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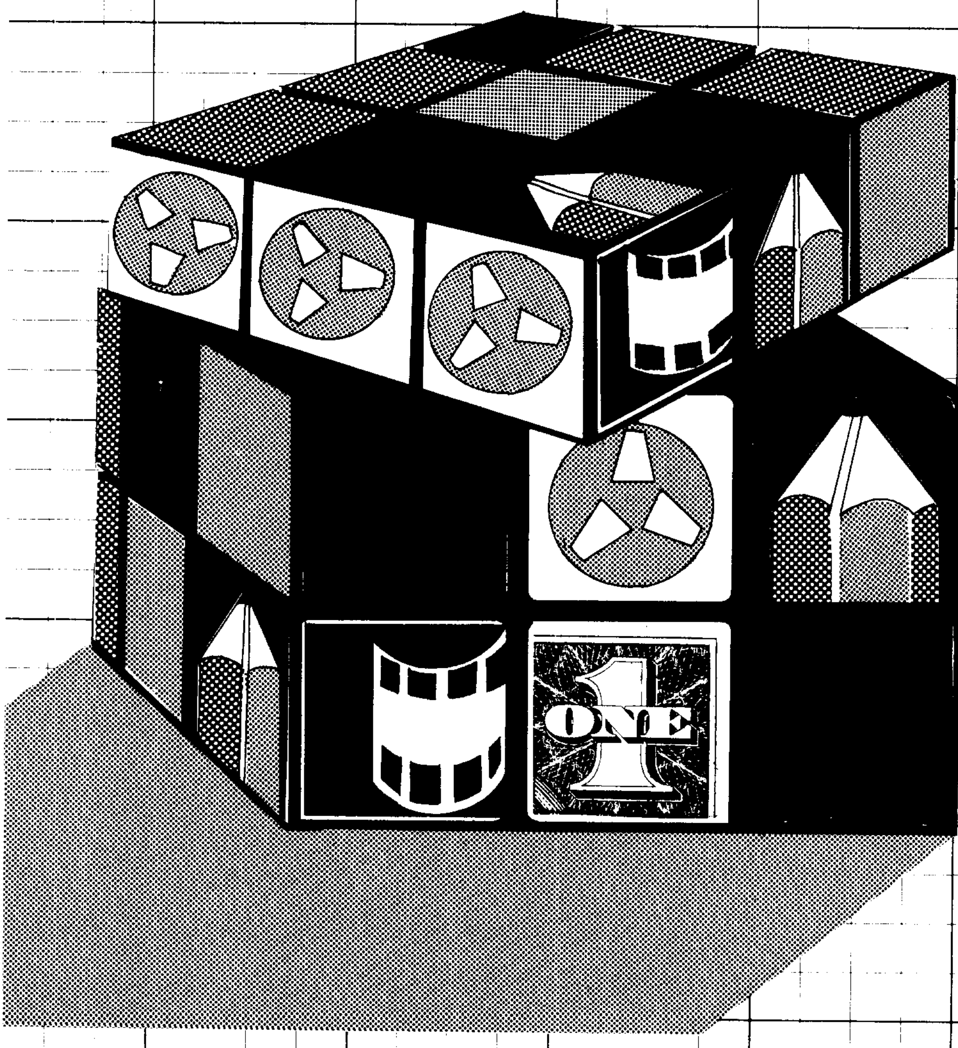

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ON THE SCENE

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LETTERS

SLA Student Group

On January 22, Jim Dodd, former SLA President, was the guest speaker at the University of South Carolina's SLA Student Group's luncheon meeting. Twenty-three SLA members attended including graduate students, faculty, and special librarians from the community. Dodd discussed in depth the inappropriateness of SLA's name and both the advantages and disadvantages of changing it. He provided a forum in which all present could voice their ideas and feelings about the proposed name change.

The SLA Student Group of USC wishes to express its appreciation to Jim Dodd for traveling to Columbia on his own time and at this own expense to discuss this important SLA issue with us. This support from the top in the form of a visit from a prominent member and former President of SLA has made our new SLA Student Group feel that we are truly an integral part of SLA.

Peter Ballantyne
President
SLA Student Group, USC

* * *

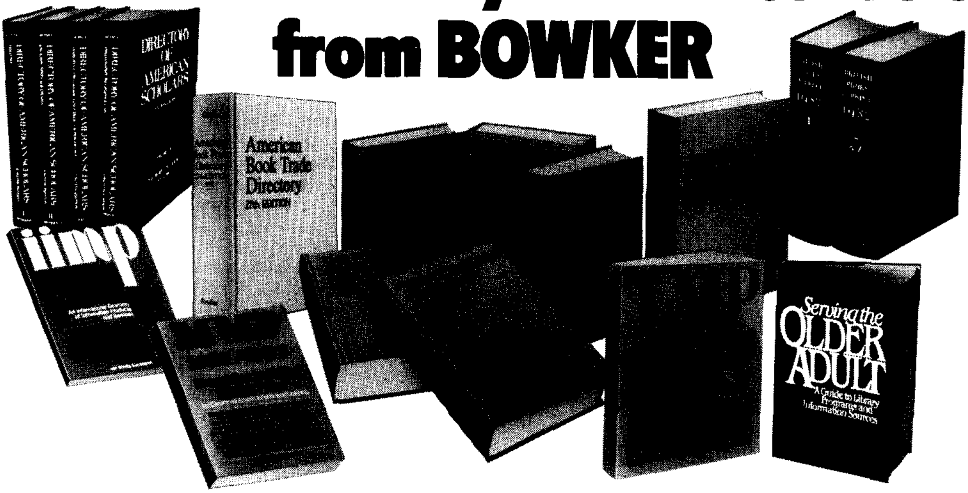
Overdue Policies

This is a plea for help from corporate librarians and other library employees responsible for overdue materials in large corporations. Our library sends overdue notices to employees and employees' secretaries on a monthly basis. However, the response to these notices is very low, and the number of overdue books, periodicals, and subject files is becoming a major problem.

We are particularly interested in how others deal with patrons, especially executives, who continually fail to return books, regardless of the number of telephone calls and notices they are sent. What are your policies? What etiquette is involved? Any help would be greatly appreciated.

Jo Anne Bastian
PRUPAC Corporate Library
Holmdel, NJ

The latest library reference tools from BOWKER



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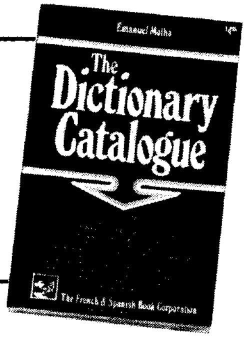

The Dictionary Catalogue

Library Management

Miriam A. Drake

Issue Editor

INFORMATION MANAGEMENT is emerging as a major corporate activity and is being given greater emphasis in the corporate hierarchy. During the next ten years the trend combining internal and external information activities into a coordinated function will accelerate. This development has been stimulated by the availability of appropriate technology, the needs of individuals at all levels to have organized information rather than documents, printouts and data, and the realization that information is a resource. As an economic resource, information must be effectively managed just as financial, physical, and human resources are managed to enhance productivity, creativity, and achievement of corporate goals and objectives.

Librarians, as managers of external information resources, have a unique opportunity to improve their positions in corporations, as well as participate more actively in the work of the corporation or institution. The expansion of library/information center activities to include records management, inhouse reports, and data processing is a logical step in the evolution of special librarianship.

The Library Management Division in selecting "Information Management" as the topic of this issue of *Special Libraries* recognized the trend toward and importance of the information management function.

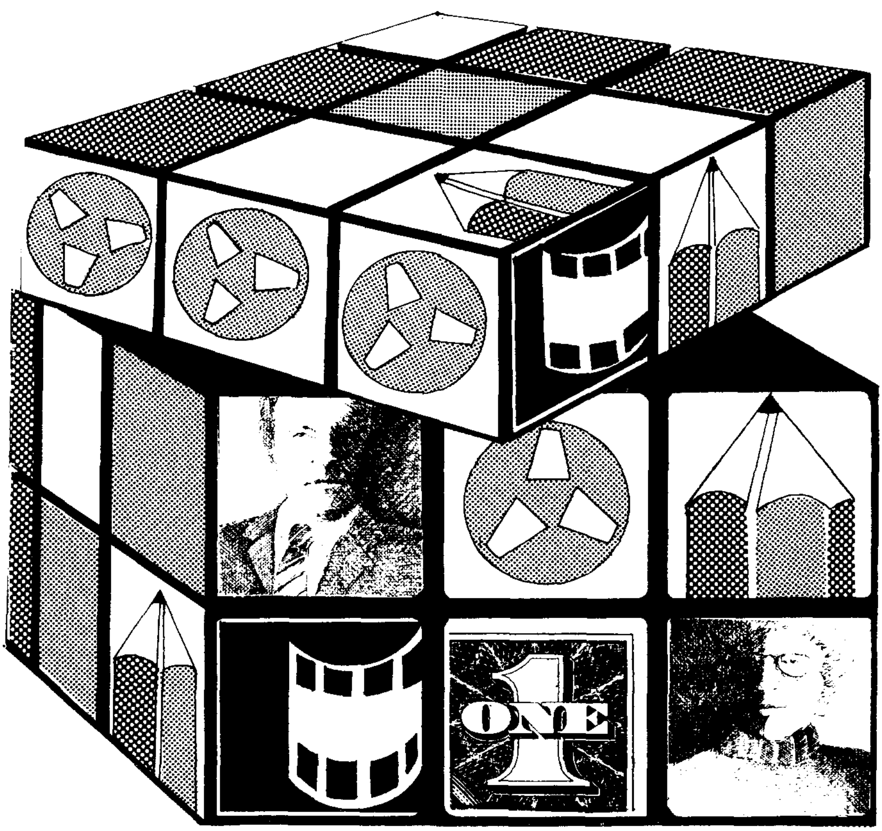
The aims of this issue are to describe the transition from librarianship to information management and to present the values, concepts, talents, and skills necessary for effective information management.

Frank Spaulding, Joe Ann Clifton, and Valerie Noble, the officers of the Library Management Division and outstanding leaders in the field, enthusiastically supported this opportunity to present the views and perspectives of corporate and institutional managers, as well as librarians and information managers.

The authors contributing to this issue come from assorted institutions and backgrounds. They offer a wide range of views on management, libraries, and information management. It is hoped that this issue of *Special Libraries* will provide Special Libraries Association members with new ideas and increase the awareness of the exciting and unique opportunities before them.

The editor is grateful to all the contributors and the officers of the Library Management Division for their enthusiasm and patient support.

Miriam A. Drake



Information Management and Special Librarianship

Miriam A. Drake

Library Support Services, Purdue University Libraries, West Lafayette, Ind. 47907

■ **Information management is becoming a separate and critical function in many corporations. Changes in information technology and attitudes of managers and information users are providing the impetus to combine internal and external information activities into a single coordinated function. The basic concepts of information management are a logical outgrowth from the early foundations of special librarianship. Emphasis on information and individuals and the availability of appropriate technology will facilitate the transition from collection-based librarianship to management of information resources.**

OVER THE YEARS readers of *Special Libraries* have been advised and urged by many writers to focus their activities on their clientele and their information needs. Early issues of *Special Libraries* presented two definitions of special librarianship, one focused on specialized and limited collections, the other on people.

Discussing the value of special libraries, Handy in 1911 stated, ". . . it is the power to furnish required and necessary information where it will do the most good at the right time and in the right shape, with a minimum expenditure of time and energy on the part of those whose business it is to use the information when furnished" (*1*). Clearly, Handy recognized that the job of gathering, synthesizing, and summarizing information in accordance with the needs of the information user is the job of the special librarian. It is this aspect of information delivery in an appropriate form for the user that has distinguished special librarianship from other branches of the field.

In 1919 Thomas questioned the use of the word "library" and the appropriateness of the name "Special Libraries Association": "To the layman a library means shelf upon shelf of books, and most executives are laymen insofar as libraries are concerned. I simply leave it as a subject of thought and a possible suggestion to the Special Libraries Association that attention to terminology may be worthwhile" (*2*).

These same thoughts were expressed by James B. Dodd in his inaugural address to the Association in 1980. Dodd raised the question of a new name for the Association, stating: "In most other professions the job titles clearly indicate that the effectiveness, usefulness, power, and respect lie not in the building but in the people who work there. But with librarians the job title identifies us with the building—a static, passive, ineffectual symbol that gives no indication of the creative activity that goes on inside" (3). It is clear that the work of special librarians and the language used to label that work have been incongruent.

The basic concepts of information service rather than collection service have been central to the work of special librarianship since the Association was formed. The methods for accomplishing the tasks and responsibilities associated with information service have changed dramatically.

Since its early days, the difference between the special library and the public or academic library has been the work performed by special librarians.

In 1911, implementation of the concept of information resources management was not possible. The exponential growth of information was not anticipated in 1911, and management, as we think of it today, was in its infancy. While the idea of providing the right information to the right person at the right time has been evolving, new factors have changed and expanded the scope of information activity and our ability to translate concepts into effective programs. These factors include computers, telecommunications, the emergence of information as a resource, development of management as a function, a more competitive and politicized corporate environment, and the development of marketing.

Special librarians of the early 1900s had no choice but to focus on the building and maintenance of specialized collections. There were no viable substitutes for books, journals, printed abstracting and indexing (A&I) services, and clipping files. Information specialists relied on the tools available to them but laid the foundation for the transition from specialized collection builder to information manager within the corporation.

This foundation has permitted proactive librarians and information managers to broaden the scope of their work in response to changes in the context and content of corporate activity. Davis states, "context is created by drawing of a boundary—the frame. What lies within the boundary becomes content. . . . Context creates a reality, and the reality it creates is content" (4).

The reality, environment, and boundaries of both the corporate and information worlds have changed dramatically in the last 35 years. Both worlds have expanded in perspective, activity, and impact. The expansion of the context and content of corporate responsibilities and activities and the over abundant supply of information have necessitated both more intensive and extensive concepts and activities in information provision.

The progression from special librarians relying on limited print sources to chief information officers responsible for processing information from all sources is now feasible. Synnot indicates that "The information manager of the future will have varied roles: strategic planner, change agent, proactivist, businessman, politician, integrator, information controller, strategist, staff professional, manager, futurist. The most important of all, however, will be recognition as the firm's chief information officer" (5).

There are many years and many differences between the definition of special librarianship and the definitions of the functions of chief information officer (CIO). Many contemporary librarians may find the idea of a CIO beyond their horizons. The tools and management skills are available but attitudes may be lagging. Many librarians tenaciously cling to the concept of the library as an end in itself. They have not recognized information as a resource, the need to manage this resource, or the economic and social benefit resulting from effective management of information resources.

This paper will review concepts of information management in today's environment and factors associated with the transition from librarianship to information resources management. These factors include values and attitudes, the corporate environment, and information technology now and in the future.

Information Management

The information management process focuses on the information needs of individuals and the delivery of a product to fulfill those needs. At the present time, information management programs are being initiated and implemented primarily in the corporate sector. The process of supplying information, rather than documents, citations and data, begins with a determination of the scope and type of information needed. Between determination of need and delivery there is a process of gathering, evaluating, synthesizing, and packaging.

"Information management not only deals with the need of individuals and organizations to convert data into information but it also deals with the problems of getting the right information to the right people at the right time and in the right form" (6). Conversion of data into information, for the most part, has not been performed by librarians. Library users are expected to perform this conversion by themselves.

Since its early days, the difference between the special library and the public or academic library has been the work performed by special librarians. Bostwick described this unique aspect of special librarianship: "We ourselves are obliged in most cases to perform for our patrons the work that is left to the public, in a general library. We ourselves must take these books and this miscellaneous material, extract the desired information, and submit a concise summary or report" (7).

The collection-oriented library delivers a tangible product in the form of an article or book but the librarian rarely knows if the client derived needed information from the documents or is able to convert the material in the document into information. From an economic point of view, the delivery of documents or data is costly to the corporation. The library engaging in the document delivery business provides a tangible product with little value added. The person making the conversion from documents and data to information is providing the real value, often at considerable cost. Document delivery is costly because its output is of questionable value relative to the cost of input. The corporation incurs additional cost because the valuable time of information users is consumed in the process of converting data into information. The opportunity costs of this process, i.e., the cost associated with diverting the user's time away from his/her primary task, is very high.

Information management, by combining the gathering function with analysis, synthesis, and delivery in usable form, adds value in two ways. First, the value of library or information center output increases and is positive relative to input costs. Second, the opportunity cost is saved and productivity is increased. "Problems of information glut and information scarcity are aspects of information management. Other aspects of information management include information redundancy, unreasonable information collections and reporting burdens on those sources from which an organization requests information, and excessive costs of handling information within an organization" (6).

Given the availability of information in forms other than volumes on the shelf, the current information handling costs in organizations with traditional approaches is excessive. Two-thirds of the costs of traditional library operations are for input, that is, the cost of materials, processing and storage (*8*). These fixed costs have escalated rapidly in the last seven years. Such costs, incurred in anticipation of use and paid whether the library is used or not, are not longer justified in many corporate and academic situations.

Variable costs, have increased less rapidly in recent years. The total cost per unit of output in the traditional library has risen to the point where it is appropriate to study more cost-effective alternatives. The availability of alternatives to reduce unit costs of library output are relatively new. Information technology has made it possible to change the input/output and fixed/variable cost ratios. The quality and quanity of information service output can be increased with relatively small investments.

Brinberg points out: "Assuming that information is a resource, it is composed of two distinct, but interrelated components—the content and the technology. Until recently information content resources were managed as discreet entities related to the form in which the information was obtained. . . The concept of the information manager explicitly addresses this dispersion of responsibility, calling for an integration . . . of information content in whatever form—text or numeric—and from whatever source—internal or external" (*9*).

As information management evolves and recognition of information as an economic resource grows, the scope of information management will expand and result in the appointment of a chief information officer in many firms. The job of CIO will include responsibility for internal and external information and the integration of this information. The functions of the corporate library, records management, data processing, and management information will be integrated and coordinated by the CIO to produce a more cost-effective method to manage information resources.

On the user side, the costs of using conventional libraries are indeed excessive compared to the costs of obtaining information processed for use. The value of the user's time to the organization and the amount of time needed to find data from varied sources and to convert it to information are very high. Handling problems of information glut or information scarcity can be costly to any organization if the user has to do all the work. Information glut necessitates that the user sort, evaluate, and synthesize from many documents. Information scarcity necessitates time-consuming searching in many sources.

The organization managing information rather than collections can position itself to offer customized services to individuals. Information content rather than information storage devices can be managed to reduce quantity, redundancy, and poor quality and to produce the quality of information appropriate to the need.

Information managers recognize the necessity and feasibility of tailoring. As Brinberg states, "It is also becoming increasingly evident that not all individuals need the same level of information, even those interested in the same subject, and not all users require it in the same time frame" (*10*). The ability to respond to the needs of individuals within their time constraints and at a level appropriate to their need distinguishes the information manager from the traditional librarian.

The traditional notion of the library existing for itself and librarians existing for their own professional goals is not appropriate to information management in a corporate setting.

Values and Attitudes

Information managers recognize the diversity and varying levels or urgency associated with information needs. Providing necessary information within the limits of time precludes treating every user alike. Traditionally trained librarians often are uncomfortable with the idea of providing different levels of service to different users because they have been trained to provide equal service for all users. An information management program is not based on egalitarianism but on the assumption that individuals will be given more or less service as needed.

Information management requires setting aside many attitudes and values conveyed in library schools. The traditional notion of the library existing for itself and librarians existing for their own professional goals is not appropriate to information management in a corporate setting.

Both the library/information center and the librarian/information manager must subordinate their goals to those of the organization. The function of information management is to support the organization and its staff in achieving corporate goals. To paraphrase Charles Wilson, what's good for the organization is good for the information service, not the reverse.

Successful transition to information management will require librarians to identify with the work of the corporation and to be accountable for the value of their activity. "Organizations have lives, values, and purposes of their own which may not be in congruence with the values and objectives of the professionals who work in organizations" (*11*). The professional often is schooled to accept the values and standards of the profession and to eschew corporate values, such as working for the benefit of the company, its stockholders, and employees. The values and standards of the library profession have been formulated, for the most part, by academic and public librarians whose accountability to their parent organizations is vague, at best. The early members of SLA recognized that their roles were different and that their positions were not directly comparable to librarians in public libraries or academic institutions.

In a 1975 speech to the Association of College and Research Libraries, Drucker noted, ". . . professional people tend to be more interested in their profession than the institutions in which they practice it. The purpose of a hospital, however, is not to practice medicine, but to help patients" (*12*). The question to be solved by librarians and the organizations employing them is why the library or information center exists? Is it to practice librarianship? Collect books? Or provide information services to people?

Many traditional librarians believe they are helping people by providing access to information, engaging in bibliographic instruction, and leaving the user alone to do the real work. In most organizations, these traditional activities are ineffective and counterproductive. The cost to the user and the employer is high. The process may be efficient for the library but not effective in terms of user and corporate goals and productivity. In making the transition to information management, librarians have to integrate their professional goals into corporate goals. They must concentrate on doing the right things rather than doing things right. Information management's focus is on effectiveness, not on library efficiency. This notion of reaching beyond efficiency to effectiveness was the theme of SLA's 1981 Conference.

The information management function, with its emphasis on delivery of substantive information, places responsibility for gathering, evaluating, integrating, and packaging information in the hands of the information specialist or librarian, not the information user. Fairchild, in 1915, saw this activity as an opportunity, not a burden. In writing about "the need for a new profession" he stated: "This need is not for

Successful transition to information management will require librarians to identify with the work of the corporation and to be accountable for the value of their activity.

librarians who can supply a given date or find sensible answers to the million fool questions that are asked every day. In truth, it has little to do with the library, as such, but a great deal to do with the individual man or woman who has the analyzing knack; that is to say, the ability to dig up all the factors involved in the special problem in hand, to separate the essential from the non-essential and to present in the last degree of condensation all the facts pertinent thereto" (*13*).

Although Fairchild did not give this process a name, his "analyzing knack, . . . ability to summarize are essential skills for the information manager. Librarians desirous of becoming information managers will have to set aside their fears of making judgments and commitments and sharpen their analytical skills. They will have to develop knowledge and confidence in their own abilities and be willing to take risks. As the library moves toward information management, it carries greater responsibility and liability.

In the past, library schools trained librarians to avoid risk and liability by emphasizing that the librarian's job was to provide access to collections. It is easy for public and academic librarians to hide behind the concepts of access and collection building because their parent institutions expect that behavior. In a corporate information management setting, the information manager is responsible for the appropriateness and accuracy of content and accountable for results.

The information manager in a corporation must be aware of the risks to the company of failure to find or communicate pertinent information. Communication of erroneous information carries risk. The accountability of the information manager to the corporation is far greater than the accountability of a public or academic librarian.

The effectiveness of an information activity is measured by the satisfaction level of clients and the provision of information appropriate to the needs of individuals. The information management process begins with people and content. The traditional library is passive and measures its success as an institution by document use. Libraries reach their users by selling document use, in contrast to information managers who do not sell an institution but market a service.

Marketing

The role of marketing in its broadest sense is a major activity of the information manager. The necessity of "selling" the library to corporate management is not new to special librarianship. Thomas in 1919 observed: "A Library into which no advertising ever is put may be a nice quiet corner with row upon row of neatly arranged books . . . and that the library is there will be evidenced each month on the cost figures of the company . . . But how many inquiries will be answered . . . How many people in the organization will be leaning upon the library as a source of information necessary to their work?" (*2*, p. 168).

Since 1919, corporate executives, business school professors, politicians, clergy, and many others have learned that advertising and selling are not sufficient, especially in the service industries. Organizations—both for-profit and not-for-profit, service producing and goods producing—have learned that the consumer or customer is the beginning, not the end, of the marketing process. "A selling orientation equates the marketing task with persuading target audiences that they ought to accept the offering . . . These marketers start with what they wish others to know about their organizations and only later think about customers' needs and wants" (*14*). A typical library tells potential users about its collections and reference services and waits for the users to use the library. The implicit assumption is that if they are told about the collections and services they will obviously want to use them. These selling messages may be promulgated through brochures, letters to staff, or advertising. Regardless of the medium the message is, "Here is a wonderful service. You should want to use it."

A marketing approach assumes nothing about the "goodness" of a service and is not based on implicit assumptions about customers. Marketing begins with an investigation of consumer wants, needs, expectations, and information behavior. Services are developed to fulfill customers' wants, priced appropriately, and delivered or distributed in a manner appropriate to customer need. Analysis of customers' needs usually results in selecting segments of the market and targeting specific segments. The service offering may be different for different target groups.

In a marketing oriented organization, assumptions about the goodness of libraries are not used as the raison d' être for the library. Old assumptions about users' information needs and information gathering behavior also are abandoned and replaced by data derived from marketing research and analysis. A marketing approach also respects the intelligence of the consumer rather than assuming that the potential library user is ignorant but wants to guard, protect, or support a good thing, namely the library. Customer satisfaction is not equated with a visit to the library or providing an answer to a reference question. Attitudinal surveys or user studies do not constitute measures of customer satisfaction. As Herbert White has pointed out, ". . . user studies that simply ask patrons what they want or how well they like what has been provided evoke only a self-fulfilling prophecy. People state an expectation for what they have gotten in the past and for what they think is reasonable in the future. In short, we have taught them to play the game by our own rules" (*15*).

The information management process focuses on the information needs . . . and the delivery of a product . . . Between determination of need and delivery there is a process of gathering, evaluating, synthesizing, and packaging.

In many libraries "our own rules" will suffice because people are reluctant to challenge the "goodness" of the library. Librarians can justify the level of service by size of collection, number of reference questions answered and body counts at the door in a patronage environment. In a marketing environment these measures are meaningless and do not provide justification for corporate or institutional support of the library or information service.

Since information management begins with the needs, wants, and expectations of customers, a marketing approach is essential and appropriate. Success in information management is measured by customer satisfaction and in some instances, by the revenue earned by the information management department or group. What is customer satisfaction for an information management service? How can satisfaction be measured? Satisfaction derived from the purchase of a product or service is closely linked with met needs, unmet needs, expectations, surprise, regret, relief, and other factors. Oliver states, ". . . all performance is subjective, even objective, quantifiable performance is perceived subjectively . . . perceived performance is evaluated by the consumer relative to a reference point determined by the consumer's expectations" (*16*). Performance exceeding the level of expectation is likely to produce excitement, surprise and positive perceptions. Performance below the level of expectation is likely to result in regret, disappointment and negative perceptions.

The information manager should be aware not only of the content desired by the customer but also of his/her expectations of the results. When dealing with customers on a one-to-one basis, information managers can determine the individual's expectations of the result. Delivery of too much or too little information relative to the individual's expectation can produce negative perceptions. Exceeding the user's expectation quantitatively or qualitatively can produce positive perceptions of service. Delivery of information in an inappropriate format or beyond the time limit specified also can result in negative perceptions.

In information delivery, the customer's perceptions about the quality of service need to be captured and measured after the individual has evaluated the information delivered. The timing of follow-up data gathering is critical but difficult because the customer may not use the information immediately upon delivery. In most instances, the request for information will be in relation to a specific project, program, or event. The customer's evaluation of the information package within the framework of the specific project or program should be elicited within several days or weeks. The information manager needs feedback at the time of evaluation and use, not several months later. "If feelings of satisfaction are permitted to decay into attitudes, much of the diagnostic data is lost" (*16*, p. 41).

Since information is never used up or fully consumed, it is available for future use. The conversion of information into working knowledge and the integration of information into thinking processes may take many months. A common occurrence in information delivery operations is client recognition of the value of an information package many months after its delivery. When products such as toothpaste, food, and other consumables are consumed, it is important to capture evaluative data as close to the time of consumption as possible. Information managers should be capturing evaluative data on an on-going basis and should be looking for the longer range evaluations and attitudes of users, as well as the immediate evaluation.

Since the value of information is judged on a subjective basis, the information manager must plan evaluation programs to capture subjective comments and assessments. The evaluation system can be both formal and informal. Formal evaluation is likely to be in the context of the immediate need while informal evaluation will include longer term assessment, impact and attitudes.

Corporate Environment

Most libraries are not independent organizations with their own markets and sources of revenue. They exist within larger organizations, a municipality, academic institution, not-for-profit organization or for-profit corporation. As a support service, information center goals should fit the framework of corporate goals. The library cannot exist meaningfully as an island. It must relate to its immediate surroundings, as well as to the broader world of the parent organization. The information manager or librarian should be fully informed about the parent organization's business, activities, financial situation, regulatory environment, competition, products, markets, and business plans.

Environmental analysis is necessary not only to understand the business of the corporation but also to tailor services to support the goals of the corporation. Information about the external world is essential to corporate strategic planning, marketing, finance and the viability of the business. Information managers can clearly demonstrate their value to the organization by conveying both information and understanding of the corporation's internal and external environments.

Information managers need environmental information at three levels. First there is need to understand the internal workings of the corporation and the information needs and behaviors of clientele. The strengths and weaknesses of the organization, its staff, finances, services or products, marketing, politics, and other factors need to be understood in order for the information manager to provide service appropriate to the client's need and circumstances. The information manager should be intimately familiar with corporate or institutional financial statements. In a not-for-profit organization, the information manager should know the sources of revenue and items of expense.

The political environment of the not-for-profit organization also is important. If the organization is financed by donors, who are they? What portion of revenues do they contribute? What portion of revenues are earned from fees, ticket sales, or sales of services? Who wields the power in the organization? Who influences top management and the Board of Directors or Trustees?

The for-profit sector is primarily concerned with sales, profits, return on investment, market share, product and service development, and competition. The information manager should be familiar with the financial and market aspects of the company's business. The balance sheet will provide a picture of the company's financial health and viability. The narrative statements accompanying financial statements may give clues to the corporation's measures of success. Does the corporation emphasize return on investment? Market share? Growth? Earnings per share? The information manager also needs to know about the corporation's profit and loss. Which product lines are profitable? Which lines are losers?

Research and development expenditures are particularly important for information managers serving R&D groups. Are expenditures increasing or decreasing? Is the R&D content or focus changing? The content of research and new product development is an important area of knowledge for the information manager.

In recent years, corporations have been more outward looking and have become more politicized. The CEO of a large company deals with many publics or constituencies: the board of directors, stockholders, staff, suppliers, government at all levels, community groups, the financial community, and consumer groups. The corporation has become more accountable to groups other than stockholders. Communication with each of the corporation's publics places a burden on the CEO or board chairman in terms of needed information. A speech to a community group will require different quantities and levels of information than testimony before a congressional committee. Information managers serving top management need to be keenly aware of the habits, styles, and behaviors of key managers. Does the president or board chairman write his/her speeches? If not, who does write them?

The second level of environmental information concerns the corporation's or parent organization's immediate world. Factors in this area include competition, regulation, finances, technology, and corporate goals, both in the short and long term.

Information managers should learn as much as possible about the corporation's products, markets, and channels of distribution. Market share and activities of competitors are of particular im-

Information managers should be capturing evaluative data on an on-going basis and should be looking for the longer range evaluations and attitudes of users, as well as the immediate evaluation.

portance. Many companies have adopted strategic planning programs to review goals, access strengths and weaknesses, explore new products or markets and evaluate opportunities for growth and change. In this environment, change is a positive process essential to the growth of a corporation and the personal growth of its staff.

All corporations plan and operate in an environment of uncertainty. The economy, interest rates, inflation, worker productivity, regulation or deregulation, tax structures and rates impact the corporation directly. Interest rates and the availability of capital affect the corporation's ability to provide for short term cash needs, as well as for long term investment in plant, equipment and new ventures.

The quality and quantity of the labor force are major concerns, especially in an era when the composition and age of the labor force are changing. Declining productivity is a major problem in many industries. Companies in the transportation and telecommunications industries have been or will be significantly affected by deregulation.

Technology is a critical factor in many industries. Is the company committed to state-of-the-art technology? Is the company a leader, or is it likely to stagnate or decline because it has not adopted the current technology or planned for emerging technological developments?

The third level is the national or world level. This level of data gathering involves trends in the economy, politics, international affairs, technology and any other factors affecting the future of the corporation. International affairs are of particular importance to multinational corporations or companies relying on imports of raw materials or export markets. World markets are likely to become increasingly competitive especially in products dependent upon new or emerging technologies.

Long-term political trends should be watched for general directions. Specific actions of the U.S. Congress, British Parliament or the Japanese National Diet may not be easily predictable, but the general direction can be understood. Trends in technology also can be evaluated. For example, there is a clear trend toward the use of robots in manufacturing and text processing in offices. More engineering design work will be accomplished with computer graphics than pencil and paper. Knowledge of these trends and their likely effect on the corporation will provide greater insight for the information manager and enhance his/her effectiveness within the corporation.

Information Technology

There are many and varied predictions regarding the nature and impact of information technology. While the timetables of forecasters differ, there appears to be general agreement that many homes, offices, and schools will be equipped with microcomputers before the end of the decade. Videotex also will be more widely available to information users before the end of the decade. These developments, coupled with electronic or videodisc publishing and user friendly computer-based systems, will permit many information users to be independent of the library in fulfilling their information needs.

Data currently retrieved from reference books will be retrieved from online, user friendly computers. Encyclopedias, handbooks, almanacs, dictionaries, abstracts, periodical indexes, and other fact books will be available in forms other than the printed page. The integration of computer, telecommunications, video, and audio technologies will accelerate in the next two decades. This integration will provide greater quantity and variety of information, instruction, recreation, and entertainment affecting everyone from nursery school children to their grandparents.

These developments will not make books obsolete in the near future. The book will survive but will be used more selectively. Books produced for recreation or intended to be read cover to cover will survive indefinitely. Academic and public libraries will continue to buy books to satisfy the reading needs of their clientele. Organizations working toward an information management function will have more effective tools available to implement their programs. The boundaries of the corporate data processing function will be extended. Computers and expanded telecommunications capabilities will permit the integration of internally and externally derived data. The stumbling blocks to this integration are not technological but relate to marketing by database vendors, copyright issues, numerophobia, and computer illiteracy. Librarians, trained in the humanities, often exhibit a strong fear of numbers and reluctance to deal with quantitative data. This fear and lack of competence prevents them from getting involved with information management systems having quantitative components.

subscriptions and print version of A&I data will be obviated. Neill predicts, "As soon as online services become available through home terminals (databases managed by cable systems middlemen in conjunction with present distributors), all library online services will become redundant unless provided free of charge (*17*)." The collection of service fees and copyright royalties will be simplified by adding them to the monthly cable bill. These developments will enhance the capability of the information manager to design and implement customized information systems.

Developments in telecommunications and small compact terminals will make it possible for people to access information wherever they go. Fewer trips to the office, fewer meetings, and reduced interpersonal contact have unknown implications for individuals and society.

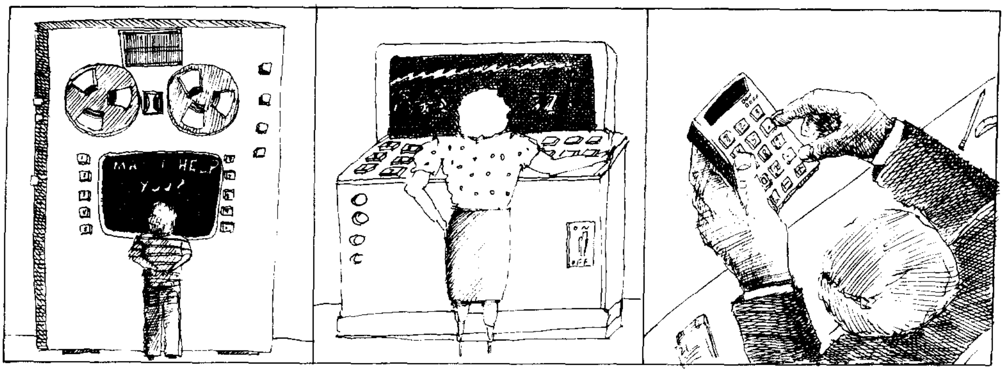
Artificial intelligence is another development with unknown impact.

Computer illiteracy is a major obstacle to integrating internal and external information. Many librarians do not know the capabilities or limitations of computers, how the hardware works or the software is designed, written, or used. They rely on others to produce a computer-based system and ask only for a recipe book specifying the buttons to be pushed or the keys to be touched.

"New technology now moving out of the laboratory is starting to change the computer from a fantastically fast calculating machine to a device that mimics human thought processes—giving machines the capability to reason, make judgments, and even learn (*18*). " The capabilities of artificial intelligence to sift through vast quantities of information and to organize, synthesize, and produce the quantity, quality, and level needed by the user are just beginning to be investigated.

Computer illiteracy is a major obstacle to integrating internal and external information. Many librarians do not know the capabilities or limitations of computers, how the hardware works or the software is designed, written or used. They rely on others to produce a computer-based system and ask only for a recipe book specifying the buttons to be pushed or the keys to be touched.

As direct online access to periodical indexes, abstracts, and text become readily available, the need for journal



Despite the enthusiasm of artificial intelligence proponents, "There is . . . little agreement, still, on what is meant that a computer 'thinks'—or whether a computer's problem solving methods should be patterned after human cognitive processes (*18*)." Artificial intelligence will provide greater information processing capability to the information users; however, it is doubtful that these super machines will replace people in information centers or replace the judgment of individuals in defining information needs or evaluating results.

The technological developments discussed to this point have related to the tools of information managers and users. The products of technology remain only material things until someone begins to use them. When use involves behavioral, social, or economic change the technological device becomes the basis for innovation. Microcomputers are the basis for a variety of innovations in American society and changes in the behavior of individuals. Nowhere is this innovation more pervasive than in elementary and secondary schools. Children from nursery school through high school are using computers for a variety of activities. Sales of small computers to schools were 70,000 units in 1980 and are expected to reach 250,000 by 1985. Apple has already sold more than 50,000 units to schools (*19*). The microcomputer offers a variety of new learning tools for students, teachers, and librarians. By the end of the decade most students entering college will have used a microcomputer. When these computer literate people enter the labor force, their expectations of libraries and information centers will far exceed those of today's users. The computer phobia exhibited by many older adults will gradually disappear and be replaced by reliance on the computer for a variety of needs.

Conclusion

As information users grow in computer literacy, the information management function must grow with them. The sophisticated computer user will demand more self-sufficiency in information retrieval, elimination of redundancy, greater accuracy, and systems designed for individual needs. Computers, hand held terminals, and the availability of necessary telecommunications will change information gathering, processing, and use. Information managers will have to recognize and deal with varying levels of need, changing time frames for satisfaction, and changing values. Information will continue to increase in value as an economic resource. The necessity to manage that resource effectively will intensify. Special librarians are uniquely qualified to broaden their activities and to enhance their value to their employers by implementing information management programs. The foundation for this work was laid in 1911, the technological devices and managerial tools are now available or are in the process of development.

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Miriam A. Drake is assistant director, Library Support Services, Purdue University Libraries, West Lafayette, Ind.

Corporate Climate and Its Effect on Information Management

Karen Feingold Ceppos

Los Gatos, Calif. 95030

■ Corporations have lives and values of their own. These values are reflected in work environment, decision-making processes, and corporate structure. In addition, values affect the provision and use of information. Case studies show the differences in values among corporations and how these differences result in variations in library and information services.

TECHNICAL libraries are established as a result of a perceived need on the part of administrative management. Often this need has been brought to the attention of management by research scientists who, through experience, have recognized the value of timely and effective library services. In a few rare instances, a chief corporate executive may have promoted the value of good information services as part of a corporate strategy.

No matter how the library gets its start, the unique culture, the organizational climate, philosophy, and structure of the parent company plays a major role in its growth and development. Recent work in management theory shows that employees internalize corporate values and apply them in response to specific work situations. Librarians or information managers and their corporate management would then reflect corporate attitudes in their decision-making with respect to the external information function.

Organizational Climate, Philosophy, and Culture

Before proceeding to case studies designed to explore how corporate values affect decision-making at three different information centers, it would be useful to define what is meant by organizational climate, philosophy and structure.

According to Schneider, structure refers to the properties and processes within the organization that occur without regard to human components, while climate is a reflection of the forms and styles of human behavior internal to the company (1). It is, therefore, important to consider climate in order to gain a better understanding of how the organization's practices and procedures are reflected in human behavior.

In his attempt to discover the rationale behind Japanese productivity and quality, theorist William G. Ouchi developed the concept of Theory Z management (2). Ouchi's research describes differences in corporate climate among traditional Japanese and American firms (Type J and Type A organizations) and credits these differences with affecting success in the marketplace.

Ouchi also describes a mixed model (Type Z) evident in some of the most successful firms in American industry. Characteristics of Type Z firms include:

- long-term employment;
- individual responsibility;
- consensual decision-making;
- slow evaluation and promotion;
- implicit informal control with explicit performance measures;
- mostly specialized career paths;
- holistic concern.*

The case studies presented in this paper are intended to provide descriptive information about the subjective attitudes and values of corporate information managers and their managers in three high-technology firms. Each of the organizations studied fits loosely into the Theory Z model. And, in each case, there exists one specific corporate value that greatly affects the information operation.

Methodology

Preliminary research began with background information on the external information function and its history in the firm followed by discussions with both information managers and their corporate management. In each case, corporate managers were asked to describe their information-use patterns and how these may or may not have been altered due to management's involvement with the information center. Corporate managers were then asked to talk about how their management styles and philosophies affect the information center and how they interpret the information center's needs to higher management. Finally, they were queried about corporate philosophy and climate and were asked to demonstrate how the operation of the information center reflects that culture.

The library managers credited much of their success to going beyond what the corporation thinks it wants or needs with respect to library service.

Discussions with the librarians/information managers were even less structured than those with their superiors. In each case, the information managers were asked about their reactions to corporate mandates in order to determine if their thinking conformed to the corporate mold. Discussions focused on their perceptions and opinions regarding management's estimation of the information function.

Information managers also described specific feedback mechanisms, user surveys and public relations efforts that were instrumental in helping them obtain corporate support. While services, per se, were not probed in detail, efforts were made to determine whether the information centers were in the traditional access business ("Where is the information?"), or were providing information-management services (answering, "What is the information?"). The library managers credited much of their success to going beyond what the corporation thinks it wants or needs with respect to library service while still acting under the rubric of corporate culture.

* For a description of Type A and J characteristics, see: Ouchi, William G./*Theory Z*, Chapter 3.

Case Studies

The research laboratories of a major office-technology company: Company W:

Although the company officially became known as Company W in 1961, it actually had been in business since 1906, when it was founded under a different name. Today it is a high-technology firm, highly decentralized with many divisions in numerous locations worldwide and more than 40 subsidiaries in many countries in Europe and Asia. The company has more than 120,000 employes worldwide, and sales have reached the $8 billion mark.

Since decentralization also is applied to information services, all operating units must make their own decisions about what is appropriate for the needs of their employees. The Company W research facility is home for about 500 employees. It is one of three primary research facilities for the company. Like all Company W operations, the research facility management is highly independent.

About ten years ago, management at the labs organized resources to provide technical information for the scientists and managers at the new facility. The present technical information center manager was hired at that time as the assistant librarian. Over the years, she has built a small, highly efficient library service and, by seeking to be kept aware of future project plans and allocating information services accordingly, she has made the information center invaluable to the operation of the research community.

The library manager began reporting to the manager of research administration and personnel about five years ago. This individual relies on the library-support system more than is customary for a nontechnical manager. Since becoming the corporate spokesman for the library, he now feels he knows more about what information is available to help him in making personnel or financial decisions.

This manager uses three main criteria to justify resource allocations to the library operation: He looks at the value placed on the service by the technical staff, the opinion of the technical managers who are in competition for the same resources, and his own evaluation of the quality of the service.

The technical information center manager's philosophy of library service is to be proactive. She learns early about new company interests by attending technical staff meetings and follows up with various kinds of advance information services. Users become knowledgeable about what the library can do for them and often request additional support. This has enabled the information manager to build a department with three operating branch libraries. For these, funds and headcount are supplied by neighboring Company W manufacturing units, while the technical information center provides management and technical services, such as acquisition and cataloging.

The manager's philosophy of library service is to be proactive. She learns about new company interests by attending technical staff meetings and follows up with advance information services.

As is usual in most library settings, there is scarcity of resources to meet demand. Company W has an interesting corporate financial value. Headcount is budgeted separately from dollars. It makes sense from the corporate stance: If the facility is flush one year and puts money into added staff, then it is committed to that staff next year when times may be tougher. Much work is done by contract workers and students.

The manager of research information and personnel is supportive of the library and information function, within the corporate mandate. The technical information center often gets the funds to develop new services, and the information manager comes up with creative methods to provide the staff. For example, at her instigation, the company contributes funds to a local community college with a paraprofessional library program. In turn, the school pays students to participate in internships offered at the Company W library. However, the library manager would prefer that the headcount be budgeted to reflect the activity of her department.

Company X: A Microcomputer Firm

This company is relatively new. Founded in 1977 to develop and market personal computer systems, its success has been phenomenal. Today the company has more than 2,500 employees, and sales have surpassed $334 million. While there are sales offices worldwide and manufacturing facilities in Texas, Ireland, and Singapore, as well as in California's Santa Clara Valley, the firm's research and development activities are focused in the Santa Clara Valley.

Early in 1981, management decided that it would be in the best interest of the firm to set up an internal technical information center for the use of engineers and managers in the Santa Clara locations. According to the manager of the engineering services group to whom the information center reports, this decision was made at the same time decisions were formalized to split the company into divisions. However, like most companies starting libraries, the problem was how to begin. Consequently, nothing was done until August 1981, when the "right" information-center management was found.

The right manager has to exhibit what the management calls "Company X values." Company X is a people-oriented company. An employee demonstrates "Company X values" by showing enthusiasm for working with computers and by valuing the benefits of computers to society; some employees, for example, put emblems on their cars emphasizing how much they like working for the company. The firm was looking for an information-center manager who would use the technical resources of the company to develop a state-of-the-art information program aimed at serving the needs of its engineers and managers.

The engineering services manager to whom the library function reports believes that by hiring the best people and surrounding them with the resources to do the job, he can concentrate on over-all management of the departments reporting to him while feeling confident that the department managers can effectively handle 99% of the decision making in their own areas. This philosophy has enabled the engineering services manager to expand his own areas of responsibility from managing five people in a lab two-and-a-half years ago to managing 44 people in six departments today. His area was the logical place for the library. He reports to the executive vice-president for operations, and his group interacts with almost every other department in the company.

The technical information service manager recalls, "All they knew was that they wanted a library." Her initial intent is to keep the library physically small and to develop a basic reference collection, utilizing microforms and the computer wherever possible. Funds have been made available for one year because, according to her manager, "It is still so new that we don't know how far we want to take it."

This is the fourth time that the technical information service manager has started a library. Based on past experience, she expected that her biggest tasks would be to get potential users involved in the planning process and then to bring them into the library—as she aptly put it, "We all know how important it is to have candy on your desk." As it turned out, however, users began frequenting the library almost immediately—it was slow for only the first three hours. The users demonstrate company values; they are information-oriented.

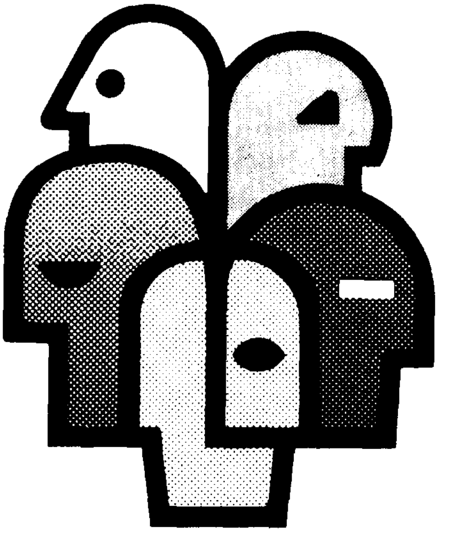
The new technical information center focuses on serving the company and its personnel. The library manager routinely attends engineering staff and planning meetings in order to anticipate future information needs as well as to promote library usage. In addition, she tries to go beyond traditional access services by offering tailored research services in answer to specific queries. Along more traditional lines, after only six months of operation, the center averages more than 50 literature searches each month. Using company technology, the library manager is developing her own catalog. Both she and her management see themselves operating in a particular environment and obviously know how to get things done the company way.

Company Y: A Semiconductor Company

In 1978, the author was hired to develop a technical information program for Company Y. This firm had been in the semiconductor business for about 10 years and had been organized into divisions based on product offerings. During this period, sales had reached the half-billion dollar mark.

As is common in technical firms, the charge of developing a library was given to the head of technology development. The library was to be a corporate function reporting within the technology development director's division. One bonus was that the technology development director had the ear of the president and the library manager had the direct ear of the director.

About six months after the author began work on the information program, the executive committee (top corporate management) decided that since the technical information center was a corporate function, it should report to the general counsel and vice president. This demonstrated the company value



of clan management. In addition, the information manager was to be responsible for the internal records program.

At this firm, if you do your job right and have access to a member of the management team, things get done. Eight months after the author was hired, there were three functioning information centers.

Today, there are four technical information centers in diverse locations, all reporting to the manager of technical information services. She reports to the vice-president and general counsel of the company. Prior to 1978, his knowledge of libraries was as a user of patent and legal information. He was chosen to represent the technical information program on the executive committee because, at the time, he had the time.

As far as the company is concerned, it is the quality of the management that counts; the amount of time a corporate executive has available to manage the functional area is more important than the particular expertise of the corporate manager. Implicit in this philosophy is the requirement that functional managers must demonstrate proven expertise in their areas.

According to the vice-president, the growth of the technical information program has been nearly parallel to the growth of the company since the technical information centers began. Things have been slower all over the company this year and last, but plans formulated prior to the slowdown to set up a fourth center moved ahead in the midst of the recession because both the manager on the value of literature searching alone justify the cost of the operation. Additionally, the information center's performance is measured against a quarterly set of objectives drawn up jointly by the manager and the vice-president.

What is most evident from these case studies is that the success of the technical information program is heavily dependent upon communications between the library managers and their respective corporate superiors within the parameters of the corporate culture.

and the vice-president were convinced that the facility was a necessity.

The technical information center manager talks frankly about the fact that the facility was delayed but feels that the delay was justified given the overall economic position of the firm. Clearly, she is part of the management team. She is aware of the economic ups and downs of the firm and recognizes how and when to push to get the job done. She believes that her departments are fairly treated with respect to the allocation of resources, yet feels that the services of the information center are needed even more during slower periods to prevent duplication of material and to help managers and others make the best use of their time.

Efforts are made to measure use and user satisfaction. Records are kept on turn-around time, use of new services, literature searches, and so on. Policies have also been developed to define operating parameters; for example, because this is a technical information center, at least 80% of newly acquired materials must be technical; rather than management-oriented.

The company operates on the assumption that the cost of the information center is more than paid back to the firm through individual and group contributions of its users. Quarterly reports

Well-defined management procedures and open communication go hand-in-hand with team management at Company Y. A good working relationship between staff members and their corporate representatives, backed by good relationships between high-level management team members, proves to be beneficial for the technical information program. While corporate and information center management don't always see eye-to-eye, they work toward the same goals and have respect for each other's roles in the over-all operation.

Conclusions

Corporate decision-makers bring a specific, subjective set of attitudes and values to the task of managing the technical information function. In theory, and certainly in practice in each of the case studies, those subjective criteria are formed by the corporate culture.

For each of the cases discussed, performance measures differ according to the unique organizational culture. At Company W, for example, the information center manager measures success in budget terms: If the center's budget grows while those of other departments decrease or remain the same, the increase is seen as management's reward for center activities. The information center at Company X still is too new to have developed criteria for measuring success; however, feedback from users indicates that services are oriented to meeting user needs.

Of the three, Company Y has the most measurable success indicators, strictly due to corporate culture. Each department manager, as well as individual contributor, is required to develop objectives against which performance is measured on either a monthly or quarterly basis.

Corporate culture also affects levels of service in corporate information centers. It is interesting to note that, of the three company information centers, only the youngest and smallest is able to consistently provide substantive answers to specific research requests. Provision of that type of service is consistent with providing the best resources for users at Company X. Serving financial values at Company W or process goals at Company Y makes it difficult for these centers to go beyond traditional access services. While the managers at both of these companies would like to do more in the way of gathering, evaluating, and packaging information for individual requestors, the available staff resources to meet demand simply do not allow that to occur on a regular basis. It will be interesting to see if Company X is able to continue these services as the demand for the information function grows.

What is most evident from these case studies is that the success of the technical information program is heavily dependent upon communication between the library managers and their respective corporate superiors within the parameters of the corporate culture. Although the three organizations differ with respect to age and size, each has a well-defined corporate culture and, through the combined efforts of management, succeeds in offering a technical information program tailored to the needs of the parent organization.

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Karen Feingold Ceppos is a consultant in Los Gatos, Calif.

Achieving Failure in the Company Environment

Mark Baer

Corporate Library/Information Network,
Hewlett Packard, Palo Alto, Calif. 94304

Cartoons by Teresa Albert, Purdue University Libraries,
West Lafayette, Ind. 47907

■Many professionals share one unfortunate trait—they take themselves too seriously. Library schools have reinforced this characteristic by glorifying librarianship beyond its support function to the role of saviour of the universe. The issues of concern to the profession are serious; however, the health of the profession and its practitioners will be greatly improved by setting aside a few moments to laugh at ourselves.

IT IS BECOMING apparent that while many librarians have been able to reduce their libraries to adequate or even unacceptable status, achieving unqualified failure has continued to elude them. To assist them in this goal, the principles evolved through long practice by some of the most outstanding failures in our profession have been collected. It is a virtual certainty that the assiduous practice of any five or six of them in combination will remove from any library or information center operation those final vestiges of non-failure which are so difficult to eradicate.

Fitting the Library in

Don't! If traditional library ideals of quiet, remoteness and downright somnolence do not fit today's corporate *modus operandi*, it must be made clear that it is the company that must adjust—not the library.

Communication with Management

Never communicate directly with decision-making levels of top or upper management. Dealing directly with management may lead to misunderstandings—they may mistake you for a

I'm sure your information request is urgent, but the whole staff is tied up working on plans for "National Library Week."

manager or an expert in your field. This is to be avoided. Communicate through as many levels of totally uninterested and uninformed people as possible.

Fiscal Responsibility

Avoid all responsibility for the preparation, administration and, above all, comprehension of your annual budget. Having budgetary authority and responsibility implies decision-making prerogatives totally inconsistent with the feckless image you wish to foster. You might inadvertently be responsible for an expenditure which visibly increases the value of the library to its users. This can be catastrophic.

Passing the Buck

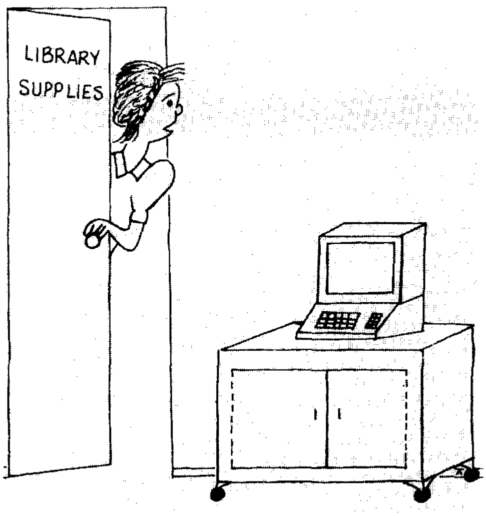
Lose no opportunity to blame management, research, engineers, personnel, users, location, and climate for lack of adequate recognition and support for your library. Just to keep your hand in, also lavish blame on your staff from time to time. Following this simple rule will insure that staff morale remains low at all times and that staff members are routinely surly. It will nourish their feelings of insecurity while reinforcing their distaste for the organization in which they are employed.

Management Training

Avoid it! Plead lack of time or, if that fails, stay home sick on the days the class is scheduled. If it should transpire that you are unable to avoid attendance, remember: Never, under any circumstances, apply any of the principles taught. Nothing can more insidiously undermine attaining your goal of failure than the unthinking application of sound management practices. After all, everything you need to know was taught you in library school. You need nothing else to achieve the failure you seek.

New Technology

Avoid new technology and the application of new methods. Adhere closely to the principles and processes that carried the profession so brilliantly through the 19th century. One of the greatest dangers in even the *misapplication* of computers, electronic mail, and the like is that no matter how ineptly it is done, it may present an appearance of relevance. This can largely undermine all your other efforts. If you find a way to eliminate typewriters and inaugurate the return of "library hand," by all means do so.



I don't see what earthly good it is . . . it doesn't even get channel five.

Problem Solving

Don't! If traditional library values are to be maintained you must eschew the shallow and tawdry successes that have been achieved by some libraries and information centers posing as aids to problem solving—partners in research and engineering. Nonsense! The library that maintains its purity of purpose and process *causes* problems—it does not solve them. Demonstrate this on the job daily.

Narrow Your Focus

Fight the acceptance of any new responsibilities for yourself or your staff (you never really got the hang of the old ones anyway). Not only can additional responsibilities lead to more work, they could lead to the upgrading of your operation. This is going the wrong way! A constant narrowing and refining of your activities, reducing them to the ultimate dross, may require more creative effort on your part, but it can bring an operation to its knees in record time.

I have no idea—you might try the card catalog. Have a jelly bean!

Professional Prerogatives

Avoid them! To make the servility of your position clear, always ask permission to attend lectures, conferences, seminars, or meetings, particularly if attendance would be on your own time and at your own expense. It is not enough to passively accept nonprofessional status—you must pursue it!

Reporting Level

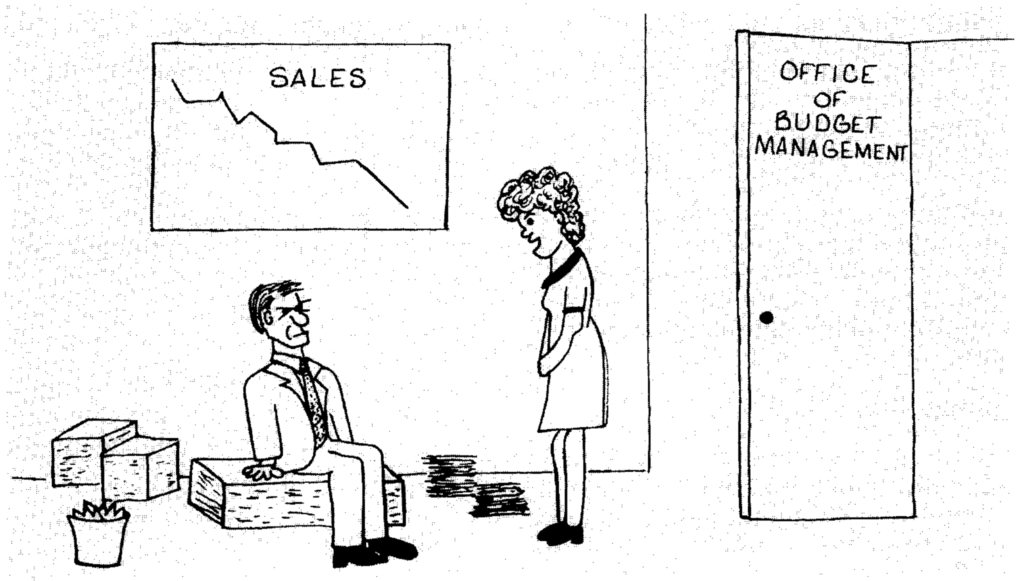
If you are not currently situated appropriately on the organization chart, do your utmost to achieve the following:

1) Report to the lowest level supervisor possible.
2) Be sure that the supervisor to whom you report is one who could not conceivably have any interest in your operation.
3) If at all possible, report to a committee rather than to an individual. The phenomenon of synergism should guarantee even greater manifestations of indifference toward the library.
4) Whether it is to a committee or to an individual, be sure that you report passively. Express no opinions that are relevant and contribute no information that would lead to any interest in your operation.

Aggressive Myopia

Have as your daily motto, "I just do my job"—and make sure that that "job" is defined as narrowly as possible. Eschew knowledge of the operation of any other departments or divisions. Be ignorant of the company's goals and objectives, as well as of its products. Ignore to the utmost company politics, structure, and organization.

Avoid learning the name of the C.E.O. and his immediate staff. Needless to say, you won't have a clue as to the board of directors. Always operate



I don't see what sales have to do with my new furniture and carpeting. Sales are your problem.

as though in a vacuum. This way you maintain the purity, as well as the utter uselessness, of your operation. Remember, it is up to the company to relate to the library, not vice versa.

Library Services

Services should be as close to nonexistent as possible and rendered, if at all, in a condescending manner. The important thing to remember is that whatever services are offered should be as minimal as possible.

If a user asks for a book, point to the card catalog—don't take him to it. After all you have never been able to find anything in it, so it should frustrate the user utterly. If a user needs reference material, merely gesture in the direction of the reference collection. Limiting yourself to a passive warehousing operation can be useful if you can't find more creative ways of being unhelpful.

Standards and Procedures

Standards and procedures should be complex, contain as many internal contradictions as possible, and be capable of making the provision of even the most trivial services tedious, particularly to your clients. Be sure not to interpret them to staff. This eliminates any danger of consistency in their application and will leave your staff insecure, defensive, and altogether unpleasant in their dealings with each other and with users.

Staff Relations

In relations with staff members, refrain from praising them but offer blame freely. Do not concern yourself with their development or counsel them on their career paths. Your job is a dead end, why shouldn't theirs be also?

Take appropriate opportunities to imply that other clerks in the company at the same level are better paid. If one clerk makes more than another, be sure that the one with the smaller salary knows this. This insures low morale while providing an outstanding example of your managerial competence.

The Library's Needs

Aggressively pushing for improvements in space, staff, and budget, if handled creatively, can help achieve your goal of failure. Seek added staff only when the company is having massive layoffs. Fight for substantial budget increases at the height of a recession. Push for additional space when, and only when, you have satisfied your self that absolutely none is available. As you can see, efforts of this kind will be a sure indication to even the most disinterested management of your ability to grasp the realities of the environment within which the company is operating.

Justifying Requests

In conjunction with the previous advice, choose carefully how you justify your requests. Never justify increases on the basis of services provided or requested. Attempt to shame your company into giving you more by comparing it unfavorably with neighboring companies whose libraries' dedication to quality of service is well-known. This makes the comparison totally inappropriate and doubley infuriating.

The "keeping up with the Joneses" approach is a particularly inspired choice since it rarely works. Any criticism of your operation in contrast to those with which you are comparing should be blamed on lack of management support. This type of circular argument puts you in a no-win situation that assures a disastrous outcome.

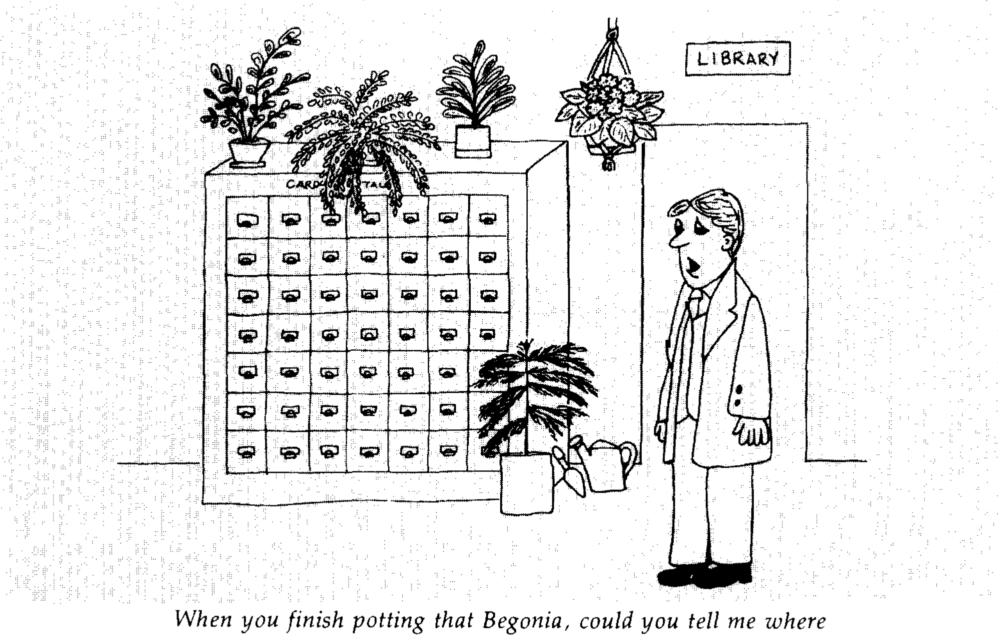
Response Time

Never meet deadlines and ignore statements of urgency. The contemplative nature of our profession must not be defiled by the crass demands of commercial enterprise.

The Library's Image

Establish a homey and unbusiness-like image for your library. Enhance the top of the card catalog with an excessive number of large trailing plants. They can be pushed to one side in the unlikely event anyone should want to use the catalog.

Exhaust all possibilities for the application of slip covers. Keep a pot of weak coffee and lukewarm Hawaiian Punch available. Have plates of homemade cookies, candy (sticky if possible), and other goodies strewn about the area. Hide the work-oriented materials and



When you finish potting that Begonia, could you tell me where the reference books are?

display only magazines with multitudes of pretty pictures. Be sure your stationary is provided with sad and happy faces, and imprint "Have a Nice Day" on all of it. Since it is unlikely that anyone will come to the library more than once on business, attract users by making it comfortable and homey—a place where bored employees can kill time with gossip and refreshments. This image will have a profound effect on your future.

Statistics

Properly used, statistics can smooth the way to failure. However, it is essential to be selective in their use and to keep them as trivial as possible. For example, keep a count of the number of people coming to, through, and near the library. Make sure that if any staff activity statistics are included, they cover only peripheral activities like licking stamps and envelopes, watering the ubiquitous plants, filling the coffee pot and the punch bowl, and so on. Be sure to make some allowance for aimless bustling about. Statistics of this sort will help to confirm managments' opinion of the library.

Suggested Mantras

- My management doesn't understand me!
- My library is always the first to be cut!
- Persevere and we will fail—if not today, tomorrow!

For those who might be interested, the following pamphlets are currently in press and may be requested from the author for a ridiculously modest fee:

The Way to Go—Describes the process of self service to less service to no service.

Random Management—Management by objective has had its day.

The Severed Connection—More on communicating with management

Automating Your Way to Oblivion!—More on computers.

Mark Baer is manager, Corporate Library/Information Network, Hewlett Packard, Palo Alto, Calif.

Management Looks at the Corporate Library

Donald C. Spindler

Ferro Corporation Technical Center, Independence, Ohio 44131

■The expectations of corporate managers and information users are central to information management. In a research organization, the library can provide information to save time and increase the productivity of technical staff. For many companies, the services of a traditional special library will suffice.

THE Ferro Corporation operates a corporate library in its corporate research/technical center organization. It is appropriate to ask "why", and to consider the Corporation's expectations for the library.

Ferro Corporation is a fairly large operation with extensive facilities overseas. It is best known for the production of porcelain enamels and glazes and inorganic pigments. Other specialty businesses: colors, coatings, ceramics, chemicals, and thermoplastics. The corporate special library has holdings concentrated in the fields of ceramics and polymer additives. The library provides primarily technical information and some items of general business interest. Books, technical reports and periodicals are purchased, cataloged, and circulated upon request.

A current awareness bulletin is prepared each month, covering research areas of interest for Ferro. It is distributed by the library upon request. Literature searches may be requested from the library and will be furnished based on in-house abstract and document searches. Online databases searches are also furnished routinely.

The library is part of a group known as Technical Information Services, which includes a statistician and a technical coordinator whose job relates closely to many library functions. The staff is small, but diligent. There are three professionals and a clerk with library schooling. The clerk alternates between the company's two locations, located six miles apart. There is a close coordination between the two locations, and the library materials are not extensively duplicated.

Library Purpose

While the library exists to serve the technical needs of Ferro Corporation, it is also the agent for fulfilling broader corporate needs in the business, patent, personnel, and safety areas. In a larger, more structured company, there might be separate technical and business library organizations.

The library has been organized as a vital service for research. In addition, the library has to provide materials on business and marketing, management and personal development, safety and toxic chemicals. Not only does the library serve the local organization but it is available to help numerous scattered division locations, including those overseas.

The library exists to help research personnel develop basic knowledge; to determine the state-of-the-art on what research has been done elsewhere; and to prevent research personnel from embarking on research that might turn out to repeat the laboratory struggles of others. Also, the library exists to be on the lookout for important books, periodicals, patents, and articles. With a corporation library, information requests can be handled by persons knowledgeable about information sources.

Management Expectations

Company management has various expectations of the library staff which include:

(1) To have knowledge of the available literature relating to the company's interests.

(2) To have a working knowledge of the useful computer databases for online information retrieval.

(3) To develop a close rapport with Ferro employees so that their needs can be anticipated and filled promptly.

(4) To develop contacts outside the company with sources for ordering information, with persons who can share insights on effective library operations, and with those who can help by sharing documents or other resources not universally held. Management expects the library staff to participate in meetings and seminars, whether they are for librarians or in areas of the company's research interests. Local and national meetings are important, too, for developing professional contacts. Local online users groups have been especially helpful in developing skills conveniently and at little cost.

Library Materials

Users expect the library to be well-stocked with ceramic information, information on organic synthesis and polymer additives, technical and business periodicals, government documents and indexes, *Federal Register, Commerce Business Daily*, books (in-house or by loan), and a variety of reference books. Users also expect staff to exercise technical competence in online information retrieval, as well as manual searching and the ability to acquire documents from other sources.

Expected Response

The library is often judged by what is on hand and what can be obtained promptly. Management and other users are likely to become disgruntled if an information request does not receive a prompt acknowledgement or a prompt answer. If users have higher expectations of library response time than is reasonable, the library staff should make this clear. If the user asks for information to help plan a business trip abroad, the library is not doing its job if it supplies the information three or four months later.

Librarians should be aware of the variety of ways they can get patents, 10-Ks, or books, and know the relative speed and cost of such orders. Often a librarian in a nearby library can be the fastest source. The librarian should also be aware of outside resources in a close geographic area.

Another expected response to the user is good judgment. Don't "stick" the user with an expensive translation if he or she is not willing to pay. Perhaps all that is needed is an abstract or a foreign equivalent in a more translatable language. The good librarian responds to requests for information by supplying what is needed rather than what is asked for. Requests for information that filter down from the executive suite often arrive in a garbled form. The information specialist must ascertain what is wanted before engaging in a poorly defined assignment. Every attempt should be made to deal directly with the information request or, though, admittedly, some rigid organization structures do not permit this.

Library Service: For the Librarian or for the User?

A library staff proud of its abilities will strive to anticipate users' needs. This can mean making the library conveniently available for the users. It might also mean making the library convenient for the staff. Are all the good reference books behind the librarian's desk? Are library purchases based on the librarian's needs or the users' needs? An imbalance can be frustrating.

To accommodate the user, there should be convenient reading areas and work areas. Copying and microfilm equipment should be kept in good repair and stocked with needed supplies. The users should not be relegated to the poorer equipment.

New books and periodicals should be processed promptly. A library with the user in mind will weigh circulating periodicals vs. displaying current issues and tables of contents. It is a real convenience for many users to be able to peruse magazines at their desks or to take them home rather than to visit the library. On the other hand, it is less work for a library if materials do not circulate and the whereabouts of the new issues are known.

Other Problems

Probably no two special libraries do things the same way. Some of the library school doctrines do not apply. Each library should strive for consistent practices over the years, but testing the validity of those practices is important.

Space is always a problem. Can the junk be weeded out so that needed items are more readily found? Management should not expect all donated books and magazines to be treated as sacred; the librarian should be free to accept and keep only materials of value.

Public Relations

Management is often not aware of some hidden library assets. New book and periodical lists, book reviews, circulation of pertinent information, search capabilities, and so on, should be publicized.

In searching for answers outside the company, the librarian has to decide whether merely asking the questions tips off competitors. Management expects that information handled for the company should not leak out. This is a situation secretaries have had to deal with for a long time.

Financial Responsibility

In a research laboratory, the librarian generally controls more expenditures than any single researcher. He or she needs to be careful about expenditures and to continually review historical needs. Do the frequency of information requests and the urgency of these requests justify more expenditures?

Special librarians are an important asset of Ferro Corporation. They provide data on research, background materials for a speech, or business information. They can save us a lot of time, and help us do our job better. The library's professionals and support staff are people who are proud of their abilities and who need encouragement and thanks. They anticipate the organization's needs and provide prompt, cost-effective service in a manner that meets the expectations of corporate management and users.

Donald C. Spindler is Associate Director of Research, Administration and Services, Ferro Corporation Technical Center.

Marketing for Special Libraries and Information Centers

The Positioning Process

Arthur Sterngold

Sterngold & Associates, College Park, Md. 20740

■ Marketing is essential to information management. Selection of user groups to be served and determination of their information needs are among the most important steps in marketing internal information services. Information centers should position their programs to support corporate goals, objectives, and priorities.

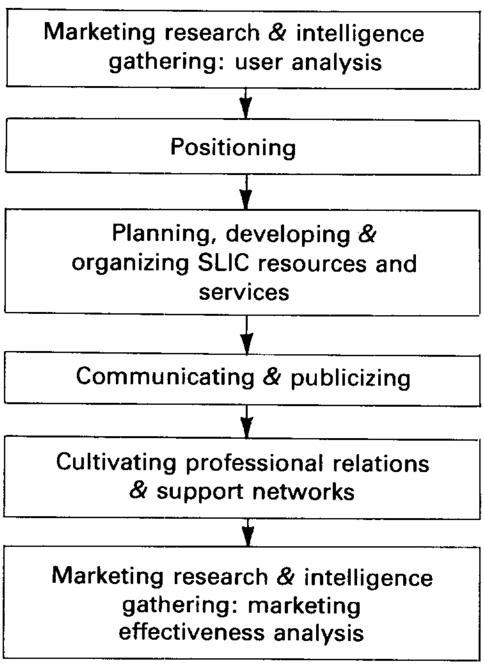
MOST special libraries and information centers (SLICs) are professional staff support units—their primary purpose is to provide information, services, and advice to client groups inside their organizations. Other examples of professional staff support units may include personnel, public relations, data processing, employee development, and government affairs. Staff units often suffer from a host of common problems, including: low user awareness and understanding of what services the staff unit provides, and how these services benefit both users and the organization as a whole; low staff awareness and understanding of the real needs, priorities, and functions of different user groups and the organization as a whole; and consequently, low credibility, status, and support for the professional staff support unit within the organization. In general, professional staff units face the challenge of exerting influence in their organizations without having direct authority over the clients they serve.

Internal marketing can help overcome these problems. From the standpoint of SLICs, marketing is a planned approach to identifying, attracting, serving, and gaining the support of specific user groups in a manner that furthers the goals of both the SLIC and the organization.* These functions are successfully

* This definition of marketing, as well as the subsequent discussion of marketing activities and techniques, varies considerably from more traditional descriptions of the field. This is because the internal marketing of professional staff services requires concepts and techniques unique to its own problems and circumstances. For more traditional discussions of marketing, see Philip Kotler, *Marketing for Nonprofit Organizations* 2d ed. (Englewood Cliffs, N.J., Prentice-Hall, 1981), or William Nickels, *Marketing Communication and Promotion* (Columbus, Ohio, Grid Publishing, Inc., 1980).

performed through a wide variety of activities, including: 1) selecting specific user groups to whom the SLIC's marketing efforts primarily will be directed, as well as selecting of services to satisfy user's information needs; 2) planning, developing, and organizing SLIC services and resources in order to meet these information needs; 3) communicating and publicizing these offerings to inform, educate, interest and attract SLIC users; 4) cultivating strong professional relations with users, as well as building larger support networks throughout the organization; and 5) conducting marketing research and informal intelligence-gathering in order to gain better insights into the specific information needs and other important characteristics of current and potential users (user analysis), and the effectiveness of the SLIC's current marketing efforts (marketing effectiveness analysis). Figure 1 presents one way of conceptualizing the process of internal marketing.

Figure 1. Stages in the Internal Marketing Process



Since these activities can be undertaken only after the selection process is completed and because it is not possible to discuss all of these points in one paper, the remainder of this article will deal with the selection process. This process is often referred to as "positioning" or "target marketing."

The Positioning Process

In order to be effective, the SLIC must align itself with the goals and activities of the organization it serves. In other words, it must constantly strive to maximize its contribution to the organization (and by so doing, to gain the credibility, influence and support it needs to make that contribution).

A major tenet of modern marketing is that an organization can operate most effectively by concentrating its efforts and resources on meeting the selected needs of specific groups of users (or customers, clients, members), rather than trying to be all things to all people. An organization should consciously choose how it positions itself in its marketplace. As applied to SLIC's, positioning is the process of making two key decisions from which all other marketing decisions are derived: 1) To which user groups the SLIC will primarily direct its marketing programs and services (referred to as target markets); and 2) which information needs the SLIC will concentrate on serving.

These decisions should be based on an accurate understanding of the priority goals and activities of the organization, as well as the objectives and capabilities of the SLIC, itself. This is not to say that other user groups and information needs should be ignored, but rather, that they simply are not the targets for active marketing efforts. Some SLIC managers and professionals may object to this focused approach; however, if not made consciously, these positioning decisions will be made anyway but in a haphazard and unplanned fashion.

Every time decisions are made about how to allocate SLIC resources, e.g., acquisitions, budgets, information systems, implicit choices are being made about primary user groups to be served, and the information needs the SLIC will satisfy. By making these decisions in a planned manner, the SLIC can concentrate its resources and efforts to achieve maximum efficiency, and to most effectively serve the priority needs of the organization.

The following case studies, drawn from my experiences, will illustrate these concepts.

Repositioning Library Services in a Major R&D Firm

Over the years, a large corporate library for a major R&D firm had developed close working relationships with its users. These users had backgrounds in traditional science and engineering disciplines, and most of their requests were for technical information the library either possessed or knew how to acquire. As a result, the library's position in the company as a competent and useful source of information had always been secure.

However, due to changes in its technological, competitive, and regulatory environments, the firm's goals and priorities had changed considerably. It was being forced to become more competitive in fields it had historically dominated at the same time as it was moving rapidly into computer-related fields that offered attractive profit opportunities to those firms that had the necessary expertise to capitalize on them. Over the past several months, the company had hired a large number of specialists in these fields, whom corporate management considered to be the future of the company.

These changes had created serious problems for the library system. Middle and upper level corporate managers were requesting up-to-date information on competitive firms and products that the library neither possessed nor knew how to acquire quickly. Frustrated, these managers were increasingly turning to their own staffs and outside sources to gather the information the library seemed unable to provide.

The new groups of specialists in computer-related fields were also dissatisfied with the library. They wanted to use their desk computer terminals to interact directly with the library and its databases, rather than having to submit information requests and conduct searches in the usual ways. Because their fields were developing so rapidly, these specialists depended on information that often did not exist in any organized form the library could even identify, let alone acquire.

As a result of these changes, the management of the corporate library system perceived that it was losing credibility and influence in the company, even though its relationships with traditional users remained good.

Through an intensive process of soul searching, the library confronted and answered the two positioning questions posed earlier. In addition to meetings and assessment of the situation, the library's plans were based on extensive marketing research, intelligence gathering, user interviews, and research conducted by an outside consultant, as well as on informal user research conducted by the library's professional staff.

It was decided that the library would realign ("reposition" in marketing terms) its services to better match the current goals and priorities of the company. In particular, corporate managers in need of competitive information and specialists in computer-related fields as key target markets would receive more services and resources. To the extent possible, the library would develop capabilities to satisfy its user's untraditional information needs.

In particular, the library would devote more resources to building a collection of timely information on competitive products and firms, and to purchasing services from outside vendors supplying this type of information.

In addition, selected members of the library's professional staff would be assigned to conduct searches for competitive information not available from these other sources. Their activities would include collecting competitors' sales and promotional materials from the company's customers and suppliers, interviewing industry experts, and other acceptable forms of "industrial espionage."

An underlying assumption of the positioning process is that SLIC managers understand the priorities and concerns of their organizations and that they are knowledgeable about and actively involved in organizational life.

Similarly, the library would expand its resources in computer-related fields. A new reference librarian with advanced training and experience in one or more of these fields would be hired. This person would work exclusively with the new group of specialists, especially in helping them locate and acquire current information. The new reference librarian would be located in an office close to the computer-related specialists to further make it clear that he or she was "their" reference person.

Finally, the library would accelerate its development of a computer-based system allowing users to directly interact with the library and its databases through their desk terminals. This project, which had been on the back burner for years, would now be given priority attention to satisfy the computer-related specialists who considered all other forms of interaction as prehistoric.

These positioning decisions were not easy to make, nor would they be easy to implement. Since the library's budget was limited, devoting extra resources to serve its new target markets would necessarily result in a decrease of services to its more traditional users. These changes would be introduced incrementally over time through the ongoing processes of acquisitions, decision-making, and resource allocation. While the library would continue to serve its traditional users within the limits of its resources and capabilities, it would make a special effort to attract, satisfy, and gain the support of managers seeking competitive information, as well as specialists in computer-related fields.

By implementing its positioning decisions, the corporate library system hoped to regain its credibility, influence, and support within the company. Because these decisions were based on a realistic assessment of the true goals and priorities of the company, the library was confident that it could withstand any opposition to its new course of action. Rather than just responding to any and all user needs, the library had consciously positioned itself to contribute to the major goals of the firm.

The Consequences of Avoiding Positioning Decisions in a Large Hospital

An underlying assumption of the positioning process is that SLIC managers truly understand the priorities and concerns of their organizations. This usually requires that SLIC managers not only be knowledgeable about but also actively involved in the lives of their organizations. As is true of most staff departments, the SLIC must actively seek out ways to remain abreast of important developments in the organization that will eventually have an impact on the SLIC, itself.

Consider the case of a large medical center that had always remained committed to the three goals of providing quality patient care, conducting state-of-the-art medical research, and serving as an educational center of national prominence. Over the years, the hospital's information center had developed competence in gathering and disseminating information related to these goals.

In practice, most of the medical center's managers were preoccupied with two very different priorities—containing hospital costs and attracting more private patients who could pay for the full cost of services (either directly or through their insurance policies). As a result of "Reagonomics" and current economic conditions, the hospital was facing a full-scale financial crisis. Private contributions and government support for patient care, research, and teaching activities were all shrinking, while the costs of new medical equipment and materials continued to soar. After several rounds of across-the-board budget cuts, it was evident that the medical center would have to eliminate some of its services and departments.

This financial crisis could have been perceived by the managers of the information center as an opportunity to help the hospital deal with its priority issues and at the same time, guarantee the survival of the information center. From a positioning standpoint, the center could have identified those groups of administrators most directly involved in efforts to contain costs or attract more private patients, and then have concentrated its efforts on providing information to help them succeed in their efforts. Instead, the center's managers attended to "business as usual." They continued to spend most of their time in the information center, running their departments as efficiently as possible. Although these managers were certainly aware that the hospital was facing tough financial problems, they did not understand the scope of the problems, nor what the hospital was doing to solve them.

When the medical center's top administrators finally produced a list of departments slated for severe budget reductions or elimination, the information center was near the top. Although the center had done an excellent job of meeting the information needs of its users, it had failed to recognize or respond to the current priorities of the organization. Consequently, the information center was viewed as expendable and was more vulnerable than other staff departments that had positioned themselves to help solve the current financial problems.

Conclusions

SLICs suffer from problems of credibility, influence, and support common to many professional staff support units. Internal marketing programs can help overcome these problems. For the SLIC, marketing is a planned process of identifying, attracting, satisfying, and gaining the support of specific user groups in a manner that furthers the goals of both the SLIC and the organization it serves. Effective marketing programs depend on selection of user groups to be served and the information services to be provided in response to the needs of those groups. By making these positioning decisions, the SLIC can align itself with the priority needs and goals of the organization, thus maximizing its overall contribution.

Once these positioning decisions have been made, they are implemented and given substance by other marketing decisions. These include choices about the services and resources to be offered in order to meet the information needs of the SLIC's target markets, communication programs to educate users, publicity, and promotion. These marketing activities will be most effective when tailored to meet the specific information needs and other characteristics of the user groups selected by the SLIC as its target markets.

Although it is the central strategy component of business marketing, the positioning process has rarely been applied to professional staff support units that primarily serve users inside the organization. Yet, the positioning process is as crucial to internal marketing as it is to the more traditional marketing of products and services to outside clients and customers.

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Arthur Sterngold is president, Sterngold & Associates, College Park, Md.

Mainstreaming the New Library

Elizabeth Keeler

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

■ New special libraries present challenges and opportunities for their librarians. In order to succeed and flourish, the new library must prove its worth to the parent organization. Methods of integrating the new library into the organization are discussed. A three-tier approach is suggested: marketing, production, and advertising.

LIBRARIES have long been a tradition in large corporations. Smaller organizations, too, have begun to develop libraries to help them cope with the mass of information confronting them. A successful library, in the mainstream of corporate affairs, can become an important part of the organizational structure. The librarian is in a position to help ensure that the library achieves that success by moving away from the traditional "warehouse" aspects of librarianship and into true information management.

In the period from 1973 to 1978, 56 new special libraries were identified in the Illinois area by the Christianson study (*1*). At the time of the survey in 1978, 10 of the 46 responding libraries, or 21.7%, were considered only marginally healthy. The study also investigated the causes for the demise of 4 defunct libraries. Among the factors stated were economic pressure, lack of goals, lack of widespread use of the library, and/or lack of acceptance of the librarian as a professional.

Is it possible to prevent the failure of a new library? In many cases, it probably is not, particularly when there are economic pressures in a time of intermittent recession, but there are steps to be taken which may increase the library's chances of survival. A library that is considered an integral part of the corporation is likely to be successful. For this to occur, the library should be mainstreamed. Mainstreaming consists of three major elements: marketing, production, and advertising.

Marketing

Marketing the new library begins with posing several questions: • What does the corporation expect of the library? • What is the business of the corporation? What is its product? • What are the information needs of the corporation? What is needed to meet those needs? • How will the library fit in with long-term corporate goals?

Answers to these questions may be found by contacting employees at all levels, either formally in a meeting, or informally over coffee. Finding answers to the first question is essential; corporate expectations must be met or exceeded if the library is to flourish. This examination of the corporate environment may take several months. Bit by bit, a clear picture of the organization's wants and needs will emerge.

Gatekeepers are gurus of information. They are most often found in scientific and technical organizations but they may also be in nontechnical fields.

The business of the corporation will determine the contents and function of the library. The blueprints present in the library of an engineering firm will not be present in the library of a law firm. The information needs of the organization will be unique to each corporate entity, as will the requirements of the library to meet them. There are no set formulas for determining the universal information needs of organizations. They need the right information at the right time and in the right format; for specifics, the librarian must "wing it" based on careful observation.

Unlike information needs which vary from organization to organization, the long-term goals of most corporations are alike: make money. If a company establishes a library, it must believe that, in some way, the library can help achieve that goal. The librarian can then tailor marketing and production toward the aim of becoming part of the profit-making team.

Marketing the new small library will of necessity include observing and participating in the politics of the organization. This may be anathema to some librarians, but, as Kok has observed, ". . . special librarians should recognize the structural and political realities of the organizations they work for (2)."

Observation of the organization will involve identifying sources of power and influence. The organization chart may not always pinpoint the influential individuals. For example, a middle manager may have the ear of the vice-president. Perhaps they have had a professional relationship going back over many years and several companies.

Each department will have as its mainstay a reliable, knowledgeable individual. This person will not necessarily occupy a middle or top-level position; he or she is valuable by virtue of years of service. Each department will also have its center of power, typically, the department head. It is worthwhile to try to cultivate these individuals. By chatting with them informally, you will discover their information needs; by providing data to meet those needs, you will be building a broad base of support for yourself and for the library.

Gatekeepers

During the observation period, it may be interesting to study the information-seeking behavior of your colleagues. You may find that, when confronted with a problem, they follow a sequence of steps similar to those described by Shuchman (3):

1) Personal store of information; private library, knowledge based on experience.
2) Informal discussion with colleagues.
3) Discussion of problem with supervisor.
4) In-house information: internal technical reports.
5) Gatekeeper.
6) Outside consultants.
7) Databases.
8) Librarian.

The librarian, as might be expected, is an information source of last resort; informal sources are consulted before formal sources.

An interesting source of information noted by Shuchman and earlier, by Allen (4), is the gatekeeper. Gatekeepers are gurus of information; people often turn to them for assistance and problem-solving. They are most often found in scientific and technical organizations, but they may be present in nontechnical fields as well. Allen found three common characteristics among gatekeepers: high technical performance, first-line supervisory responsibilities, and high visibility to technical management as information brokers. They typically have voracious reading habits and include sophisticated technical and theoretical journals in their fare.

Gatekeepers also tend to publish in refereed journals and have reputations for being high achievers (3). The most striking characteristic of gatekeepers is a reputation for technical competence. When you hear someone referred to as "our resident genius" or "our resident problem-solver," chances are that the person in question is a gatekeeper.

Gatekeepers, because of their store of knowledge, wield considerable power and influence. It is wise to become acquainted with and to coordinate the gatekeeper's information with the information contained in the library. The gatekeeper will have information the library does not; the library will have information the gatekeeper does not. By working together with the gatekeeper, the librarian will become part of the informal information network.

As time goes on, the librarian will become a secondary gatekeeper. Secondary gatekeepers are individuals who move freely among all departments because of the nature of their positions. Some other examples of secondary gatekeepers are the personnel representative and the office manager. The librarian who coordinates work with the primary gatekeepers and becomes a secondary gatekeeper will receive greater recognition because of contacts made in all sectors of the organization. The support for the library is broadened and strengthened.

Of course, the number one source of power and influence is the number one person in the immediate organization: the president, divisional vice-president, director of research. Unlike other sources of influence, this one is easily identified. It is essential that this person be aware of what the library can do. It is not petty or unethical to take special care in providing this individual with information—it just makes good sense. For example, the president may read *The Wall Street Journal* every day but may not have time to go through the New York *Times*. The librarian can scan the *Times* and send photocopies of articles of interest to the president. By doing this, the president will come to depend upon the librarian for information.

Professionalism

Part of the marketing effort will include enhancing the librarian's aura of professionalism. In a corporate setting, people may not realize that the field of librarianship requires a master's degree and more than a modicum of intelligence. Say "librarian" and your colleagues may immediately put a blue rinse in your hair and orthopedic shoes on your feet. This is not their fault. For many of them, their only memorable contact with a librarian may have been in the sixth grade on a *Reader's Guide* assignment.

Your colleagues must be gently reeducated. This can only be accomplished over a relatively long period of time; 100 years of negative stereotypes cannot be annihilated in a day. When discussing education, emphasize that you attended graduate school, rather than library school, and that you were educated, not trained. When discussing attendance at conferences, refer to them as professional meetings, not conventions. Gradually, your colleagues will begin to see parallels between their professional activities and yours.

In order for the position of librarian to be considered professional, the incumbent must look professional, act professionally, and do professional work. Much has been written concerning dress appropriate to one's position; the concept is as valid for the special librarian as it is for the financial analyst or sales engineer. The objective is to look like part of the professional/management team of the organization.

The librarian's office should also reflect the professionalism of the position he or she holds. If it is standard corporate practice to display diplomas, certificates, and licenses, the librarian should do so. In some organizations, any connection with a typewriter immediately tags the individual as a clerk. Where this is the case, a typewriter should be avoided if at all possible. In time, try to have your title changed from "librarian" to almost anything else, e.g., information specialist, information manager, research specialist. The idea is to get away from the negative connotations inherent in the word "librarian."

In addition to the obvious questions of dress and offices, other seemingly inconsequential on-the-job behavior may undermine the librarian's professionalism. Taking regularly scheduled "breaks" and going out to lunch with the clerical staff may identify the librarian as a clerk in the minds of management, particularly if the librarian is a woman. If you lunch out, lunch with other members of the professional and management staff; these people are your colleagues. This may seem unfair, and it is; support staff can be brighter and more interesting than some of your professional colleagues. But you will be better off by playing the game than by trying to change its rules.

MBA graduates seem to understand the intricacies of corporate politics instinctively; MLS graduates do not. MBA's have the advantage of having learned political skills indirectly through the case study method of teaching and through classroom discussions. Some MBA programs offer courses with titles such as "Organizational Behavior" which deal directly with the politics, psychology, and interpersonal relationships within corporations. Many librarians have not had the advantage of taking courses such as these; their political educations take place on the job.

Production

Well-honed political skills will do little good if the library does not have a firm direction and a solid product. The day-to-day objectives of the library will change as the demand for information changes, but the overall goal or mission of the library should remain the same: to serve the information needs of the organization. This goal is broad enough to encompass the possibility that the organization and the librarian may have different ideas as to the purpose of the library.

Unlike information needs which vary from organization to organization, the long-term goals of most corporations are alike: make money. If a company establishes a library, it must believe that the libary can help achieve that goal.

Management may not be aware of all of the capabilities of a library. Its expectations may be low: a repository for books and journals, or a place to keep corporate records and product samples. To go beyond these rudimentary expectations requires an extra lobbying and marketing effort on the part of the librarian. Attend every upper-level meeting you are invited to and ask to attend others. Spending 90 minutes in a seminar on dredging or portfolio management may not appear to be the best use of your time, but you will achieve several advantages:

- You will increase your knowledge of the business of the organization.
- You will learn more about the type of work your colleagues do. This will help you to anticipate their information needs and will enhance your ability to "talk shop" with them.
- You will learn how your colleagues work and how they like their information—raw data or packaged.
- Your professional aura will be enhanced.

Your colleagues will most likely want the actual information they seek, not a list of sources. Do not restrict your quest for information to printed sources; use the phone, call primary sources. After about four call transfers, you will likely be talking to the person directly involved with the data you are interested in.

As you become more successful in providing needed information, it is likely that more intricate requests will come your way. This is an opportunity to show management what a librarian can do. It may be possible to prepare a relatively short, readable report surveying current research in a field. Your report may serve to take a manager "up-to-speed" in an area with which he or she is unfamiliar. This ability can make the library worth its cost. The librarian can achieve several objectives in performing these types of projects:

- Managerial manhours are saved; managers are freer to pursue other tasks.
- Since a librarian can often gather information more effectively and efficiently than a manager, dollars are saved.
- Information and facts serve to increase the effectiveness of presentations made by corporate personnel to prospective clients or customers. By providing the information, the librarian can enhance the reputation of the company.
- By enhancing the reputation of the company, the professional reputation of the librarian is strengthened.

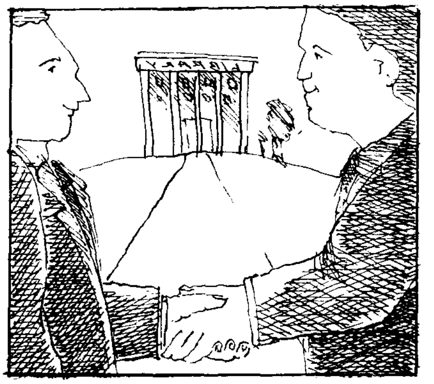

Figure 1. Make people want the library: Look Professional. Act Professionally. Do Professional Work.

As corporate expectations are exceeded, the library begins to shed its passive qualities and moves into the mainstream of the organization. The librarian becomes a true part of the corporate team, and the work involved becomes exhilarating.

Advertising

Advertising has been described as "the business of selling goods, services and ideas by making people want them" (5). Make people want the library. Arrange to have library brochures included in the orientation packet for new employees. Visit the new people to become familiar with their areas of interest. Take them on a tour of the library emphasizing those parts of the collection most closely related to their work. When corporate officials give tours of the company to outsiders, have the library included. Encourage the use of the library for small conferences but *not* for lunch. Arrange to speak to individual depart-

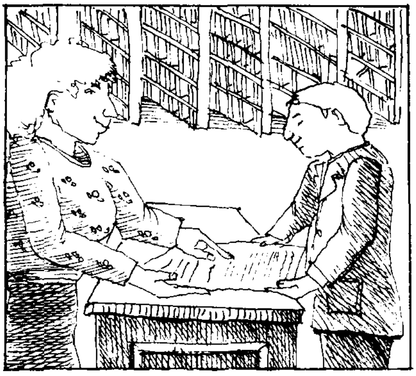

Figure 2. Deliver a solid product.

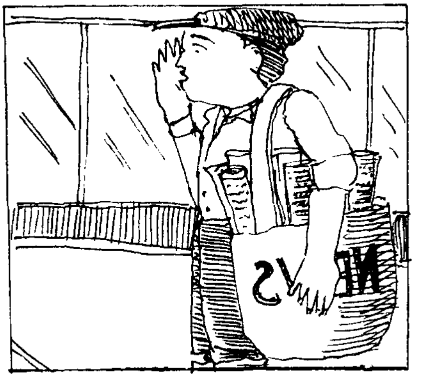

Figure 3. Advertise: The right information/the right people/at the right time.

ments on how the library can assist them in their work. In addition to the usual monthly bulletins citing new acquisitions and other aspects of the library, have an article included in the house journal.

For these ideas to work, the library must be accessible and attractive. Ideally, the library will be located at a crossroads of activity within the main section of the building. A location within or near the technical/professional departments is more desirable than one next to the cafeteria or boiler room. The appearance of the library should reflect the professionalism of the endeavor. Try to have the best furniture available; it should blend in with the rest of the office decor. Solid walnut shelving and upholstered chairs on thick carpeting will do more for the library's image than metal shelving on linoleum. Try to create a pleasant, attractive environment.

In-house seminars to individual departments, photocopies of articles sent to colleagues, and bulletins all help the library maintain its visibility, but the best advertising tool is the librarians' own work. Every time the librarian supplies a crucial bit of information or prepares a needed report, the worth of the library is being advertised. Get the right information to the right people at the right time. This is the essence of information management and good advertising.

Conclusion

Librarians have a great many tools at their disposal to help ensure the success of their new libraries. The use of these tools, properly executed, has a threefold benefit: the parent organization gains a productive, useful source of information; the librarian's career is enhanced, and the field of librarianship gains another member who is thought of as a professional by colleagues in other fields.

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Elizabeth Keeler is Assistant Professor of Library Science, Engineering Library, Purdue University.

The Role of an Academic Librarian in the Information Age

Janice W. Holladay

Rush Rhees Library, University of Rochester, Rochester, N.Y. 14627

■ Academic libraries, in general, do not provide information; they provide access to sources of information. The shift to provision of information in an academic institution requires the librarian to be proactive and involved in the substantive work of the institutions.

THE CONCEPT of college or university librarians as "information managers" is, to many, a startling one. The academic library often seems steeped in tradition, the very essence of the ivory tower. Hopefully, it will always retain much of this tradition for it is an important library function to provide a place for scholars, for quiet browsing and reflection. However, an equally important responsibility is to provide efficient access to information. This has often been neglected, but the need to do so is growing more urgent each year.

We are living in a society based on accumulated knowledge and kept functioning by the production and use of information. The number and cost of published materials is growing rapidly, more rapidly than traditional methods can successfully handle. A physicist in 1950 would have found less than 10,000 abstracts in *Physics Abstracts,* while in 1980 there were over 100,000. Information recorded in this subject area has increased 10 times!

If we and our users are to cope with this ever increasing volume of information, we must use traditional tools more effectively, as well as new techniques and technologies. As if this were not challenge enough, there is also a growing need for proficiency in interpersonal communication. The more a librarian begins to act as mediator between the library user and the growing pool of recorded knowledge, the more important communication skills become—for who can provide the answer when the question is not understood? In an era of changing technology and methods there is also the need for reassuring users and explaining new methods. This again calls for skill in interpersonal communications.

In the face of such complex demands, academic librarians may understandably be reluctant to confront these new challenges and, instead, long to take refuge in the past. However, as E. Taylor expressed it, "When librarians cannot keep pace with research, with technology, and with artistic endeavor, they allow the study of knowledge to degenerate into a hopeless activity, into a privilege and a cultural irrelevance" (*1*).

Library Involvement

There is no real alternative; librarians will not and cannot have a role in the future if they are shackled by the past. Fortunately, embracing new possibilities can be an exhilarating, positive experience. At the University of Rochester, steps in new directions and patterns of service have been rewarding and productive.

One example of these steps involves library service to the university's Laboratory for Laser Energetics (LLE), the site of an energy research project to accomplish nuclear fusion using lasers. The Laboratory has been designated a "users facility." The National Laser User Facility extends use of its facilities to the entire national scientific community. Scientists from academic institutions, industrial research establishments and government laboratories carry out a broad range of experiments in fields such as energy, applied physics, and chemistry using the OMEGA laser system and its supporting facilities. OMEGA is the only high peak power laser facility available to users in the United States.

This user group exemplifies that sector of the university community which requires more than traditional library service. Working at the forefront of their discipline and on a tight timetable, researchers at LLE have come to depend on responsive, imaginative library service. The collection of materials on-site is small, requiring efficient information delivery from the main campus (2 miles away) and from rapid document delivery services. Online bibliographic search services are used frequently to:

- Enable researchers to be aware of the most recent technological advances;
- Provide comprehensive subject bibliographies;
- Perform patent searches which precede laboratory patent applications;
- Compile bibliographies submitted with grant proposals;
- Provide verification of cited literature (in 1981, 70 articles were published in scientific journals by laboratory employees for which the library provided background information and verification of cited sources);
- Identify funding sources, potential sponsors;
- Place orders for document delivery. A variety of agencies are used; see the *Guide to DIALOG Searching* for possibilities (*2*).

In short, the library has become an active, valued participant in the ongoing work of the laboratory. Researchers and administrators at LLE are strong library supporters. Provision of this kind of service did not proceed from an abundance of staff and funds in the university library; indeed, far from it. The interaction between the library and the laboratory had meager beginnings. By responding capably and beyond traditional service levels to the information needs of a researcher, a single librarian ignited the first spark. The researcher learned firsthand the value of information service. As he orchestrated the growth of a small research group into a research laboratory the importance of getting appropriate information in a timely way was established over and over.

Beginning with this important level of support, a science librarian assigned to the laser project began to establish library service specifically for this group (in addition to several other areas of responsibility.) Resources at that time consisted of materials from a small reading room and a shared desk in a three-person office occupied by two laboratory personnel.

Working from this desk less than two hours a day, the librarian began by identifying those with leadership roles in the organization. Appointments were made with each of these people, some 10 or 11 in number. The purpose of these meetings was to identify the information needs of these individuals and their staffs, and to describe library service possibilities and information resources available. These discussions were adapted to meet individual responses; topics were contracted or expanded to suit the amount of interest shown.

Responses among those interviewed varied a great deal. Some found little relevance for their work in the library's services; others were enthusiastic. From each, however, the librarian gained a sense of the particular research group's mission, primary subject areas of interest, type of effort involved (theoretical, experimental, etc.), and a sense of the group leader's library/information awareness quotient. Working from this basis, relevant materials were selected, packaged, and sent to individuals judged to have needs that could be met in this way. This included both those who were enthusiastic and those who were disinterested. The response to this effort was very positive; it took information service from theory to reality.

Laboratory Response

The value of effective information management became clear. Access to the right information at the right time made research and experimental work more effective and less time-consuming. This message was spread by word of mouth and the number of users steadily increased. Within a year, the laboratory began to lend support by providing office space for library personnel, shelving, library supplies for a mini-library on site, a computer terminal for online searching, supporting the costs of online searching, travel expenses for meetings directly related to laboratory interests, and so on.

The librarian was included in general staff meetings, research seminars, and other aspects of the daily life of the laboratory. One of the weekly research seminars was devoted to information resources and was presented by the librarian to a large, receptive group of researchers. A full-time library assistant was assigned to the program.

It is important to provide examples of needed service without fearing overextension of resources; otherwise, a beginning can never be made (3). In the event that library resources do become overextended and not enough support is offered, the trial will provide the benefit of showing users what they are missing.

Extension of Service

In-depth information service is available not only to LLE Library users but also to other groups on campus where efficient flow of information is essential for reaching desired goals. For example, the Chemistry Department depends heavily on these same services. The library also serves individual members of the university community who have special needs. On one occasion, the Dean of the College of Engineering and Applied Sciences was asked to be a panelist at a conference on improving productivity. With limited time to prepare, he needed pertinent information quickly. Material on this topic was selected from a variety of sources, including congressional hearings and periodical literature, and sent to his office. Again, the right information at the right time brought about a new awareness of the benefits and possibilities of library service, and a new library supporter.

In this way, the University of Rochester Library System, working through the science libraries, made significant progress toward developing a clientele supportive of the library, interested in the new technologies, and ready to support the library's move into the information age. The library has recently received the University's approval for development of an online circulation system with eventual online catalog capability. Faculty and researchers are looking forward to accessing library collections from their offices. This degree of access with accompanying data-gathering capabilities will allow a higher level of information management to occur on campus.

To extend the reach of the library to include the highest level university administration, a presentation on the possibilities of online searching was included in an Executive Computing Seminar (*4*). This session highlighted the support the library could provide administrators and committee members. Sample questions were carefully developed which would capture the attention of the audience, i.e. using names of local interest and specific topics and questions known to be of current interest to members of the administrative group. For example:

- What recent popular journal articles mention the University of Rochester?
- How many entries in AMWS hold Ph.D's in physics from the University of Rochester?
- What grants are held by the University's History Department, Biology Department, etc.?
- What are the foreign language requirements of the liberal arts curriculum?
- Provide a mailing list of entries in Rochester, N.Y., doing research in laser technology.

Questions were also selected to show the range and versatility of online searching and available databases in areas most useful to the university administrators.

The seminar was well received and many requests for information were submitted by various administrative departments following the presentation. For example, a vice president asked if the introduction of a bill to Congress could be located. Following an online search of the *Congressional Record*, the document was quickly sent to the requestor by the Government Documents Section. A small step had been taken in beginning to provide university administrators with the kind of support many corporate officials have come to expect. In so doing, the library's credibility was also increased.

Conclusion

Information management using all currently available resources and technologies is essential for effective library service. Interpersonal communications and improved public relations skills are corollaries in this effort. This is an era of challenge for college and university librarians. The talent and ability to answer this challenge is readily available. We have no need to linger in the past; the future is too inviting.

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Janice W. Holladay is head, Reference Department, Rush Rhees Library, University of Rochester.

Determining the Information Needs of Marketing Executives

Stanley F. Stasch and Ronald T. Lonsdale

College of Business Administration, Loyola University, Chicago, Ill. 60611

■ The marketing process involves several phases, each requiring different types of information. An effective information system for marketing management should provide the appropriate quantities and levels of information needed in each phase of the process. The information manager needs to be familiar with critical marketing questions, information needs, and the channels of distribution used by the company for its products or services.

CORPORATE MANAGEMENT can be broken down into a number of areas of responsibility, including accounting, finance, marketing, personnel, production, and purchasing. Some of these, such as accounting and production, use mostly internally generated information. Finance, and personnel to some extent, use internally generated information but also have ready access to the other information sources which are needed to perform those functions. In the areas of purchasing and personnel, good data can be obtained because suppliers and prospective employees seek out the purchasing and personnel executives to provide them with information.

Compared with these other areas of corporate responsibility, marketing is different in that its information sources tend to be external to the firm, as well as geographically distant. Marketing executives are often separated from their final customers by the presence of one or more levels of middlemen in the distribution channels used by the firm. In addition, using final customers as information sources is made more difficult because of their large numbers, their geographic dispersion, their different needs and motivations, and by their tendency to be noncommunicative as far as the company is concerned (unless they are extremely dissatisfied). If corporate librarians and information specialists (hereafter termed CIS) are to help marketing-oriented business managers, they must have some understanding of how marketers think and of the kinds of information they are likely to want.

Scope of Information Sources

Marketers are likely to use information from many sources, all of which fall into the following five categories:

1) Internally generated information such as sales revenues, sales volumes, production rates, and various costs and profits.
2) General business publications.
3) Public secondary data of the kind made available by federal and state governments and by trade associations.
4) Commercial secondary data which have been collected for specific purposes and are available for a fee. Some examples include a) Sales Areas—Marketing, Inc. (SAMI), which reports the amount of product shipped from warehouses during a four-week period to food stores in the market area served by the warehouses, b) the A. C. Nielsen Company's measure of sales made to consumers through chain and independent food stores during a sixty-day period, and c) the National Purchase Diary, Inc., record of food store purchases made by families during monthly periods.
5) Primary data which have been custom-designed for a specific purpose and company, often for a specific problem or decision.

A Word of Caution

Marketing researchers are a group of professional specialists who have had experience with the task of providing marketing managers with information. CIS are advised to be aware that relationships between marketing managers and marketing researchers are not always smooth ones. There have been misunderstandings, and these have caused a certain amount of friction. While the causes of this friction have not been clearly defined, evidence suggests that both parties lack a good understanding of the role and needs of the other party. Such management complaints as the following are common: Research is not problem-oriented; it tends to provide a plethora of facts, not actionable results • Researchers are too involved with techniques, and they appear to be reluctant to get involved with management "problems." • Research is slow, vague, and of questionable validity. • Researchers cannot communicate; they do not understand; and they do not talk the language of management.

Researchers also have their complaints about management: Management does not include researchers in discussions of basic problems; instead it tends to ask only for specific information about parts of problems • Management pays no more than lip service to research and does not really understand or appreciate its value. • Management does not allow enough time for research. It draws preliminary conclusions based on early or incomplete results. • Management relies more on intuition and judgment than on research.

There is enough evidence to suggest that these are not isolated complaints. CIS should be forewarned that the task of satisfying marketing management's information needs is not an easy one. Success requires careful consideration and planning, and a close working relationship between CIS and managers.

The Administrative Process

The administrative process can be viewed as consisting of three separate phases: setting goals and establishing strategies; developing a marketing plan; and putting the plan into action and establishing control procedures. Because a marketing manager's information needs are different in these different phases, the administrative process can serve as a useful framework for identifying those needs.

CIS should be aware that the administrative process can be applied to each product market (e.g., dog food or bedsheets) or service market (e.g., car rental or packaged vacation tours) which is of interest to the firm's marketing management.* Furthermore, these can be markets in which the firm has long competed, or they can be ones which the firm has entered only recently. They can even be markets which the firm is considering entering at some time in the near or distant future.

CIS should be familiar with the major questions marketing managers would like answered during the three phases of the administrative process. These questions reflect the kinds of information marketing managers need in order to determine whether certain decisions should be made or certain actions should be taken. Consequently, CIS must have an intimate understanding of them if they are to establish good working relationships with the managements they serve.

Phase 1: Setting Goals and Establishing Strategies

Marketing management will enter this phase of the administrative process when contemplating entrance into a new market, or when considering a change in strategy for a market in which the firm already competes. Such a situation can arise if certain changes occur in the market or competitive environment—changes which in some way are likely to suggest the existence of a situation which represents a new opportunity or which requires a different response than that used in the past.

Shown below are the kinds of questions which marketing managers use to determine if certain changes are occurring in specified market or competitive environments, and if those changes might signal the opportunity for the firm to undertake a new strategy. CIS should be familiar with these questions, to the point where they feel totally comfortable discussing the questions with their firm's marketing management. Such discussions are absolutely necessary, because it is in such discussions that the CIS will be able to identify which of these questions—or variations of them—are the ones which marketing managers want answered in this first phase of the administrative process. These questions then become the basis of the information system which the CIS will design.

The following six questions are likely to be among those asked in this beginning phase of the administrative process. They should be asked for *each specific market* of interest to the firm's management.

1) How large is the total demand in the market, and is the trend of demand increasing or decreasing?
2) Are there different segments of the market and, if so, what are each segment's size and trend? [*Example*: Canned dog food is a declining segment of the dog food market, but dry dog food is a growing segment.]
3) What are the important characteristics (i.e., needs, wants, dissatisfactions, and so on) in the relevant market segments? [*Example*: Canned dog food completely satisfies a dog's daily nutritional requirements, but is smelly, inconvenient to store after having been opened, and expensive. On the other hand, dry dog food is more convenient to store after having been opened, does not smell bad, and is less expensive than canned food, but typically do not provide all of a dog's daily nutritional requirements.]
4) Who are the competitors in the market, and what are their market share and profitability trends?

* To avoid being excessively redundant, the word "market" will henceforth be used in place of the phrase "product market or service market." Additionally, the word "product" will be used to mean either a product or a service.

[The firm's marketing management may not wish to enter a market dominated by a few large and aggressive competitors (e.g., Coca-Cola and Pepsi Cola in the cola market). On the other hand, it may give serious consideration to entering a market which is not dominated by any one competitor but rather is characterized by a large number of competitors, all of whom have fairly small market shares e.g., the U.S. wine market in the early 1970s.]

5) Are there distribution, legal, or other environmental developments and changes which may suggest the possible existence of a new opportunity, and thereby stimulate management's thinking about a new strategy? [*Example*: In the late 1960s, the Hanes Company noticed that women were beginning to buy store-brand pantyhose in supermarkets. This development led the company to design and introduce its successful line of L'eggs pantyhose. More recently, airline deregulation has provided new opportunities for regional and small commuter airlines.]

6) Are there certain technological and/or materials innovations which may lead to market or competitive changes? [*Example*: The advent of the electronic microprocessor "chip" has already changed the character of the office and home calculator industry and is likely to continue to make inroads in the automobile, appliance, and entertainment markets. Other innovations may be affecting other markets in important, but less dramatic, fashion. Management should be aware of such changes, as they may signal the need for a new strategy.]

Of the five information source categories listed earlier, the most important in this phase of the administrative process are likely to be general business publications and public secondary data. Depending upon the market, some use may also be made of commercial secondary data sources.

Phase 2: Developing the Marketing Plan

Once the firm's management has established a new strategy, it will enter the second phase of the administrative process—developing the marketing plan. The marketing plan is basically an integrated program of marketing activities to be carried out within a specific time period. The desired end result of all these activities is the achievement of a certain level of participation and cooperation among both the members of the target market and the company's sales force and independent agents, wholesalers, dealers and retailers who are involved in the distribution of the product or service in question. Some of the information needs in this phase are similar to those in the first phase (e.g., information about the market), but much of the information is different in the sense that it is likely to be more detailed regarding specific market segments, product features, promotional programs, and channel of distribution members.

The following are representative of the kinds of questions which a firm's marketing management would like answered when it is about to undertake the development of a marketing plan for a specific product or service. CIS should study these questions prior to discussing them with their firm's marketing management. During such discussions, they can identify the specific questions which the managers need answered, and these can form the basis of the information system which the CIS will design. As before, a set of such questions should be developed for each of the markets of current or future interest to the firm's management:

1) What are the important characteristics of the target market? This question can be broken down into

such questions as: Are they men or women? If women, are they members of a specific age group and/or occupational or other social-class group? Does the target market include all such women in the country, or only women in the top 50 or 100 major metropolitan areas? How many such women are there, both totally and by major metropolitan area? What actual or potential dollar volume or unit volume do these women represent relative to the product or service in question?

A similar series of questions would apply if the target market consisted of hospitals, motels, banks, or travel agencies. These questions are designed to identify the specific target market, its size, location, and the market potential it represents.

2) What attitudes do members of the target markets have toward similar products or services currently available? This question can be asked as a number of subquestions: What features, benefits, and so on, do members of the target market look for in the product or service? How well are they being satisfied with the currently available products or services? In what way or ways are they dissatisfied with current offerings?

Questions such as these can help a firm's marketing management gain a better understanding of the needs, motivations, attitudes, and desires of the members of the target market, especially with regard to those areas in which they are dissatisfied.

3) How do the features and benefits of the firm's proposed product or service satisfy the needs, desires, and motivations of the target market? In what ways does this market find the firm's offering to be more appealing than the competitive offerings? In what ways is it less appealing?

A new strategy is likely to involve a new or modified product or service, or a new target market. The purpose of these questions is to help marketing managers gauge the superiority, parity, or inferiority of the product in question, *as viewed by the target market.* Since the strategy's chance of success increases as more of the proposed product's features and benefits are superior to those of competitors', marketing managers will need such information when making decisions about the development of the marketing plan.

Be aware that relationships between marketing managers and marketing researchers are not always smooth ones. There have been misunderstandings, and these have caused a certain amount of friction.

4) Regarding the proposed product or service, what are the attitudes and needs of company sales people and the other members (e.g., distributors, dealers, and so on) of the channels of distribution to be used for the proposed product or service? What incentives are currently being used by the parent firm and by competitors to gain the level of cooperation needed to assure the success of the new marketing strategy?

It is not uncommon for a marketing plan to fail because proper consideration was not given to the parties involved in the distribution of the product or service. The purpose of questions such as these is to identify those factors which marketing managers feel are important to members of the distribution system, and to identify the kinds of information marketing managers need in order to include in the marketing plan the incentives and other rewards which will gain the cooperation of all members of the distribution system.

5) What advertising and promotional programs are being used by firms offering similar products and services? Other useful questions could include: What media are being used for advertising, and how is it scheduled over time? How much money is being spent on advertising? Regarding promotions, what types of consumer promotion are being used, and how often are they being used? What types of trade promotions are being used, and how often? How large is the promotional budget?
   A marketing plan has little chance of success if it's advertising and promotional activities are not better or bigger than those used by the competition. Therefore, marketing managers need answers to questions such as these before they can determine which advertising and promotional activities are in fact better and/or bigger.

The two information source categories likely to be the most useful in this second phase of the administrative process are commercial secondary data sources and primary data sources. Some use would also be made of public secondary data sources and general business publications.

Phase 3: Putting the Plan into Action, Controlling the Plan

After the marketing plan has been developed, management will put the plan into action. It will also establish monitoring procedures which will evaluate the effectiveness of the plan and assure that it is being carried out in the intended manner. If the plan is to be in operation for a number of years, the plan and the monitoring procedures may be updated annually. This is the third phase of the administrative process.

In this phase, marketing managers will need information which tells them how well the plan is being carried out and how effective it is.* The following are representative of the kinds of questions marketing managers would like answered during this phase of the administrative process:

1) What are total industry sales of the product class in question? What are industry sales in each major market?

2) What are the firm's sales of the product, both totally and by major market?
   Answers to questions 1 and 2 will help management estimate its overall market share and its share within individual markets. Management can use this information to evaluate the plan's achievements and to pinpoint markets in which the firm's progress has been noticeably above or below average.

3) What distribution coverage has been achieved for the firm's product, that is, in what percentage of the appropriate retail outlets in each market is the firm's product currently available? What support do retailers in each market give to the product in terms of carrying the full line, giving it adequate shelf display, and pricing it properly?
   Answers to such questions are useful because they can help managers determine if the plan has been successful in obtaining the desired degree of distribution

* For a good illustration of information that can help managers measure the effectiveness of marketing plans, see Richard A. Feder/"How To Measure Marketing Performance," *Harvard Business Review* 43: 132-142 (May-Jun 1965).

coverage and support. Such information is absolutely essential for troubleshooting purposes. If the firm's market share objectives are not being attained, management will have to know if the cause of the problem is poor consumer response or inadequate distribution coverage and support. Answers to the above questions will indicate if the problem lies with the product's distribution.

5) How much did the firm spend on marketing the product? What percentage of these expenditures was allocated to consumer advertising, to consumer promotion, to trade advertising, to trade promotion, or to other marketing activities? How were these expenditures allocated to different markets?

Answers to these questions can be used in conjunction with information regarding market share, distribution performance, and consumer response. If market share objectives are not being achieved in a certain market (known from questions 1 and 2), the problem is likely to be due to poor distribution coverage (known from question 3), and / or poor consumer response (known from question 4). Management should first determine which of these is the probable cause of the lower-than-expected market share. Then, by comparing the pattern of marketing expenditures in the problem market (known from question 5) with the distribution performance and consumer response information associated with the market, managers may be able to pinpoint those parts of the marketing plan that have not been given sufficient budget, or are not being carried out as intended, or are not as effective as intended.

Most marketing activity uses a channel of distributors. When distributing a product or service, a firm may be able to consider the use of several different channels of distribution, some of which may be simple and some complex.

4) What percentage of the target market is aware of the firm's product? What do they know about the product, and what is their attitude toward it? What percentage of the target market has tried the product? Of those who have tried the product, what are their attitudes toward it, and what percentage has repurchased it? What are the repurchase rates?

The answers to these questions can help managers determine if the plan's advertising and promotions have been successful in achieving the desired levels of awareness, trial, and repurchase among target market members. This can be useful troubleshooting information, especially if market share objectives are not being met. In such a situation, management will want to know if the poor sales record is due to low consumer awareness of the product, or to unfavorable attitudes toward the product, or to low acceptance of the product's benefits and features. The above questions will provide management with this information.

6) How much did competitors spend on their marketing of competing products? How were those expenditures allocated to different marketing activities? How were they allocated to different markets?

The usefulness of this information is similar to that obtained from question 5. If the firm's market share in a certain market is below average, possibly it may be due to more or better marketing expenditures on the part of a competitor. By using the information from question 6 in conjunction with that available from questions 3, 4, and 5, management may be able to determine if the below-average market share is due more to aggressive or superior competitive activity than to an inherent weakness in the firm's own marketing efforts.

Much of the information needed in this phase of the administrative process would come from commercial secondary data sources and primary data sources, as well as from sources internal to the firm. In some industries, information regarding competitive marketing expenditures may be obtained from general business publications.

Channels of Distribution

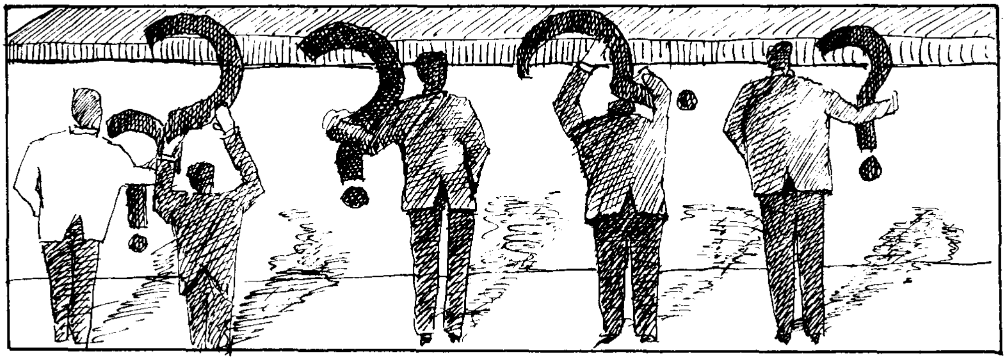
CIS should be aware that most marketing activity uses a channel of distribution. When distributing a product or service, a firm may be able to consider the use of several different channels of distribution, some of which may be simple and some complex. In order to do an effective job of designing an information system for their firm's marketing management, CIS must have an accurate description of the channel of distribution used for the product or service in question.

Three different channels of distribution will be described to illustrate this aspect of marketing and to demonstrate that different channels of distribution can involve one or more different types of participants. In order to complete the information system they are designing, CIS should include information regarding the performance of each type of participant in the channel of distribution. Just what information should be included in the system should be determined through discussions with the firm's marketing management. However, it is to be expected that questions quite similar to those discussed earlier will also be applicable here. Of particular interest are questions that concern whether the participants are selling or carrying the full line, their volume of each item handled, if they are promoting it properly and effectively, the appropriate costs or prices associated with each item carried, and so forth.

A Simple Channel for Industrial Materials

Perhaps the most simple channel of distribution is one used by many manufacturers whose products are used up, that is, consumed during the production of some other product. For example, steel producers sell to office furniture manufacturers and chemical processing firms sell to detergent manufacturers. Often, this selling function is performed by the seller's own salesforce. The only participants in such a channel of distribution, other than the buyer and the seller, are members of the selling company's salesforce. If a firm uses this kind of channel of distribution, CIS will want to incorporate into the information system certain data which will indicate how well these participants (i.e., members of the company's salesforce) are performing. The exact nature of this data should be determined through discussions between the CIS and the firm's marketing managers.

CIS should take it upon themselves to identify all the participants, and the roles they play, in the channels of distribution used by their firms.



A Lengthier Channel for Major Appliances

A more complex channel of distribution is one used by some manufacturers of major electrical appliances. These manufacturers have their own salespeople call on large, independent retail department stores which sell the appliances to consumers. Such a channel of distribution includes two types of participants other than the manufacturer and the final consumer: the members of the company's salesforce, and the independent retail department stores. A firm that uses such a channel of distribution would want its information system to include performance data on both of these two different types of participants. Since the company's salesforce is in direct contact with the department stores, the required performance data on the latter may be obtainable by the company's salesforce.

More Complex Channels for Consumer Products

An even more complex channel of distribution is one typically used by manufacturers of various products, including packaged foods, household items, and hardware. Many of these manufacturers use their own salesforce to call on independent wholesalers, who in turn call on retailers in their market area. The retailers then sell the products to the final consumers. Such a channel has three participants: the company's salesforce, the wholesalers, and the retailers. A firm using this type of distribution system would like to have performance information for all three types of participants.

The company's salesforce may be able to obtain data regarding the performance of wholesalers, but it will find it more difficult to obtain information regarding the retailers' performance unless it first gains the cooperation of wholesalers. If the wholesalers refuse to cooperate (which is often the case), CIS may have to turn to trade associations or government secondary data sources for the necessary information.* If these sources fail to provide the necessary information, primary data may have to be gathered.

The three distribution systems described are but a few of the many channels used throughout the business world. CIS should be aware of these systems and take it upon themselves to identify all of the participants, and the roles they play, in the channels of distribution used by their firm. After discussing the channel participants and their roles with marketing management, CIS should be able to determine the data that is needed for the information system being designed.

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*A useful publication regarding the use of secondary sources is *Measuring Markets: A Guide to the Use of Federal and State Statistical Data* (Superintendent of Documents, U.S. Government Printing Office, August, 1974)

Conclusion

Two guidelines have been presented which CIS can use when designing an information system for their firm's marketing management. The first is based upon the different phases of the administrative process, which can help CIS identify the different kinds of information marketing managers need a) when setting goals and establishing strategies, b) when developing marketing plans, and c) when putting plans into action and providing for proper control of those plans. The second guideline is based upon the channels of distribution used by the firm. This guideline can help CIS identify the different participants in a firm's distribution system, especially those whose performance should be monitored in some way through the collection of certain information. The firm's marketing managers and CIS can then identify the information that is needed to monitor the performance of those participants.

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Stanley F. Stasch is Charles H. Kellstadt Professor of Marketing and Ronald T. Lonsdale is Assistant Professor of Marketing at the College of Business Administration, Loyola University of Chicago.

Management of Proprietary Information

The Trials and the Treasures

Margaret H. Graham

Information Services, Exxon Research and Engineering Company, Linden, N.J. 07036

■ While information specialists appear to enjoy performing client services involving published information, many resist performing the same services when proprietary materials are involved. An examination of the root causes for this behavior, the benefits and problems of using internal information, the changing attitudes of management toward information problems, and finally a look at where information technology is taking industry is necessary to understand the problems and opportunities.

HISTORICALLY, the handling of proprietary information has been a function performed by the lowest paid, lowest rated staff—the file clerk. It required no training, no talent, and no specialized knowledge. In contrast, the handler of published material was required to be a professionally trained librarian with a master's degree in library science.

Over time, companies began to recognize that planned management of internal records can have great value but that access to this information has been limited—limited by how the files had been arranged in the first place, limited by the way revisions were made, and, in general, limited by the level of attention given to the problem. While management recognized that something needed to be done, it proved to be a problem easier to identify than to solve.

As management surveyed its organization to identify where proprietary material could logically be handled, it looked to the librarian to take over this activity. However, librarians viewed this as a downgrading of their operation; it was difficult enough getting management to recognize the value of libraries without taking on yet another undervalued and understaffed activity.

The handling of proprietary material may sound simple and easy on the surface, but there are significant differences *vis a vis* published information. These differences can be both an advantage and a disadvantage, depending on the context in which they are viewed.

Advantages and Hardships

The following section describes the perils and the pearls of proprietary document handling. Generally, the advantage (or the disadvantage) is the other side of the coin. In all cases, the discussion concerns the organization and management of internal information, i.e., documents that are not available in the open literature. Since books have been written on the intricacies of indexing, search systems, records management, microform technology, and so on, the specifics involved will not be included here.

Document Identification

(+) The identification of documents to be handled provides an opportunity to make many organizational contacts that can serve you well throughout your career. It also gives you the chance to understand the organization and the way the various units work and interact.

(−) It is necessary to identify each of the kinds of documents that need to be handled. Since this usually has not been done before, there will be no guide posts to the areas that have to be covered.

Establishing Document Flow

(+) A mechanism has to be established for directing the flow of documents to a central handling area. Obviously, this must be done with tact and an awareness that there may be sensitive issues.

(−) A company policy that calls for all documents to be sent to a central handling area can be difficult to enforce. Not all documents requested will be received and skeptics will see this as proof that control processing is a bad idea. Sometimes it will not even be possible to verify that a document was produced, much less get hold of it. In the future, this problem may be eliminated by having all documents produced on a word processor and automatically transmitted to a database.

Selection of an Indexing System

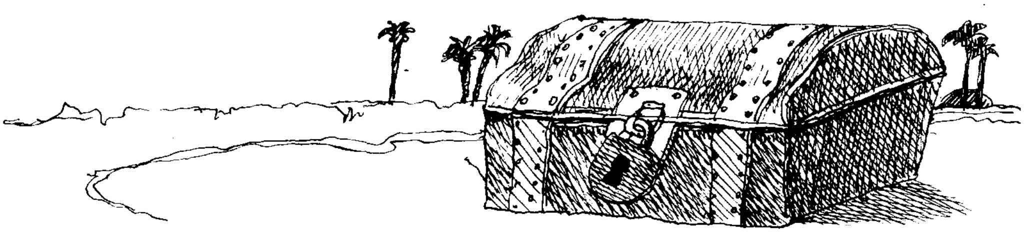
(+) It can be exciting to plan and implement systems that will create a new information resource. While there are hazards if you fail to meet expectations, there can be enormous gains if you succeed.

(−) In order to identify or create an indexing system for document handling, standards will first need to be established for documents processing. Since this is already done for the published literature, e.g., the Library of Congress and Dewey Decimal Systems, and is readily accepted by users, it is an area in which everyone considers himself "expert." While most users realize that they cannot keep all the documents they may someday need, they do not believe that anyone else can organize their materials in a useful fashion. The issue of customer satisfaction (or the lack of it) characterizes the handling of most proprietary documents.

Overcoming Resistance to Change

(+) The challenge of creating a center for handling proprietary information that will be used and valued by clients is exciting. To be able to change attitudes and show users the advantages of storing and retrieving documents in an organized manner is a goal worth striving for, but it will not be easy—perceptions are one of the hardest things to change.

(−) If there is one topic that can turn nice friends into foes, it is the suggestion that they do not have to keep their own files for every aspect of their work. People are possessive of the documents they generate and receive. They cling to their paper as if there is not a system in the world capable of storing and retrieving their materials when needed.



Need for a Retention Policy

(+) A Company Retention Policy assigns the responsibility and control of documents. Unlike published information that is collected by various libraries all over the world, the archival collection can be the only source of proprietary company documents.

(−) Developing and administering a Retention Policy is not a simple matter. All units of an organization must determine which documents should be kept. Vital documents generally include those that record essential work of the organization and those documents that must be kept for legal purposes. A Retention Policy sets the retention periods for each type of document and provides teeth for its implementation. It is frequently as important to destroy documents after a period of time as it is to retain documents over time.

Need for Supplying Documents

(+) Knowledge of who is using what allows the efficient structuring of services. It also allows customization, which in turn permits an interaction between the provider and the user that usually results in a high degree of satisfaction on both sides.

(−) Any service that requires fast turn-around and accuracy is subject to complaints; centralized service provides an easy target. (Centralized services are distinct from centralized information processing: Decentralized services imply that the access to information has been moved as close to the user as possible, with document supply as part of that service; in the case of centralized services, users request the documents and other services required, and the central service is responsive to a broad, as opposed to a targeted, user group.)

Document Storage

(+) This again involves the question of total control of all aspects of document handling. The unit responsible for company proprietary information must not only acquire, catalog, advertise, shelve, retrieve, and supply both information and copies but also serve as the official archive. These responsibilities carry with them the choice of method of acquisition, system of cataloging, how to make it known that the material is in hand, in what form you are going to store it, whether it will be available at other locations, what level of services will be offered in terms of locating information and supplying copies, and finally how long the material will be retained.

(−) Decisions must be made regarding the best storage mechanism for each type of document. This includes determining whether storage will be in the form of paper, microforms, or digital records. A high degree of transportability is possible with microforms and digital records. The equipment is improving for producing quality reproductions from microfilm, but not from the traditional reader-printers. While digital records have some advantages, the original record must be produced on a word-processor to store it efficiently. There is also the question of whether this is a good mechanism for archival storage of documents. Whatever the decision, don't expect to please everyone.

Systems for Alerting and Searching

(+) Setting up a total, responsive, proprietary information center involves many complex elements. The creation of a successful operation not only yields a high degree of personal satisfaction but also earns management's recognition for an activity that is beneficial to the organization as a whole.

(−) Establishing a system for alerting and searching the proprietary database is not a trivial matter. One frequent failing is that all effort is directed toward indexing while utilization is left to the end user. A mechanism has to be established whereby potential users can identify and retrieve available documents. The success of the proprietary database will ultimately be determined by the users. Their judgement will be based on the friendliness of the system, how easy is it to get needed answers, and the quality of the information center staff.

Defining Tasks and Objectives

A summary of the pluses and minuses of proprietary document handling is presented in Table 1. Obviously, a great deal of work is involved. A requisite for assuming the task is to determine the extent of your responsibilities. This is frequently done by drafting a role or mission statement. If you are responsible for archival storage, or if you provide customer service or systems design, define the scope of the job and your objectives. The work to be performed should be understood by

Table 1. The Pluses and Minuses of Handling Proprietary Documents.

Activity	Plus	Minus
Document Identification	Broader knowledge of and contacts within your organization.	All the proprietary documents must be identified—*for the first time.*
Establish document flow	Set up a mechanism for getting and processing proprietary documents.	Centralized processing means centralized blame—justified or not.
Indexing system selection	Creation of a new and highly valuable information resource.	Standards will have to be devised for the handling, indexing, and storage.
Resistance to change	Centralized handling can lead to increased use and value.	Paper horders will look at you as their enemy.
Creation of retention policy	Responsibility and control of proprietary documents clearly defined.	Requires agreement between operations and legal as to what to keep and what to destroy.
Supply of needed documents	Permits customization of databases and increases interaction with customer.	Centralized services provide an easy target for criticism.
Storage of documents	Control allows choice of the mechanisms of acquisition and storage.	Tradeoffs will be required, which means few will be pleased with the final result.
Systems to alert and search	Management recognizes the broad organization benefits of proprietary document handling.	Requires closer coordination and interaction with each user.

both the librarian and management.

Considerable effort must be expended in understanding the organization, the types of documents produced, the various forms the records come in, how the documents and/or data are used, the terminology of the company, the turn-around time needed to fulfill requests, and, in general, the profile of the organization. Too many people who take on an assignment feel obligated to plunge in and make changes in order to make their presence felt. This can be a sure fire way to alienate potential users before you even have a chance to show what you can do.

Changing Management's Attitudes

The tendency among the staff in large organizations to cling to the proprietary documents they have produced, as well as their innate distrust of in-house storage and retrieval systems frequently stems from management's low regard of these activities. The work required to change the image of these functions and to educate management and users in the value of the information resource that can be derived from centralized document handling cannot be underestimated. Such recognition will take time and effort, but it will come.

Librarians and other information professionals should embrace the opportunity to assume responsibility for proprietary information handling.

Librarians and other information professionals should embrace the opportunity to assume responsibility for proprietary information handling. They should show management the value of using in-house materials. By retrieving company documents to find out how something was done in the past or to get twice the value out of a study by updating it, both past mistakes and duplicated efforts can be avoided.

Changing the Attitudes of Information Professionals

Too many information professionals take an extremely limited view of what their work should cover. The fact that a number of professional societies specialize in different aspects of the information field should not limit how we view ourselves. Many of us belong to more than one organization, because one alone does not meet all our needs. However, we must not ignore the many facets of our profession.

In many ways, we have an identity problem. We know that the efficient handling and transfer of information requires training, knowledge, and skill. Yet, too often we have failed to communicate our worth to our management. It is hard to understand how so many service-oriented informatin people, who do outstanding work for their clients, can be so reticent in informing management about what they do. Many, no doubt, feel that the good quality of their work and the high regard in which they are held by clients should be absorbed through osmosis by their management. Unfortunately, it does not work that way!

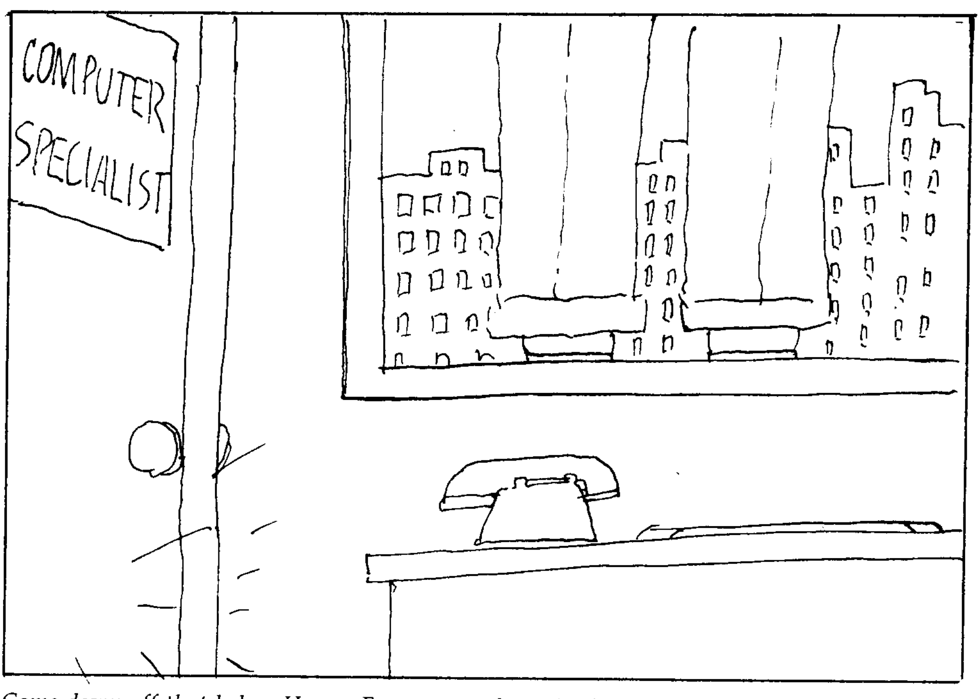
Why has the profile of information activities become more visible? The advent of online searching of large databases has, without question, been a driving force. As awareness grew of the instant availability of information and the value of this source of intelligence to a company it became more apparent that an equal amount of proprietary information was needed in the decision-making process. It also became apparent that in most organizations, information was not readily available and could not easily be manipulated, and that there was no real management of internal information.

However, old habits die hard. It is difficult to elevate an activity that had been regarded as unimportant to one that has real value. So what was the result? Since librarians often do not want to get involved with yet another undervalued job, they frequently are willing to turn proprietary information management over to the computer people. That concept has led to problems that defy description.* There is expertise needed to work with computers, there is also expertise needed in the handling of information in terms of storing and retrieving. When information is moved from printed products and manual handling to digital form and computer manipulation both skills are required.

*The following incident is an example of the problems that can occur when a system is designed by a computer specialist without input from a library professional. An online retrieval system had been designed for a petroleum company. A database of petroleum information was loaded and set up for demonstration. The search strategy included traditional petroleum products, and all queries yielded nothing. We felt that there must be something wrong with the program. On analysis, it was found that the program automatically eliminated all one-, two-, and three-letter words in an effort to conserve space and to eliminate trivial terms. Unfortunately, in this case, it eliminated words like oil, gas, and tar.

The information field has undergone dramatic changes. Technology has opened a door for accessing information, and once through that door, there is no returning. Perhaps now is the time for redefining the meaning of information handling and what is really involved in information transfer. What is needed is not a simple upgrading of previously defined information functions but a new look at the information process and the role of the information professional.

Margaret H. Graham is manager, Information Services, Exxon Research and Engineering Company, Linden, NJ.



Come down off that ledge, Harry. Everyone makes mistakes.

The User-Oriented Library in an Industrial Setting

Adele Hoskin, Winston C. Lister, and Max M. Marsh

Eli Lilly and Company, Indianapolis, Ind. 46285

■ Growth and diversification at a leading pharmaceutical firm has been accompanied by growth and decentralization of library and information services. Technology, concerned management, enlightened librarians, and sophisticated users will combine to provide information directly to users at their desks or in the laboratory.

THE LIBRARY SYSTEM at Eli Lilly and Company began in the research division as one main library serving all of the informational needs of the company. It provided centralized library services, such as journal and book purchases and interlibrary loans. The company has always been research intensive, and the changes in its research direction have been reflected in the growth of its library system. Gradually, as the company grew, the need for information became more segmented and specialized.

The segmentation and specialization of information delivery resulted in the establishment of formal libraries, reading rooms, and the assignment of literature searching to subject specialists. The parent library, the Scientific Library, primarily serves the research community at the company's headquarters, but it also provides scientific information to the entire corporation. The establishment of the Library Agricultural Service in 1958 recognized the need to have specialized information service at the same location as the research or activity being performed within the company. Located at the company's agricultural research center, it was natural for the library to report to the administration serving agricultural research.

This philosophy carried over into the establishment of the Business Library, in 1962, which is located at the corporate headquarters and reports to the Industrial Relations Division. The Legal Division Library, formed in 1968, reports to the Legal Division. The establishment of these four libraries satisfied the need to have information centers containing specialized information in close proximity to the user.

User-oriented library services have been the driving force behind the development of these four libraries. In present-day operations, the user community continues to evaluate the services and recommends new programs. In addition to these formal libraries, several departments located in other buildings have begun to coordinate their journal and book selections to establish informal reading rooms.

The Scientific Library: Administration

The Scientific Library is a full service library. This can best be illustrated on three levels. At the first level, the library answers reference questions ranging from quick checks on such things as addresses or book titles to in-depth searches on chemical compounds or complete bibliographies on a product. At the second level, the library furnishes the material to the requestor, either within its current journal and book holdings, on interlibrary loan, or through a specific purchase. At the third level, the Scientific Library provides the same kinds of services to the other Lilly libraries.

The Scientific Library personnel consists of a chief librarian, three reference librarians, and eight clerical staff members. The librarians have a scientific as well as a library background. The chief librarian reports to the department head, Scientific Information Services and is responsible for annual budget preparation, justifying capital expenditures for new equipment, and conducting progress reviews of the staff, and acting as the purchasing agent for books and journals. The chief librarian interacts with the library committee to respond to user needs and to implement their suggestions.

In addition to answering scientific and medical reference questions, the librarians also initiate book and journal purchase requests, catalog materials, coordinate the current alerting service, maintain a product file, and conduct patent searches. The clerical staff is responsible for preparing purchase orders, authorizing payments, posting receipt of material, claiming missing material, processing interlibrary loans, producing catalog cards and labels, providing copies of requested articles, binding journals, and performing general office functions.

The trend toward decentralization and segmentation is apparent also in literature searching. Four departments have subject information specialists or literature searchers. The qualifications for these positions are a degree in chemistry or science and an interest in the literature. Literature searchers provide information to users within their departments. With the exception of the Legal Division Law Library, the libraries are independent of a specific user group and report to a service division within the company. This independence permits greater freedom in serving library clientele and in providing a wider range of services.

Each library provides service to users within the entire corporation. Support from primary users is necessary every year to justify capital expenditures, new programs, and expense budgeting. Each library has its own budget, service policy, and functional business operations. The organization within each library also differs with respect to the needs of its specific user community. The Scientific Library reports to the Scientific Information Services Division, which includes other research service groups such as research records, statistical support, and systems analysis.

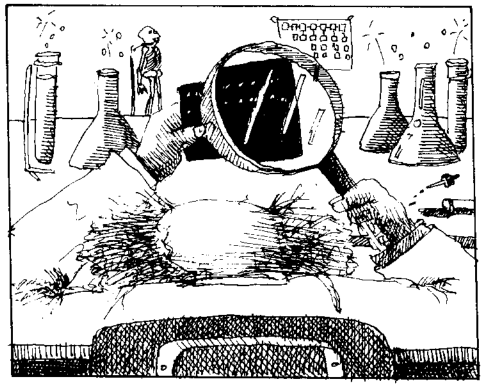
The Scientific Library has one central location at corporate headquarters, where the main collection is housed, and one branch housed in a neighboring research building. Many journals have been purchased on microfilm to save space; however, some of the space savings is used for microfilm reader-printers in both libraries. With an inventory of 15,000 reels of microfilm, the library presently has four microfilm reader-printers. With online database searching a necessity for good library service, the library has two DECwriter III's for literature searching. Other electronic equipment includes a Tektronix 4114 to search CAS Online and the in-house database, the OCLC terminal for cataloging and interlibrary loans, a word processing work station, and a Lilly Data Center terminal. This equipment causes more of a space problem than the journal and book storage . One projected task for the library committee will be to help formulate new requirements for the physical layout of the library.

Services

The library seeks to provide the right information at the right time to the right user. Prior to 1970, the Scientific Library had extensive indexing and abstracting services and acquisitions and holdings of books and journals. The librarians were mainly consultants, instructing users where to begin the search and showing them where to find materials. The library attempted to be self-sufficient; most of the material was available in house and the larger medical school libraries were used as a back-up.

Beginning in 1973, the use of online databases enabled the library to increase its productivity. The librarians could respond faster and more completely to the scientists' requests for information. Since the new databases could provide accurate references, the library could provide better document delivery. Online database searching today accounts for about 60% of the reference questions, using an average of two databases per search.

The library reference service is open to anyone within the company or its subsidiaries who has a need for scientific, medical, or patent information. The databases most frequently used are those supplied by National Library of



Medicine and Chemical Abstracts. The product of an online database search is a printed bibliography from which the scientist may obtain copies of needed articles or patents (limited to one copy of any document). The emphasis here is on outside databases. Information from in-house databases is handled by different departments within the organization.

In addition to answering specific requests, the library offers a current alerting service based on information in the Institute for Scientific Information source tapes. Key words from user profiles are matched against words in article titles. Approximately 500 user profiles are run against these tapes weekly, and appropriate references are printed and disseminated. Scientists may request copies of relevant articles. Because of this alerting service, journals covered in the service are not routed so that they will be available for use within the library after the references are distributed.

To obtain articles that are not available in-house, the library provides an interlibrary loan service. To obtain the book or article, it either cooperates with other libraries in an interlibrary loan network, accessed through the OCLC Interlibrary Loan subsystem, or uses the services of an information broker.

Another service provided to users is the purchase of books, journals, and Lilly-authored reprints. In-house computer systems have been developed to track journal subscriptions for renewals and for holdings information. The purchasing expertise for library materials has been developed internally rather than within the corporate purchasing group.

User's Perspective

The scientific staff consists of many kinds of information users whose needs range from the accumulation of bibliographic background or historical information necessary to start a new research project to the development of science teaching aids to be used in seminar or lecture presentations. The scientists may require materials for the preparation or defense of patents or to comply with the regulations of government agencies such as FDA, EPA, or OSHA.

The operation of a research laboratory also calls for frequent reference to published specifications for laboratory procedures and to compendia listing quantitative data on atomic and molecular properties. The scientific staff recommend materials the library should purchase and where they should be housed. Because of the volume and complexity of scientific literature and its relevant databases, these scientists often need knowledge about the search and retrieval systems themselves.

Current approaches to the problem of acquiring necessary scientific information are a mixture of established traditional and evolving computerized techniques. The time-honored prerogative of the scientist to browse at leisure through current issues of journals available either in the library or on circulation to the laboratory is showing the strain of the enormous expansion of scientific literature. There is simply too much to scan and too little time in which to read noted items of interest; most active researchers confine their nonpredetermined scientific reading to a few favorite publications. In addition to these publications, many scientists rely on alerting services or abstracting services to stay current.

Today, direct use of library facilities by senior staff members is less frequent than in past years. Some minor, specific items may be located through a personal visit to the reference stacks. On request, more general searches are made by the library specialist or by the divisional literature searcher. Under these circumstances, it is most important to formulate the right questions in a manner that is clear to the intermediary. Optimally, the search criteria should be drawn up with the collaboration of the information specialist. Most laboratory scientists are not familiar with the procedures for accessing the several databases currently available.

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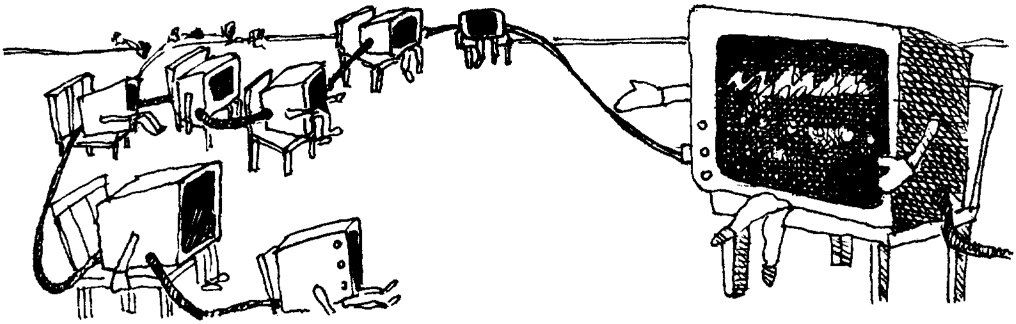
As a starting point for information in a new project area, the scientist almost always seeks pertinent and up-to-date reviews. The company's holdings have always been strong in this area, and considerable emphasis is placed on locating secondary information sources early in the course of a project search. This is again a reflection of the struggle to deal with the enormous volume of published information existing in any scientific field. Because original articles are well-indexed, scientists can find information relevant to their projects from this primary source. However,



many review titles are inadequate to describe the actual coverage of the article, and online databases do not provide good access because of insufficient indexing from the supplier.

There are some severe limitations on the gathering of today's information by yesterday's methods. Reading (hence, presumably knowing) all the scientific literature on any but the narrowest of subjects is a practical impossibility. Although the information specialist has expertise in search logic and knowledge of database usage, the joy of serendipity is gone. Considering the amount of time available to read identified articles, individual interest profiles developed by the scientist tend to be too general. This "broad-brush" application of search logic has been thought necessary to be more certain that a significant publication was not missed. In practice, however, a frequent result is a request for copies of all articles of interest and an accumulation of a file of unread paper. The library's users look forward to the day when the library's holdings will be accessible online from a terminal in the lab.

Funding

Library funding consists of two categories: capital items and operating expenses. Purchase of major equipment for the library must be justified and processed through a Capital Appropriations Committee, consisting of representatives from research and financial management. Criteria for capital purchases include productivity enhancements or cost savings. Books, journals, supplies, online databases, and so on, are treated as expense items and are planned within the annual expense budgets.

The Scientific Library expense budget is part of the Research Laboratories budget. Each year, budgeting services for the Scientific Library's users is planned by the library management in consultation with representatives from the user community. The decision was made years ago to centralize the book and journal purchasing function; however, departmental expenditures still require appropriate functional management approval.

When the online database era began, the library management decided to centralize that expense within research to try to evaluate the demand and its growth. Consequently, the library's budgets for all online database usage by the Scientific Library, the Library Agricultural Service, and the literature searchers distributed among the departments. This centralization of costs provides useful information about the use of these services.

Since resource sharing is so important, Eli Lilly participates in two library networks: The Midwest Health Science Library Network for cooperative interlibrary loans, and INCOLSA, the state network, for access to a bibliographic utility and to database vendors. The services provided through networking permit time and cost savings, particularly in the cataloging of materials and the verification for interlibrary loans. The time saved has been redirected into more reference service to users while cost savings have enabled the library to locate and borrow small demand items and purchase higher usage materials.

Summary

All of the libraries have been able to provide good service to their users as a result of technological change. Presently, the library is the central location for obtaining information. As the company grows, the library needs to continue to adapt to decentralization.

Significant progress has been made in the delivery of library services to the scientist. The library has been able to take advantage of technological advancements to increase its internal productivity, as well as to respond to the user's needs in a timely manner. The trend toward decentralization of some library services continues, and in-house and external library systems will make this efficient and cost effective.

Scientific users' quest for information is unending and their expectations for service continue to grow. Future technology will help meet this demand. The trend toward cheaper, more versatile hardware coupled with more user-friendly software will allow delivery of library service to converge on a display terminal in the scientist's laboratory. Today's graduates have been trained to be more conversant with technology, and many want to perform their own searches. When compatible in-house systems become available, scientists will be able to access almost all information services from their work stations and there will be little need for them to visit the library.

The company recognizes the need to keep pace with technological change and is surveying its user community to try to anticipate its needs. A library committee is being formed to help coordinate the requirements and the solutions, and the library staff has been given a mandate to continually look for ways to improve the services provided.

Adele Hoskin is chief librarian, Winston C. Lister is director, Scientific Information Services, and Max M. Marsh is research advisor, Research Laboratories at Eli Lilly and Company, Indianapolis, Ind.

The Law School Library

Its Function, Structure, and Management

Robert J. Desiderio

University of New Mexico Law School, Albuquerque, N. Mex. 87131

■The law library has a special and unique importance because of the nature of our legal system and its role as a laboratory for anyone involved in a legal proceeding. Students, faculty, lawyers, judges, and lay persons cannot accomplish legal work without the library. Law libraries, in the process of transition, are planning or implementing computer-based retrieval systems and video devices for training and instruction. Law librarians have significant responsibilities for accurate information retrieval and teaching legal research techniques.

THE LAW LIBRARY has many users. It not only serves the law faculty and students but is also used by the practicing lawyer on a daily basis. In addition, lay people use the law library to find answers or explanations to their questions. Without the law library, the legal system could not function; a system grounded on precedent must, at a minimum, provide access to those precedents.

The special nature of the law library is highlighted by noting that there are more books about law than any other single subject. The National Reporter System, published by the West Publishing Company, which includes all reported appellate cases and many trial court cases, now comprises 7,500 volumes and is growing at approximately 200 volumes each year. The National Reporter System represents only a fraction of the primary materials found in a basic law library. There are official state case reporters, statutes, and various secondary materials.

Of the approximately 175 accredited law schools in this country, only 15 have libraries with less than 100,000 volumes. Most of those have around 100,000 volumes, and many are relatively new schools. A large number of state and county law libraries have collections of more than 100,000 volumes. It is estimated that a minimm of 225 law libraries in this country have holdings of more than 100,000 volumes. A large percentage of those exceed 200,000, with a few exceeding 500,000 volumes.*

* The purpose of this comment is to sketch the role and structure of the law school library. The basis of the following presentation will be drawn from the author's extensive experience with the University of New Mexico Law School library.

Role and Function of the Law Library

In addition to law sections of general libraries, there are at least four institutions that have law libraries. First, most law firms have libraries. The size of these libraries relates directly to the size of the law firm. Some are as large as, if not larger than, most county law libraries. Others are quite small containing mainly local or regional reporters and local statutes. Second, many counties or county courts have libraries. These vary in size, ranging from a few thousand to 700,000 volumes in the case of the Los Angeles County Law Library.* Third, most states have state or supreme court libraries. These libraries are used primarily by government officials. Finally, all law schools have libraries for the benefit of students, faculty, judiciary, bar and, in many cases, the general public. These four libraries do have a common denominator; they contain the necessary materials and information through which the lawyer acts.

A goal of our legal system is conflict resolution. To develop the principles which become the standards for resolving disputes, legislation and case precedent are the essential ingredients. Analysis and synthesis of theses sources are the lawyer's methodology. Without access to the information, the lawyer cannot function. The law library (in essence) is the lawyer's laboratory.

In addition to cases and statutes, there are many secondary materials—treatises, monologs, journals, and form books—which aid the lawyer in understanding issues, gaining ideas for resolving them, and providing forms to carry out any plan. These secondary materials are essential tools for the lawyer serving a client. Most law libraries contain at least a minimal collection of secondary material.

Indeed, all libraries have as their primary objective housing and making available the information lawyers and students of law need in their work. However, few county, state, and law office libraries are large enough to supply lawyers with all needed resources. Physical space and costs are too prohibitive for these libraries to be full-service libraries. As a result, in many states the law school libraries have come to serve this purpose. For example, in New Mexico, the Supreme Court has a fine library; however, the primary law library for the state is the library at the University of New Mexico (UNM) Law School. Recognizing that UNM is the only law school in the state and that New Mexico is the fifth largest state geographically gives some idea of the responsibility that the library has accepted.

The Law School Library

Service to the bar is only one, and the least important, of the law school library's obligations. The library's primary responsibility is to the educational and research programs of the law school. In the educational area, the library must complement the classroom and clinical instruction. This means that the library must have the particular source materials, as well as adequate copies and sufficient facilities for students and faculty. Moreover, the staff must help in the teaching of legal research and bibliography.

With respect to research, the library must have the information, or be able to acquire it quickly, that faculty and student researchers require. Faculty research is as varied as the faculty. Generally, a law school faculty reflects interest in all areas of the law; thus, the library must be able to respond to all legal subject matters. Although the library may concentrate in one area (for example, UNM has a large Indian Law collection and is developing a Latin

* The data on state and county libraries is taken from Volume 74, No. 1, Winter 1981 of the *Law Library Journal*, pp. 121-151, 160-196.

American collection), access to all areas is essential. Because of law journals, moot court programs, and independent research projects, students are also involved in legal research. Their demands must be accommodated.

As this brief description illustrates, the law school library is multifaceted. It must serve the practicing lawyer, the law professor, the law student, and the public. Often, the needs of these groups overlap. The library resources that students and faculty need are generally the same as lawyers require, but the research and teaching requests of the law school are generally broader than the bar desires. Therefore, law school libraries must be research as well as service libraries. This bears on the size and training of the library staff and on the budgetary demands of the law school library.

Staff

The staff of law school libraries usually consist of a law librarian, technical service librarians, and reference and research librarians. The law librarian normally is trained in library science and must be a member of the law faculty. The other librarians may or may not have legal training and generally are not members of the law faculty. At UNM, the library has its own faculty which consists of all the professional librarians.

It is imperative that the library have a competent reference and research staff. These librarians perform research and reference work for faculty, students, lawyers, state agencies, and the public. For example, the research and reference department at UNM includes a lawyer/librarian, a lawyer, and three staff professionals who handle reference questions from students, faculty, lawyers, and the public; are assigned substantial research projects by the faculty; and provide preliminary research for lawyers throughout the state. Lawyers understand that they can call in a question and be provided with "an hour's free research." The staff will prepare a bibliography for the lawyer and photocopy and mail relevant information to the lawyer. The staff also serves the judiciary on occasion and responds to questions posed by inmates at the state prison.

Obviously, these people must understand the nature of legal questions, the library, and the faculty, student, and lawyer population with whom they deal. The library has accepted the substantial costs involved because of the importance it places on the notion that, as a state law library, it must serve the varied needs of different users. Since the lawyers in New Mexico are dispersed over a large geographical area with little access to a complete law library, the library must respond to their needs. The quality of legal representation is dependent upon it.

Facility

A spacious and comfortable law school library facility is essential. The facility's function is not merely to store books and other materials—obviously, the library is a work place for the user—but it must also serve as the lawyer's laboratory. Lawyers normally do not select one book and read all or most of it; they continuously search for and select additional legislative material, cases, and interpretive information to analyze and synthesize. It is not unusual to find stacks of books with notices, "Please do not shelve." To help the lawyer with extensive research projects, the UNM law library has four offices for members of the bar. Lawyers can reserve these offices for a week at a time. This allows them to work on their projects without removing their research materials and work product at the end of each day.

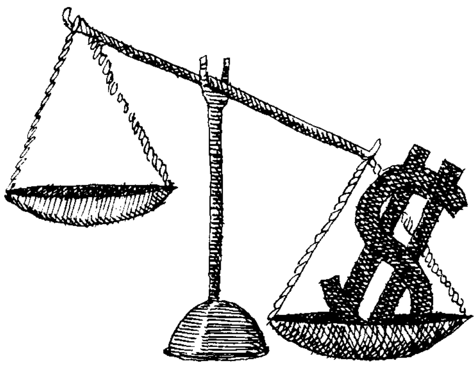
Law students quickly learn that they will spend hours in the library researching a problem or simply preparing for classes. For this reason, law school accreditation rules require that a law school library be able to seat at least

50% of the schools' student body at any time. Most libraries have more than the minimum; for example, the UNM library has seating space for all its law students.

Introducing New Technologies

Law libraries are facing a new facility need: computer and video libraries. As in the case of libraries in general, law libraries are introducing data retrieval systems into their collections. It is unusual to find a law school library that does not have either LEXIS or WESTLAW. These are national computer research databases, the former offered by Mead Data Company, and the latter by West Publishing Company. Moreover, state computer systems which access state cases, statutes, attorney general opinions, and similar legal material are being developed. Finally, law libraries are beginning to establish video libraries. Local and national continuing legal education tapes, video tapes prepared by faculty to supplement a class, and tapes of classes which allow students to complete a course without ever visiting a classroom are beginning to be introduced into libraries. Law schools and libraries are asking themselves how does the video and computer explosion fit within their library and educational plans. The more specific concerns involve acquisition of the equipment and databases, and providing adequate space and security within the library. Book shelves, tables, and chairs are only a part of the library's facilities. Micro tape devices, computer equipment and space, audiovisual carrels, and the like are emerging as the new facility needs.

Not only are these new technologies forcing libraries to reconsider their use of space, they are also causing rethinking in education. Electronic research and teaching devices must be integrated into the curriculum. Should they complement or even replace traditional courses, and how? How do we teach students to use these devices? The library staff is essential here. It has been exposed to these technological advances and is not as apprehensive about them as is the faculty. These information specialists are the "frontline" educators who will instruct the faculty and students in the use of technology.



Budget

With the increase in the cost of printed materials, the need for additional and more qualified staff, the introduction of computer and other electronic equipment, and the additional need for library space, the budgetary demands of the UNM library are escalating at an astounding rate. The library budget is presently 30% of the law school's total instructional budget. The questions raised by the large financial needs of the library are: Can administrators continue to allocate larger percentages of their total budget to the library? If so, how?

In addressing these questions, it must first be noted that most law school libraries are not part of the university library system, they are a division of the law school. Law school accrediting rules state:

> The law school library must be a responsive and active force within the educational life of the law school. Its effective support of the school's teaching and research programs requires a direct, continuing and informed relationship with the faculty and administration of the law school. The law school library

shall have sufficient administrative autonomy to direct its growth, development and utilization to afford the best possible service to the law school.

(a) The dean, law librarian, and faculty of the law school shall be responsible for determining library policy, including the selection and retention of personnel, the selection of acquisitions, arrangement of materials and provision of reader services.

(b) The budget for the law library shall be determined as part of, and administered in the same manner as, the law school budget.

This autonomy creates a basic conflict, usually with the general university administration. Because the UNM law library budget is so large, questions are constantly being raised as to whether a library of such size is needed. University administrators ask this question on principle; law faculty, consciously or unconsciously, sometimes question the need to collect so heavily in their colleagues' subject areas. The library must defend itself from these lines of attack while remaining fair to all parties.

A second criticism from university administrators who try to compare the law library to other types of libraries is that staffing is unnecessarily large. The library is in the uncomfortable position of having to justify the need for its relatively large staff in comparsion to other university libraries.

The question, "Can we continue to fund the law library" should be answered by stating, "We must." The development, growth, and innovation of the law library is essential to the law school and the legal profession. The obligation of the law school, in general, and the dean, in particular, is to raise the funds needed by sustained growth of the library.

Persuading, arguing, and cajoling the central administration has been the traditional method of funding the library, especially with state affiliated schools. But more long-range planning is required. University budgets are finite, and in today's economy, cannot be stretched further.

Outside funding is called for. Endowment programs and charges for library use by lawyers are not unusual. However, they have not been available for many state law school libraries because it is believed that taxes support the institution. Thus, the library should be open without further charge.

A new method to attain additional financial support for the law school library is being explored in New Mexico, and probably in other states, as well. The method involves clients' trust funds. Pursuant to the Code of Professional Responsibility, a lawyer is required to maintain a client's funds in a trust account. These monies, which include awards won for the client which have not been disbursed, are not banked in separate accounts for each client. Rather, one trust account is opened in which are deposited monies attributed to all clients. Interest is generally not earned on these trust accounts because of uncertainty as to who is entitled to the interest. The banks are the only ones who benefit from this system.

The proposal is that lawyers bank trust funds with state or local bar asso-

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ciations. These associations would maintain the funds in a banking institution and would earn interest on these funds. The bar would then allocate that interest to ongoing bar projects. One of those projects is support of the law school library. Since the law library is a resource available to and used by all lawyers in the state, allocating at least a part of the interest allows the bar to participate in the continued development of the library.

Evaluation

Law schools, including their libraries, are formally evaluated periodically by the American Bar Association and, for those schools which are members, the Association of American Law Schools. Although these accrediting agencies are interested in the quality of the libraries, they normally measure them through quantifiable data. They are interested in the size and composition of the collection, the size and arrangement of the facility, the number, qualifications and salaries of the staff, and the efficiency of the processing and cataloging function. The logic is that a quality library requires a minimum commitment, defined by the accrediting associations in terms of books, equipment and people; and that there is assurance that at least a basic minimum is maintained. Standards above that minimum are the concern of the law school.

Self-evaluations of law schools vary. Some schools have faculty committees which formulate library plans and monitor them. Other schools, such as the UNM law school, use informal processes. Although a general library plan—an accreditation requirement—is involved, the library is continuously evaluated. The librarian speaks to all the faculty about collection development; a regular list of book purchases is circulated among the faculty; and a member of the law faculty sits on the law library faculty meetings. Last year, in addition, a nationally recognized law librarian was commissioned to evaluate the library. That evaluation will become the basis of a review of the library plan.

Evaluation of the library also comes, directly or indirectly, from outside sources. Since the library is used by lawyers, they are also concerned about its growth and development and the services that directly affect them. Since the library is committed to serving its users, their suggestions are encouraged.

Conclusion

The law library is the paradigm special library; its users cannot practice their profession without it. In fact, our justice system cannot function without it. The challenge is to continue the development of the library so that students, faculty, and lawyers will have the means to resolve human conflict in an orderly fashion. It is the obligation of library administrator's to assure that the library continuously responds and serves its users and to provide the financial resources that this obligation demands.

Robert J. Desiderio is Dean of the University of New Mexico Law School, Albuquerque, N. Mex.

INFORMATION MANAGEMENT A BIBLIOGRAPHY

William F. Wright

Bell Laboratories, Murray Hill, New Jersey 07974

■ **This is a selective annotated bibliography of 72 references on information management, executive information needs and marketing library services. It generally covers references appearing in the late 1970's through 1982. There are undoubtedly other publications which could have been included; the author has been highly selective because of space limitations. Within each section, entries are arranged alphabetically by author.**

Marketing Libraries and Information Services

O. Gene Norman has written an excellent review of the literature on marketing libraries and information services [Marketing Libraries and Information Services: An Annotated Guide to the Literature in *RSR, Reference Services Review* **10** (1): 69-80 (Spring 1982)] It covers marketing in academic, church, public, school and special libraries from 1970 into 1981. Of the 94 annotated references in his bibliography, 14 are of particular interest to the special librarian. These 14 references are listed below followed by annotated references to other recent relevant articles.

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Aslib Proc. **25** (10): 385-9 (October 1973)

Strategies for Introducing Marketing into Nonprofit Organizations.
Kotler, Philip
J. Marketing **43** (1): 37-44 (January 1979)

Marketing Viewpoints for User Need Studies.
Kuehl, Philip G.
p. 49-67 of *Economics of Information Dissemination: A Symposium,* Syracuse University, Syracuse, NY, 1973.

Marketing and Library Cooperatives.
Moulton, Bethe
Wilson Libr. Bull. **55** (5): 347-52 (January 1981)

Marketing Library and Information Services: the Strengths and Weaknesses of a Marketing Approach.
Oldman, Christine
European J. Marketing **11** (6): 460-74 (1977)

How to Promote Online Services to the People Who Count the Most... Management...End Users.
Schmidt, Janet A.
Online, **1**, (1): 32-8 (January 1977)

Marketing for Nonprofit Organizations.
Shapiro, Benson P.
Harvard Bus. Rev. **51** (5): 123-32 (September-October 1973)

Marketing and Marketing Research: What the Library Manager Should Learn.
Wasserman, Paul and
Ford, Gary T.
J. Libr. Admin. **1** (1): 19-29 (Spring 1980)

Marketing the Library Service.
Yorke, David A.
Library Association Management Pamphlets Number 3, Library Association, London, England, 1977, 81 p.

Marketing Libraries in General

Advanced Library Marketing.
Andreasen, Alan R.
J. Libr. Admin. **1** (3): 17-32 (Fall 1980)
Andreasen, Professor of Marketing at the University of Illinois in Champaign-Urbana, suggests ways of improving the applications of marketing to libraries based on his consulting experience with libraries. Highly recommended.

Nonprofits: Check Your Attention to Customers.
Andreasen, Alan R.
Harvard Bus. Rev. **60** (3): 105-10 (May-June 1982)
Andreasen contends that nonprofit organizations should direct more attention to the needs and wants of their customers in the future rather than focusing too closely on products or services as they have in the past. According to Andreasen this should result in increased client satisfaction.

From Paradigm to Practice: the Logic of Promotion.
Cronin, Blaise
Aslib Proc. **33** (10): 383-92 (October 1981)
Cronin focuses on the promotion part of the "four Ps" of the marketing mix (the others being product, price and place). Promotion is also discussed in other papers in this issue of *Aslib Proceedings* devoted to the March 1981 Aslib conference on "Promoting and publicizing library and information services."

Marketing Information Services.
Easter, Lenna
Abstract p. 9-10 (microfiche p. 144-156) of *Using Information,* Proceedings of the tenth mid-year meeting of ASIS, Fort Lewis College, Durango, CO, May 14-16, 1981.
Applies the analysis, planning, implementation and control elements of marketing management to the information business. Thomas's spectrum of types of business services (people-based or equipment-based) is applied to information service, (D. R. E. Thomas, Strategy is Different in Service Businesses, *Harvard Bus. Rev.* **56** (4): 158-65 (July-August 1978)

Beyond PR: Marketing for Libraries.
Eisner, Joseph
L J Special Report #18, *Library Journal,* R. R. Bowker, NY, 1981, 56p.
This special report contains a series of eleven papers. Although devoted to marketing of public libraries, much can be learned by analogy. There are papers on the marketing audit, marketing strategy and marketing segmentation.

Marketing Audit Applied to Technical Information Service.
Eyles, Heberle H.
Abstract p. 36-7 (microfiche number 5) of *Management of Information Systems,* Proceedings of the mid-year meeting of ASIS, Rice University, Houston, (May 21-24, 1978)
Describes why and how a marketing audit was done at the Technical Information Service of Procter & Gamble. The marketing audit helps the organization focus on objectives and plans to achieve those objectives. The first edition of Kotler's *Marketing for Nonprofit Organizations* (the second edition is annotated below) was used as a guide.

Marketing Information: A Professional Reference Guide
Goldstucker, Jac L. (Ed.) and
Goodwin, Dennis W. (Compiler)
Business Publishing Division, College of Business Administration, Georgia State University, Atlanta, GA, 1982, 369 p.
The most recent reference guide in marketing for both the librarian and customer. It is divided into two main parts: I.) Guide to Associations and Organizations (over 1600) II.) Guide to Sources of Marketing Information (over 2,400 items). Nearly all the books, directories, journals, newsletters and nonprint materials as

well as associations and organizations are annotated.

Marketing the Information Analysis Function in a Changing Industrial Corporation.
Gross, John W.
p. 141-5 of *The Information Age in Perspective,* Brenner, Everett H., Knowledge Industry Publications, White Plains, NY, 1978, 381 p. (Proceedings of the 41st ASIS Annual Meeting, New York, NY, November 13-17, 1978).
Relates how information services must change as the corporation (Gould, Inc.) changes. Gives examples of how the marketing strategy for information services was changed to accommodate these changes.

Market Segmentation for Information Services.
Halperin, Michael
Drexel Library Quarterly, **17** (2): 77-87 (Spring 1981)
Market segmentation divides the market into distinct and meaningful groups of customers. Halperin shows how this is done for information services and gives examples of successful commercial information services using this approach.

Marketing for Nonprofit Organizations
Kotler, Philip
Prentice Hall, Englewood Cliffs, NJ. Second edition, 1982, 528 p.
The first edition published in 1975 was included in Norman's bibliography. He calls it "the 'Bible' for marketing nonprofit institutions." Ten of the other twelve references in this section cite Kotler's works (eight cite the 1st edition), no doubt the second edition will be as popular. This is an excellent introduction.

Marketing the Library
Leerburger, Benedict A.
Knowledge Industry Publications, Inc., White Plains, NY, 1982, 124 p.
An introduction with the emphasis on public libraries and their promotion (publicity) and fund raising. Seven pages are devoted specifically to special libraries of which two pages contain a bank's usage questionnaire. The special librarian would still need to read Kotler's book cited above.

Marketing Yourself in Your Organization
Meltzer, Morton F.
AIM, Associated Information Managers, Washington, D.C., 1981, 19 p.
This is the first in a series of AIM publications aimed at the professional development of information managers. Contains an excellent, annotated bibliography with emphasis on the business literature.

Marketing and the Information Professional: Odd Couple or Meaningful Relationship?
Shapiro, Stanley J.
Spec. Libr. **71** (11): 469-74 (November 1980)
It is refreshing to see Shapiro, Professor of Marketing at McGill University recommend that "it is far easier for professionals from... library science sectors to learn what they must about marketing than it is for marketers from the private sector to overcome the many barriers to their becoming effective in a new and strange environment. He also discusses making marketing plans for every product-market segment and suggests that librarians be trained as corporate information officers.

Promotion of Online Services.
Bahr, Alice H.
p. 161-79 of *The Library and Information Manager's Guide to Online Service,*
Hoover, Ryan E. (Ed.),
Knowledge Industry Publications, White Plains, NY, 1980, 270 p.
The emphasis here is on promotion or advertising of online services. The section entitled "Marketing Strategies" contains only three paragraphs. Examples of promotional brochures from different libraries and a commercial vendor are reproduced.

Online Information Retrieval: Users' Needs and Wants.
Hawkins, Donald T.
p. 163-9 of *Proceedings of the Third National Online Meeting 1982,* New York, NY, March 30-April 1, 1982, Williams, Martha E. and Hogan, Thomas H. (Eds.), Learned Information, Medford, NJ, 1982, 590 p.
Discusses the results from a Bell Laboratories Library Network Marketing Survey that pertain to online searching. Applicable sections of the original survey pertaining to online searching are reproduced.

"Would You Buy a Used Database Search from That Library?": The Promotion of Database Searching vs. the Marketing of Information.
Maloney, James J.
p. 321-7 of *Proceedings of the Third National Online Meeting* 1982, New York, NY, March 30-April 1, 1982, Williams, Martha E. and Hogan, Thomas H. (Eds.),
Learned Information, Medford, NJ, 1982, 590 p.
The most important paper in this section. Maloney contends, "However, the active promotion of database searching, in the absence of a marketing program for the repertoire of information services offered by libraries, has created an imbalance. The active promotion of one service at the expense or neglect of other services offered by the profession has resulted in a high degree of visibility among the public for that one service." A thought-provoking paper. Also contains critical comments on the literature.

Online Services - Marketing.
Markee, Katherine M.
p. 329-34 of *Proceedings of the Third National Online Meeting 1982,* New York, NY, March 30-April 1, 1982, Williams, Martha E. and Hogan, Thomas H. (Eds.), Learned Information, Medford, NJ, 1982, 590 p.
Discusses the current marketing strategy for online services at Purdue University. Also briefly describes the results of a survey of other Big Ten University Libraries. The emphasis is on promotion and pricing.

Marketing and Promotion of Online Services for Intermediaries.
Raitt, David I.
p. 265-74 of *Proceedings of the Fourth International Online Information Meeting,* London, England, December 9-11, 1980, Learned Information, Medford, NJ, 1981, 527 p.
Discusses the marketing plan with emphasis on finding out who their potential customers are and what their needs and requirements are. Promotion of the service is also treated. Three appendices, Some Features and Selling Points of On-Line Services, Profile of an Information Service or Product, and Creating

a Product or Service -- Bibliographic Printouts, may be of help to those starting from scratch.

Marketing Online Services.
Smith, Patricia K.
Part 1 *Online* 4 (1), 60-2 (January 1980)
Part 2 *Online* 4 (2), 68-9 (April 1980)
This good overview is a two-part series from the "Management Outpost" column of the Journal *Online*. According to Smith, "By opening up and maintaining a two-way dialogue between the seller of the product (online service salesperson) and the user of the product, the marketer can understand the needs to be satisfied and how to meet them. That, simply, is what marketing is all about."

Information Industry Marketing to Libraries

Information professionals can learn much about how to market to their users by studying how the information industry itself markets to them.

Marketing for Online Bibliographic Services.
Elias, A.
Online Rev. 3 (1), 107-17 (March 1979)
An excellent example of the use of the technique of market segmentation by BioScience's Information Service (BIOSIS) to study how their database is used.

Marketing Online Systems to the Library Profession.
Hatvany, Bela R.
p. 271-4 of *Proceedings of the Second National Online Meeting 1981,* New York, NY, March 24-26, 1981, Williams, Martha E. and Hogan, Thomas H. (Eds.), Learned Information, Medford, NJ, 1981, 554 p.
Discusses how online systems should be marketed to libraries by using an analogy to Paxmore's telescope house in Mitchener's *Chesapeake,* i.e., "the marketing strategy can and must employ an architecture, which always builds on the past in an evolutionary manner. This approach must allow new and old customers alike to benefit, at each stage, from the latest available technological advance."

Marketing Scientific and Technical Information.
King, William R. and
Zaltman, Gerald (Eds.)

Westview Press, Boulder, CO, 1979, 234 p.
Contains 13 papers presented at a conference on the marketing of scientific and technical information. The conference, sponsored by the National Science Foundation, was held at the Graduate School of Business, University of Pittsburgh.

Information Management

Needed: Executive Awareness of Information Resources.
Auerbach, Isaac L. and Slamecka, Vladimir
Information & Management **2** (1), 3-6 (February 1979)
Auerbach and Slamecka argue that the executive level of understanding of information as a resource and commodity must be raised especially in view of the emerging development of international information markets.

Middle Managers Who are Heads of Company Libraries/Information Services.
Bailey, Martha J.
Spec. Libr. **70** (12): 507-18 (December 1979)

Supervisory and Middle Managers in Libraries.
Bailey, Martha J.
The Scarecrow Press, Metuchen, NJ, 1981, 210 p.

A National Profile of Information Professionals.
King, Donald W.; Debons, Anthony; Mansfield, Una and Shirey, Donald L.
Bull. Amer. Soc. Info. Sci. **6** (6): 18-22 (August 1980) also see NTIS PB80-221849 for actual report)

Moving Up: Librarians Who Have Become Officers of Their Organizations.
Kok, John and Strable, Edward G.
Spec. Libr. **71** (1): 5-12 (January 1980)
These four sources give information about the professional career path goals that are possible for librarians.

Managing Management.
Bauer, Charles K.
Spec. Libr. **71** (4): 204-16 (April 1980)
An excellent discussion of the management philosophy needed both to manage the library or information center and to interact with higher-level corporate executives and customers.

Defining Management's Information Needs.
Bentley, Trevor J.
Management Services **23** (3): 4-7 (March 1979)
Although the emphasis is on application of Management Information Systems (MIS), the steps recommended for defining management's information needs and the questions not to ask provide valuable background for information managers when interviewing executives.

The Endangered Species? Can Information Service Survive?
Berger, Mary C.
Bull. Amer. Soc. Infor. Sci. **8** (1): 12-4 (October 1981)
This thought-provoking paper can best be summarized by quoting the article's last sentence: "As a profession, we have choice, we can throw our influence and energy into becoming gatekeepers and guardians of the ways of access, or we can help people answer their own questions by teaching them to use the blossoming technology."

Content, Not Quantity...Tailor Specific Data to Specific Needs - New Thrust of Information Management.
Brinberg, Herbert R.
Mgmt. Rev. **70** (12): 8-11 (December 1981)
According to Brinberg, information management in the '80s will emerge as a "recognized discipline within any organizational structure." He discusses five developments that will establish this. He notes that "the information manager must be the servant of the user, not merely the master of the machines. The information manager must strike the appropriate balance between the benefits of needed information and the cost of acquiring, processing, and delivering it."

Information Resource Management in the '80s.
Brinberg, Herbert R.
Info. Rec. Mgt. **16** (3): 26-7, 54-5 (March 1982)
An outstanding paper. Contains an overview of the requirements of being an information manager. Argues that the informtion manager can establish credibility and acceptance, e.g., "Only if the user is convinced that 'your' information helps them make better decisions -- and this is recognized by their peers and superiors -- will the services of the information manager become indispensable."

Special Librarian to Information Manager.
Daniel, Evelyn
Spec. Libr. **73** (2): 93-9 (April 1982)
According to Daniel, presently there are three major "information worlds": 1. libraries and archives, 2. documentation or record centers, and 3. computers, databases and telecommunications. In the future, the information manager will emerge as the leader of these merged units. Who will fill this role? Daniel says "The key factor that permits librarians to metamorphose into information managers more easily than can either database administrators or records managers is their ability to organize conceptually, to evaluate, to select, to filter, and to channel information to the point where it is needed when it is needed."

Information Resource Management (IRM): New Directions in Management. A Forward.
Diebold, John
Infosystems **26** (10): 41-2 (October 1979)
Valuable for Diebold's argument that, "information, which in essence is the analysis and synthesis of data, will unquestionably be one of the most vital of corporate resources in the 1980s...Information will be recognized and treated as an asset...The corporations that will excel in the 1980s will be those that manage information as a major resource." In celebration of its 20th anniversary, *Infosystems* commissioned the Diebold group to compile a special series of articles on IRM: Part I, "IRM: The New Challenge" appeared in the June 1979 issue and Part II, "IRM: New Directions in Management' appeared in the October 1979 issue.

Information Management in the 1980s (Proceedings of the 40th ASIS Annual Meeting, Chicago, IL, September 26-October 1, 1977)
Fry, Bernard M. and Shepherd, Clayton A. (Eds.)
Knowledge Industry Publications, White Plains, NY, 1977, 127 p.
Contains 107 abstracts and sum-

maries of ASIS conference papers on information management and papers from Special Interest Group sessions. The full text of the papers are on microfiche.

Information Management in Public Administration
Horton, Forest W. and Marchand, Donald A. (Eds.)
Information Resources Press, Arlington, VA, 1982, 588 p.
Contains reprints of 33 papers on information management and public administration including the text of the Paperwork Reduction Act of 1980. These are some of the key background papers on which the Commission on Federal Paperwork based its information management recommendations. The book is divided into nine sections each of which has a list of additional readings. Recommended.

The Emerging Information Counselor: A New Career Path in Need of a Champion.
Horton, Forest Woody, Jr.
Bull. Amer. Soc. Info. Sci. **8** (5): 16-9 (June 1982)
Describes the emergence of a new career path for information professionals - information counselors - and explains what they will do. A thought-provoking paper.

Information Management - A New Department.
Business Week **No. 2747** p. 6, 56, 59 (July 12, 1982)
This issue of *Business Week* saw the emergence of a new department - Information Management- under the supervision of Robin Grossman. According to her the new department "will concern itself with how, for instance, information can be used as a competitive weapon. Companies need help in understanding how the information industry is changing in order to better reexamine their own corporate missions. We're going to give them that help." Most information managers will welcome this column.

The Information Manager,
(ISSN 0160-6123. Vol. 1 No. 1 August 1978-Vol. 2 No. 2 Summer 1980
Hempstead, NY: Information & Records Management, Inc., 1978-1980
A good publication containing profiles of information managers and their libraries or information centers in each issue as well as other information-type articles. Unfortunately it ceased publication in Summer 1980 *(New Serial Titles,* April, 1982 p. 150). Recommended, especially for those new to the field.

The Bell Laboratories Library Network.
Kennedy, Robert A.
p. 165-76 (Chapter 11) of *Industrial Information Systems,* Jackson, Eugene B. and Jackson, Ruth L., Dowden, Hutchinson, and Ross, Stroudsburg, PA, 1978.
Updated version: p. 17-31 (discussion, p. 31-6) of *The Special Library Role in Networks,* Gibson, Robert W., Jr. (Ed.),
Special Libraries Association, NY, 1980.
A description of one of the most centralized and advanced industrial library networks in existence. Also contains a description of how the "good management information... basic to the good management of information" is obtained.

Multinational Scanning: A Study of the Information Sources Utilized by Headquarters Executives in Multinational Companies.
Keegan, Warren J.
Admin. Sci. Quart. **19** (3): 411-21 (September 1974)
Gives the results of an empirical study of how executives responsible for international operations in multinational corporations with headquarters in the U.S. obtain informtion. Contains valuable insights such as, "None of the management groups in the sample used a formal system for monitoring published information, a somewhat surprising finding in light of the size of the larger companies in the sample."

Information as Power.
Kent, A. K.
Aslib Proc. **31** (1): 16-20 (January 1979)
Kent urges the establishment of the profession of information management to ensure that those having power in the information age are democratic and benign and not totalitarian.

Libraries and Librarians in an Age of Electronics
Lancaster, F. Wilfrid
Information Resources Press, Arlington, VA, 1982, 229 p.
A good examination of what the future holds for the information professional. Highly recommended. For additional information see the April 1981 Special Issue of *Special Libraries* entitled "Information Technology and Special Libraries."

Today's Challenge - Tomorrow's Choice: Change or be Changed or The Doomsday Scenario MK2.
Lewis, Dennis A.
J. Info. Sci. **2** (2): 59-74 (September 1980).
Lewis updates his 1976 conference paper "There Won't Be an Information Profession in 2000 AD" and contends that the scenario is even more likely to be true. He then discusses actions to be undertaken by information managers to prevent the demise of the profession.

Design and Strategy for Corporate Information Services: MIS Long-Range Planning.
Long, Larry E.
Prentice-Hall, Englewood Cliffs, NJ, 1982, 186 p.
A good study on long-range Management Information System (MIS) planning. *Computerworld* beginning with the July 19, 1982 issue (vol. 16, no. 29, following page 56) and the following two weekly issues feature a three-part series based on the book in their "In Depth" section.

Information: The Ultimate Management Resources - How to Find, Use and Manage It.
Meltzer, Morton F.
AMACOM, New York, NY, 1981, 211 p.
An excellent discussion of the role of the information manager in the corporate organization. Contains a good annotated bibliography and additional reference sections. Very highly recommended especially for the neophyte.

Information in Industry - Management's Indispensable Resource.
Pilkington, Sir Alastair
Aslib Proc. **32** (1): 10-17 (January 1980)
Pilkington, President of Aslib, advocates that "an information service will only be good if the professionals who

work in it come out among their customers and make it so. They will make it good through creating partnership with their customers in order to help identify, understand and meet their needs. They will not make it good by expecting customers to come to them for information. Customers are more likely to forget they have an information service if that service is not active. Then they will waste time and money going elsewhere for information."

The Information Future and its Challenge to Information Managers.
Price, William H.
Information Services & Use **1** (1): 3-9 (March 1981)
Stresses the importance of information as an asset that can be increased while reducing resource investments through excellence in information management. Price urges information managers to contribute to the development of the office of the future.

Chief Executives Define Their Own Data Needs.
Rockart, John F.
Harvard Bus. Rev. **57** (2): 81-93 (March-April 1979)
Examines advantages and disadvantages of several methods of providing information to top management. A new approach called the critical success factor (CSF) method, developed at MIT's Sloan School of Management, is discussed. Also contains valuable insights such as "many critical success factors require information external to the organization...The information system must therefore be designed, and the external information consciously collected from the proper sources. It will not flow naturally to the CEO." Also see Barbara C. McNurlin, "What Information Do Managers Need?" *EDP Analyzer* **17** (6): June 1979-entire issue of 12 p. For the application of the CSF method in a special library see Jack Borbely, "The Critical Success Factors Method-Its Application in a Special Library Environment, *Spec. Libr.* **72** (3): 201-8 (July 1981).

The CEO Goes On-line.
Rockart, John F. and Treacy, Michael E.
Harvard Bus. Rev. **60** (1): 82-8 (January-February 1982)
Discusses the emergence of executive information support (or "EIS") systems that are appearing in executive offices. Some of these systems include access to external databases such as Standard & Poor's Compustat and DRI services. Given these facts the potential for the information manager is tremendous. Mary Berger's paper (annotated above) is an excellent compliment to this paper.

Towards the Development of a Library Management Information System.
Runyon, Robert S.
Coll. Res. Libr. **42** (6): 539-48 (November 1981)
Calls for the total systems approach to the creation of a comprehensive Management Information System (MIS) so that the data necessary for good information management can be obtained.

Partners in Fact: Information Managers and Marketers Talk.
Solomon, Robert J. (Ed.)
AIM, Associated Information Managers, Washington, DC, 1982, 40 p.
Contains transcripts of a dialog at NICE V (National Information

Conference and Exposition sponsored by the Information Industry Association with the participation of Associated Information Managers) in Chicago on April 10, 1981. Participants in the dialog include: R. J. Solomon of Congressional Information Service, Inc., R. C. T. Crosby of Stauffer Chemical Co., J. Kok of Foote, Cone & Belding, M. F. Meltzer of Martin Marietta Corp., and D. Witkowski of Schiff, Hardin & Waite. Highly recommended.

What Do Upper Executives Want from MIS?
Spencer, William I.
Admin. Mgmt. **39** (7): 26-7, 66, 68 (July 1978)
Although the application is to Management Information Systems, Spencer, President of Citicorp, New York, cogently and succinctly states top management needs: "exactly enough relevant information at precisely the right moment to produce an infallible management decision at the least possible cost."

The Current Information Requirements of Today's Corporate Executive: A Challenge to the Information Manager.
Stanley, Sally
p. 39-4 of *Proceedings of the First International On-Line Information Meeting,* London, England, December 13-15, 1977, Learned Information, Medford, NJ, 1978, 237 p.
Although this article chiefly describes the use of the New York Times Infobank to meet the information needs of executives, it contains good insights on the methods of so doing, "It's a fallacy to believe that because a new information resource is acquired, executives will flock to use it. It's not enough merely to announce its availability: remember, the executive already has access to current information via his business associates and his own informal information gathering activities."

The Office of the Future: Information Management for the New Age.
Strassmann, Paul A.
Technology Review **82** (3): 54-65 (December 1979/January 1980)
Postulates the emergence of an "information middleman" who will simplify communications within an organization because "he/she can communicate with any of the functional elements of the bureaucracy and represent all those elements to any number of clients or external agencies." The key to this person's success is fast access to information through a computerized personal work station.

Cuts and the Special Library.
Stubbs, H. W. D.
Aslib Proc. 32 (10): 369-80 (October 1980)
Valuable for his application of two of Peter Druker's four common weaknesses of managers, e.g., "The first is that often managers tend to be work and effort focused, rather than contribution and result focused. Asked 'what do you do that explains your being on the payroll', the manager of the special library might answer 'I have 20 library and information staff working for me and each year they buy 500 books and 350 journals at a cost of L50,000, and answer 20 enquiries each day'. As Drucker points out, that is a degenerative and curable disease--the staff and budget can always (and probably will) be cut significantly. Rarely do

you get the manager who says 'it is my job to think through the decisions our management will have to make in the next year, and make sure they get the information they need.'"

Information Resource Management: Opportunities and Strategies for the 1980s.
Synnott, William R. and
Gruber, William H.
John Wiley & Sons, NY, 1981, 356 p.
This book will probably be used as a handbook of strategies (termed by the authors as centrally oriented Management by Strategies) for information managers since it bridges the gap between the information resource and the overall goals of the organization. The authors argue for the creation of a Chief Information Officer in the company. For those wishing an overview see the In Depth section of the September 21, 1981 issue of *Computerworld:* "Changing Roles for Information Management' by W. R. Synnott.

Cost-Effectiveness and Cost-Benefit Determinations in Special Libraries.
White, Herbert S.
Spec. Libr. **70** (4): 163-9 (April 1979)
Valuable insights for library managers in the corporate world, e.g., "One of the traditional management communication problems that libraries have had is that library objectives are usually inwardly directed. We will purchase and process books and periodicals to projected numbers, we will compile a certain number of bibliographies, we will achieve a 10% increase in circulation and an 8% increase in interlibrary loan. These statistics, while they may impress fellow library professionals, are meaningless to management, which is not in the book processing and material lending business. It is to the real business, or the many businesses, of the company that library objectives must relate. What does the library plan to do in support of program A and program B? At least as importantly, how do we assure that the directors of programs A and B are aware of what we are doing for them--are they direct recipients, are they told by their own people, or do we make sure we tell them ourselves?"

Librarianship - Or Information Management.
Wilson, Leslie
Libr. Assoc. Rec. **79** (10): 550-1, 555-7 (October 1977)
Contains the text of a paper delivered by the Director of Aslib. Says we must work toward integrated company information systems combining different information activities into a total system under one management which does long range planning. Also argues "I see the concept and practice of librarianship...as unduly and undesirably restrictive."

Actions of the SLA Board of Directors June 4, 5, and 11, 1982

The SLA Board of Directors met at the Westin Hotel, Detroit, Michigan, June 4, 5, and 11, 1982. These meetings were held in conjunction with the Association's 73rd Annual Conference, June 5-10, 1982. Meetings of the Chapter and Division Cabinets and the Annual Business Meeting were also held at the Annual Conference. Actions taken by the Board as well as important reports heard by the Board are summarized below.

Association Election—The results of the Association election for the Spring of 1982 were announced by the Tellers Committee:

President-Elect	Pat Molholt
Treasurer	Muriel Regan
Chapter Cabinet Chairman-Elect	Marilyn K. Johnson
Division Cabinet Chairman-Elect	Jane Cooney
Directors	Frank H. Spaulding
	Mary Lou Stursa

The newly elected Board members replaced the following retiring Board members at the Annual Business Meeting, June 9, 1982:

Past President	James B. Dodd
Treasurer	Dorothy Kasman
Chapter Cabinet Chairman	Jane Dysart
Division Cabinet Chairman	Julie Bichteler
Directors	Jack Leister
	Mary Vasilakis

Jack Leister was elected by the members of the Board to serve the last two years of the three-year directorship of late Director, Charles K. Bauer. Therefore, Leister, who in June 1982 completed a three-year term as Director, will continue in that capacity through June 1984. M. Elizabeth Moore was elected by the Board to the office, Secretary to the Board of Directors, for the 1982/83 Association Year.

Association Awards—The Board heard that at the Annual Business Meeting, June 9, 1982, the members elected Congressman William D. Ford, a long-time champion of libraries, as an Honorary Member. This action by the membership followed the Board's endorsement of the Awards Committee's nomination of Representative Ford for this honor at the 1982 Winter Meeting.

In other actions relating to awards, the Board approved the awarding of up to two $5,000 scholarship and up to two $3,250 minority stipend awards for students enrolling in graduate library and information studies for the 1983/84 academic year. The Board also authorized the establishment of a Special Committee to study the SLA Scholarship Program. The Special Committee will study all aspects of the scholarship/ minority stipend program, with particular emphasis on the monitoring and follow-up of award recipients.

New Chapters Approved—The Omaha Area Provisional Chapter was granted full chapter status by the Board. The Board received and acted favorably on a petition from SLA members in the Western Canadian Provinces for the establishment of the Western Canadian Provisional Chapter. The new provisional chapter is the 53rd SLA chapter.

Professional Women's Interest Division—The Board referred a petition for the establishment of a Provisional Division on Professional Women's Interests to the Division

Cabinet. Upon submission of a scope note and the name of the temporary chairman, the Division Cabinet Chairman will refer the petition to the Division Cabinet Committee on Division Formation and Scope. The Committee's recommendation on establishment of the provisional division will be communicated to the Board by the Division Cabinet Chairman at the 1983 Winter Meeting.

Chapter Groups—The ambiguous status of subject/format related groups in SLA chapters, with particular emphasis on online groups, was a topic at both the Board and Chapter Cabinet meetings. The Chapter Cabinet authorized the establishment of a working group to review the present status of chapter online groups. The working group will make recommendations on policy and guidelines to the Chapter and Division Cabinet at the 1983 Winter Meeting. The Board requested that the working group also study the present policy of allowing nonmember participation in the chapter groups.

Standing Committees—The Board responded to the concerns of members who wished to have input into the development, revision, and implementation of cataloging rules and classification schemes by authorizing the establishment of the Committee on Cataloging and Access. The Committee on Committees definition of the new committee was approved at the June 11 meeting.

The Chairman of the Research Committee forcefully expressed the Committee's position that the Association's research efforts should be discontinued in favor of efforts to influence the development and applications of new information technologies. The Board concurred and approved the Committee's recommendation that the Research Committee be dissolved.

Conference Planning—The Board discussed and approved in principle program plans to date for the 1983 Annual Conference in New Orleans. Registration fees for the 1983 Conference will not increase due to the Board's defeat of the Finance Committee's recommendation for a $15.00 across-the-board conference registration fee increase.

The Board heard that the Division Cabinet endorsed a move proposed by the Association staff for the publication of indexed preliminary and final printed conference programs in a unified chronological format. It is estimated that a common format for both programs will save the Association $3,000 or more annually.

A recommendation of the Division Cabinet for the authorization of a Special Committee to investigate SLA Conference Exhibits (exhibitor problems, booth rental rates, etc.) was not enacted by the Board because there are already channels of communication in place for exhibitors to make their concerns and needs known to the Association staff.

San Antonio, Texas, was selected by the Board as the site of the Association's 82nd Annual Conference, June 8-13, 1991.

Financial Reports—The auditors report confirmed preliminary reports at the 1982 Winter Meeting of the financial health of the Association at the end of fiscal year 1981. Association staff projected that the budget for FY 1981 will be met, with a modest excess of income over expenses, provided that income projections for the 1982 Annual Conference are realized.

Staff reported that membership has remained static since the dues increase effective January 1981. The Board approved the staff's conservative projection of 11,500 members for fiscal year 1983. This should produce a dues and fees income of approximately $619,900.

Long Range Planning—The draft report of the Special Committee on Long Range Planning was discussed at length, and a timetable for developing and implementing a long range plan before November 1983 was established.

Further discussion on the proposal for the adoption of a new name for SLA was deemed not to be appropriate until the Association's mechanism for long range planning is in place.

The Board thanked the Special Committee on Long Range Planning for development of the procedures for evolving the Association's long range plan. Its charge completed, the Special Committee rose. The Board has authorized the establishment of a new Special Committee on Long Range Planning for the next phase in the process. This phase involves the collection and analysis of data from Chapters in the Spring of 1983 in order to draft a mission statement for review by the Board of Directors.

Electronic Mail Project—The Executive Director reported on the continuing success of the OnTyme II electronic mail system for the transaction of Association business. The Board's concern over the uncontrolled addition of SLA units as participants in the electronic mail project was evident in its defeat of a motion to authorize the expenditure of funds to enable the Government Relations Committee to join the program. This concern resulted in the establishment of a Special Committee for the preparation of guidelines for the inclusion of SLA units in the electronic mail project.

Publications Program—The new member/nonmember pricing policy for SLA publications was discussed by the Board and by the Chapter Cabinet. Concern was expressed that nonmember prices were being charged to companies employing SLA members. No action was taken on a recommendation by the Illinois Chapter that the Publications Committee become responsible for reviewing and setting prices of Association publications after staff indicated it would review and alter the policy in view of the concern that had been expressed.

Cooperative Activities—The Board accepted in principle several recommendations for cooperation with the Medical Library Association. The recommendations were prepared and submitted to both the SLA and MLA Boards of Directors by a joint committee comprised of SLA and MLA members. Some of the cooperative activities recommended are: (1) periodic holding of annual conferences of both associations in the same city, (2) joint government relations efforts, and (3) joint collection and evaluation of statistical data useful to both organizations.

Association Office Operations—The Board renewed the contract of the Executive Director, David R. Bender, for a three-year period, commencing July 30, 1982.

Other actions of the Board pertaining to the operation of the Association Office were:

1) The adoption of a staff reorganization plan for improved work flow and employee efficiency;

2) Approval of minor revisions to the Employee Manual and the job description of the Manager, Order and Circulation Department; and

3) Ratification of an action of the Executive Committee of the Board for changing the Association's liability insurance carrier.

The Board received from the Association Office Operations Committee a recommendation for the purchase of a building in Stamford, Connecticut, for the relocation of the Association Office. After a discussion of the financial implications, the advantages and disadvantages of the building, and a move to Stamford, the Board voted to instruct the Association staff to cease negotiations for the Stamford property.

The Board responded to the Executive Director's request for guidence in searching for property by instructing the Association Office Operations Committee to develop guidelines for use in the evaluation of property for the relocation of the Association Office.

SLA 1982 Salary Survey Draft Report

Special Libraries Association conducts an in-depth salary survey every three years. The survey results provide SLA members with salary information applicable to special librarians and information specialists in a wide spectrum of organizations. In many instances members, as well as their organizations, use this information as a guide in salary negotiations.

The 1982 Salary Survey builds on previous surveys and offers more extensive data on salaries by industry and job title. Another new aspect of this survey is separate reporting of United States and Canadian data. The 1982 survey report is considerably more complex than previous reports. The SLA Board of Directors believes that the Association should publish the salary survey report as an independent document. This thinking reflects the practice of many professional societies and organizations which prepare salary surveys and independent documents.

This year in an effort to use the Association newsletter and to exercise fiscal restraint, the April 1982 issue of the *SpeciaList* contained the salary survey questionnaire. At the time of that mailing, those eligible to complete the questionnaire—Members and Associate Members—numbered 9,128. Of that number, 3,255 returned useable responses for the salary survey, a 35.7% rate of return. This percentage is somewhat lower than past surveys, perhaps in part due to the new distribution procedure. The percentage is statistically significant, and we do expect that as the members acclimate to receiving the survey questionnaire as part of the *SpeciaList*, the response rate will rise.

The complete *1982 SLA Salary Survey Report* will appear in December 1982 as an independent publication. This issue of *Special Libraries* contains some preliminary data which we hope SLA members, their employers, and the library community will find useful.

Table 1 reports the changes in mean and median salaries from Apr. 1, 1981, to Apr. 1, 1982, within each United States Census Region and Canada.* The figures present changes in dollar amounts and in percentages.

Table 1. 1982 Mean and Median Salaries by Census Region in Rank Order of Percentage Change in Median from 1981 to 1982

Census Region	Median 1981	Median % of Increase	Median 1982	Means 1981	Means %	Means 1982
East South Central	17,300	38	24,000	18,600	34	24,900
Canada	23,500	15	27,000	25,000	12.4	28,100
Middle Atlantic	21,000	14	23,900	22,600	10.6	25,000
New England	19,200	14	21,900	21,400	7.5	23,000
Pacific	22,000	9.1	24,000	22,900	9.2	25,000
West North Central	20,200	8.9	22,000	21,700	32	22,400
West South Central	19,500	7.8	21,200	20,300	15,2	23,400
South Atlantic	22,500	6.6	24,000	24,500	4.5	25,600
East North Central	21,000	5.7	22,200	23,000	3	23,700
Mountain	20,000	3.5	20,700	21,500	2.7	22,100

*Salaries in 1982 reported in Canadian dollars. The exchange rate on Apr. 1, 1982, was approximately Canadian $1.2289—United States $1.00.

Table 2. Salary Distribution by Census Region in Rank Order of 1982 Median.

Census Region	Average Lowest 10%	25th Percentile	Median Percentile	75th Percentile	Average Highest 10%	Mean	No. Respondents
Canada	16,900	23,000	27,000	32,000	44,100	28,100	236
South Atlantic	13,700	19,000	24,000	30,100	46,600	25,600	492
Pacific	14,700	20,100	24,000	29,000	40,000	25,000	488
East South Central	14,000	19,800	24,000	28,400	42,200	24,900	56
Middle Atlantic	13,800	19,000	23,900	29,400	43,100	23,500	708
East North Central	13,800	18,500	22,200	27,0004	40,300	23,700	524
West North Central	12,200	18,100	22,000	26,000	35,900	22,400	167
New England	12,700	18,100	21,900	26,200	39,800	23,000	226
West South Central	13,000	18,300	21,200	26,000	43,600	23,400	210
Mountain	15,200	18,600	20,700	24,900	34,800	22,200	125

*See footnote to Table 1.

The survey indicates increases in median salaries from 1981 to 1982 ranging from 3.5% up to 38%. The median salary in dollars for 1982 ranges from $20,700 in the Mountain region to $24,000 in the South Atlantic region. The median salary for Canada, reported in Canadian dollars, is $27,000. The salaries for members in the East South Central region, representing Kentucky, Tennessee, Mississippi, and Alabama increased by the largest percentage and dollar figure.

*Since the figures for United States Members and Canadian members will be analyzed separately in this survey, no overall mean and median figures are available.

Table 2 lists the salary distribution in rank order of median salaries for Canada and the nine United States Census Regions. In comparing the rankings with the 1981 update, the East South Central region moves up from the bottom of the ranking to fourth on the list. The top three regions, Canada, South Atlantic, and Pacific, remain in the same order as in 1980 and 1981.

This represents a preliminary report from the 1982 SLA Salary Survey data. The full survey will cover salary by census region, organizational entity, job title, years of experience, and degree of supervision. Some new features of the 1982 survey include comparisons of salaries with type of organization, with budget allocations, with job title, and with level of responsibility.

REVIEWS

Marketing for Non-Profit Organizations, by David L. Rados. Boston, Auburn House, 1981. 572p. $24.95. LC 80-25948; ISBN 0-86569-055-3.

The author, currently professor, Business Administration, Owen Graduate School of Management, Vanderbilt University, has made a valuable addition to the literature of the nonprofit organization. Rados starts from the premise that the nonprofits are qualitatively different from commercial corporations. As a result, their marketing directors or administrators frequently "find themselves working on problems that commercial marketers would despair of handling." It is often their lot to "market products and services for which there is little demand, which is like answering questions that nobody wants answered."

Nevertheless, nonprofit marketers can function effectively and realistically if they bring experience and knowledge of standard components and processes of for-profit marketing to the special problems of the nonprofit organization.

An excellent introductory chapter provides a conceptual framework for analyzing the many forms of the nonprofit organization and for exploring several theories of marketing activity. The shortcomings and limitations of marketing solutions are set forth clearly and honestly. Rados concludes that the marketing approach is valid in nonprofits, despite limits, since it can evoke the support needed by organizations which "lack the power to tax."

The rest of the book discusses such issues as costs, behavior, marketing strategies, distribution, communication, marketing control, and organization. Each chapter's material is amplified with case histories and a generous sprinkling of data. The cases provide a wide range of examples including the Seattle Aquarium, Metropolitan Museum of Art, Catalyst, International Ladies Garment Workers' Union, Consumer's Union, Metropolitan Opera Association, Monash University Bookstore, and interviews with public service directors of radio and television stations.

Libraries that serve marketing and nonprofit organizations will clearly want to add this work to their collections. Librarians who want to think in marketing terms for their own services will certainly find it very useful. The author has written a didactic, rather than a how-to-do-it, book. Therefore, readers will find it necessary to translate the business jargon terms into their own working language.

Marketing for Non-Profit Organizations offers some challenging new material and cogent analysis of experience. It can provide a solid base for reviewing library programs and perhaps developing new ones.

Lucille Gordon
Gordon Associates
New York

The Information of the Image, by Allan D. Pratt. Norwood, N.J., Ablex Publishing Corp., 1982. 117p. $15.00. LC 81-15075; ISBN 0-89391-055-4.

The author presents an "exploration" of library science, information science, human communication, information systems, and details a broader view of what we know as librarianship. He provides the reader with several notions for which he provides a careful rationale. For example, Pratt sees the basic skills of the librarian—the collection, preservation, organization, and dissemination of records—to be widely applicable to nonlibrary settings. Indeed, in every organization, he maintains, this kind of activity takes place, and these systems, regardless of the job title or purpose, are potential positions for which many library and information professionals could qualify.

The basic issue discussed, is recognition that these kinds of activities exist in nonlibrary organizations, whether public or private. If the specialists who accomplish these skills were called management information system specialists, information managers, or information resource managers, their job possibilities would be greatly enlarged.

Pratt points to Associated Information Managers (AIM) and notes that 40% of its members hold an MLS degree and serve corporate and agency systems as opposed to libraries, which in Pratt's view are the public, school, and academic institutions known to all of us. The members of AIM are librarians with other specializations such as "marketing, data processing, ... records management," according to his explanation.

If librarianship is to grow and survive in the future, Pratt sees a need for library schools and practicing professionals to change. He recommends that library schools be disassociated from departments of education and that the curriculum shift to a greater emphasis on information resource management, as well as a general broadening of vision and scope, so that graduates can see the possibilities and enter a variety of work settings. Professionals now in practice must also see themselves *as they are*—that is, as managers of information systems.

Special librarians who already fit the image Pratt projects will benefit from his careful reasoning and may be able to use some of his thinking to advance their own cause. Those who want nothing to do with these ideas and are confident of their future as librarians in more traditional settings should also read this book so that the basis of their judgment will rest on firm ground.

James M. Matarazzo
Simmons College, GSLIS
Boston, Mass.

Legal Research and Law Library Management, by Julius J. Marke, Esq. and Richard Sloane, Esq. New York, Law Journal Seminars-Press, 1982. 468 p. $32.00.

Time represents a greater percentage of the "assets" of legal researchers than of most other individuals. For this reason, this book is especially valuable since it reveals to attorneys—and to the librarians who guide them—how to save time by improved research techniques, by better understanding the available options, and by more efficient use of "lawyerly," as well as "nonlawyerly," resources.

The authors, who are affiliated with the New York University and University of Pennsylvania law schools, have compiled and updated this collection of their articles which originally appeared in *New York Law Journal.*

The book may be as important for its recurring, underlying themes as for its enlightening pointers. Law libraries will benefit from it because, in addition to helpful facts for the uninitiated, it spells out for professionals who might think they know it all how to achieve better results through improved and more cost-effective research methods. By the same token, every major general and business library can benefit from this book since it explains, in language any lay person can understand, how nonlawyers can find guidance and answers to a wide array of legal and general business problems.

Although the book is formally divided into an overview and two major sections—on legal research and on library management—the chapters are interrelated. The authors describe which reference tools are available and their specific uses; when, why, and how law library staffs should be augmented; and what librarians should know and do to prove the investment worthwhile. They also tell how to build, modernize, expand, move, and protect legal research libraries, and how to coordinate legal research.

Good as it may be, this work is not without its limitations. For a book that purports to "place the entire sweep of history" before its readers, it focuses a great deal on New York law. A mitigating factor is that most of the chapters are equally significant to researchers in all jurisdictions of the United States. New York law provides not merely good examples but ones that are likely to be followed and familiar elsewhere.

The authors may be faulted for overemphasizing the negative qualities of commercially available loose-leaf services at the expense of the positive, i.e., cost vs. convenience. For example, they go to great pains to show how cumbersome it is to search through the *Federal Register's* index for the current version of a regulation, instead of succinctly pointing out how a single commercially available information service can render such a search unnecessary. Elsewhere, the authors overgeneralize by stating that the question of when a proposed rule becomes effective can be answered *only* by reference to the index and subsequent issues of the Federal Register or through numerical tables, when in fact this information is often available at a glance with an information service. The chapter on "Access to Public Records" does not contain a single reference to Prentice-Hall's *Government Dis-*

closure Service, the only service to publish all federal cases on the Freedom of Information Act and related matters.

Although the materials in the book were updated, the updating is not always up-to-par, or up-to-date. The reprint format apparently made it difficult to weed out occasional repetitious passages. One wonders why not one but two chapters were devoted to environmental law while none were devoted to other areas of substantive law.

Returning to its predominant positive features, the book would be of value were it only for its recommended readings. Even more important are the authors' recommendations against buying certain books, both specifically and generically. The authors are not afraid to refer to a seven-volume treatise on anti-trust law as a "bad" book, and to demonstrate why. Far more significant than the warning against buying a specific book or series is the warning against purchasing books generically. Because of the vulnerability and lack of durability of today's "permanent" bound books—their life-expectancy is only 30 to 50 years—the authors argue the case for microform storage as a space saving, as well as a preservation technique.

To illustrate the extent to which the information explosion has grown, the authors cite the casebook that compares the number of words in the *Code of Federal Regulations* to the numbers of words in the Bible and in Shakespeare. Even more ominously, the authors note that "the quantity of information generated in the past ten years alone" is estimated to exceed "the total from all of mankind's previous history." Perhaps that estimate alone should convince law office coordinators or legal and business research librarians to get a hold of this book before the deluge of publications engulfs the legal research libraries of our litigious land.

Aaron I. Reichel, Esq.
Member New York and
New Jersey Bars

Weeding Library Collections–II, 2d rev. ed., by Stanley J. Slote. Littleton, Colo., Libraries Unlimited, 1982. 198p. $18.50. ISBN 0-87287-283-1.

It is the rare special library that has no need for weeding its collections. It is safe to say that most of them must be weeded regularly simply in order to keep the collection within the bounds of the space allotted to book stacks. Stanley Slote's book is well-worth perusal by special librarians because it treats the principles and practices of weeding in a clear, useful fashion. The first half, which deals with principles, is a revision of the first edition, while the second half, concerned with practical techniques, is completely new. The author sees his book as being suitable for the practising librarians as well as a textbook for library schools.

The practical section describes five different methods of weeding, the choice depending upon the system used to keep track of due dates for books. Libraries using traditional book cards, for example, would use a different method than those using no cards or those using computerized systems. Each method is thoroughly and clearly described, including copies of forms needed to carry out the process.

The section on principles is more theoretical in nature, although it does include useful discussions on criteria for weeding, such as the amount of recent use given a book, physical condition, whether or not a serial is covered by an indexing service, superseded editions, and so on. A thorough review of the literature on weeding shows the quality of the author's research on the subject.

The author has prepared a well-written, useful treatise on a subject that has not received a lot of attention. Although the book touches only briefly on the concerns of special libraries and the examples tend to be based on university and public libraries, Slote's treatment is general enough to serve as a helpful tool for librarians in any type of library where weeding must be done.

Ellis Mount
Columbia University
School of Library Service

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SPECIAL LIBRARIES ASSOCIATION

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For applicants with the MLS or equivalent degree, college graduates who lack the MLS or equivalent degree but who have three or more years of professional experience in special libraries, faculty members who are engaged in educating students in disciplines related to special librarianship, and individuals with at least seven years of professional library experience.

☐ **ASSOCIATE MEMBER*** **$55.00**
For persons who have a serious interest in the objectives of SLA but who are not eligible to become Members. Upon qualification, an Associate Member is granted Member status.

☐ **STUDENT MEMBER‡** **$12.00**
For applicants enrolled at least part-time in a curriculum of library or information science. Available only to those joining SLA for the first time, student membership may be held for no more than three years.

☐ **RETIRED MEMBER‡** **$10.00**
For Members who have reached age 60 and have retired from full-time employment. Membership is complimentary for Retired Members who have been SLA members for 45 or more consecutive years.

☐ **CHAPTERS**
All members may affiliate with the Chapter nearest their homes or places of employment at no charge.
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Additional Chapter(s): ______
@ $8.25 each $ ____

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*$12.00 of the annual dues of these classes is an allocation for a subscription to *Special Libraries*. $3.00 is an allocation for a subscription to the *SpecialList*.

‡One-half of the annual dues of Student and Retired Members is an allocation for subscriptions to *Special Libraries* and the *SpecialList*.

$1.75 of the annual dues of members who elect affiliation with the Aerospace, Information Technology, Nuclear Science, Pharmaceutical, Science-Technology, or Transportation Divisions is an allocation for a subscription to *Sci-Tech News*.

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TOTAL DUES AND FEES **$ ____**

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INDICATE PERIOD FOR WHICH APPLYING:
______ January-December 19____
______ July 19____-June 19____

Have you previously been a member of SLA? When? ____

How did you first learn about SLA?
☐ Through an SLA member. Name: ______
☐ Other (specify): ____________

____
Your Signature Date

Be sure to complete all applicable items below

Member and Associate Member Applicants: Please complete items 1, 2 & 3 below.
Student Member Applicants: Please complete items 1 & 4 below.

1. College or University ____________
   Degree ________ Date ________
   If no degree, how many credit hours completed?
   Semester-Hours ____________
   Quarter-Hours ____________
2. Library School ____________
   Degree ________ Date ________
   If no degree, how many credit hours completed?
   Semester-Hours ________
   Quarter-Hours ________
3. Years professional library experience ________
4. Library School at which enrolled ________
   ☐ Full-Time Date enrolled ______
   ☐ Part-Time Date degree expected ______

____
Signature of Library School Dean

CHAPTERS

Alabama (290)
Arizona (480)
Baltimore (010)
Boston (020)
Central Ohio (330)
Central Pennsylvania (490)
Cincinnati (030)
Cleveland (040)
Connecticut Valley (050)
Eastern Canada/ Section de l'Est du Canada (140)
European (400)
Florida (370)
Hawaiian Pacific (390)
Heart of America (090)
Hudson Valley (440)
Illinois (070)
Indiana (080)
Kentucky (410)
Long Island (380)
Louisiana (100)
Michigan (110)
Mid-Missouri (420)
Mid-South (450)
Minnesota (130)
New Jersey (150)
New York (160)
North Carolina (340)
Oklahoma (300)
Omaha Area (007)
Oregon (430)
Pacific Northwest (190)
Philadelphia (170)
Pittsburgh (180)
Princeton-Trenton (360)
Rhode Island (470)
Rio Grande (310)
Rocky Mountain (260)
St. Louis Metropolitan Area (060)
San Andreas (006)
San Diego (320)
San Francisco Bay Region (200)
Sierra Nevada (460)
South Atlantic (270)
Southern Appalachian (280)
Southern California (210)
Texas (220)
Toronto (230)
Upstate New York (250)
Virginia (350)
Washington, D.C. (240)
Western Canada (008)
Western Michigan (005)
Wisconsin (120)
No Chapter Affiliation (980)

DIVISIONS

Advertising & Marketing (610)
Aerospace (620)
Biological Sciences (630)
Business and Finance (640)
Chemistry (660)
Education (880)
Engineering (690)
Environmental Information (810)
Food & Nutrition (600)
Geography and Map (700)
Information Technology (670)
Online Section (671)
Insurance and Employee Benefits (720)
Library Management (820)
Library Consultation Section (821)
Metals/Materials (730)
Military Librarians (750)
Museums, Arts & Humanities (760)
Natural Resources (770)
Forestry/Forest Products (771)
Newspaper (780)
Nuclear Science (790)
Petroleum & Energy Resources (650)
Pharmaceutical (710)
Physics-Astronomy-Mathematics (890)
Picture (740)
Public Utilities (580)
Publishing (590)
Science-Technology (800)
Social Science (900)
International Affairs Section (904)
Legislative Reference Section (903)
Social Welfare Section (902)
Urban Affairs Section (901)
Telecommunications (830)
Transportation (680)
No Div. Affiliation (990)

1 2

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A ☐ Member ($55)
C ☐ Associate ($55)
E ☐ Sustaining ($250)
G ☐ Retired ($10)
D ☐ Student ($12) ____________

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Errata

Oct 1981, p. 396 ...... The article on "Cooperation among Special Libraries at the International Level" by Paul Kaegbein and Renate Sindermann should have stated that DID in EMBRAPA operates the following six databases: CAB (Commonwealth Agricultural Bureau), ISI, IFIS/FSIS, Bioscience, CAS, and Smithsonian, Biblioteca Nacional de Agricultura is connected with the information system AGRIS managed by FAO.

Oct 1981, Directory ... A number of omissions or errors appeared in the directory listings in the Oct 1981 issue of *Special Libraries.*

- Our apologies to the European Chapter for failing to include the following information:

  European (est 1972)

  Bulletin editor/treasurer (pro tem), MICHELE BURDET, Case Postale 6, 1885 Chesieres, Switzerland [025/3 26 92]. No other chapter officers.

- Patricia Marshall's activities are described on page 7s, not 6s as listed in the Directory index.
- The listing for the Nuclear Science Division on page 15s should have included: secretary, SANDRA R. LOVE, Lawrence Livermore National Laboratory, P.O. Box 5500, Livermore, CA 94550 [415/422-5841].

Jan 1982, p. 42 .... An error appears on p. 42 of Frederick A. Marcotte's article, "Operational Audit and Library Staffing". The yearly factor given in the footnote should read .08333 rather 0.83333.