was the best method, or whether developing the "group session" concept—putting persons with similar concerns together in a group with only one advisor for each group—would be preferable.

The advisees were asked, "Would you feel comfortable in a session where several advisees with similar concerns all talked with one advisor in a group session." Seventeen persons (65%) responded that they would feel comfortable with this concept, while 6 (23%) indicated that they would not feel comfortable. The range of comments included: "All may not wish to speak in a group". . . ."As long as all did have similar problems". . . ."OK, for my purposes". . . ."Good idea". . . ."Might bring out new ideas and different points of view". . . ."Too general to be useful." Three persons (12%) felt that "one-to-one is better," and 6 (23%) felt that the group session was all right but "still have the one-to-one, too." This latter approach had not been thought of, but certainly should be.

The advisors were less satisfied with the group concept. Eleven respondents (58%) replied that it was not such a good idea, 4 (21%) felt it might work, and 4 (12%) were uncertain, commenting, "It would depend on the persons involved". . . ."Each situation is so unique". . . ."Talking to an objective stranger is one of the strengths of the program". . . ."It would permit more persons to be seen." Two persons (11%) answered, "One-to-one is better." When the advisors were specifically asked if one-to-one is better than changing to the group concept, 18 (95%) said "yes."

Follow-up Letter

One suggestion presented after the second year of the service was to institute a follow-up letter from the advisor to the advisee. The survey questionnaire, therefore, asked the participants if this would be helpful, what it should include, and if it should include both positive and negative comments? Some advisors admitted that they do not feel comfortable giving negative criticism, although it would be appropriate and helpful to the persons involved. While 11 (42%) of the advisees said that such a follow-up would be of value, 13 (50%) said it would not be of any value. Eighteen (69%) of these respondents also stated that if such a letter *did* exist they would welcome the constructive criticism, both positive and negative, concerning appearance, attitude, speech, and so on. However, 4 persons (15%) felt this would not be appropriate.

The following comments were offered concerning the benefits of a follow-up letter: "I discussed all that was needed to be discussed in the interview". . . ."It would affirm ideas and provide afterthoughts". . . ."So much was said—an overview might be helpful". . . ."They may have thought of something else to tell me". . . ."Yes, if it could provide any job leads". . . ."Yes, because I would like to tell my advisor how much he helped me". . . ."Only if something was forgotten". . . ."To confirm conversation and thoughts". . . ."Nice, but not necessary."

The advisors considered this proposal from a different viewpoint. Thirteen (68%) responded that a follow-up letter is not necessary, 5 (26%) said it might be helpful, and one person said s(he) was not sure. Their comments included the following: "These matters are outside our professional responsibilities". . . ."If someone wanted to ask another question, I would be happy to respond". . . ."Why nag them? Maybe they just needed someone to talk to at the conference and don't want any more contact". . . ."an opportunity to say in writing some critical things about appearance that I wasn't comfortable saying in person."

Additional comments were: "It is better face-to-face". . . ."This is not our business". . . ."Criticism is not our purpose". . . ."Be positive in the interview." Two advisors (11%) did give out their business cards and asked the advisees to write if they needed any further advice; neither heard from the advisee again.

Helpful Advice

When asked what they felt was the most useful advice they gave to the advisees, the advisors made the following comments:

"One person felt that he didn't come over well in interviews. I suggested that he think of the interview as a two-way street. Not only was he being interviewed but he was also interviewing to see if the job offered was right for him—he seemed to gain confidence from this". . . ."Consider a career in the computer field". . . ."Encouraged them to leave dead-end jobs". . . . "Re-do résumés for specific positions". . . ."Know your strengths". . . ."Be patient". . . ."Don't assume". . . ."Be positive". . . ."Learn as much as you possibly can about the job to which you might be applying". . . ."Explained how best to use SLA's services and to encourage SLA contacts". . . ."Introduced advisee to a chapter member in the geographic area in which the advisee wanted employment". . . ."Sometimes subject training might be as useful as library training". . . ."Additional education might be of value". . . ."I created an awareness of traditional and non-traditional jobs using library skills". . . ."Encouraged confidence building". . . ."Helped to evaluate different subject areas and also geographic areas". . . ."Send résumés to large firms—even if they are not hiring". . . ."Be professionally active."

When the advisees were asked the same question, i.e., "What advice were you given that was most helpful," the answers were much the same but the perspective was different. Comments included: ". . . was told which courses to take to fit my specific goals". . . ."advisor was honest about the job market". . . ."I should talk to people already in the field in which I am interested". . . ."Get the hell out of that job, or you will only end up as ineffective as your boss". . . ."The honesty helped—it was not just a pep talk". . . ."I don't remember."

Did Counseling Help?

To further test the usefulness of the service, the advisors were asked, "Do you feel that your advisee really needed help?" Seventeen (89%) replied "yes" and one responded "no," with one not sure. The advisors' comments included: "The person needed an impartial evaluation and encouragement to make a change". . . ."Confidence needed boosting". . . ."Needed help in résumé writing". . . ."An employer's point of view gave a better perspective to their problem."

That question was followed by, "Do you feel that you helped your advisee?" This time 16 advisors (84%) replied that they felt they had helped, one said s(he) probably did not, and two were not sure. When asked how they felt they had helped, the replies ranged from confirming some tentative decision that the advisee had already made to helping form new ideas, giving moral support, and boosting confidence by encouragement.

The advisees were asked if they felt they were helped and if so how or why not. Fourteen (54%) said that they had been helped and 11 (42%) said they had not. The positive comments were: "Reaffirmed my thoughts". . . ."Good practice—this interview process". . . ."Good view of what to expect". . . ."Made a decision to get a new job." Among the negative comments were: "No new insights were gained". . . ."No job!!". . . ."Advisor did not understand my problems."

Advisors and advisees were also asked whether the service should be continued and offered in the future. Of the advisees, 25 (96%) felt the service should be continued; 17 advisors (89%) concurred. There was no negative vote from either group.

Both groups were asked if they felt that SLA should be providing more of this kind of service to its members. Twenty-two (85%) of the advisees said "yes" and one said "no." The advisees' comments included: "This service should be there for those who need it". . . . "This is a valuable service". . . . "There is a lot of expertise here to be tapped."

Of the advisors, 16 (84%) indicated that the service should be continued, while 3 (16%) said "no." Their comments were: "Yes, but give more publicity, especially at the conference. It should be announced at all general sessions, divisional meetings, etc.". . . "The field of librarianship is rapidly changing—this will help all members". . . . "Definitely—how about some CE courses and workshops in the area of 'dress for success,' self-presentation, oral presentation, and positive attitudes?"

Room for Improvement

Both groups were asked for suggestions on improving the service in the future. Almost all of the comments were positive and helpful. From the advisees: "We should submit questions in advance, if possible". . . . "Make sure that the 'match' is as close as possible". . . . "Allow more time". . . . "More private area would help."

The advisors' comments included: "Expand service for the "walk-ins". . . . "Have more advisors". . . . "More background from the advisees would be helpful". . . . "Better location". . . . "Add a space on the advisee information sheet for salary expectations and geographic considerations". . . . "More training and feed-back for advisors". . . . "Create a greater awareness of the service for all members (mid-career, as well as new members)."

Seminars / Workshops

With a view toward possibly expanding the program in the future, both groups were asked if seminar / workshops on certain subjects would be helpful. It is interesting to note that the largest percentage of advisees—15 persons (58%)—wanted interview workshops, while résumé planning was suggested by 10 persons (38%), and 6 persons (23%) wanted help with building confidence and raising self-esteem.

Most of the advisees wanted workshops in the interview process; however, 16 (84%) of the advisors thought that résumé writing was the most needed workshop, while interview workshops received 13 votes (68%), and self-esteem / confidence received 12 (63%). Suggestions from both groups for workshop consideration included: the new technologies; current status of the job market; alternate careers; job stress; requirements and educational preparation; mid-career changes—when, where, and how; how to structure a career; and more help in interviewing—help is needed for all members in this area.

Conclusion / Observation

From the inception of this project, all the way through to its conclusion, there was full cooperation and a positive attitude toward the project. The fact that all 19 advisors responded indicates the spirit of cooperation among those professionals, all of whom had already contributed by agreeing to be advisors. The positive attitude, both on the part of the advisors and the advisees, was a definite plus in compiling the information needed for this survey.

If there were no conclusions drawn other than that this service has been tested, proven valuable and should definitely be continued, then the time spent would have been worthwhile. However, a close look at some of the conclusions shows that the service was not only worthwhile but also provided an opportunity for the exchange of information and a chance for those with acquired knowledge and skills to assist others.

The principal conclusions drawn from the survey are the following:

1. *The publicity* for the service was announced and advertised in the pre-conference mailings, and this proved successful. A suggestion for improvement included more publicity at the conference such as announcements at general sessions, divisional meetings, and so on.

2. The *matching* of advisors to advisees went as well as could be expected, in view of the constraints previously described.

3. *Additional information*, other than the résumé, might include a sheet of information listing some of the following: What do you perceive as your immediate concern? What have you done towards this goal? What plans do you have for the future in terms of salary and geographic considerations. The answer to these questions could give the advisor more information than is on a basic résumé. No more is needed—the rest will come from the discussion part of the process.

4. In *preparation* for the interview, the advisor needs to look at the résumés, as well as the information sheet mentioned above; the advisees, on their part, need to decide in advance which questions they want to ask, consider the possible answers and their ramifications, and go to the consultation with an open mind.

5. When the service was in the early planning stage, all concerned assumed that most persons seeking advice would be fresh out of library school or employed in their first jobs. The *type of advice* list, however, shows that the type of advice sought most often concerned mid-career change. This puts a different focus on the service and the future planning by the Association staff, as well as on the advisors likely to be chosen (some of whom might like mid-career advice themselves). The problem of mid-career change is also a possible topic for a workshop / seminar: Where am I? Where am I going? How do I get there? When to move? Which move to consider?

6. The offer of a *sample kit* appealed to both advisees and advisors. Suggestions for possible inclusion in this kit included: a list of large companies who hire; a

bibliography of books and articles on career paths, career changes, and alternatives; sample cover letters for résumés; sample résumés (both for beginners and those considering mid-career changes); interviewing techniques; and a list of journals, newspapers, and other publications where library jobs are listed.

7. The *place* of the interview was not as important as the context of the interview.

8. No one seemed too concerned about whether the advisor was *known or unknown*.

9. The consensus regarding *one-to-one vs. group session formats* was that whereas group sessions might be helpful they should not replace one-to-one sessions. If considered, they should be planned in conjunction with the present one-to-one format.

10. The suggestion for instituting a *follow-up letter* was evenly received by the advisees and, for the most part, felt not to be necessary by the advisors.

11. Most persons in both groups felt positive about the *assistance* that was offered, and felt that it did help to generate new ideas and concepts or reaffirm thoughts already being formulated.

12. If we look at all the comments from both groups as objectively as possible, the best *advice given* was probably two-fold: a) just talking to someone with more or different experience really did help, b) "confidence building" seemed the main thrust of the advisors' counsel.

13. All concerned felt that the *service should be continued.*

14. *Suggestions for improvement* focused on the need for more information for the advisors, making sure matches are as good as possible, expanding the service, and publicizing the service more.

15. In the area of possible future *seminars/workshops*, high on both group's lists were résumé writing and interview techniques. In light of this discovery, the SLA staff, through Dr. Hoban, is presently planning a CE Course for the New Orleans Conference on résumé writing and rewriting and on interviewing techniques.

Cooperation and a positive attitude made it possible for the Career Advisory Service to be created, developed, and reviewed for the benefit of all members—old and new. It is felt that the survey will enable the Association staff to identify areas of concern and act upon them in order to make the service work as well as possible in the future.

Copies of the survey questionnaires used in this study are available from the Information Manager at the SLA Office.

Acknowledgment

Wanda Kemp proved an invaluable source of information with this survey. She was in charge (working with Dr. Hoban) of the various meetings at both conferences, as well as coordinating the organized matching of pre-registration applicants and being an advisor, as well as attempting to help any "walk-ins" who appeared at the conference seeking assistance. She also provided the author with much time and assistance needed for the project, especially in the preliminary information gathering stage.

Received for review Sep 29, 1982. Manuscript accepted for publication Nov 23, 1982.

Ron Coplen is librarian, Harcourt Brace Jovanovich, Inc., New York, NY.

1983 Candidates for SLA Office

For President-Elect

ARTERBERY

BICHTELER

Vivian J. Arterbery is library director, Rand Corportion, Santa Monica, Calif. She received her BA from Howard University, Washington, D.C. (1958) and her MLS from the University of Southern California, Los Angeles (1965).

She was cataloger, Space Technology Laboratories (1959/60); reference librarian, Aerospace Corporation (1962/67); and supervisor, User Services, Aerospace Corporation (1960/79). She was appointed to her present position in 1979.

SLA Chapter Activities. As a member of the Southern California Chapter she was chairman, Committee to Compile Directory of Special Libraries of Southern California (1965); corresponding secretary (1966/67); recording secretary (1967/68); chairman, Placement Committee (1968/70); member, SLA Conference Registration Committee (1968); chairman, Bylaws Committee (1970/71); chairman, Area Luncheon Committee (1971/72); chairman, Program Committee; president-elect (1972/73); president (1973/74); member, Nominating Committee (1974/75); and chairman, Positive Action Committee (1979/80).

SLA Division Activities. She is a member of the Library Management Division and the Aerospace Division for which she served as treasurer (1980/82).

Association-Level Activities. Currently serving as chairman, Chapter Cabinet, and chairman, Board of Directors Long Range Planning Committee, she has also been involved in analyzing the SLA National Survey on Special Libraries Network Participation (1981). She has been active on the SLA Membership Committee (1969/71); as chairman, Special Committee on Networking (1975); invited participant, SLA/NCLIS Conference (1975); and member, Networking Committee (1976/81). She joined SLA in 1961.

Other Professional Activities. She was past-president, USC Library School Alumni Association (1972/73); councilor, California Library Association (1973/1975); member, Proposals Review Panel, HEW Office of Education (1974/76); member, Advisory Board, Southern California Interlibrary Loan Network (1975/80) instructor, USC School of Library and Information Management (1976); conference papers referee, National Computer Conference (1976/78); member, Librarian Qualification Appraisal Panel, California State Personnel Board (1977); delegate, California Governor's Conference (1979); president-elect, Libraries Sodalitas (1980/81) and president (1981/82); member, Advisory Board, USC School of Library and Information Management (1980/83); member, Scholarship Committee, California Library Association and chairman of the Association's Nominating Committee in 1982.

She is listed in *Who's Who of American Women* and *Who's Who in the West.* She received the Links, Inc., San Fernando Valley Chapter Community Service Award for 1982 and was named Woman of the Year by YWCA of Santa Monica in 1981.

Her most recent publications and presentations are: "Improving the Quality of the Information Product," presented at the National Meeting of the American Chemical Society (1982); "The Characteristics of Good Managers," presented at the University of Michigan/USC Institute on Management (1981); and "The Use of Local Documents in Policy Research," presented at the ALA Annual Meeting (1981).

Julie Bichteler is associate professor, Graduate School of Library and Information Science, University of Texas at Austin. She received her BS in Chemistry (1960), MLS (1965) and her PhD in Library and Information Science (1973) from the University of Texas at Austin. She engaged in graduate and undergraduate study in Geology at Southern Methodist University (1965/68).

She was a chemist with Dow Chemical Co., Midland, Mich. (1960/62); library intern, NASA-Lyndon B. Johnson Space Center, Houston, Tex. (1964); science reference librarian, Southwest Center for Advanced Study, Dallas, Tex. (1964/69); lecturer/assistant professor University of Texas at Austin (1969/77); U.N. Consultant to the National Computer Center, Philippines (1976); and visiting associate professor, University of Hawaii and Indiana University (1977). She assumed her present position in 1978.

SLA Chapter Activities. As a member of the Texas Chapter, she was chairman, Placement Committee (1965/66); chairman, Public Relations Committee (1966/67); chairman, Publications Committee (1972/73); first vice-president (1974/75); and president (1975/65).

SLA Division Activities. In the Sci-Tech Division, she was treasurer (1974/76); chairman-elect (1976/77); chairman (1977/78); and chairman, Nominating Committee (1979/80).

Association-Level Activities. She was a member of the Positive Action Program for Minority Groups Committee (1976/79) and served as committee chairman (1977/78); chairman-elect, Division Cabinet (1980/81) and chairman (1981/82); member, Awards Committee (1981/82); member, Ad Hoc Committee on the SLA Scholarship Program (1982/83); and Student Relations Officer (1982/83). A member of SLA since 1964.

Other Professional Activities. She is a member of Geoscience Information Society, of which she was president (1977/78); Association of Special Libraries of the Philippines; American Society for Information Science, having served as chairman, Texas Chapter (1975/76); Texas Library Association; Association of American Library Schools, serving as member, Editorial Board (1977/81); and Board of Governors, American Geological Institute (1979/82).

She is a member of Phi Beta Kappa, Iota Sigma Pi, Phi Kappa Phi, and Beta Phi Mu. She has received fellowships and scholarships from General Motors, Dow Chemical, NSF and USOE.

Most recent among the numerous articles she has written are "Inference Nets for Modeling Geoscience Reference Knowledge" (with Jonathan Slocum and Robert Amsler) in *Communicating Information: Proceedings of the 43rd ASIS Annual Meeting* 17:183-185 (1980); "The Combined Use of Bibliographic Coupling and Cogitation for Document Retrieval (with Edward Eaton), *Journal of the American Society for Information Science* 31:278-282 (July 1980); and "New Formats for Geoscience Journals" in *Proceedings of the Geoscience Information Society* 12:42-56 (1982). In all, she has written three research reports, one article in *Special Libraries*, eleven papers in other scholarly journals, four articles in proceedings and two in Chapter and Division bulletins.

* * *

For Chapter Cabinet Chairman-Elect

COPLEN

MATARAZZO

Ron Coplen is librarian, Harcourt Brace Jovanovich, Inc., New York City. He received his BFA from Drake University 1959 and his MLS from Columbia University 1981.

He was on the staff of the New York Public Library (1960/62); on the staff of Columbia University Libraries (1962/65) and head, Serials Acquisitions (1964/65); cataloger, Oceana Publications (1966/67); cataloger, F. B. Rothman (1968/69). In 1970 he joined Harcourt Brace Jovanovich, Inc.

SLA Chapter Activities. He was New York Chapter, Publishing Group chairman (1974); chairman, Publishing Group Bylaws Committee (1974/75); chairman, Membership (1972/73, 1973/74); second vice-president and editor *Chapter News* (1974/75); member, Finance Committee (1977/78, 1978/79); member, Nominating Committee (1979/80); chairman, Special Committee on Consultation (1980/81); and chairman, Long-Range Planning Committee (1981/82).

SLA Division Activities. He was a member of the Project Committee, Publishing Division (1972/73); member, Hospitality Committee (1973/79); assistant bulletin editor (1972/73) and bulletin editor (1973/74); chairman, Bulletin Committee (1974/75); member, Bylaws Revision Committee (1974/75); Division chairman (1975/76, 1978/80); and chairman, Nominating Committee (1978/79). He is also a member of the Library Management Division and served as chairman, Special Projects Committee (1980/81).

Association-Level Activities. He was a member of the Tellers Committee (1973/74) serving as chairman (1974/75); chairman, New York Conference (1977); member, Scholarship Committee (1978/80) and committee chairman (1980/81); Career Advisor (1981 and 1982); member, Committee on Committees (1981/82); SLA Representative, Standard Address Number Committee, ISBN Advisory Committee (1981/83). He has been a member of SLA since 1971.

Other Professional Activities. He is the author of *Special Libraries: A Cumulative Index, 1971/80* (SLA, 1982); "Encyclopedia of Libraries and Information Sciences" (article on SLA Publishing Division, 1982); and "Serials Bibliographic Sources: A Descriptive and Comparative Review," *Serials Review* (1982/83). In addition, he has written five articles for *Special Libraries*, one research report, and numerous articles in scholarly journals and in Chapter and Division bulletins.

He is a member of the New York Library Club, for which he served as bulletin editor (1975); New York Library Association; ALA; chairman, ANSI-Z39 Committee publication: *Title Leaves of a Book*.

James M. Matarazzo is associate dean and professor, Graduate School of Library and Information Science, Simmons College. He received his BS (1963) and MA (1972) from Boston College and earned an MS from Simmons College (1965) and a PhD from the University of Pittsburgh (1979).

Before assuming his present position in 1969, he was assistant science librarian (1965/67), documents librarian (1967/68), and serials librarian/head of technical reports (1968/69) at Massachusetts Institute of Technology.

SLA Chapter Activities. As a member of the Boston Chapter, he has been chairman, Membership Committee (1967/70); chairman, Education Committee (1970/73); director (1973/75); and president (1979/81).

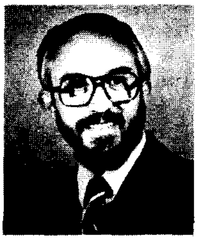
Association-Level Activities. He served as SLA Representative to the Library Binding Institute (1971/74); Student Relations Officer (1974/76); member, Special Committee on Continuing Education (1976); and faculty advisor, Simmons College SLA Student Group (1971/76; 1979–). He has been a member of the Association since 1965.

Other Professional Activities. He is a member of the ALA, Council; New England Library Association; and Association of American Library Schools. His honorary achievements include a scholarship from Boston College, a Marian & Jasper Whiting Foundation Fellowship; and being named Teaching Fellow, University of Pittsburgh.

He has authored seven books, one research report, three articles in *Special Libraries*, ten articles in other journal publications, plus twenty articles in SLA Chapter and Division bulletins. His most recent publications are: *Closing the Corporate Library: Case Studies on the Decision-Making Process* (SLA, 1981); *Scientific Engineering and Medical Societies: Publications in Print*, 4th ed. (R. R. Bowker Company, 1981); and "Introduction: Training of Sci-Tech Librarians and Library Users," *Science and Technology Libraries* 72 (no. 3):304–305 (Jul 1981).

For Division Cabinet Chairman-Elect

KANE



TCHOBANOFF

John F. Kane is coordinator, Information Services, Aluminum Company of America, Alcoa Laboratories, Alcoa Center, Pa. He received his AB degree in Humanities from the University of Pittsburgh (1969) and has done continuing education course work in Library and Information Management.

Before joining Alcoa Laboratories, he was engaged as Russian interpreter by the U.S. Air Force Security Service (1958/62). In 1962 he became periodical clerk at Alcoa, was promoted to library assistant (1963/69), and, thereafter, to special librarian (1969/78).

SLA Chapter Activities. An active member of the Pittsburgh Chapter, he served on the Information and Hospitality Committee at SLA's 64th Conference; served as Chapter president-elect (1974/75) and president (1975/76); member, Executive Board (1976/77); Program Planning Committee (1978/79) and Awards Committee (1979/82).

SLA Division Activities. He is a longstanding member of the Metals/Materials Division, having served on the Nominating Committee (1974/76); as chairman, Bylaws Committee (1976/79); member, Development of Division Scope Note Committee (1977); member, Program Planning Committee (1977/82); chairman, Procedure Manual Committee, including complete rewrite (1978/79); Division chairman-elect (1979/80) and chairman (1980/81); coordinator and editor, *Guide to Metallurgical Information* (1981–).

Association-Level Activities. He was SLA Representative to the University of Pittsburgh Personnel Resources Requirements Conference (1976/77); member, SLA Special Committee on Long-Range Planning (1981/82); and chairman, Government Information Services Committee (1982–). A member of SLA since 1970.

Other Professional Activities. He holds membership in the Aluminum Association, Technical Information Committee and American Society for Metals. He is also a member of the Burrell School District Board of Education (1980–); Rotary International (1982–); and Chemical People, Task Force on Drugs and Alcohol Abuse (1982–). He is a recipient of the Certificate of Recognition, presented by the Alcoa Chapter of Sigma Xi, Scientific Research Society (1982).

He has frequently published pieces in *Metals/Materials Division News* and has contributed to eight sections pertaining to metals processing in *Academic American Encyclopedia (1980).*

James B. Tchobanoff is section manager, Technical Information Center, Pillsbury Company. He received his BS in Chemistry (1968) and his AMLS (1971) from the University of Michigan and participated in a postgraduate internship program for science librarians for which he received University of Tennessee medical units.

He was employed as clinical medical librarian, Medical Library, University of Missouri at Kansas City (1972/76) before accepting his present position in 1976.

SLA Chapter Activities. As a member of the Minnesota Chapter, he has held the office of president-elect (1978/79), president (1979/80), and past-president (1980/81).

SLA Division Activities. In the Food and Nutrition Division, he has served as chairman, Membership Committee (1981/82), chairman-elect (1981/83), and chairman (1982/83).

Association-Level Activities. He joined the Association in 1976 and has served on the Committee on Committees since 1980.

Other Professional Activities. He is a member of the Medical Library Association, American Chemical Society, and the American Association for the Advancement of Science, as well as holding membership in Beta Phi Mu.

He has published one book, two research reports, and four articles in Chapter and Division bulletins. His most recent works are: "Utilizing the Professional Information Staff: The Role of Professional Librarians in Assimilating Technical Information," in *The Information Connection: Making a Powerful Resource Work for You, Proceedings of an IFT short course held in Atlanta June 10-12, 1981* (Chicago, Institute of Food Technologists, 1981); "The Databases of Food: A Survey of What Works Best and When," *Online* 4(no. 1):20-25 (1980); and "The Education and Training of Online Searchers: The Searcher's Experience," in *Education and Training for Information Services in Business and Industry: Proceedings of an FID seminar held in Minneapolis, October 11-12, 1979* (Paris, FID, 1980).

For Directors (1983/86)

ARSHEM

KNAUFF

SEGAL

WALTON

James A. Arshem is head, Business, Science and Technology Departments, Denver Public Library, Denver, Colo. He received his BA from Augustana College, Sioux Falls, S. Dak. (1962), his MS in chemistry from the University of Nebraska (1967), and his MA in librarianship from the University of Denver (1969).

He was assistant to the Dean, University of Denver Graduate School of Librarianship (1969/71); reference librarian, Martin Marietta Aerospace Company, Denver (1971/73); assistant head, Science and Engineering Departments, Denver Public Library (1973/76); and held a joint position as head, Conservation Library, Denver Public Library (1979/80) after he assumed his current position in 1977.

SLA Chapter Activities. As a member of the Colorado Chapter he served as chairman, Placements Committee (1971/72); treasurer (1972/73); president (1974/75); and as member, Nominating Committee (1977).

Association-Level Activities. He was coordinator, Division Programs, SLA Denver Conference (1976); and member, Nominating Committee (1979/80) having served as chairman (1979). He has been a member of SLA since 1971.

Other Professional Activities. He is a member of ASIS; the Colorado Library Association; Patent Documentation Society; Rocky Mountain On-line Users Group; and governing member, Board of Directors, Rocky Mountain Inventor's Congress. In addition, he served at the Information Center during the White House Conference on Library and Information Services as a consultant for the Science and Education Administration, U.S. Department of Agriculture, Regional Energy/Environment Information Center of the Denver Public Library. He has written one research report and four articles.

Elizabeth S. Knauff is manager, Information Services Division, Office of the Secretary, U.S. Department of the Treasury. A graduate of the University of North Carolina at Greensboro, she received her AB degree (1956) and went on to earn an MA from Johns Hopkins University International Affairs School of Advanced International Studies (1958) and an MSLS from the Catholic University of America (1967).

Before assuming her present position in 1979, she was branch librarian, Prince George's County Memorial Library, Md. (1961/64); reference librarian promoted to library director, Executive Office of the President, Bureau of the Budget (1964/79); assistant director promoted to library director, Executive Office of the President, Information Management and Services Division, Office of Administration (1978/79).

SLA Chapter Activities. As a member of the Washington, DC Chapter, she served as chairman, Social Science Group (1973/74); vice-president, (1977/78); president-elect (1979/80); and president (1980/81).

SLA Division Activities. She was secretary, Business and Finance Division (1980/82), and has been a member of the Information Technology and the Library Management Divisions, as well.

Association-Level Activities. She was liaison to the Information Professional Societies Policy Forum in 1981. She is currently a Publisher Relations Committee member (1981/83) and a member, Association of American Publishers-SLA Joint Committee (1981/83). A member since 1965.

Other Professional Activities. Her membership in other professional associations include ASIS; Association of Record Managers and Administrators; American Society of Access Professionals; ALA Board member, Federal Librarians Round Table, ALA (1979/81).

A recipient of the Frances Bolton Fellowship from Johns Hopkins and the Anna Howard Shaw Award from the University of North Carolina, her honors include membership in Phi Beta Kappa, Phi Alpha Theta, and Beta Phi Mu.

JoAn Segal is executive director, Biographical Center for Research, Inc. She received a BA in Library Science from Douglass College, Rutgers University (1951); a MSLS from Columbia University (1955); and a PhD in Communication from the University of Colorado (1978).

Before joining BCR, she was librarian, New York Institute of Mathematics and Sciences (1955/58) serving as consultant for the Institute (1977/78); and librarian, Western Interstate Commission for Higher Education (1970/76).

SLA Chapter Activities. A member of the Rocky Mountain Chapter, she served as chairman, Joint Colloquium (1978); chairman, Continuing Education Committee (1979); president-elect (1980/81) and president (1981/82).

SLA Division Activities. She is a member of the Education Division, having served as Conference Local Representative (1976); chairman-elect (1980/81) and chairman (1981/82).

Association-Level Activities. She has been a member of SLA since 1970.

Other Professional Activities. She holds memberships in the Colorado Library Association; Mt. Plns. Library Association; Speech Communication Association; Association of Records Managers and Administrators; ASIS; and ALA. She served on the ASIS Mid-Year Conference Committee in 1981. Within ALA she is an OCLC Users Council Delegate (1980–) and served as chairman, ASCLA Award Jury (1982); in addition, she is a member, Research Committee (1982). Her honors include membership in Beta Phi Mu.

Among her several publications, she has written seven research reports, a journal article, five articles in Chapter and Division bulletins, as well as an academic dissertation.

Laurence R. Walton is manager, Corporate Information Center, Pet Incorporated. He received his BA in Chemistry from Oklahoma State University (1965) and his BS in Library Science from Washington University, St. Louis (1971).

He was technical librarian, Research and Development Center (1965/73) and corporate librarian, Pet Incorporated (1973/79). He assumed his present position in 1979.

SLA Chapter Activities. As a member of the St. Louis Metropolitan Area Chapter, he has served as bulletin editor (1972-75); co-chairman of Food and Consumer Workshop (1973); treasurer (1975/76); president-elect (1976/77) and president (1977/78); director (1978/79); director-at-large (1981/82); and chairman, Consultation Service Committee (1982/83).

SLA Division Activities. He is a charter member of the Food and Nutrition Division and has served as contributing editor of the Division bulletin (1972/76); chairman-elect (1973/74) and chairman (1974/75); and director (1975/76). He is editor and compiler of the Division publication, *Food Publications Roundup: A Bibliographic Guide* (1977–). He is also a member of the Advertising and Marketing and Business and Finance Divisions.

Association-Level Activities. He was chairman, Conference Program Committee (1979/80) and has been an Association member since 1967.

Other Professional Activities. He is a member of the American Society for Information Science; Association of Records Managers and Administrators; the Missouri Library Association; and St. Louis Online Users Group, serving as chairman-elect (1982/83). He was a council member representing the Special Libraries Section on the St. Louis Regional Library Network Governing Council (1978/79). He founded the St. Louis Downtown OCLC Cluster (1980). Other professional memberships include: Institute of Food Technologists; American Association of Cereal Chemists; and the American Society for Microbiology.

He is listed in *Who's Who in the Midwest* (1982/83). He was a contributor to the joint Food and Nutrition Division, SLA and National Agriculture Library publication *Food Science and Technology: A Bibliography of Recommended Materials* (1978).

Ballots and voting instructions will be mailed from the Association Office in early April.

Officers and Directors who will continue to serve on SLA's Board of Directors in 1983/84 are: Pat Molholt who automatically succeeds to the Office of President: Janet Rigney who will serve as Past President; Muriel Regan who will continue as Treasurer; Marilyn Johnson who automatically succeeds to the Office of Chairman, Chapter Cabinet; and Jean K. Martin who will serve as Chairman, Division Cabinet. Jack Leister and M. Elizabeth Moore will serve the third year of their three-year terms (1981/84) as Directors. Frank Spaulding and Mary Lou Stursa will serve the second year of their three-year terms (1982/85) as Directors.

Actions of the Board of Directors October 28–29, 1982

The Fall Meeting of the SLA Board of Directors is primarily a budgetary meeting in which the draft budget for the next fiscal year is discussed, amended, and finally adopted. This year the Board met Oct 28–29, 1982, at the Vista International Hotel in New York City. The following actions and discussions took place.

Finances—The Executive Director reported on the status of Association Finances for fiscal year 1982. The 1982 Annual Conference, the continuing education program and the *Special Libraries* program are among the several profit centers that are expected to generate a healthy surplus in the General Fund budget for 1982. The Board voted to allot the projected surplus as follows: Computer Fund (40%), Reserve Fund (30%), and Building Fund (30%).

The Board discussed the per member cost for services provided by the Association. As of August 1, 1982, the average cost of Association services to each member was $75.69, of which $55.00 was derived from membership dues income. The Association must rely on sources of additional income (see above) to make up the difference. However, there is no guarantee that these sources can be counted on to bridge the gap indefinitely.

The Board voted to appoint Weber, Lipshie & Company, as the Association's auditors for the 1982 fiscal year. Weber Lipshie has served the Association in this capacity since 1979.

Budget for FY 1983—The Board approved a General Fund budget for FY 1983 after a line-by-line scrutiny of the draft budget. Budgets for the Subsidiary Funds were also approved.

The approved budget for the General Fund projects $4,000 surplus income for FY 1983 ($696,700 income less $692,700 expenses). Several Board actions of interest to the general membership are reflected in the approved budget. These are highlighted in the remainder of this report.

Chapter and Division Allotments—No change in Chapter or Division allotments was recommended by the officers of the Chapter and Division Cabinets. Hence, the 1983 annual allotment for each Chapter will be $5.25 per member; chapters with less than 117 members will receive $500 plus $1.00 for each member. Divisions will receive $4.50 per member or $500, whichever is greater. The annual allotment is based on total Chapter and Division membership as of December 31, 1982.

Membership Directory vs. Public Relations Program—Preparation and distribution of the annual membership directory, *Who's Who in Special Libraries*, as a membership service is an extremely costly budget item. The total cost of this service in 1982 was *$31,000*, and it would be approximately *15%* higher in 1983.Funds for implementing the Public Relations Program, another very high membership priority, would not be available if the directory was authorized as a membership service for next year. At the Fall Meeting, the Board had the difficult task of deciding which of the two programs would be funded in FY 1983.

The Finance Committee proposed a compromise and recommended to the Board that the membership directory become a nonserial (for-sale) publication in 1983, with free distribution to Association Officers and the leaders of its Chapters, Divisions, and Committees. This recommendation was approved.

The savings realized by converting the directory to a for-sale publication will provide the Association with the resources for establishing, as planned, an aggressive public relations program, including a full-time staff position at the Association Office. This program had been authorized in June 1982 for implementation in January 1983, but at that time it was uncertain where the necessary funding would come from. The solution proposed by the Finance Committee was the answer.

Picture Division Finances—The Picture Division asked the Board to approve a proposal for the Association to assume responsibility for the publication of its bulletin, *Picturescope*. Under the Division's proposal, editorial responsibility for *Picturescope* would remain with the Division.

Three years ago the Division borrowed $2,600 from SLA as seed money for a project to improve both the content and format of *Picturescope*. The revitalization of the bulletin was a success. The publication is now considered by picture professionals as an excellent resource; however, the cash flow of the Division makes it impossible to continue its support of *Picturescope* in its present form. The Division prefers not to revert to a more modest publication that is within its financial means.

The Board declined to accept the Picture Division's proposal on the grounds that a precedent should not be set that would oblige the Association to become the publisher of other Division bulletins. Suggestions were made for cutting costs of *Picturescope* without compromising its quality, and the Board instructed the Association staff to assist the Division with an investigation of alternate avenues for publishing the bulletin—for example, a commercial publisher.

Funding Requests of SLA Units—Provision was made in the 1983 budget for the funding of the activities of the Scholarship Committee ($100) and the Positive Action Program for Minority Groups Committee ($500).

The Board denied a request of the Physics-Astronomy-Mathematics Division for reimbursement of costs associated with distribution of its bulletin to members of the Board, since no evidence of hardship to the Division was presented. The Board responded to the Division's request for seed money for a publications project by suggesting an alternate means of securing the funds.

Association Office Operations—Funds were approved in the FY 1983 budget for the purchase of four replacement typewriters for the Association Office.

The Board also approved a modest amount ($800) for reimbursement of committee-related incidental expenses of the five members of the Association Office Operations Committee.

Inter-Association Activities—There were three items of business in this category with financial implications:

1) The Board authorized renewal of an agreement with the American Association of Law Libraries (AALL) whereby each association will make its reduced member conference registration rate available to members of the other association. It is expected that a reciprocal action will be taken by the AALL Board.

2) The Board did not approve a request for $100 to finance the initial CLASS electronic mail subscription for the Task Force on the White House Conference on Library and Information Services on the grounds that similar requests of SLA units have not been funded while a committee is developing guidelines for how electronic mail should be used in the Association.

3) A request for the Association's participation in the activities of the Council of Professional Associations on Federal Statistics (annual dues, $1,000) was referred to the Statistics Committee for further study. The Committee will make its recommendations to the Board at the 1983 Winter Meeting.

1984 Conference Theme—The Board heard a progress report on planning for the 1984 Annual Conference and voted to approve the Conference Program Committee's recommendation for the conference theme: "Information in the Electronic Revolution." The 1984 Conference, to be held in New York City, June 9–14, will be the culmination of SLA's 75th Anniversary Celebration.

New Provisional Chapter—The Board approved the establishment of SLA's 54th Chapter, the Fairfield County (Connecticut) Provisional Chapter. Twenty-nine members submitted a petition to the Board requesting approval of the new group.

Copyright Matters—The Chairman of the Copyright Law Implementation Committee reported on: 1) the recent meetings of the library and publishing communities convened by the Register of Copyrights; 2) the drafting of a revised notice of copyright; and 3) the planning of a seminar on copyright for SLA members and the legal counsel of their employers.

Nominees for Association Office—The Nominating Committee for the Association's Spring 1983 Election brought to the

Board the names of the candidates for Association Office: for President-elect: Vivian J. Arterbery and Julie H. Bichteler; for Chapter Cabinet Chairman-Elect: Ron Coplen and James M. Matarazzo; for Division Cabinet Chairman-Elect: John Kane and James B. Tchobanoff; for Directors (2): James A. Arshem, Elizabeth S. Knauff, JoAn S. Segal, and Laurence R. Walton. Biographies of the candidates will be published in the January 1983 issue of *Special Libraries.*

Continuing Education—The Board received a report from the President of the Continuing Library Education Network & Exchange (CLENE). The report presented a proposal for the administration of CLENE and solicited the Board's comments and reaction. The Board instructed staff to express to CLENE's president SLA's wish not to pursue any further his proposal. In June 1982 the Association disaffiliated with CLENE on the recommendation of the Education Committee.

Long-Range Planning—The Board heard the Chairman of the Special Committee on Long Range Planning review the final priorities established in the fourth round of a Delphi Inquiry of the Board. The priorities are as follows:

1. Reinforce and expand continuing education programs specifically to: 1) reflect the needs and desires of members; 2) assist members in developing skills to handle technological and economic changes occurring in library and information management; 3) train members to market information services; 4) provide mid-career upgrading and retraining; 5) develop or improve management skills.
2. Develop a strong public relations program for image creation, promotion, and interpretation of the special librarian and the information profession to the general public and to specific corporate, business, and government leaders.
3. Review the finances of the Association and its constituent parts and develop a plan for maintaining a strong financial base e.g., anticipating dues increases, developing alternatives to supplement conference revenue; investigating outside support.
4. Reappraise membership services with the specific goal of encouraging greater membership involvement. Also, identify and evaluate conference alternatives that would permit wider membership participation.
5. Develop curriculum objectives for graduate library and information management education and become a full participant in the graduate library education accreditation process.
6. Develop a plan and mechanism with full Chapter and Division involvement to improve Chapter and Division programming.

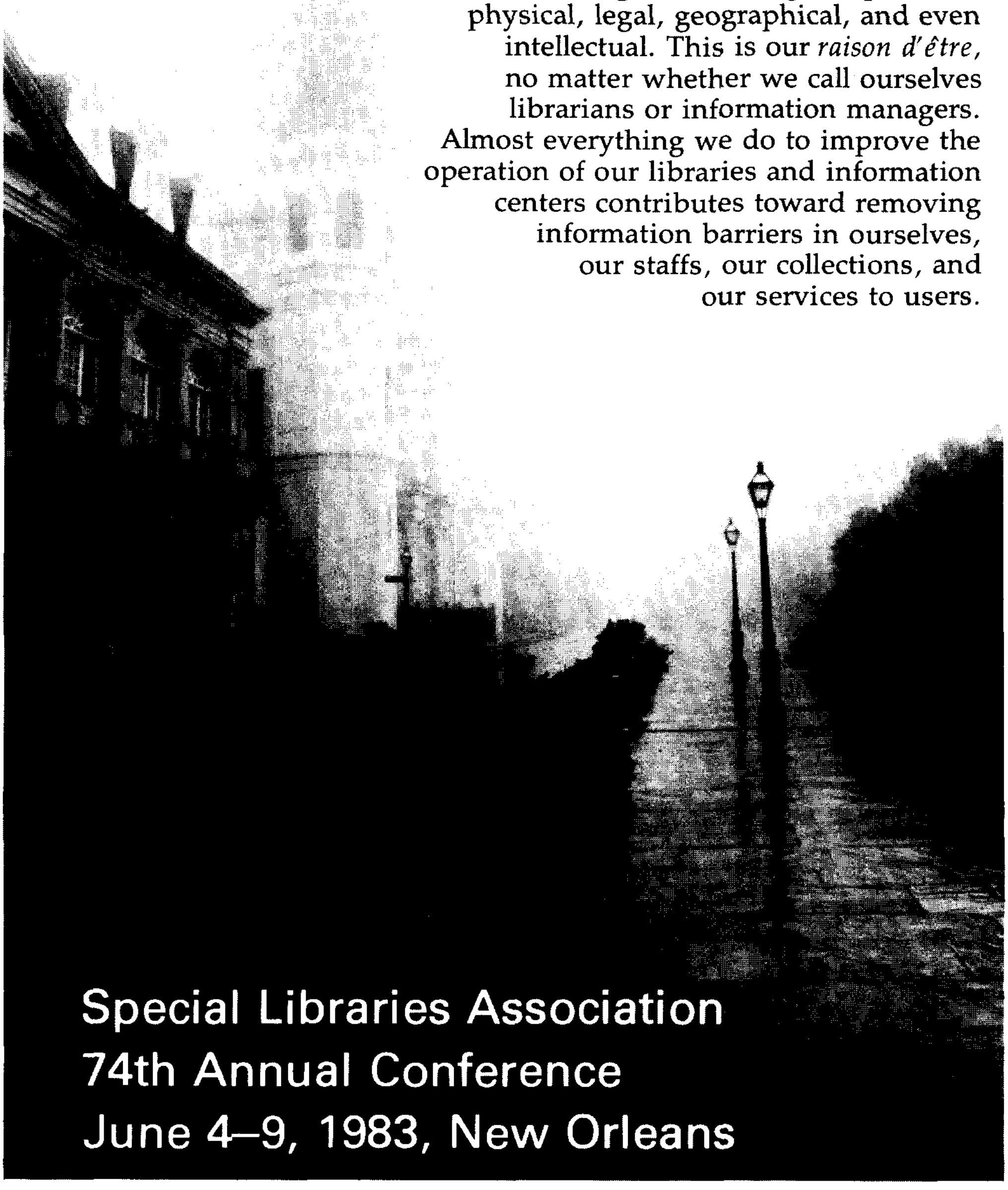
Building Campaign—As part of the ongoing project to find ways and means to establish a new Association headquarters, the Executive Director submitted two documents to the Board detailing office space requirements and the campaign plan to raise the necessary capital for the Building Program. Funds are currently being solicited through such marketing and publicity activities as: a Building Fund Campaign Brochure, articles in *Special Libraries* and the *SpeciaList*, press releases to library and information publications, display materials at professional conferences, and Chapter visits by the President, President-Elect, and the Executive Director.

PLEASE NOTE

In the event that there may have been some confusion over the exact meaning of the footnotes to Tables 1 and 2 of the "1982 Salary Survey Draft Report" (*SL*73(no.4):314-315(Oct 1982)], the footnotes referred to salaries reported within the Canadian census region which were given in Canadian dollars. As stated in the footnotes, the exchange rate on Apr 9, 1981, was approximately Canadian $1.2289 ∴ U.S. $1.00. Stated another way, Canadian $1.00 = @ U.S. $0.77.

"Removing Information Barriers"

Removing barriers is what the information business is all about. This means removing all types of barriers between information and those who use it—space, time, and language; technological, sociological, political, physical, legal, geographical, and even intellectual. This is our *raison d'être,* no matter whether we call ourselves librarians or information managers. Almost everything we do to improve the operation of our libraries and information centers contributes toward removing information barriers in ourselves, our staffs, our collections, and our services to users.



The focus of Special Libraries Association's 74th Annual Conference will be the analysis of existing barriers and the exploration of ways to remove them. So don't miss this valuable opportunity. Join thousands of your colleagues in New Orleans for the information exchange of 1983! Expert speakers have been scheduled to present the general and division sessions. Twenty-three professional development training seminars, three workshops, and the Middle Management Institute offer opportunities for professional growth. Furthermore, the exhibits are of special interest to every SLA member—especially this year.

You'll Love New Orleans

New Orleans is one of the world's unique cities, a storied blend of proud tradition and elegant serenity, progressive bustle, and *joie de vivre.* It has taken more than 250 years to mould her highly individualized personality, and the process continues today. New Orleans history is as fascinating as the city itself.

Founded in 1718 by Jean Baptiste le Moyne, Sieur de Bienville, New Orleans became the capital of French Louisiana in 1723. The Spanish succeeded the French some forty years later, and New Orleans became an American city with the Louisiana Purchase in 1803. (You can still see the building where the historic transfer took place—the Cabildo, erected in 1795, now a state museum).

The city has not forgotten her European heritage, nor has she abandoned the flavor of the Old South. The French Quarter retains its old-world charm, while antebellum splendor lingers on in the Garden District. New Orleans' "international" atmosphere coexists in perfect harmony with boomtown excitement: horsedrawn carriages and fast-paced expressways, leafy courtyards and soaring skylines. No matter what facet of the city you choose to explore, you will love New Orleans.

General Sessions

The General Sessions of the New Orleans Conference will cover the diverse aspects of information access and assist us in analyzing the ways to remove the existing barriers to this information.

General Session I—The Honorable Gilbert Gude, Director of the Congressional Research Service, Library of Congress, will address the issue of "Political Barriers to Information."

Session II—A panel on "Upward Mobility: Removing Sociological Barriers" will discuss the issues of comparable worth, the role of librarians in the organization, and paths to power. The panelists include Laura Gasaway, Professor of Law, University of Oklahoma; Dr. Leigh Estabrook, Associate Professor, School of Information Studies, Syracuse University, and Dr. Natasha Josefowitz, Professor of Management, College of Business Administration, San Diego State University.

Session III—"The First Amendment and Access to Information" will be the topic covered by Bruce W. Sanford, a partner in the Washington, D.C., law firm of Baker and Hostetler. Sanford will discuss threats to the free flow of information that go well-beyond the Freedom of Information Act. Sanford is a former staff reporter for *The Wall Street Journal* and is legal counsel to the Society of Professional Journalists, Sigma Delta Chi, and represents such national news media as Scripps-Howard and United Press International.

Session IV—The final General Session will deal with the timely issue of "Removing Information Barriers: Electronic Publishing." Panel members will include Myer Kutz, Publisher, John Wiley & Sons, New York, and Phil Holmes, Managing Director, Blackwell Technical Services, Ltd., Oxford, England. Serving as reactor will be Joseph Dagnese, Director of Libraries, Purdue University, West Lafayette, Indiana. This session is being cosponsored by the Publishing, Business and Finance, Information Technology, and Library Management Divisions, and the Publisher Relations Committee.

Training Seminars

The Professional Development Department plans to offer a series of training seminars and courses as part of the continuing education program during the Annual Conference. SLA will also offer three half-day workshop sessions.

Instructors will conduct courses and workshops on Saturday, Sunday, and Thursday, June 4, 5, and 9. Some courses will be offered twice to allow participants more scheduling freedom. The tentative list of courses includes:

CE 104 *Newspaper Library Basics*

CE 109 *Advanced Newspaper Library Technology*

CE 116 *Management of Business Archives*

CE 120 *Space Planning/Evaluation for Libraries and Business Information Centers*

CE 121 *Stress Management*

CE 125 *Managing the Business Library/Information Center—Reference Update & Technology for Running a Business Library/Information Center*

CE 126 *Working on Chemical Structure Searching*

CE 127 *Communicating Statistics from Our Jargon to Their Jargon*

CE 228 *Managing in a Changing Environment*

CE 229 *Art of Delegating*

CE 230 *Paradigms and the Implications of Decision Making (in cooperation with Food & Nutrition Division)*

CE 254 *Labor Relations Issues for Special Libraries*

CE 255 *Strengthening Interviewing Skills*

CE 256 *Motivation and Productivity: The Keys to a Successful Organization*

CE 329 *Information Manager as a Leader and Communicator*

CE 350 *Marketing Your Services*

CE 351 *Creating Multi-Media Presentations*

CE 428 *Software Packages: Their Applicability to Special Library Functions*

CE 451 *User Education in a Technologically Advanced Special Library*

CE 475 *Databases: Their Construction, Editing, and Use*

CE 476 *Networking*

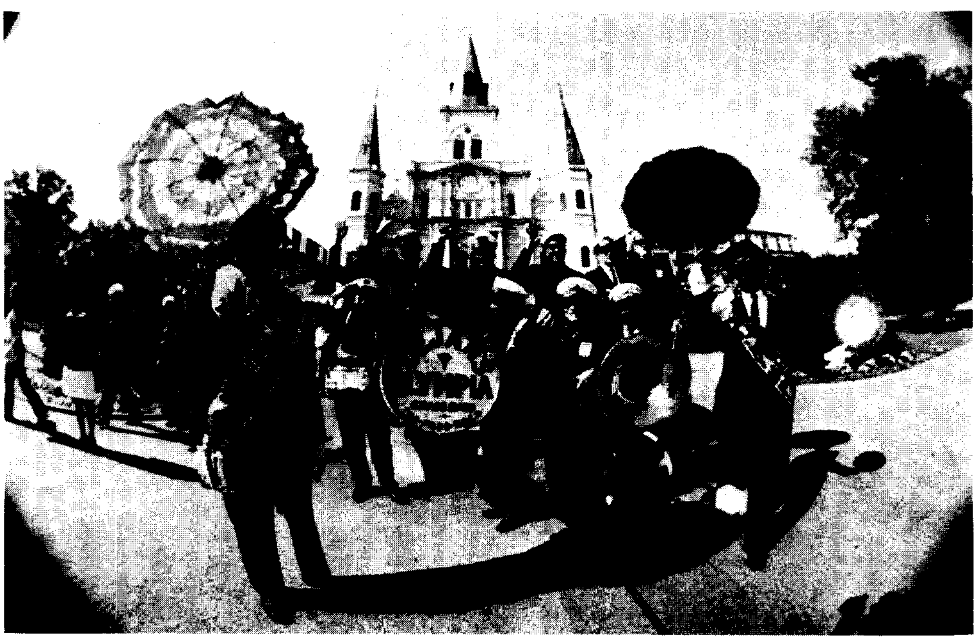
CE 477 *Planning New Technologies in Libraries*

CE 525 *Understanding and Use of Alternative Forms of Publication in Technical Libraries*

W1 *Expanding Library Careers*

W2 *Résumé Writing*

W3 *Interviewing Techniques*



SLA's Continuing Education Program is designed to meet the changing needs of information specialists by preparing them for new duties and responsibilities in such areas as management, communication, and library automation techniques. Knowledgeable specialists have been chosen to lead the seminars, basing their instruction on expertise they have acquired through personal experience and academic credentials.

Participants will earn 0.6 Continuing Education Units and a certificate upon completion of each course. SLA Conference registration is required for enrollment in CE courses. For further information, contact Mary Frances Hoban, Manager, Professional Development, Special Libraries Association, 235 Park Avenue South, New York, New York 10003 [212/477-9250].

Middle Management Institute

The Middle Management Institute Certificate Program is the second phase of SLA's Continuing Education Program. The objectives of the Middle Management Institute Certificate Program include:

- Developing the skills and tools of management;
- Sharpening decision-making skills;
- Providing practical training in specific areas of management;
- Helping participants to understand organizational behavior, including the relationships of various departments to one another and their relationship to the corporate entity;
- Stimulating new ideas through interaction among participants representing a variety of organizational structures.

The Certificate Program is a 75-hour program divided into 5 units. Each unit is a 15-hour, 2½-day session. The participants will earn an SLA Management Certificate and 7.5 CEUs. In order to obtain a certificate, each participant must complete the 5 units within the allotted 24-month period.

The framework for the five units is: 1) management skills, 2) analytical tools, 3) human resources, 4) marketing and public relations, 5) materials and machines. Each of these units will consist of a number of related topics.

SLA offered Units 1 and 2 in June 1982 and November 1982. Unit 3 will be offered in January 1983. The schedule for the remaining units is:

Unit 4. Marketing and Public Relations—June 2-4, 1983, New Orleans Conference.

Unit 5. Materials and Machines—January 1984, Colorado Springs Winter Meeting.

Unit 4 will be offered Thursday, Friday, and Saturday, June 2, 3 and 4, at the conference hotel. *Marketing and Public Relations* will concentrate on how to develop strategies, public relations techniques, use of newsletters, advertising campaigns, and expanding the role of the librarian and information specialist.

Highlights of Several Division Programs

"Hazardous Wastes: Legal, Chemical and Biological Parameters" is the title of the panel presentation being jointly cosponsored by the Biological Sciences, Environmental Information, and Chemistry Divisions on Monday, June 6, 1983.

The Biological Sciences Division has planned a luncheon program on Tuesday, June 7. An art historian will discuss her viewpoint on the work and published editions of John James Audubon especially as they relate to the historical perspective of removing information barriers. "Projects and Progress at BIOSIS" is the topic to be covered at the June 8 meeting of the division.

Join the Business and Finance Division as it holds a "25th Anniversary Celebration" reception and luncheon to mark its 25 years as a Division of SLA.

"Current Awareness Services in Science and Technology", a panel sponsored by the Chemistry Division, will be held on Wednesday, June 8.

On June 9, the Information Technology Division will sponsor a workshop in place of a field trip. The topic of the program is private file development and should be of interest to many outside the Division, too.

The Insurance and Employee Benefits and Social Science Divisions have scheduled "Sources of Pension Information" on Tuesday, June 7.

Also scheduled to take place on Tuesday, is a tour planned by the Museums, Arts and Humanities Division of the Louisiana Historical Center and the U.S. Mint with a panel discussion in Oral History to follow.

The Division will also tour the History Galleries and Research Facilities on Wednesday and the New Orleans Museum of Art on Thursday.

"Long Range Planning" is the subject of a program scheduled for Monday, June 6, by the Pharmaceutical Division. Also planned by this Division are a reception and tour of the Beauregard-Keyes House in the French Quarter on Monday and a field trip to the Voodoo Museum on Wednesday.

"Getting Published" is the topic that will be covered by the panel presentation of the Publishing Division on Wednesday, June 8. The Book and Author luncheon, also planned by this division, will feature Betty-Carol Sellen author of *What Else Can You Do With A Library Degree?*

Visit the Exhibits

Over 200 exhibits will be displayed at this year's annual conference. These exhibits will be staffed by knowledgeable people representing the manufacturers and suppliers you should know about. Each exhibit is a rich resource not only for you but for those of your colleagues or managers who are unable to come to New Orleans themselves. Exhibitor representatives will be there to answer any questions you may have about their products or services.

The Exhibits will provide you with information on such products as:

audiovisual materials & equipment
data processing equipment & software
microforms & microform equipment
library furniture
information storage & retrieval
office furniture & equipment
copying & duplicating equipment
specialized books & periodicals
mini-computers
micro-computers
portable copying equipment
films

and such services as:

publishers
government information services
library binders
subscription agencies
book jobbers
indexing & abstracting services
alerting & search services
database search services.

In New Orleans this year the Exhibit Area will be in the Rivergate Convention Center. All the General Session programs will be held there, as well as larger Division programs, the Employment Clearinghouse, Career Counseling Center, and the Annual Business Meeting. The Exhibits will be open Sunday through Wednesday. Special events also are planned for the Exhibit Area, including an opening Reception on Sunday afternoon. Make plans to come.

Remember! The products and services displayed at the Annual Conference can enrich your educational experience ten ways. Here's how:

1. You can keep abreast of newly released information, products, and services.
2. You can increase your professional competencies and that of your staff.
3. You can improve your purchasing management and budget development.
4. You can learn of developments on the horizon.
5. You can compare products and services of various exhibitors more effectively.
6. You can develop a list of exhibitors (personal contacts are better than a letter) who supply information products in your area of specialization.
7. You can influence new applications of information technology by informing appropriate exhibitors of the needs of your clientele.
8. You can save enormous amounts of time by not having to arrange appointments with each vendor wanting to visit your library.
9. You can talk to exhibitors about their products and make suggestions for improvements or alternate uses.
10. You can help SLA keep present exhibitors happy and attract future exhibitors by filling the exhibit hall—that's good for you and good for your Association.

Don't forget to express your thanks to those who support your Association.

If you are unable to register for the program sessions of the Conference, but are interested in examining the various products and services, write for a complimentary exhibit hall pass and specify the number of persons attending. Send a self-addressed, stamped envelope to the Conference and Exhibits Department, Special Libraries Association, 235 Park Avenue South, New York, NY 10003.

Hotel Rates

Hotel	Rooms Single	Rooms Doubles	Suites 1 Bedroom	Suites 2 Bedrooms
New Orleans Hilton	$ 76	$ 98	—	—
New Orleans Hilton (Tower)	$106	$128	—	—
International Hotel	$74-98	$95-116	$220-468	$330-523
Monteleone	$70-95	$85-150	—	—
Royal Sonesta	$ 65	$ 65	—	—
Sheraton New Orleans	$ 70	$ 85	$225-500	$596

Additional information on costs will be available on the Official Housing Form.

SLA Employment Clearinghouse and Career Advisory Service

An Employment Clearinghouse Service will be available at the New Orleans Conference for SLA members and for employers who wish to use this complimentary service. The Clearinghouse staff will post notices of job openings and assist employers and members in arranging job interview appointments.

A confidential Career Advisory Service will be offered in conjunction with the Employment Clearinghouse. This service is useful to librarians and information professionals who are uncertain of their future in the field or who wish to explore career changes. Experienced SLA members will serve as career advisory counselors. The Career Advisory Service is available by pre-registration appointment only.

Complete details and application forms for both the Employment Clearinghouse and the Career Advisory Service will be published in the Preliminary Conference Program.

Registration

Advance registration for the SLA conference is strongly encouraged. Thousands of people will be attending. Registering in advance will help you avoid long, time-consuming lines and save you money.

Registration will be held in the Rivergate Convention Center. Registration fees for the Conference only will be:

Advance—before May 5, 1983:
$75 Members of SLA, ASIS, ARLIS, AALL; $90 Nonmembers.

On-Site or after May 5, 1983:
$105 Members of SLA, ASIS, ARLIS, AALL; $125 Nonmembers.

One-Day Registration:
$45 Members of SLA, ASIS, ARLIS, AALL; $55 Nonmembers.

Students, retired members, and guests pay $25 for registration.

All SLA members will receive full registration and ticket information in the Preliminary Program which will be mailed to you in March.

New Orleans Hotels

The New Orleans Hilton and the Rivergate Convention Center will host the 74th Annual SLA Conference. The Rivergate is located immediately adjacent to the main entrance of the New Orleans Hilton.

SLA has negotiated special room rates with the Hilton and four other New Orleans hotels. To make your reservations and receive the special SLA Conference Rate you must use the SLA Housing Bureau. Your official Housing Form will be included in the Preliminary Program.

Social Events

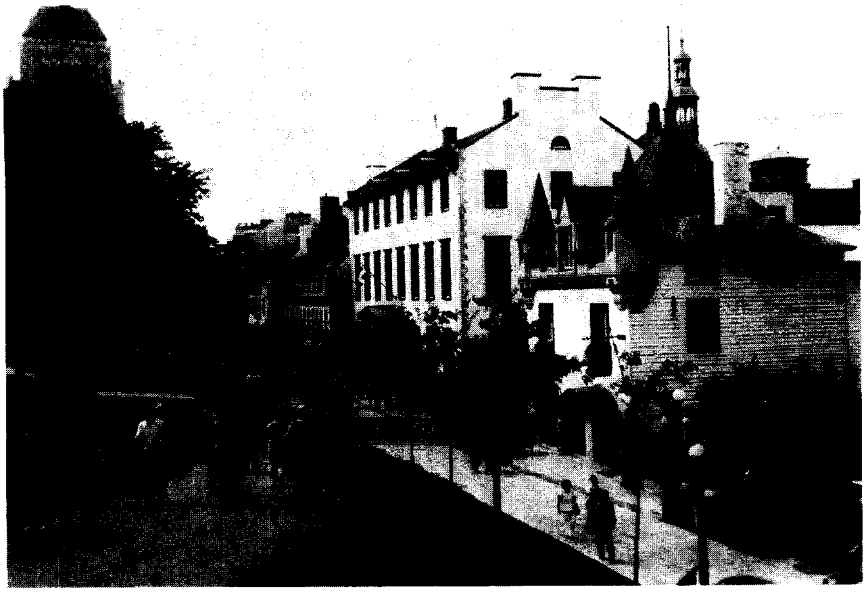
After a long day of absorbing and exchanging ideas, you will be ready to relax. This is the time to meet new people and renew acquaintances made during past conferences.

SLA and its Divisions will schedule a number of social events; these include the Awards Banquet and a Mardi Gras Celebration, among others. Details will be available in the Preliminary Conference Program. New Orleans is the perfect setting for an evening of fun and relaxation.

COME TO NEW ORLEANS

48th IFLA Congress and Council Meetings

Montréal, Quebec



As a rule, librarians look a lot like everyone else. Yet when the registration desk of Montréal's Queen Elizabeth Hotel opened Friday, August 20, it was easy to tell by their drooping shoulders that the majority of the new registrants were librarians arriving for IFLA's 48th Congress. Their stooped postures came from carrying the numerous forms, brochures, maps, restaurant guides, presentations, and other miscellaneous materials (23 items in all!) that made up the conference literature. Heaviest of all was the 3/4"-thick program. Since Canada is a country with two official languages—French and English—the exceedingly handsome conference program was rendered in both languages, back-to-back under one cover, resulting in a hefty, 188-page tome. The conference turned out, indeed, to be a weighty affair and well worth the effort for the 1,600 registrants who were able to attend.

From Cutesy to Gucci

That same weekend, the Queen Elizabeth Hotel was host to an association of square dancers—hundreds of them—dressed in multi-colored costumes which smacked of the 50's: the billowing, crinoline skirts of the women, the men's colorful suspenders, and the straw hats worn by both were a sight—"his & hers" cutesy outfits galore. Meanwhile, scattered about in various hotels, but mainly in the Regency Hyatt, were the World Film Festival attendees. Dress: anything goes—laid back, Gucci loafers, Wall Street three-piece suits, wrap-around dark glasses (Charles Azenevour was spotted in the lobby), European chic, and the highest of high heels. Not so for the librarians. High heels disappeared after the first day. Even the short walk (sometimes in brisk wind or rain) from the Queen Elizabeth to the Sheraton Centre got to be a bit much.

Convention Logistics

The 48th IFLA General Conference, August 22-28, was off and running at the rate of up to 141 papers (*Conference Papers Authors List*); there were many more, some having been received too late for listing or not yet published. There were also panel discussions, all-day seminars, pre-conference and post-conference seminars, countless tours to public, university, hospital and special libraries, the Canadian Film Board, museums, or whatever else caught one's fancy.

At the center of some of the world's most complicated convention logistics was Onil Dupuis, president of the Organizing Committee, and a hundred of his colleagues who had spent almost three years in the preparation of the various technical and professional aspects of the organization of the conference. Gilles Frappier and Miriam Tees, past presidents of Special Libraries Association, were members of the Organizing Committee serving as secretary and president, Program Sub-Committee, respectively. Amply rewarded were those librarians who came from all corners of the globe. Canada, naturally, had the largest delegation (377), followed by the United States (357). The People's Republic of China sent 8 people while Cuba had 2 delegates.

This year's IFLA conference followed the same schema as in the past: opening and closing sessions featuring formal speeches of welcome by dignitaries, Plenary Sessions, meetings of the Executive Board, the Professional Board, Standing Committees of Sections, Divisional Coordinating Boards, Sections, Working Groups, and Round Tables. Some meetings were open, many closed, though sometimes open by invitation. Thursdays have always been reserved for professional and sightseeing tours.

Simultaneous translation was provided for the big, open meetings in the four official languages—English, French, German, and Russian. For the first time in IFLA's history, Spanish was added to the translation pool. Papers were color coded: French, pink; German, green; Russian, blue; Spanish, yellow.

The Organizing Committee, in collaboration with the IFLA Secretariat, published a daily newsletter, the *IFLA Express*. It contained biographical sketches of the speakers at the Plenary Sessions, statistical information on the conference, communiqués from the IFLA Secretariat, the various sections, divisions and committees, changes of meeting places, cancellations, as well as other information of general interest. It was placed in strategic locations each day and proved to be most useful.

A team of multilingual librarians was available to answer questions pertaining to the conference and to assist in case of difficulty. The Program, lavishly illustrated with photographs of people and places of interest, had, in addition to the usual contents, a complete list of Consulates in Montreal—66 in all—highlighting the city's cosmopolitan and international importance.

Orientation Session

To assist first-timers, IFLA's Secretary General, Margreet Winjstroom, described the structure of the organization and called attention to the brochure *IFLA Facts and Figures** which contains an outline of the professional activities undertaken in the various units. J.S. Soosai discussed IFLA's efforts to further librarianship in the Third World. He emphasized the need to strengthen the financial basis for projects planned or already undertaken in some developing countries. To aid these projects, a new IFLA Regional Library Development Fund has been set up, to which all those who can have been invited to contribute.

Networking

The theme "Networks" was chosen by the April 1979 meeting of the Professional Board. Networks and networking are closely allied to two of IFLA's major concerns: Universal Bibliographic Control (UBC) and Universal Availability of Publications (UAP).

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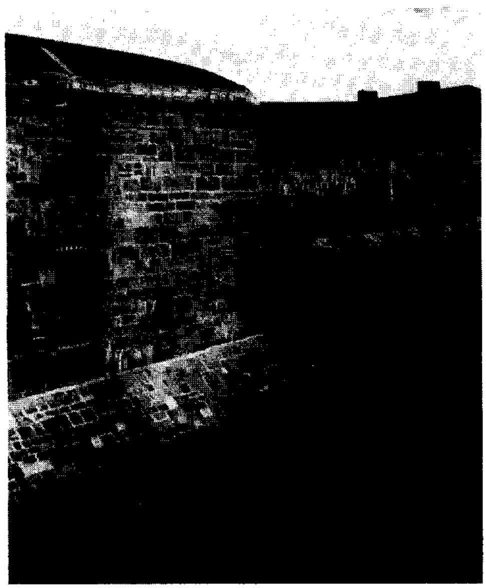
*Available on request from IFLA Headquarters, P.O.B. 95312, 2509 CH, The Hague, Netherlands.

Else Granheim, president, IFLA, set the tone of the conference in her opening remarks:

The economic setback which the world is now experiencing will in most places also affect the libraries. . . . We ought not to forget . . . that in times of economic crisis it is particularly important that human beings have access to as much as possible of existing information, as it is through education and knowledge that we are enabled to face depression and find effective remedial measures. . . . Information is in itself a resource and plays an important role in social, economic and educational development, as well as in scientific and technological research. . . . We have to make clear that we are prepared to make the most of the funds at our disposal. 'Networks' is here a cue. . . . What I am thinking of has also to do with communication, that is, library and other information networks in the sense that we are going to deal with it as the theme of this Conference.



The theme was adhered to admirably. A few titles are offered here as examples: "Networks—The Australian Experience"; "International Exchanges of the Major Libraries of the Canadian Government"; "The Dutch PICA Library Automation Network"; "A Cooperative Approach to Conservation Service"; "Learning and Library Networks at Mid-Career Level: The Possible Contribution of the Library Schools"; "Network Implications for Library Education"; "Access to Documents in Brazil: Interlibrary Loan Programme—COMUT"; "School Libraries and Networking in Developing Countries"; "Technological Problems of Networking"; "Approaches to Coordination of Resources and Services in Southeast Asian Libraries and Information Centres"; and "Chinese Library Networks: Retrospect and Prospect."

Other Meetings

Among those who met in conjunction with or during the 48th General ILFA Conference were: ABACUS (Association of Bibliographic Agencies of Britain, Australia, Canada and the United States; ARLIS–NA (Art Libraries Society of North America); IALL (International Association of Law Libraries) and the National Commission on Libraries and Information Science.

Pre- and post-session seminars continue to attract dedicated professionals. The IFLA Section on Buildings and Equipment held a pre-session seminar on library buildings in the network context, Aug 16–20, in Toronto. Another seminar, organized jointly by IFLA and the International Development Research Centre (Canada) on "Education for Research: Research for Education," was held in Montreal, Aug 15–22, and was intended for librarians in Spanish-speaking developing countries.

There was a post-session seminar, held Aug 30 to Sep 1 in Montreal, for "Editors of Library Science Journals in Developing Countries." It was organized by the Round Table of Editors of Library Science Journals. Another post-session seminar was held in Saratoga Springs, N.Y., Aug 29 to Sep 1. The Official Publications Section of IFLA arranged the international conference for government publishers and printers, users, and librarians interested in government publications.

Festivals and Feasts

Social and cultural events are an integral part of IFLA's activities. Inclement weather, however, did deter many women who normally bedeck themselves in elegant finery and long dresses from doing so. The first of several receptions was held on Sunday, Aug 22, in connection with the official opening of exhibits at the Queen Elizabeth Hotel. The setting provided an opportunity for attendees to mix and mingle with colleagues while at the same time looking over the exhibits of some 100 public and private organizations. The Organizing Committee had made a concerted effort to attract exhibitors whose products and services were relevant to the conference theme: library automation; databases; computers; international publishers, and so on.

The reception given by the Canadian government the next evening was preceded by a concert by the McGill Chamber Orchestra at the Place des Arts. The reception hosted by the Government of Quebec, Friday, Aug 27, and held at the Palais de Justice de Montréal, was preceded by an organ recital by Bernard Lagacé at Notre Dame Church.

Of Montréal's many claims to fame, which include four universities (two French language and two English language), numerous museums, theaters, art galleries, an opera company, a symphony orchestra of international reputation, an international port, famous sports teams, and a network of underground passageways lined with boutiques, perhaps none surpasses its reputation as a gastronomic center. Fine dining has long been a Montréal tradition. A guide to restaurants was included in each conference registration kit, and restaurant menus were available for perusal at the Tourist Information Desk of the Queen Elizabeth Hotel.

Although French to the core, Montréal communicates adroitly in English. Menus are printed in both languages, and, by law, they must be posted outside every restaurant. Praises were heard for, among others, Les Filles Du Roy, Chez Delmo, and Les Halles where prices were high. On the other hand, the fast-food equivalants of U.S. chains, located in the passageways, attracted many budget-wise IFLA folk.

IFLA members from the People's Republic of China enjoy a river cruise.

Professional and Sightseeing Tours

On Thursday, Aug 26, all delegates had the opportunity to participate in one of five tours: excursion to Québec City; excursion to Ottawa; tour of Montréal University campuses; tour of the public libraries of the city of Montréal Library System and sightseeing; tour of Montréal. Numerous historic sites, monuments, churches, and libraries were seen or visited in each city. The tour in Montréal concluded with a cruise on the St. Lawrence River, while the one in Québec included a cruise on the ship "Louis-Jolliet" around Orleans Island. On one's own, it was also possible to see an exhibition of art books from Florence and Tuscany; to view Eskimo art; "Books in Canada: Past and Present", to attend films being shown at the World Film Festival; or even to see the musical "Annie."

Future IFLA Meetings

As a sign of its growth and vitality, meetings scheduled during IFLA have become more and more numerous and pre-session seminars have multiplied. The task of picking and choosing meetings of interest to attend in other sections becomes harder because of overlapping time schedules. Nevertheless, by husbanding their time and carefully studying the program, many at the conference were able to get the most out of it professionally.

The following IFLA meetings have been scheduled:

Munich, Federal Republic of Germany—Aug 21–27, 1983;
Nairobi, Kenya, Aug 20–25, 1984;
New York City, Aug 18–24, 1985;
Tokyo, Japan—1986;
England—1987;
Australia—1988;
France—1989.

Participation in an international meeting can be a rewarding experience. IFLA's annual conference offers information specialists the opportunity to discuss and develop further ties with colleagues on a personal and professional basis in an international, global context.

The six sections of the Special Libraries Division sponsored a full program of sessions on networking ranging from full seminars to papers and study tours. Attempts were made to reorganize the two Division Round Tables—Music in Libraries and Astronomical and Geophysical Librarians—but this did not prove to be possible. As a result, the Division Coordinating Board recommended to the IFLA Professional Board that these Round Tables be eliminated, at least until such time as interest may be revived. The Professional Board accepted the Division's recommendation.

A cross-sectional and cross-divisional program was planned for the 1983 Munich meeting on the topic, "Sociological and Psychological Impact of Technology on Society, Libraries, Librarians, and Users." At least four program sessions are planned on this topic. The program is being prepared in conjunction with the Section on Information Technology.

INSPEL, the International Journal of Special Libraries, which is the official organ of the Division, completed a successful year under the editorship of Dr. Franziska Heinzle. The journal was reorganized in 1981 and is published quarterly. The publication is cosponsored by the German Special Libraries Association (ASpB).

The Division continued to publish its *Newsletter* on a quarterly basis. The *Newsletter* is edited by Irwin H. Pizer, University of Illinois at Chicago, Health Sciences Center. It contains information about the Division and its Sections, and publishes the papers which are presented at the Divisional Level at the annual meeting.

The Division held one program session in Montréal which included two speakers. Dr. David Bender, executive director, SLA, spoke on the topic, "How Special Libraries Use Networks," and Jane Caldwell, manager, Online Services, BRS, spoke on "Network Services for Special Libraries." The session was well-attended, and there was spirited and active discussion after the two presentations.

For the first time, the Division sponsored social event, aimed at getting the members of the various sections to know each other better. The Eastern Canada Chapter of SLA, under the presidency of Gilda Martinello, co-hosted the cocktail party which was attended by some 200 persons.

Administrative Libraries Section

The Section began to concentrate two years ago on certain aspects of networking, namely problems involved with the implementation of information retrieval systems on an international scope. There are many difficulties involved with this task, e.g., complying with multinational languages, thesauri problems, achieving cataloging norm agreements, achieving agreements on standards for magnetic tape formats, and so on.

The findings of a survey of statistical libraries of the world, published in *INSPEL* seemed to prove it worthwhile to start experimenting within a certain group of special libraries—the libraries of the statistical offices of the world.* The Section visited the offices of Statistics Canada on a one-day study tour.

Art Libraries Section

The Section of Art Libraries of the IFLA Division of Special Libraries held one open Business Meeting, two open Standing Committee Meetings, five open Program Meetings at which nine papers were delivered, an extensive series of visits to art libraries in Montréal, and a special tour of Ottawa and its principal art libraries.

This full program attests to the vitality of the youthful Art Section and of its officers, notably Philip Pacey, chairman, and Huguette Rouit, secretary, as well as their local arrangements liaison, Daphne Dufresne. However, a decision of the Professional Board, meeting early at Montréal, which will be imposed upon this and other sections in the future, directed that such intensive and enterprising programs should be curtailed, and that open program meetings should be restricted to two per section. The members of the Art Section unanimously protested this decision in a resolution to the general conference. One compel-

*See Kullmer, Hans, "The Libraries of the National Statistical Offices in the World, Comments on the Result of an Enquiry, Part II: Tabulated Summary of Answers." *INSPEL* 15(4): 219–251 (1981) and Part I. *INSPEL* 15:3 (1981).

ling reason for this reaction was that fewer art librarians are likely to receive funding to attend a conference with minimal specialist content.

The Business Meeting of the Section and the Standing Committee meetings were open to any interested observers. These meetings attracted an average of 30 people, principally Francophones and Anglophones; whereas open program meetings drew an attendance of 50 and over. The topics discussed at the Business Meetings were predominantly those listed as part of the Section's five-year plan.

Publication of the *World Directory of Art Libraries*, which will supersede the existing preliminary lists, was announced for the beginning of 1983, to be published by Sauer. Work towards a truly international bibliography of art reference works was carried forward with the publication of a checklist of "Art Bibliographies Not Included in Arntzen and Rainwater's Guide to the Literature of Art History." A decision was also made to publish regular art bibliography updates in the international *Art Libraries Journal*. In addition, a draft version of an English/French glossary for art librarians was presented at the conference, and the decision was made to go ahead with a concise polyglot glossary in the five IFLA languages: English, French, Russian, German, and Spanish (not forgetting the unofficial sixth—American).

A new project was launched at Montréal: the publication of a series of kits which would each comprise part of an A-Z of art librarianship. It was further decided that this means would provide an opportunity to update the 1977 *Art Library Manual*, as well as the chance to aim texts at librarians in developing countries.

The other topic which preoccupied art librarians at Montréal was the relationship of visual resources curators to the Section. Two Americans had been invited to give papers addressing this subject at one of the sessions. Wolfgang Freitag spoke on "The Indivisibility of Art Librarianship," while Nancy DeLaurier spoke on "Visual Resources: the State of the Art." Freitag's paper discussed the history of the partial separation of slide curators from art librarians, but emphasized that both the documentation of art and the needs of users made nonsense of professional fragmentation. DeLaurier, on the other hand, asserted that 35mm slides required a different kind of professional expertise.

At the second and final Standing Committee meeting of the Section of Art Libraries, the terms of reference of the Section were amplified to make it clear that the Section was concerned with all art documentation media and that visual resources curators were as welcome in the Section as are all other professionals concerned with such documentation.

Other sessions included three papers on different aspects of Canadian art librarianship together with slide presentations, a paper on videodisc technology, a presentation which included both slides and videotape, papers on automation in relation to two French art documentation projects, and a paper on the documentation of design history.

In addition to these programmed sessions, there were interesting and informative visits to the libraries of Le Musée d'Art Contemporain, Le Musée des Beaux Arts, the art libraries of the Universities of Québec, Montréal, McGill and Concordia, and the National Film Board—all in Montréal—plus the National Library, Parliament Library, and the National Gallery Library in Ottawa.

Biological and Medical Sciences Libraries Section

The Section reviewed its program in relation to the IFLA Medium-Term Program and dropped the inventory of databases project because of the existence of a number of such publications which have recently been compiled.

Efforts will concentrate on the production of the *World List of Biological and Medical Sciences Libraries* and the 5th International Congress of Medical Librarianship. It is hoped that the *World List* can be published at the time of the Congress in September 1985.

The Section's programs in Montréal concentrated on the conference theme dealing with cooperative and technological networks. A joint program session with the Art Libraries Section reviewed the state-of-the-art of videodisc technology and its applications to pictorial material, both as a storage and dissemination medium.

Geography and Map Libraries Section

The highlight of the Section's year was the "Workshop for Practical Map Curatorship in Developing Countries" held in Utrecht, Aug 25 to Sep 8, 1981. There were 16 attendees from 15 developing countries and 9 lecturers. Three developing countries have already asked to host the next such workshop. It is expected that the second edition of the *World Directory of Map Collections* will be published early in 1983.

The first meeting of the Standing Committee was held Sunday morning, Aug 22. Attendees were Hugo Stibbe, chairman; David Carrington, secretary; members Hermann Günzel, Gary North, Hans van de Waal, and John Wolter; observer, Mary Murphy; and Dan Seldin, Paul Stout, Maureen Wilson, and Frances Woodward. Reports were presented by or from the chairman, the treasurer, and the chairman of each Working Group.

On Sunday afternoon, Hugo Stibbe, Hans van de Waal, David Carrington, John Wolter, and Mary Murphy met to work on the manual or handbook for map collections. A summary of each section, prepared by the Section Coordinator, is to be in the hands of the editor, Hans van de Waal, no later than Nov 1, 1982. Roman Drazniowsky, who missed the meeting, met later with Hans van de Waal.

Two Professional Papers sessions were held Wednesday morning. At the first, Larry Carver's paper, "Network for Sharing Satellite Imagery," was read by David Carrington. Hermann Günzel then spoke on "Geographical Canada—Research and the Network of Canada: Collections in the Federal Republic of Germany." During the second session, Hans van de Waal discussed "The Exchange of MARC Map Tapes on an International Level," and John Wolter spoke on "The World of Map Libraries, an Informal Network."

On Wednesday afternoon, the panel discussion on Cartographic Networks included panelists Pierre Lepine, who spoke on cartographic networks in Quebec; Gilles Langelier, who described the exchange of surplus maps among Canadian map libraries; and David Carrington, who discussed the Library of Congress/University of Michigan cooperative Cutter file project. Following the discussion, Mary Murphy showed slides of previous IFLA meetings in Copenhagen and Manila and of the Workshop for Map Curators in Utrecht.

Thursday, members participated in three of the IFLA tours including one of Montréal in general, one of universities in Montréal, and one to Quebec City. Those of us who went to Quebec were welcomed at Laval University by Louise Dion and Ives Tessier. Ives gave us a brief tour of the Map Collection.

The second and final Standing Committee Meeting was held Friday. Plans were discussed for the next IFLA meeting to be held in Munich. The Section's theme will be "Map Collections in a Technological World."

Science and Technology Libraries Section

The Section reviewed its activities in Montréal, and enlarged its Standing Committee. The idea of producing a patent handbook was dropped due to other forthcoming publications in this field. The chapters which have been already produced and which are not expected to be duplicated by other publications will be published, perhaps in the new IFLA publication for

Vivian Hewitt poses with conference attendees from the Philippines.

short communications. The Section will assist in the translation and publication of D. Schmidmeier's paper, "Poster Sessions in (Sci-Tech) Librarianship," and a new working group was established to develop a *Directory of Specialized Information Sources in Science and Technology*.

Social Science Libraries Section

The Section Standing Committee dissolved the Working Group on Peace and Conflict Management, since agreement could not be reached on the scope of activity for the Working Group and the completion of the assigned project. This action was recommended to the Division Coordinating Board, which accepted it and passed the recommendation to the Professional Board, which also concurred.

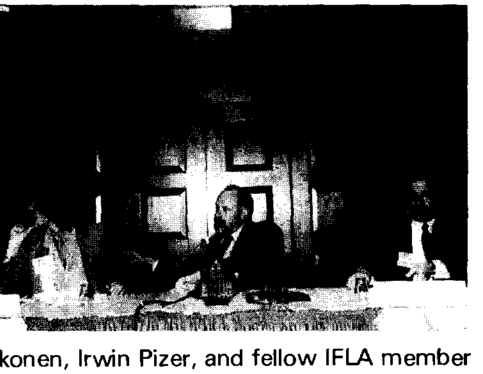
The Section developed the concept of a joint program theme for Munich 1983: "Sociological and Psychological Effects of New Technology on Society, Libraries, Librarians and Library Users." This was also adopted by the Section of Biological and Medical Sciences Libraries and the Division. An additional program session will be produced on the social science gray literature. Work progressed on the project relating to the use of official publications by social scientists. This is a joint project with the Section of Official Publications.

An all-day program was held Tuesday, Aug. 24, at the Sheraton Centre Hotel. Dr. Gerald Prodrick (Canada) assisted by Vivian D. Hewitt, (U.S.A.) developed the program. The seminar was organized in cooperation with the Canadian Association for Information Science (CAIS) and the International Association for Social Science Information Service and Technology (IASSIST). "Social Science Information, Data Services and Networking" was chosen as the theme with the sub-theme, "Recent Developments in Social Science Information Services: Canada, Great Britain, and the United States."

Mary CamperTitsingh attended sessions of the Social Sciences Section.

The sub-theme featured a morning session of the following papers: "Social Science Information Services—New Developments In Canada: An Overview" by Anne Piternick (University of British Columbia); "Report on the Automation of the International Bibliography of the Social Sciences" by John B. Black (University of Guelph, Ontario); and "Some Recent Developments in Social Science Information Services in the United States: Networking" by Vivian D. Hewitt (Carnegie Endowment for International Peace, New York).

Under the sub-theme, "Videotex and the Social Sciences," J. Feeley (Canada, Department of Communications) spoke on "Telidon and Other Videotex Developments, Domestic and International." In this connec-



SLA Executive Director David Bender, Kylliki Ruokonen, Irwin Pizer, and fellow IFLA member participate in Special Libraries Division sessions.

tion, Telidon demonstrations were offered throughout the lunch hour and afternoon.

The afternoon session featured reports on specific developments in social science information services. Among them were: "Online Developments at CAIS" by Fred Matthews (Dalhousie University); "The Development of Machine-Readable Archives at the Public Archives of Canada" by Katherine Gavrel (Public Archives of Canada); and "*Le Monde* contre Microfor: the Cour de Sassation of France Decides the Future of Data Bases" by Jean Louis Rioux (Québec). Both sessions attracted overflow crowds of well over 100 persons.

The Section held two meetings of its Standing Committee on Sunday, Aug 22 and Friday, Aug 27, respectively. The business of the Section included budgeting, future projects, theme, and program for the next IFLA annual congress and other business appropriate to the section. The chairman, Kyllikki Ruokonen (Finland), presided while Secretary (1981/84) Dr. David Bender, (executive director, SLA) recorded the minutes.

The Professional Board decided at a meeting in Leipzig in 1981 that new members for the Standing Advisory Committee could be co-opted between elections and considered as observers, to be elected later with appropriate sponsors. A. O. Banjo, chief librarian, Nigerian Institute of International Affairs, Lagos, was an observer as a representative from a Third World country.

The officers of the Sections and the Division continue, as noted in the IFLA report published in *Special Libraries* [73 (1): 85-89 (Jan 1982)], until the 49th General Conference and Council meeting which will take place in Munich, Federal Republic of Germany, Aug 22–27, 1983.

* * *

Information for this report was contributed by Vivian Hewitt, Hans Kullmer (Administrative Libraries), Philip Pacey and Clive Phillpot (Art Libraries), Irwin Pizer (Biological and Medical Science Libraries), Mary Murphy and David K. Carrington (Geography and Map Libraries), Franziska Heinzle (Science and Technology Libraries) and Kylliki Ruokonen (Social Science Libraries).

Reviews

Introduction to Library Services for Library Technicians, by Barbara E. Chernik. Littleton, Co, Libraries Unlimited, 1982. 187p. $23.50; $16.00, pbk. LC 81-15663; ISBN 087287-275-0; ISBN 087287-282-3 (pbk.)

In the Preface, the author states that this book is "designed to be used in an introductory course in a Library Media Technical Assistant program." The book is indeed a broad overview of the principal kinds of libraries (public, academic, school, special). It covers some history, personnel, materials and resources, organization, services, and recent developments into about 1980. Another in the publisher's Library Science Text Series, this title fits neatly in as an introductory text among the other titles which are much more specialized in their subject coverage, such as the Bloomberg books, *Introduction to Public Services for Library Technicians,* and *Introduction to Technical Services for Library Technicians.*

In a book of this type, there is little opportunity for the author to be original in style or approach. Most of the contents, after all, can be found in many similar books. However, Chernik has organized a well-rounded look at the subject matter and presents it in a readable and understandable manner. As a special librarian, I want to thank the author for a balanced coverage of the various types of libraries. Special libraries, especially for-profit libraries, generally do not get as accurate and complete treatment as they do here. I leave it to those working in public, academic and school libraries to judge if their coverage is accurate. It looks good to me.

The author's section on automation is up to date and easy to understand. Other LTA books have not had this kind of information included in them. Selected readings at the end of each chapter are also up to date. All in all, this should be a successful textbook for LTAs, if there are very many community colleges still offering library technology courses. The publishers, Libraries Unlimited, should be commended for their Library Science Text Series. From the titles I am familiar with, the series is a good one.

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All in Order: Information Systems for the Arts (including the National Standard for Arts Information Interchange), by Mary Van Someren Cok, in collaboration with Henry A. Bromelkamp, Ellen Thurston, and Thomas Wolf. Washington, DC, National Assembly of State Arts Agencies, 1981. $7.95 (pbk.) LC 81-9506; ISBN 0-89062-132-2.

This report of the National Information Systems Project, sponsored by a consortium of state government arts agencies, is really three texts in one: a general introduction to information systems, both manual and automated; a description of the project; and a presentation of the standards developed by the project. All three sections, particularly the first, are highly readable.

What the project attempted to develop was a set of standards for the storage of certain types of information most frequently used by arts agencies. The most basic of these is mailing list information; also included are report formats for grant administration, directories for art resource facilities (exhibit halls, auditoriums, etc.), and listings of individuals in the performing and visual arts.

These are not standards for computer programs; rather, they are format standards for the information computer program's use. What they attempt to assure is that information prepared for use with one computer system or program is also usable on another system. It may still be necessary in some cases to write conversion programs to use some of these files on radically different systems, but use of the same standard on both systems would make the conversion as painless as possible.

The standards are hierarchical in that the more complex ones incorporate the simpler ones—for instance, the address elements in the directory format incorporate the address standards of the mailing list format.

Why spend the time and effort that this project consumed and why publish a 191 page book about it? The reason is that the standards developed here have implications far beyond the arts field. These carefully thought out deliniations as to how many characters subdivided into how many fields should be used for the personal name segment of an address file record could easily be used by libraries and businesses. And if they use these standards for their own files, it would assure easier information interchange with state arts agencies and others using the same format. That same argument, of course, is made much more persuasively and in greater detail in the book itself.

This book would be an asset not only for for art libraries but also general collections because it offers many insights into the benefits and problems of developing computerized databases to support management functions.

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Conservation Treatment Procedures: A Manual of Step-by-Step Procedures for the Maintenance and Repair of Library Materials, by Carolyn Clark Morrow. Littleton, CO, Libraries Unlimited, Inc., 1982. 191 p. $18.50/pbk. ISBN 0-87287-294-7.

This book delivers what its sub-title promises, and a great deal more, providing not only clearly written, fully illustrated technical instructions for twelve basic maintenance and repair procedures but also a wealth of administrative theory, advice on good supervisory practice, and guidance on the full range of factors involved in setting up an effective conservation treatment program in a library, archive or historical society—a combination which, to this reviewer's knowledge, has nowhere appeared in print before.

Although the title may suggest a more comprehensive approach to conservation treatment than is to be found here, this is not a manual for the professional conservator (who may yet find much of value in it). Instead, what Carolyn Horton's classic *Cleaning and Preserving Bindings and Related Materials* (Chicago: American Library Association, 1969) did for the then small group devoted to rare book conservation, Morrow's volume now does for the mushrooming audience concerned with the preservation of large, general collections.

The first chapter discusses the overall conservation (or preservation) function within the non-rare-book setting, introduces the three types of procedures to be described in the following chapters, and presents a rationale and managerial framework within which the procedures ought to be carried out, including the all-important issues of staff training and productivity.

The next three chapters constitute the technical heart of the book: book repair procedures (tightening the hinges of a cased book, new bookcloth spine with mounted original spine, recasing using the original cover, and new cover); maintenance procedures (pamphlet binding, pressboard binding, mending with Japanese paper and starch paste, and leather treatment); protective encasement procedures (polyester film encapsulation, simple portfolios, four-flap portfolio, and solander box).

For each procedure, the author describes the problem it addresses and the causes, lists all equipment and supplies needed, reviews factors, sets forth the exact steps in executing the procedure, and then adds "special instructions" for adapting the instructions to the inevitable variations presented by individual books. The text is followed by captioned, black-and-white photographs (from five to forty-one) illustrating the steps in the procedure. These pictures enable the author to keep the verbal descriptions of the procedures to which they are keyed very concise and thus much more accessible and useful. This point is of particular significance for a work of this sort, since the tasks and skills described are visual and spatial. Though they have a logical sequence, they are not linearly verbal activities, and the extended descriptions that would have been required in the absence of photographs would have given few people the confidence to pick up a knife and bone folder to tackle any of these projects.

The appendices are equally valuable. The "decision-making checklist for book repair" lists forty-eight questions in seven categories designed to pull together information about the physical condition of a volume, significant use factors, and cost considerations which should enter into the choice among treatment alternatives. The "profiles of four hypothetical libraries" suggest models for determining which of the procedures presented in the book should be emphasized in different types of collections. The "equipment, tools, supplies and suppliers" section not only presents the usual list of names and addresses but offers thirteen well-captioned photographs, including those of several pieces of equipment many librarians have never seen, and shots of a model work bench and a supply station that will give most of us a severe case of facility-envy.

Perhaps the biggest gem of the book is found in the fourth appendix, a description of the "standard rate system for measuring productivity" applied specifically to the book repair workshop setting. Even the fancy mathematics is made intelligible, and every preservation administrator who has ever had or faces the need to project workloads, justify statistics, estimate staff needs, or simply to acquire a reassuring perspective about what can and cannot be expected of a perennially too-small staff, should seize this tool with gratitude. Together with the model "dexterity test" described in the next section, it should enable a sensitive supervisor to hire and keep happily productive employees.

The glossary is reasonably good, though a few more cross-references would have made it stronger. The distinction made between "conservation" and "preservation" seems only to reinforce the terminological muddle in which the profession continues to languish. The final section, a concisely annotated bibliography of forty mostly-recent titles, provides a balanced reading list for anyone newly "blessed" with the responsibility for preservation.

Though it seems a bit mean-spirited to look for flaws in so excellent a contribution to the preservation literature, it is unfortunate that the author fails us (and it is a minor failure) in not consistently pointing back to her sources. This is a disservice not because we should all be pedants in love with footnotes, but because the growth of any field of knowledge depends on the ability of its contributors to identify its stages, trace themes, analyze trends, and evaluate developments. Without such corporate self-analysis the profession risks losing its roots, and with them the ability to recognize when a particular line of thinking or activity may be leading it astray.

Few people possess the combination of bench skills, administrative savvy, supervisory acumen and ability to communicate that Morrow demonstrates. Although nothing remains the "best" way to do anything for very long, Morrow's book will certainly find its way into the small collection of volumes kept within easy reach of the workbench, and will be included in the "essential reading" lists of everyone involved in preservation.

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Microcomputers and Libraries: A Guide to Technology, Products and Applications by Mark E. Rorvig. (Professional Librarian Series). White Plains, NY, Knowledge Industry Publications, Inc. Published in cooperation with the American Society for Information Science, 1981. 135 p. $27.50/cloth. LC 81-12326. ISBN 0-914236-67-9.

Librarians and other information professionals should welcome this volume since, to this reviewer's knowledge, it is the first monograph devoted exclusively to examining the emerging role of microcomputers in support of library and information specialists. The book is one of the best in this publisher's series. It is a good read, without presuming prior technical knowledge on the part of the reader.

Some readers might argue about some of the author's concepts, such as librarians learning to program their own micros in order to satisfy their own application needs. It still is true that a certain class of serious professional users will find that they must do some software development; however, many librarians will find an assortment of software to enable them to use their micro as a professional support tool.

As with any new technology, microcomputers in libraries are still in a relatively infant and emerging state. Rorvig has done a creditable bit of research work in uncovering actual applications in libraries, since few published accounts existed at the time of writing. Some technical errors are to be found in the text, e.g., APPLESOFT is a programming language and not an operating system, and EPROM is defined as "Electronically" rather than "Erasable" PROM. However, as with any rapidly advancing discipline, the subsequent months since the preparation of this manuscript have produced other views and documented applications. Consequently, readers should consider this work a basic starting reference.

The chapters flow smoothly from an introductory overview which addresses the impact of the micro, library applications, costs, a brief history of the micro industry, basic definitions of some technical terms, a photo explanation of semiconductor component fabrication, a comparison of micros and minicomputers, and the book's structure. The author's stated objective ". . . is to equip librarians with the conceptual tools and general information required to plan microcomputer applications, select and evaluate commercially available microcomputers, and implement this technology effectively."

The chapter organization and content does fulfill this objective well. The chapters address microcomputer technology, comparing three microprocessors, software and products for library applications, established library applications using some case studies, micro literature information exchanges and networks. The final two chapters discuss the evaluation and selection of a microcomputer system, presenting the popular available systems at the time of writing (unfortunately, IBM's personal computer was introduced too late to be included) and the future outlook for micros in library settings.

The volume is well-illustrated and includes an appendix in tabular form comparing features of popular micro systems; an address list of manufacturers and application software producers or suppliers; a bibliography of microcomputer journals, newsletters, and other selected references; and a glossary of terms. Librarians and graduate students who have purchased other books in this series, notably *Minicomputers in Libraries, 1981–82*, should consider this title. It also should be "must" reading for students enrolled in systems analysis and library automation courses. Special librarians and those interested in acquiring their own personal computers for professional support applications should definitely add this volume to their personal professional collections.

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Information Management in Public Administration: An Introduction and Resource Guide to Government in the Information Age by Forest W. Horton and Donald A. Marchand, eds. Arlington, Va., Information Resources Press, 1982. 588 p./cloth. LC 81-85897; ISBN 0-87815-038-2.

This book of readings in the two fields of public administration and of information technology and management provides a useful combination, since public administrators need to have more information and to manage it better, while information specialists need to understand more clearly what the public administrators require. Described as a text for students of public administration and information science, it will also be of interest to established practitioners.

The editors—Dr. Forest "Woody" Horton, Jr., well-known information management consultant, author, editor, and teacher, and Dr. Donald A. Marchand, Associate Professor at the University of South Carolina and consultant, researcher and author in the information management field—were both associated with the Commission on Federal Paperwork. Woody Horton directed its landmark 1975–78 Information Management Study, and Donald Marchand was consultant and advisor to the Commission. In their book, they have gathered some of the key background papers used by the Commission in formulating its conclusions, some papers based on the Commission's findings, and others written especially for this work.

The material is organized into eight chapters, each containing four papers plus a list of additional readings composed of books and journal articles. Notes and references accompany the papers; charts and tables are included in some. Each of the eight chapter groupings has an umbrella title. The first four deal with the relationship between information management and public administration. They include the management of the information process and of information resources via planning, budgeting, and accounting. The next four chapters focus on the most significant implications of the information management/public administration relationship. These include information management policy and its impact on both governmental organizations and on citizens. The book ends with a Resource Guide listing experts in federal government subject-matter; institutional sources of information; relevant government publications; periodicals and newsletters; online vendors, library networks, telecommunication networks; and sources of training, education and career-enhancement for public administrators and information managers. The editors acknowledge that obsolescence is a problem with such lists, but it is a useful compilation nevertheless. There is an overall index to the book and an Appendix which gives the text of P.L. 96–511, the Paperwork Reduction Act of 1980.

Despite its 1982 imprint, most of the papers and bibliographic citations in this work date from the 1960s and 1970s. Its value lies less in the new insights and observations included—although there are some—than in the utility of having here gathered and summarized the best thinking of recent decades on this interesting, far-reaching, and significant topic.

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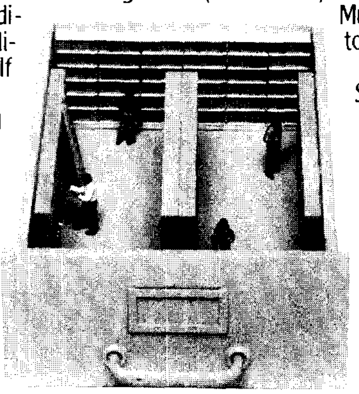

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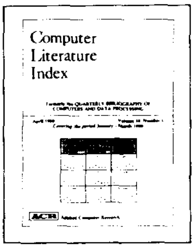

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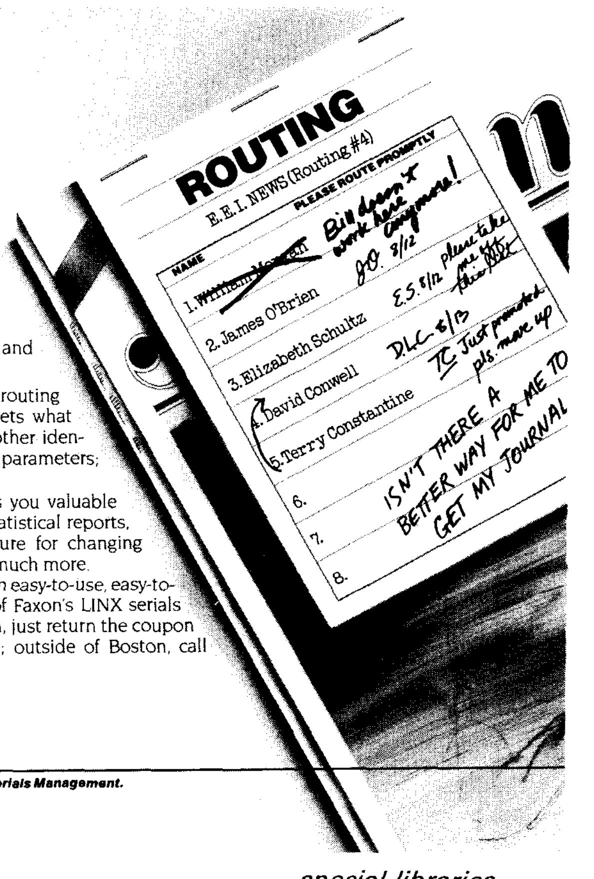

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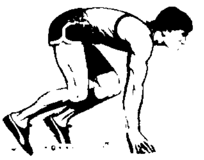

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