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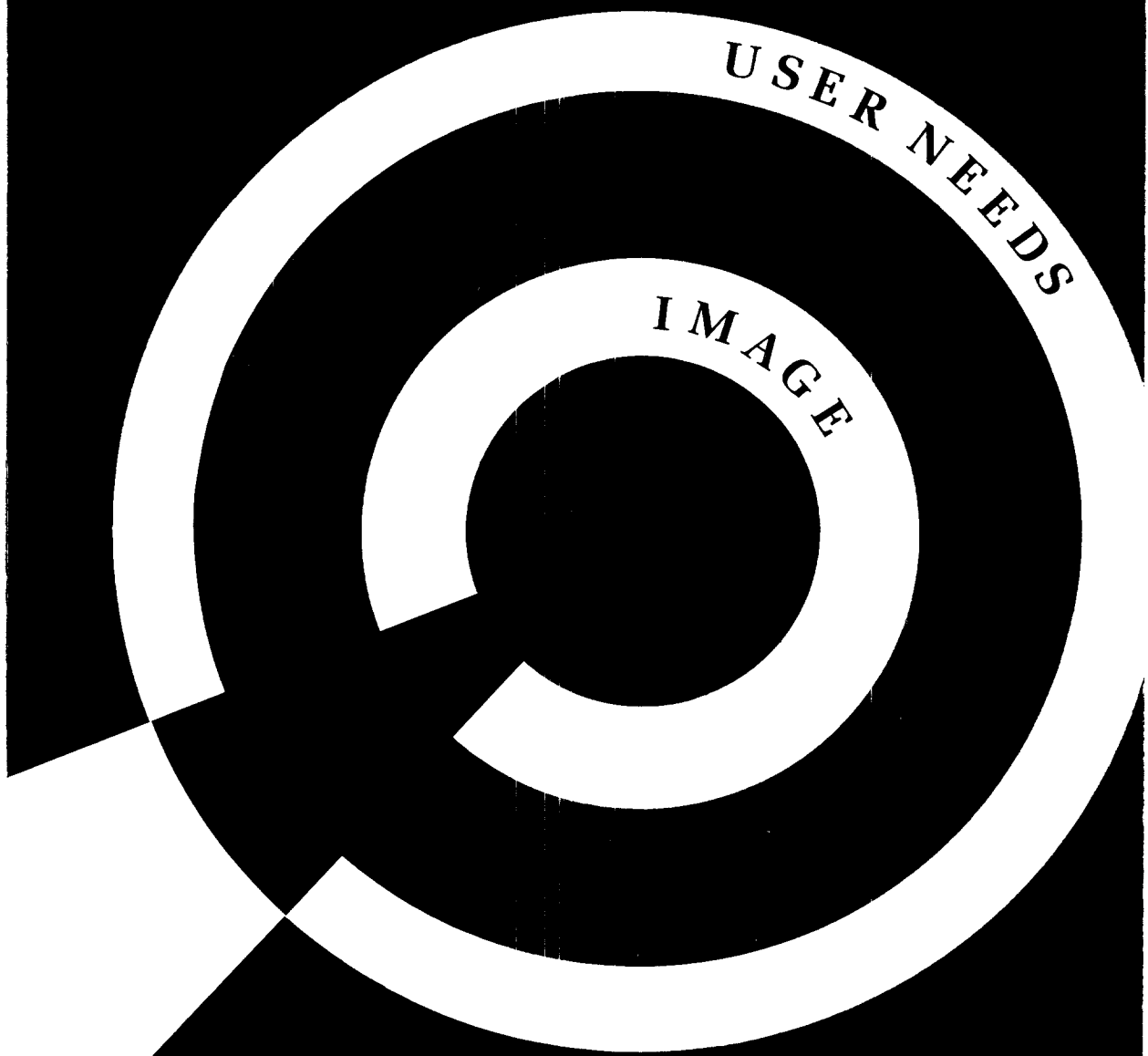

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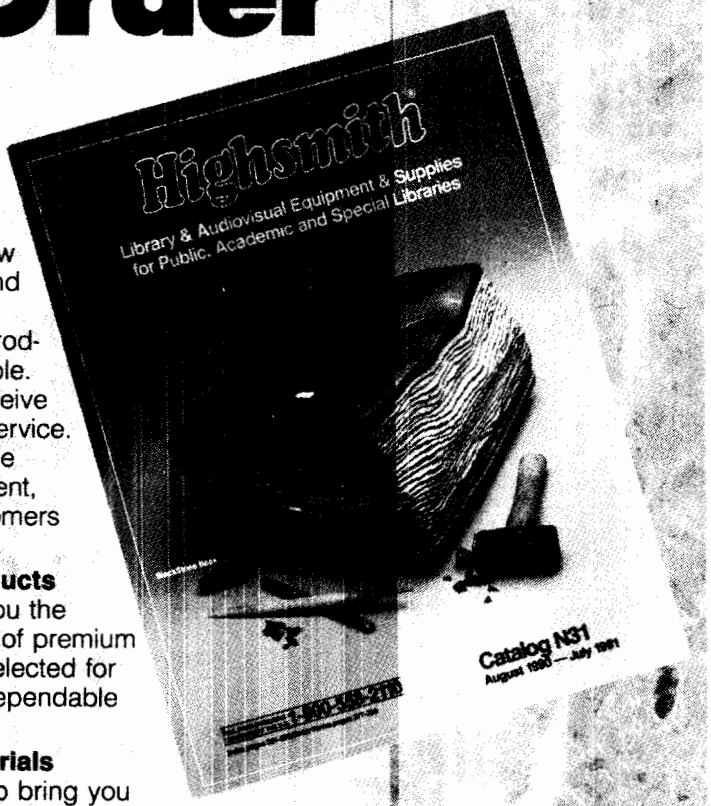

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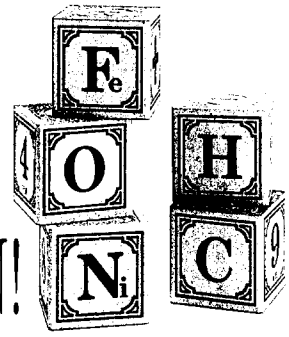

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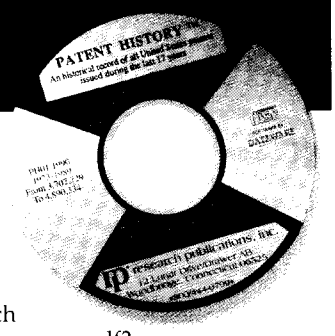

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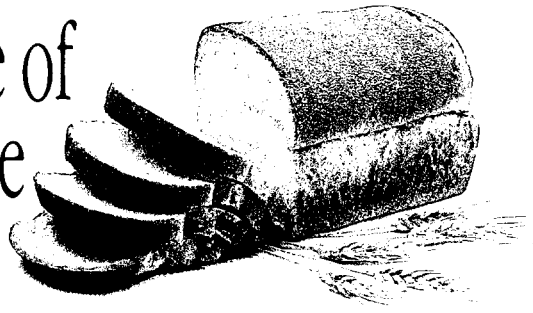

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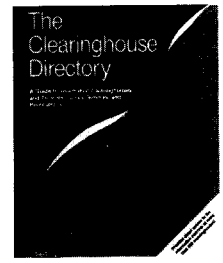

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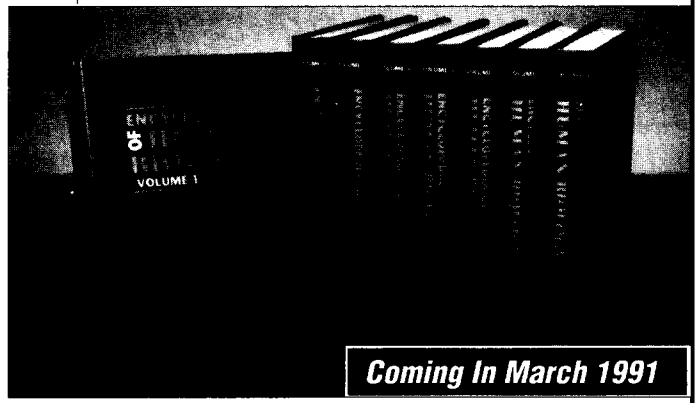

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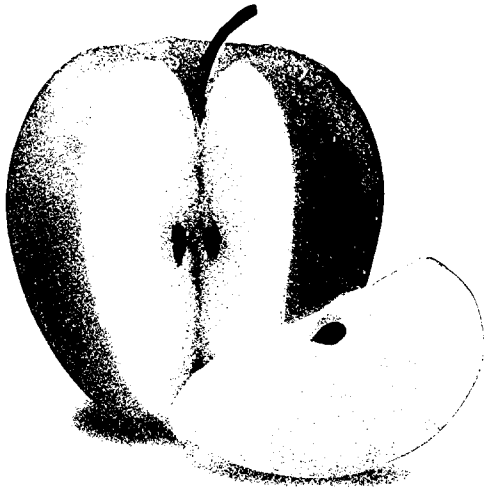

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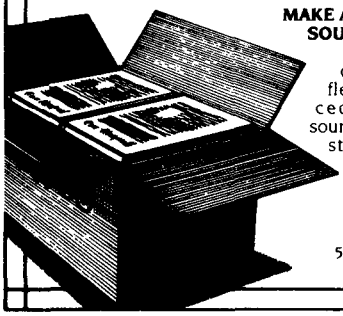

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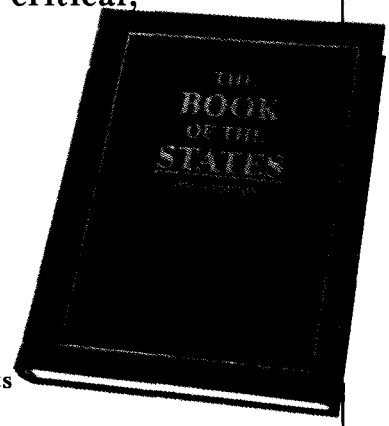

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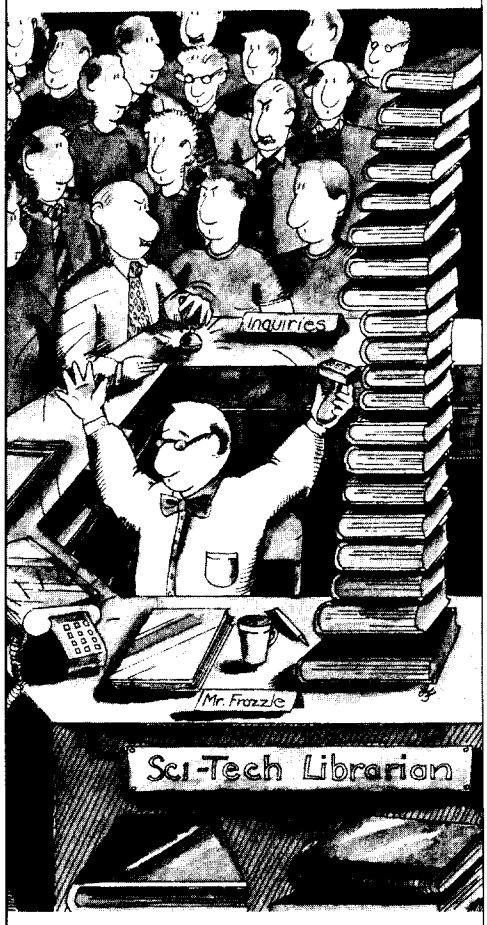

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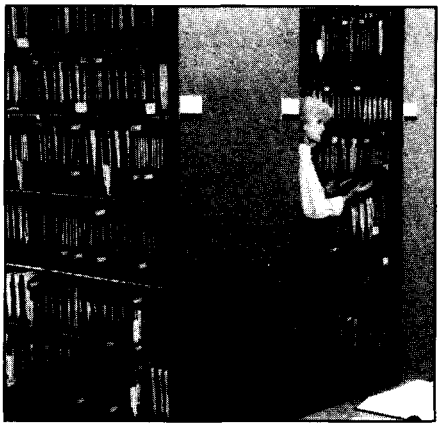

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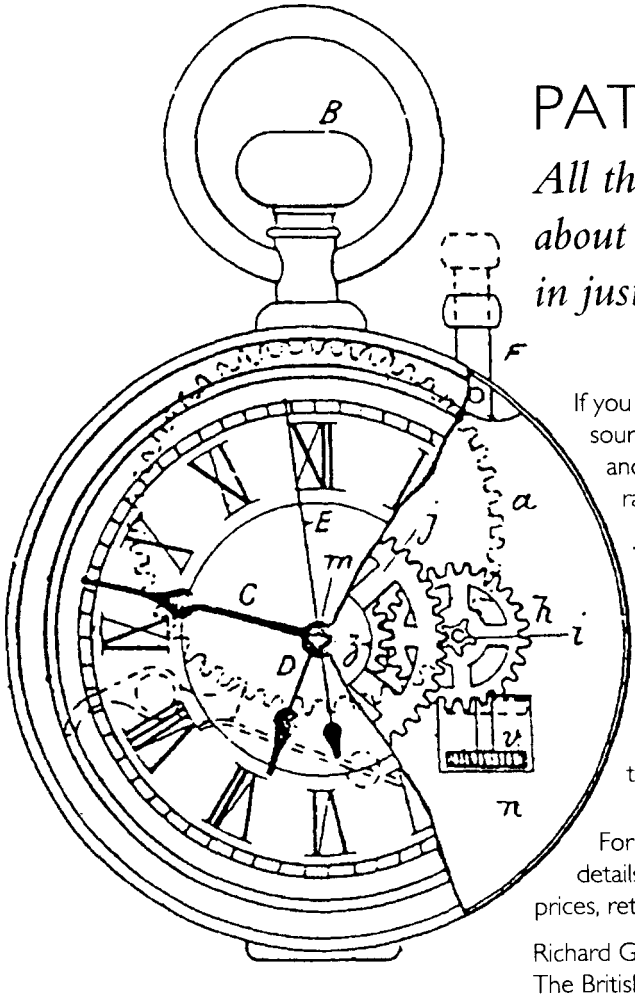

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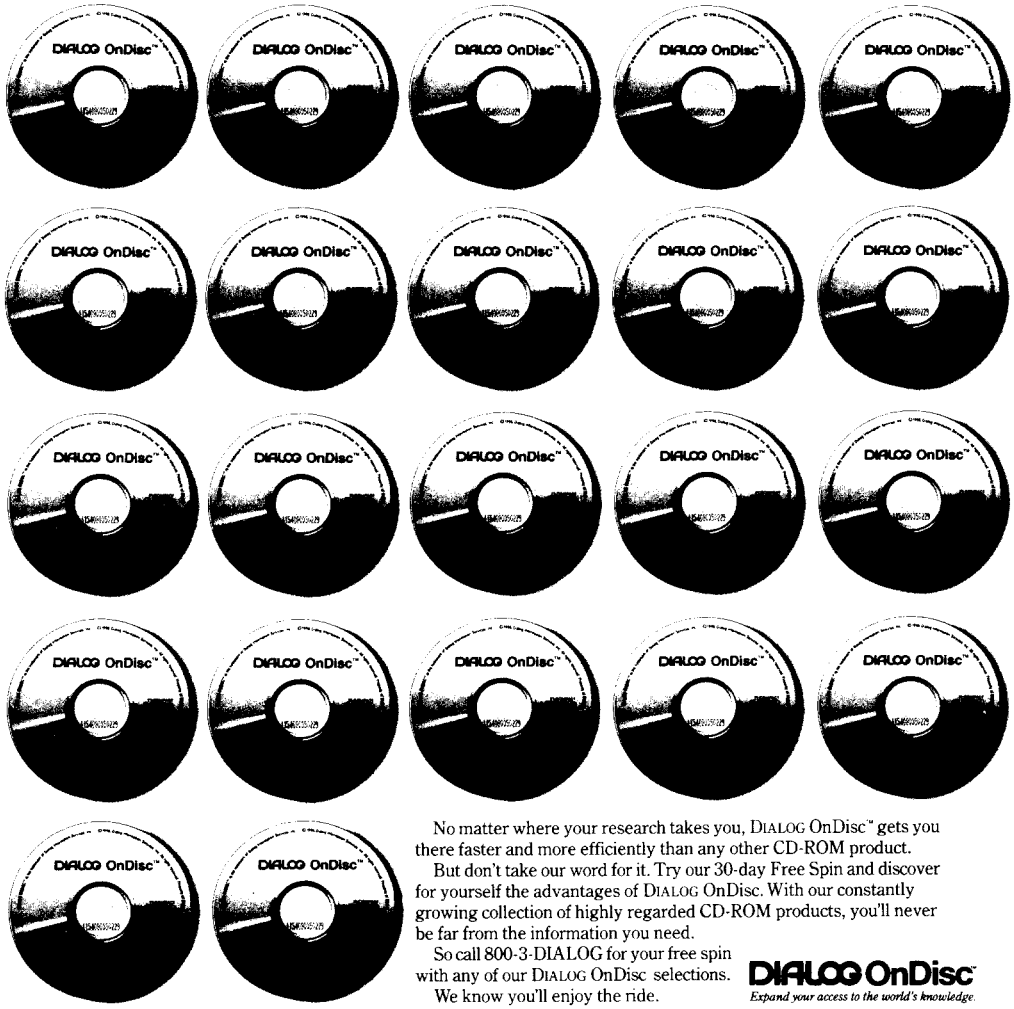

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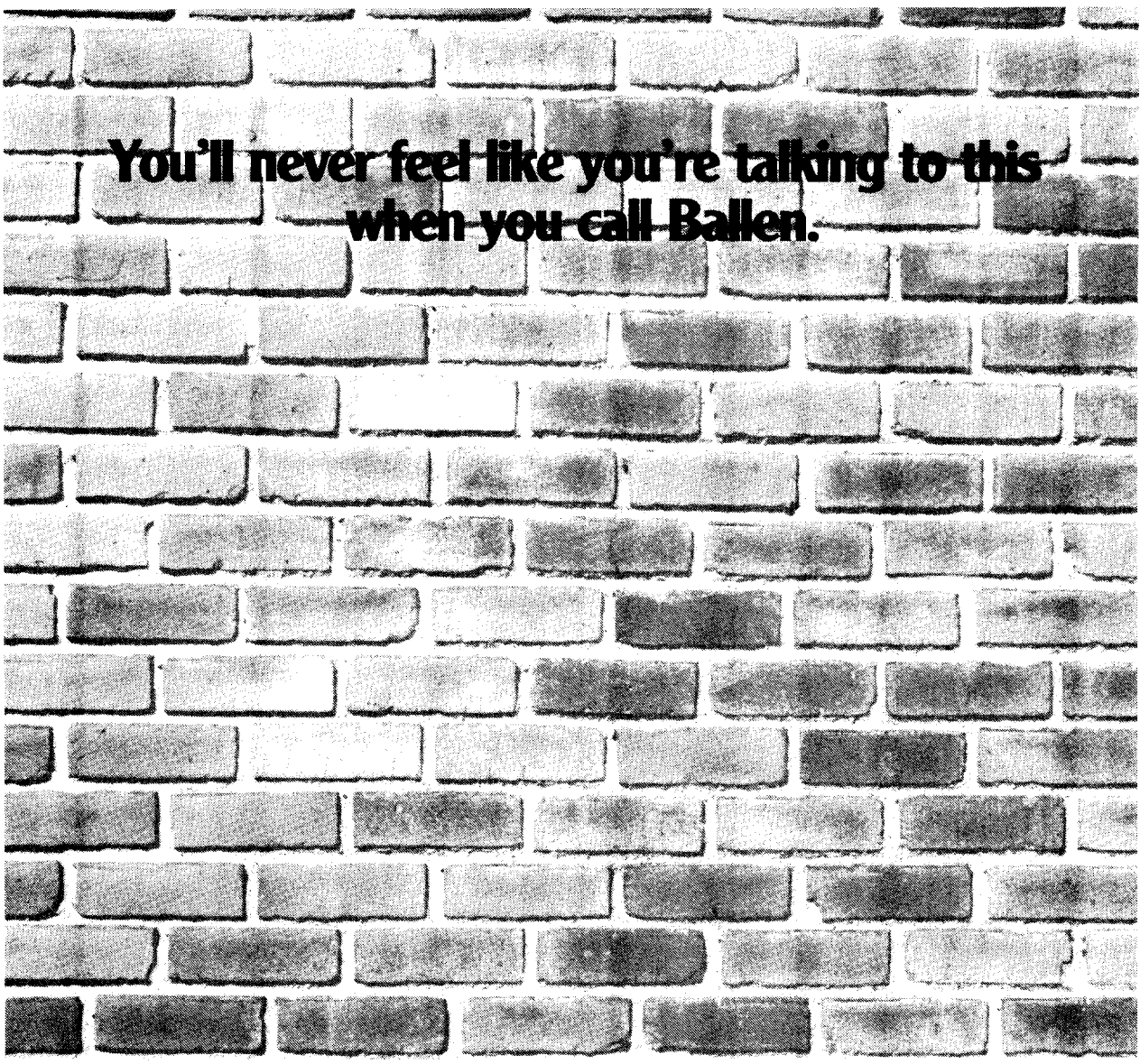

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Marketing Planning for Maximum Effectiveness

by Arlene Farber Sirkin

■ **This paper introduces the reader to marketing and marketing planning in the context of special libraries. It focuses on the ways that the marketing planning process can help special library/information centers identify the needs of their users, and to organize their resources to best provide the services the users need. The paper stresses the importance of gaining a better understanding of the needs of the current users and nonusers that the library/information center seeks to serve.**

Few libraries or information centers have enough resources to do all they would like to do.

Identifying priorities and targeting resources are always important, even in the best of times. In today's economic environment, they are necessities for survival. Many special libraries are struggling to justify their very existence, and, sadly, some are being closed. The proper use of marketing planning provides a tool to focus limited staff, time, and money for maximum effectiveness.

What is Marketing?

While many library/information centers have begun to realize that it is important to attract new users and retain old ones, they do not recognize that they can adapt for their own use the basics of for-profit marketing. Marketing is identifying the targeted users (including current nonusers) and their needs, making sure that your services fit the targeted users' needs, and promoting the services to the targeted users. The library/information center that remains "above" such techniques, is probably either financially secure or soon to be hiring a new director.

I do not disagree with those librarians who view marketing as a four-letter word. However, to me that four letter word is "need." Many librarians lack an understanding of what marketing is and, when done properly, what marketing can do for the library.

In the case of a library, what is being marketed is the utilization of the library and its ability to help the user locate information. What you are trying to achieve is not the greatest profit, but the identified mission of the organization.

What is Marketing Planning?

Marketing planning is a formal process through which the organization can fulfill its mission. The process provides a structure for the organization to identify the user groups that the organization, within the context of its mission, seeks to serve and to identify their needs. Finally, the organization identifies, establishes, promotes, and evaluates a group of services and products aimed at satisfying those needs

While marketing planning is a process resulting in a product, i.e., the marketing plan, only by going through the process can one develop the most useful plan. Like strategic planning, the process is as important as the final document or plan. While even the best plan does not assure performance, by asking the right questions it helps to identify strengths, weaknesses, and priorities.

Marketing planning also encourages communication among the staff. I am continually amazed at how often different staff within the

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same organization are using different assumptions—including differing assumptions about the goals of, and priorities for, the organization.

The Mission, Goals, and Priorities

The key element to marketing planning is the identification of, and agreement on, the mission, goals, and priorities of the organization. Establishing these factors is critical to all future actions.

The process of identifying the mission, goals, and priorities of the organization is an exercise many organizations have never done. Yet spelling out the mission, goals, and priorities in writing and having a common agreement is critical when the organization must later make decisions about where to allot resources, staff, and time. Rarely is there enough to accomplish everything. Priorities must be set based on the mission, goals, and priorities of the organization.

The Needs

Once the organization has identified its mission, goals, and priorities, the organization must determine what groups have needs relating to the mission, goals, and priorities. Frequently, these include groups that the library/information center is not currently serving. Of the groups identified, how many are you now serving? If you are not serving them now, do you have the resources and knowledge to serve them in the future?

A large component of marketing is meeting the needs of the groups you *want* to serve. Yet organizations often take these needs for granted. It is critical that you target their actual needs, not what you assume their needs are. Only then can you evaluate whether the information center is providing the optimum package of services. Otherwise, resources are being wasted on providing and often on promoting the wrong services. To identify users' or potential users' needs does not necessarily take a complicated and expensive market research effort. The best way to identify these needs can be as simple as asking the target groups.

Many marketing plans divide the user groups into subgroups or segments, which can include a category of "heavy users." Identify this group using the 80/20 rule, 80 percent of your use is probably by 20 percent of your users. You might want to think of this group as a separate category. Other categories can be the different departments from which users come or the different services that different groups use. Users can often be divided into three to five subgroups, depending on the services they use. Another category is nonusers. Why are they nonusers? How can that situation be changed? Can you do outreach to them? What will convert them from nonusers to users?

The Marketing Planning Process

Marketing planning provides a formal, but flexible, structure to integrate and focus marketing research. It provides a process through which the organization can examine whether specific needs can be met within the organization's overall budget constraints. If all the needs cannot be satisfied, marketing planning provides a methodology for selecting among them.

Thus, marketing planning is the key to the success of most library/information centers. Some organizations do not believe they need marketing planning, or view it as a waste of time and money. But it wastes more time and money to offer and promote the wrong services while ignoring the needed services.

The process helps coordinate and focus staff efforts in a systematic manner. It forces the organization to recognize the assumptions underlying previous efforts and challenges the organization to justify or change those assumptions. It encourages organizations to be proactive rather than reactive—i.e., reduces firefighting.

The process establishes a timetable. Obviously this is subject to change as circumstances change. The timetable provides milestones to see if progress is as anticipated and identifies early in the process whether the organization needs to take corrective action.

Marketing planning forces the identification of costs in advance. Frequently, when an organization must prepare an estimated bud-

get in advance it becomes clear that the budget will not cover all expenses. In such cases, the organization needs to determine whether it will turn to cheaper alternatives, increased budgets, or a mixture of the two. While painful, this is preferable to discovering cost problems well into the project, when changes are a lot more costly and the organization has wasted much time and effort.

By identifying and then maximizing strengths and minimizing weaknesses, the organization puts itself in the best possible position relative to its current situation. The process encourages an organization to focus on coming significant developments that will affect the organization. If the developments will have a major impact, some brainstorming to identify alternatives early on, like pre-budgeting, can save wasted time, effort, and money now, and firefighting later.

The written marketing plan, whether the plan is one page or 100 pages, tends to reduce misunderstandings, clarify concepts, and focus attention on specifics. We all have attended meetings where it seemed crystal clear who is to do what as a follow-up or what the meeting had concluded. Yet in conversations afterwards it quickly became clear that there was a misunderstanding. The written word does not eliminate misunderstandings, but it helps to minimize them, as well as clarify and focus the efforts of all staff.

Since I know of few library/information centers with more resources, i.e., staff and money, than they can effectively use, it is always a matter of choices. Hopefully, if the library/information center has established priorities, it is more likely that the library/information center will accomplish the most important priorities, rather than the priorities that the most vocal push. A clear list of priorities is a defense against being pushed in the wrong direction.

The Special Marketing Problems of Today's Library/Information Center

Promotion:

Once the library/information center has established that it is offering the right bundle of services, designed to meet the identified needs of its user population, the next step is to promote the services. This is a place where many library/information centers can improve. In some cases they design wonderful programs and services, but are remiss in promoting them. They have already invested in the programs. They have already expended their sunk costs, including staff time and other resources. What remains is to promote the programs so as to allow as many people as possible to take advantage of the opportunities generated by the expended funds. If the potential users do not know about programs available, it is unlikely to happen.

Image:

All organizations have competitive advantages and disadvantages. One of the largest disadvantages and marketing problems for libraries/information centers is image. Libraries/information centers are often places in which all too many working adults, especially professionals, never set foot.

One of the early topics I discuss with new, non-library clients interested in marketing research is the importance of first checking existing secondary sources so that they will not have to bear the expense, both in time and money, of reinventing the wheel. Yet many of them have no idea what is out there, and have no idea where to go. When I suggest their library/information center, I often hear a confession that they have not been there in years, if at all.

Ironically, many library/information centers give the information away for free, yet that is part of their image problem. Unfortunately, Americans often perceive something given away for free is of little or no value. Organizations often try to counter this perception by placing a value on something. The American Automobile Association gives away maps and trip books free to members, but notes a price in the corner (e.g., $3.95) of all print materials to remind users that it is of value. Other professional and trade associations often do the same for directories and other materials to remind members, although they get the material for

free, it does have value.

Too many people still perceive library/information centers as antiquated, not a place to locate up-to-date information for today's fast-paced world. Be conscious of image. Be aware of how both the users and nonusers in the populations targeted as user groups perceive your facility. Be conscious in the set-up of your facility and in all of your outreach efforts of the image you are creating.

Resources:

From a financial viewpoint, times are tough and will probably get tougher. Whether you are located in a for-profit or not-for-profit setting, you are most likely in an environment that is trying to cut costs or possibly looking now at a cost-benefit analysis. The public often perceives library/information centers as an area demanding large fixed amounts of resources for both staff and materials; at the same time, they do not always have a clear understanding of the library's value. Thus, cuts for some will be only a matter of time.

To assure continued support and survival, expand your customer base and be sure you are doing all that is necessary to meet the users' most important needs. An article in the Wall St. Journal (April 3, 1989, page B2) discussing a small specialized research firm, noted that cost cutting efforts by some big companies might help the research firm because companies are eliminating or cutting back in-house libraries.

On the positive side, staffs of library/information centers are notoriously service oriented. I recently had a fellow Executive Board member from the American Marketing Association tell me a wonderful story that bears repeating here. We were talking about an issue on which he was about to start work, but on which he needed information. I suggested a particular source that I knew was available in a library/information center.

At our next meeting, he thanked me profusely. He had been working with a corporate client on improving their customer service and was very impressed with the service orientation of the library. He wanted to know what the library's secret was—high salaries, fat bonuses for good service, etc.? I informed him these were not the reasons, but that library/information centers have historically viewed client services as an important part of their mission.

In marketing terms, one would view this strong service orientation as a competitive advantage. It is one of the great strengths and assets of most library/information centers.

Start Where You Are

At marketing planning seminars that I give to organizations, one question keeps coming up over and over. Where do I start? The answer is simple—start wherever you are. If you have done no formal planning in the past, it will take some time and effort even with an experienced consultant. On your own, it will probably take longer. But the most important thing is to start. NOW!

This very simple question of "where to start" can often be the stumbling block that prevents any action. To get started, remember the following:

- Start with where you are by reviewing what the organization has done to date. This not only provides you with the background and history you will need to move forward, but also provides a manageable task with which to begin.

- It is better to plan in depth the one or two most important marketing projects you can implement, than to develop 15 projects that never get done. The best marketing plan is the one that gets implemented. Too many organizations spend large sums of money and staff time doing a large, impressive market and/or strategic plan that sits on the shelf.

- Make sure the staff who will be implementing the plan are involved in the creation of the marketing plan. In that way, they both buy into the planning process and help identify the real problems and opportunities in developing and implementing the plan.

Where Are You Now?

Below are some of the questions an organization needs to answer in order to develop the marketing plan. Depending on your level of sophistication, you might find these very basic or you might find them hard to answer. Remember the strategic marketing planning process *is a process*. The process of creating the plan and getting staff input and contributions is as important as the final document, in some cases more so. Your goal should be to improve your plan each year that you work on it.

- What is the overall mission of the organization? Agree on this first. It is the basis for all future decisions. If you have already gone through a strategic planning process, you should have agreed upon mission, if not, do so.

- Has the organization defined any overall goals and objectives based on the above? If not, can you define several (maximum five)?

- What are the organization's major strengths and weaknesses? Basically, you are trying to define with what advantages and disadvantages you have to work.

- What are the major external factors affecting the organization? Are there any coming changes, including economic, social or regulatory, that will affect the organization? How will these changes impact the organization? Will they require changes by your facility? Do you need to plan for more than one possible outcome regarding coming legislation, budgets, etc.?

- Who are the major user groups you seek to serve? These are the groups to which you now provide services or that you want to attract. You could also include groups from which you are trying to gain internal organizational support or likely user groups that had not used your facility in the past (e.g., the marketing department or a planning group). Within each of these user groups, can any be broken down into subgroups? What do you know about these user groups? Are you filling their needs? Has research been done to learn more about them, including focus groups or phone or print surveys? Have the data to plan (see discussion of primary and secondary research below).

- Past history of your organization. What services, products, or concepts (e.g., increased use of your facility) have you tried to market in the past? How successful/unsuccessful have you been? Whenever possible quantify results (use ranges and guesstimates if you do not have accurate statistics). Try to analyze why something was successful or not. Were the same methods used two years in a row with success one year and not the next? If your organization did not keep records in the past, start now. What information do you need to track to evaluate how goals are being met?

- Look at your current mission statements and objectives in light of your past history. Do past activities fit with your goals and objectives? Particularly, did you focus on meeting your most important goals? If you are planning to make major changes from the past, be aware that expectations have been established based on past history that you will now need to change.

Where Are You Going?

Although the past is not always a predictor of the future, it is often the case, given the inertia of most individuals and organizations. If an organization keeps going in a particular direction, it should be due to conscious choice, not that "we have always done it this way."

Based on your mission statement and objectives, identify some priorities in terms of services to promote and user groups to target. Depending on the organization, market research available may already exist to inform

you about the needs of your target populations, both current users and nonusers.

If you do not have either primary research (research your organization has performed) or secondary research (existing research about your target population available elsewhere), make that your first priority. It is critical you understand the needs of your target groups. Services should be tailored to fit their needs. Obviously, the more information you have about their needs in relation to your mission, the better.

You then need to identify the top priorities, the projects that are the most critical to implement. One of the biggest mistakes made in library/information centers is that they spread themselves too thin. In the initial planning stages, first identify the top three priorities; fully work through the requirements for implementing these priorities before looking at the remainder.

Next, identify specifically who will do what and when. Identify the costs, including staff time and expenses, as well as any outside services. Include costs for everything from printing brochures and obtaining graphics assistance to postage. By working out costs in detail early, you can often spot problems (e.g., you need to start earlier to meet your deadline) or costs on which you had not counted. Advance planning can often reveal ways to reduce the costs, possibly by piggybacking on something else. It can also help identify work crunches in advance so that certain projects can be rescheduled for a slower time.

Usually there are modifications to a plan as circumstances change; advance preparation, however, will greatly increase your chances for success.

The main objective is to start focusing and planning your marketing efforts to best meet the needs of your users within the goals of your organization. The key is to get started. Remember: **not to decide is to decide.** ■

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Ethics and the News Librarian

by Anne P. Mintz

■ **Librarians can encounter situations of ethical conflict in providing services from the information center in any number of possible scenarios. While it is impossible to prepare for each of them, there are guidelines which can assist in decision making. This paper was presented to the News Division at the 1990 SLA Annual Conference as part of a panel entitled "Ethics and the News," and addresses the topic of ethics as they relate to the librarians in news organizations; most of what follows, however, is applicable to all special librarians in the provision of information.**

To publish a newspaper, editors and writers need information. Much of the information they use comes from first hand observation of events, or interviews with newsworthy people. However, in the publication of many stories, other than the stories which are straight news coverage the writing staff needs background information on the situation, company, industry, and individuals involved in order to prepare for company visits, interviews with chief executives, or industry analyses. In addition, before they learn any of the above, they need to know whether the competition has recently written about that subject and must know what the competition has said. At Forbes, the library is used for confidential information on a regular basis to provide background for those stories, and there are parameters of professional behavior to which the staff must conform in providing that information. I suspect that many people in media information centers are in similar positions in their organizations, even though their publications or news broadcasts are daily.

For those people not in the media, but other types of companies or businesses, everything I have to say about this topic today translates into that arena as well. For all of us, the stresses of daily work may intensify the pressure for action of some sort, no matter what, and thus affect the decision making by the information specialists performing research. The pressures of the news business being what they are today, with increased competition from all sides and a decreasing advertising base, may make for some difficult times for writers and editors; those pressures may be directed immediately over to the special librarian's arena, where the need to remember some of the values of the trade we ply is essential.

Background

When my original article on information malpractice was published in *Online* in 1984,[1] it had been developed in a vacuum; when I expanded it in an article in *Library Journal* in 1985,[2] the feedback was simply amazing. What I had said was on many people's minds, and began to focus the issue for them. It is reassuring that over the past six years, such a large literature on the subject has been created that I can now refer you to entire bibliographies. Robert Hauptman's book, *Ethical Concerns in Librarianship*,[3] contains an extensive listing of writings, which has been recently updated in an annotated bibliography by Susan Kaplan of Bellcore in a new book, *Information Ethics: Concerns for Librarianship and the Information Industry*,[4] edited by Anne Mintz. (I did not and will not receive renumeration, lest this sound like an unadulterated unethical pitch.) Furthermore, many programs and seminars are conducted on the topic of information ethics, and people from most professions are becoming more concerned about exercising proper professional behavior.

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Information Ethics: Concerns for Librarianship and the Information Industry does have the only compilation of all the codes of ethics of information/library associations in North America; conspicuously, SLA did not have a code.

What the topic of "ethics" boils down to is choices—behavioral, decision-making choices. Ethics isn't easy. Donna Shaver of the Portland General Electric Company in Oregon made a presentation on this topic at the SLA 1987 State-of-the-Art Institute[5] in which she said the following:

> "Ethical issues are, by definition, difficult issues, because if something isn't a problem, it isn't an issue. I would liken it to fidelity in marriage. One is not making an ethical choice to be faithful to one's spouse if one is not attracted to anyone else. There are no gold stars for doing what's easy. It is only when the attraction to another exists that the choice to be faithful is an ethical decision. Fidelity means something only when it's difficult. Ethical conduct, whether at the reference desk or in a smokey bar, may require doing something that goes against our instincts because we have determined it is right. When confronted with the knowledge that two users are requesting information on the same subject, acknowledging that each user is entitled to confidentiality, we must refrain from sharing information in spite of our automatic desire to do so."

Unethical Behaviors

Since editorial decisions aren't made in a vacuum, but are relative to situations, guidelines may be of use. But they can only be guidelines, not rules to follow. I consider certain behaviors which are unethical also to be "information malpractice," since we should know better than to engage in them. My own description of what constitutes information malpractice is fairly simple:

- Misrepresenting yourself in order to obtain information which would otherwise be denied you. This is a golden rule in journalism and should be yours as well.

- Misrepresenting the work one can perform. This is prevalent in the library field, particularly among consultants and would-be information brokers. It includes being able to meet a press deadline and telling a journalist honestly if it can't be done on time before it is relied on for publication.

- Incomplete or sloppy research. In a way, this is also misrepresenting the work one can perform. (Reminiscent of the question "Do you want it complete or do you want it on time?) One example of sloppy research involved Dun & Bradstreet which became involved in a major lawsuit with Greenmoss Builders in 1976; a 16-year old high school student working as a stringer for D&B filed inaccurate information from a federal bankruptcy court in Vermont. Making assumptions about data accuracy is also sloppy research, as is using suspicious data from a source and not passing one's suspicions along to the client.

- Presenting "half-baked" research or products. A stepchild of the previous example.

- Industrial espionage. A major information broker related the tale of a potential client which wanted the broker to charter a private airplane to fly over the construction site of a competitor's new plant and take aerial photos for the purpose of "competitive intelligence." The broker refused the job.

- Doing something illegal. That includes copyright. At a now defunct brokerage firm the mailroom would routinely photocopy hundreds of copies of a well-known newsletter each week rather than pay exorbitant charges for so many copies. There was a specific copyright notice

on the first page of the newsletter. While the librarian couldn't prevent the firm from engaging in the practice, she refused to allow her department to be involved in any way.

Having stated that one should never do anything illegal, there may be an exception or two in one's lifetime. One colleague mentioned the conflict encountered regarding a decision to assist with the New *York Times* publication of the Pentagon Papers, in which everything one saw, touched, or read related to the story had been illegally obtained. However, this is one case where the exception might prove the rule. Breaking the law should be done as a fully-intentioned act of conscientious objection, a principle which should be used rarely and only with the complete support of the organization one is employed by, specifically with legal counsel and financial support in case of prosecution.

- Purposely giving false information. This even includes giving data from a questionable source without a caveat. Don't give only one side of a story.

- Breaches of client/source confidentiality. The second golden rule of journalism applies to special librarians as well. I need not say more.

Guidelines

My other guidelines for the proper practice of information vary somewhat from the Shaver list (see Appendix) and include areas other than reference:

- Have a fundamental background in sources and technologies before hanging out a shingle—know your stuff before you take money for it.

- Take continuing education courses regularly, read the professional literature and attend professional meetings, such as this one or those of other organizations. Keep abreast of new sources and of new technologies for retrieving them. To ignore continuing education leads to inadequate, outdated service to clients. Proper educational credentials and regular advanced training and reading are a means of protection against the negligence which leads to the incurrence of professional liability.

- Protecting your client's confidentiality also means not discussing business away from your desk, like in an elevator or local coffee shop over lunch. You never know who will steal a story idea after overhearing talk of it even in the hallway or library. Don't get into a situation where your trustworthiness is diminished.

- Don't incur legal liability on behalf of your organization. You're putting both of you at risk—an unnecessary situation.

- Present reliable information to clients in complete form and in context.[6]

- Don't accept kickbacks from vendors. This doesn't mean you can't be taken out to lunch by vendors, but don't let their good treatment of you at a conference color your bottom line decision on a source or product.

- Provide feedback to vendors on subquality sources and poor data in databases when you come across it. Information professionals should get involved in the process of demanding better quality data from vendors, both through building a rigorous critical literature of sources and through direct communication with colleagues and vendors. Remember that the vendors need your feedback as well as your business. While it isn't so easy with government agencies' data, you still have the power of your news organization behind you to pressure agencies into cleaning up their acts—after all, an eager young writer would probably be glad to do a story on that agency's taxpayer-supported information and all the prob-

lems erroneous data could cause the municipality served by your newspaper.

- Last on my list, read Robert Hauptman's book![3] He discusses real situations and issues in a manner more detailed than we have time for today. A list of his chapter headings tells you the areas in which there are murky situations:
  - "Professing Professionalism": an important subject to us in special libraries because it relates to the issue of whether our professional association with each other constitutes an assumed knowledge base and behavioral code, by which a judge or jury could determine whether a defendant's behavior was indeed professional. Thus, codes of ethics and their ultimate purpose.
  - "Selection and Technical Services": the section covers cataloging and subject headings and biases.
  - "Access Services": not as relevant in special libraries as in public or school settings.
  - "Reference": includes the problems of practicing law or medicine at the reference desk in lieu of requiring the client to seek a lawyer or a doctor.
  - "Ubiquitous Computers": at what point does the reference librarian give up the search and who pays for what?
  - "Censorship": translates into acquisitions policies.
  - "Special Problems": more geared to public libraries, this section includes the treatment of homeless people, latchkey children after school, fees, bias in book reviews, etc.
  - "Consulting, Freelancing, and Information Brokerage."

He also gives several case studies at the end of each chapter, clarifying the points he has just made. A highly-recommended book if you are concerned about this topic. (I will not receive a commission or other benefits from either Mr. Hauptman or Oryx.)

At this point I felt I needed to pull out my best story which could highlight the subjects I've been covering—but I realized that the one I would choose to tell couldn't be told publicly. And that's our primary problem in this area. Working isolated from one another the way information professionals do, we sometimes experience situations which could be coped with better if we could talk to each other about them.

In conclusion, libel lawyers are busy enough (if Forbes is any barometer!), and we don't need a story to attract a lawsuit because of faulty information, especially if the origin of that faulty information is the information specialist. If our behavior is professional, cautious, based on a high base of education and training, is honest and demonstrates due diligence, we will continue to set a standard for information provision which will help to keep our organizations out of court on our behalfs. ■

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Appendix

In a 1985 article,[7] Donna Shaver, Nancy Hewison, and Leslie Wykoff consolidated their guidelines for ethical conduct by online intermediaries which are translatable into other realms of the information provision business, including journalism. The list shows that completeness, context, and confidentiality are critical to the businesses we work in as well as the library setting. With permission, they bear repeating here:

Suggested Guidelines for the Ethical Behavior of Online Intermediaries

1. The online searcher has an obligation to his/her institution and client to maintain awareness of the range of information resources available in order to fairly and impartially advise the client.

2. The online searcher must strive to maintain a reasonable skill level in the systems available to him/her for searching.

3. The online searcher must eschew bias in the selection of appropriate databases and systems in order to meet the needs of the client.

4. The online searcher must make the client aware of the searcher's level of expertise in searching a given database or system if that may affect the search results.

5. The online searcher should be aware of the level of confidentiality required by both the setting and the request, and respect those boundaries.

6. The online searcher must make clear the appropriateness of the online search in meeting the client's needs, and the limitations of the search process for the client's intentions.

7. The online searcher must guard against tendencies to fill the client's needs as the searcher sees them or as the client initially states them, but rather must utilize appropriate interview techniques to ascertain the client's needs.

8. The online searcher must, if appropriate, apprise the client of major errors in previous searches, both in strategy formulation and database selection.

9. The online searcher must resist attempts by the client to select inappropriate databases and/or systems.

Donna B. Shaver
Nancy S. Hewison
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July 1985.

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Special Ethics for Special Librarians?

by Jean Preer

■ **Special librarians have a dual identity arising from their work in libraries which support the goals of another profession or organization. They may find their professional values in conflict with institutional ones. The 1939 code of ethics for librarians recognized these sometimes competing obligations to institution, governing authority, users, the profession, and society. The 1981 code identified core values of the profession, including the highest level of service, confidentiality, access to information, and avoidance of conflict of interest. Starting with a presumption in favor of each of these values, the author proposes a two-part test for approaching the ethical dilemmas arising in special libraries.**

This article is based on a talk the author gave to the Washington DC Chapter in April 1990.

The invitation to speak has given me a chance to consider one of the most difficult aspects of professionalism—the ethical dilemmas confronting librarians in special libraries. It is challenging because it raises questions not only about ethical practice itself, but also how this might vary for a librarian working in an organization with its own corporate culture, priorities, and values. Is the librarian's first duty to the corporation or to the profession? How are conflicts in values resolved? An ethical choice may be heavily influenced by who calls the shots or who pays the bills. Questions of ethics become questions of power.

What makes special librarians unique in the profession is that their libraries promote the goals of another profession or organization. So special librarians have a dual identity. In their book, *Special Libraries at Work,* Elizabeth Ferguson and Emily Mobley state unequivocally, "A special librarian is first an employee, a staff member of the parent organization, and second, a librarian." Although this statement would seem to create potential conflicts in values, Ferguson and Mobley do not discuss professional ethics. Neither, apparently, does Ellis Mount whose book is published by the Special Libraries Association and is used as one of the texts in the Catholic University of America's course on special librarianship. I have only just started reading Herb White's new book, *Librarians and the Awakening from Innocence,* but if its index is to be believed, it does not deal with professional ethics either.

What I do find in these books and many articles about special libraries are discussions about enhancing the visibility of the special library, proving its worth to the organization, securing sufficient resources and staff to do the job correctly, and occupying a strategic location on the organization chart. All of these are essential to providing effective service. Do they preclude concerns about ethical conduct? Or should we conclude that because a librarian is an employee first the values of the organization will always take precedence over the values of the profession?

Does a company doctor thinks of himself (or herself) as an employee first and a doctor second? Is the special librarian more like the company doctor, with particular expertise and an independent set of professional standards, or the company clerk, ready to follow corporate rules?

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The short-lived *Statement of Professional Ethics* approved by the ALA in 1973 raised this concern about ethics and independence:

> "It is true of this association, as it is increasingly true of all professions, that its individual members rarely act with that autonomy that is sometimes wrongly believed to characterize the activities of *most* professional men and women. ...Whatever may be true of other professions, it seems clear that the librarian rarely acts or can act without regard to the agency of which he or she is a part, be that agency a school, college, university, public library, or private organization."

Let me ask a few more questions: How many of you are the sole library professional in your organization? How many of you report to someone who is not a librarian? Before you were hired, how many of you discussed professional ethics with your prospective employer?

On many fronts, and perhaps particularly in special libraries, librarians are still fighting the battle over professional identity itself. When the information professional's work and its value are not yet understood by the very people who employ them, it is not surprising that the ethical dimension of their work is overlooked as well. It is even more difficult for the sole library professional to assert ethical values in an organization unfamiliar not only with what librarians do, but also what they stand for.

I would like to suggest some tensions that exist for the special librarian and then consider these tensions in light of the principles and obligations of the librarian's Code of Ethics. These tensions can be described in various ways:

- public/private: the tension between a generalized duty owed to society or the profession vs. the specific private duty owed to a particular library or organization;

- universal/particular: the tension between a general principle and the interpretation of that principle in a particular setting or situation; and

- principle/practice: the tension between the ideal of principle and the reality of practice.

In an era when many professions are just discovering the importance of professional ethics, librarians can be proud of their long commitment to the expression of ethical values. In 1986, the Bureau of National Affairs published a collection of codes of professional responsibility for a variety of professions. The volume can be found in the reference collection at George Washington University appropriately shelved between a *Dictionary of Christian Ethics* on one side and a copy of Emily Post's *Etiquette* on the other. Indeed, many professional codes take on some of the attributes of each, a set of transcendent moral values along with rules of proper behavior for the workplace.

The library profession is represented in the BNA compilation by the *Statement of Professional Responsibility* adopted by the Council of the American Library Association in 1981. Over a half century, the librarian's code has evolved from a detailed mix of professional standards and personnel policy to a concise statement of fundamental principles. Compared to others in the volume, it is dazzling in its clarity and brevity. Members of ALA receive a copy on each year's membership card.

Although no professional code of ethics can provide absolutes for every situation, the librarian's code can perform two valuable functions. First, its very existence informs the profession itself and those it serves of the core values of its practitioners. Second, it creates a presumption in favor of certain values that must be consciously overcome if library policy is made to the contrary.

In some ways, however, librarians working in special libraries have not been well served by these revisions. Just as the code has been focused and simplified, the ambiguities of work in special libraries have continued and in some ways become more complex. Unlike the Library Bill of Rights, the Code of Ethics is not amplified and interpreted. And because it is not enforced by the profession, there is no body of cases to provide guidance for particu-

lar situations. In its current version, the code seems to suggest that the librarian's first loyalty is to a set of abstract principles. The position of the special librarian, on the other hand, suggests that loyalty goes first to the goals and values of the employer. The general code does not state how to proceed when these are at odds or when provisions of the code itself are in conflict.

It is here that the library profession's history provides some insight into the dynamics of ethical dilemmas. If the present code emphasizes the public, universal, and principled aspects of librarianship, earlier codes reflected its private, particular, and practical nature as well. Early codes saw the librarian in a web of relationships with varying responsibilities—to the library's parent organization or governing authority, to the library's patrons, to the library profession, and to society. These early codes remind us that the values and priorities of these different constituencies, all served by the librarian, might not only differ but conflict.

Together, the varying approaches taken by the present and earlier codes suggest a way in which special librarians can determine their ethical obligations. Confronted by an ethical dilemma, the special librarian would start with a presumption in favor of the principles stated in the 1981 code. Four obligations would seem to be of paramount importance: to provide the highest level of service, to protect the confidentiality of patrons, to avoid conflicts of interest, and to insure access to information. Then, in weighing a measure which might be contrary to those values, the special librarian would consider whether a countervaling responsibility to the library's parent organization, to its patrons, to the library profession, or to society-at-large would overcome that presumption. In balancing these interests, the librarian would consider what alternative measures might satisfy both sets of obligations. Here is how such a test might be applied:

Highest level of service. As a profession born of missionary zeal, librarianship traditionally has put service as its highest ethical obligation. A 1929 draft code enjoined the librarian to make a loyal effort to carry out the policies of the institution, to make regular reports on the work accomplished, and to make plans for improved success. "The librarian," it stated, "represents the library—book power and book service—and should so represent it to win recognition for the institution rather than for the individual." Such a commitment fulfilled obligations to organization, patron, profession, and society.

Changes in technology have transformed the means of providing service. Ironically, many of the techniques which have enabled librarians to provide higher quality service have also introduced new ethical challenges. Here is a contemporary example: A partner in your firm asks that you routinely make massive numbers of photocopies so that all the firm's attorneys can see important articles as soon as possible.

You are concerned, however, that this method of providing fast service and widespread access to information conflicts with copyright laws, a public interest. In this case, the presumption in favor of the highest level of service and access to information for a particular organization is overcome by a general duty to society. Furthermore, you can demonstrate that the possible costs of violation are high, while legal alternatives would not involve substantial expenditures or diminished service. In terms of relationships, the duty to one's employer could thus be met while not sacrificing one's obligation to society-at-large.

Many of you have probably struggled just to convince management in your organization of the ongoing value of professional library service. You may fear that one wrong move will endanger the very existence of your library. What if the managing partner requests that you do a database search for his son's term paper or that you order a book for his wife's birthday and charge it to the library? Do you object to the use of your firm's funds for personal purposes? Or do you squelch your objections lest the library suffer in next year's budget? Applying the test, you would start with the presumption that quality service precludes using library funds for non-library expenditures. If you then considered your duty to your library, its reputation, and its other patrons, I believe

you could reject this unwarranted request.

Finally, in considering standards for high quality service, let me address the issue of information malpractice. Despite several articles in the professional literature raising the specter of information malpractice, neither my research assistant nor a librarian in the university law library could find any documented cases. I am somewhat uncomfortable about the use of the term malpractice in any but the strict legal sense. The articles tend to lump together conduct ranging from merely bad practice to some constituting negligence or breach of contract. The problem with professional malpractice as applied to librarians is that we do not have any agreement either on the meaning of professional or on commonly accepted standards of practice.

The best known case involving the use of faulty information is *Dun & Bradstreet vs. Greenmoss Builders*, decided by the Supreme Court in 1985. What you need to know about *Greenmoss* is that it was not a malpractice case but a libel suit. Contractor Greenmoss sued Dun & Bradstreet for erroneously reporting that the firm had gone bankrupt when, in fact, it was not the firm but one of its employees. The Supreme Court's decision centered around the test to be applied in a libel suit not involving a public issue or a public figure. Most interesting for special librarians, I think, is that Dun & Bradstreet had based its erroneous report on information gathered from state records by a 17-year-old high school student. Rather than a cautionary tale against information malpractice, I would say this case stands for the importance of using high-quality information professionals to retrieve and verify data. I tend to regard adherence to high standards of professional practice as the most effective malpractice insurance.

Conflict of interest. Every librarian's code has cautioned against conflict of interest. A version proposed by Charles Knowles Bolton in 1909 warned, "A librarian should be chary of lending his name to a public controversy to add weight to the contention of a local faction or to commercial enterprises, even those that have an educational interest or philanthropic motive." In commentary on his 1922 code, Bolton wrote, "If a librarian is in doubt about the propriety of accepting a gift, he should at least insist that the gift be public knowledge. Favors often come disguised in a form to flatter the unsuspecting librarian. He should not jeopardize his independence by accepting special favors from business firms."

What would Bolton think of today's advertisement for Dialog which features a librarian from Raytheon extolling its virtues, or the ad for University Microfilms which pictures a satisfied librarian and his library? While such an advertisement might afford beneficial visibility to your institution and to the profession, it might just as easily present a conflict between the two. Your employer might view it as a chance for some free publicity. Your professional colleagues might regard it as a risky business lest the product fail to perform over the long haul or you and the vendor fall out over poor service. If you are offered the opportunity to appear in such an advertisement, the presumption in favor of avoiding conflicts of interest should prevail unless your employer can make an overwhelming case for its importance to your organization and its library. Given the possible negative consequences, this would be hard to do.

Another potential conflict of interest arises from insider information. An early code suggested that library work itself might present such conflicts, as where the librarian knows of a parcel of land about to be acquired for a branch library site. The code of conduct for librarians working in special collections deals specifically with inside information on the rare book trade. A special librarian also has access to the information of the organization served: law firm, newspaper, accounting firm, trade association.

The widely-reported case of a librarian using insider information involved the conviction of a librarian from Skadden Arps who used inside information about pending corporate mergers to buy stocks. All the articles I have seen refer to the miscreant as a librarian although his alma mater is never identified and his professional status is unclear. In this case it does not matter, however, whether he was a

bona fide librarian or not. His crime was not only contrary to professional ethics but in violation of security regulations as well. The presumption in favor of avoiding conflicts of interest involved in using inside information appears to be unassailable.

Confidentiality. Along with other professionals, librarians have a long-standing commitment to protect the confidentiality of information about patrons. Here is another area, however, in which technology has had contradictory effects. On one hand, automated circulation systems mean we no longer have a list of earlier borrowers on the check-out card tucked in each volume. On the other hand, we may have an automated record of each patron's borrowing transactions over a period of years. In a special library, records of online searches may raise questions about the confidentiality of searches done for both corporate staff members and for clients. Librarians seem to have contradictory attitudes about this. An article by Isbell and Cook reported that even online searchers in academic libraries who regarded the confidentiality of online search records as important as that of circulation records, nonetheless made information about searches available to other searchers and to other patrons.

At SLA's 1987 State-of-the-Art Institute, J. Joseph Pia showed some of the same confusion. In discussing confidentiality of search information as an aspect of high-quality service, Pia suggested that information professionals protect themselves by asking whether a client wants the information kept private and by determining whether the client knows he can require that the data be kept confidential. Following the presumption in favor of confidentiality, I would suggest that ethical conduct requires that information about searches be kept confidential unless some compelling interest justifies its release or the patron waives the privilege.

The general standard adopted by the American Library Association in such matters is, I think, the appropriate one. Circulation and other patron information is held in confidence absent the presentation of a valid court order requiring its release. A special library might have compelling reasons for making such information available internally and could thus overcome the presumption. But since the FBI Library Awareness program targeted "suspicious" patrons in academic, special, and technical libraries, it is imperative to have a written policy defining the limits of availability.

Special librarians often say it is too costly and time consuming to protect the confidentiality of corporate staff. Here is a low-tech example. A staff member in your organization frequently takes journals to his office and rarely returns them. When other staff members request them, do you reveal the whereabouts of the journals? How do you balance the goals of high-quality service, access to information, and patron confidentiality? In protecting patron confidentiality, who is the special library's patron? Is it the entire organization, in which case everyone is entitled to know who has borrowed what? Or is it the individual employee who might prefer that her reading not be common knowledge? Starting with a presumption in favor of confidentiality, might you design a system which both protects the confidentiality of your users and enhances the access of other staff members to the material?

Access to information. Following the formulation of the Code of Ethics and the Library Bill of Rights in the late 1930s and the statement on the Freedom to Read in the early 1950s, access to information began to assume primary importance among professional values. Defined in the current code as a duty to fight censorship and to provide for an informed democracy, the obligation seems to fall more heavily on public than on special librarians. But defined in the introduction to the code as the duty to insure a free flow of information, the obligation falls on special librarians as well.

While special libraries generally define their mission as the provision of information services to corporate or association staff, some may have established in their mission statement a secondary duty to supply information to the general public. In such a case, your private institutional duty might conflict with your more general societal one. Here is an example:

Your library serves the staff of an association that promotes the use of agricultural chemicals. It also responds to inquiries from the public. You receive a report which describes the harmful effects of agricultural chemicals and proposes safe, low-cost, effective alternatives. You route the report to the association's staff. Do you provide a copy of the report when requested, by an interested citizen? a newspaper reporter? a high school student? an environmental group? How do you respond when your boss tells you to deny that your library has a copy? If you start with a presumption in favor of access to information, can you find a way to fulfill the request and still honor the concern of your employer? If your organization drafts its own response to the report, might you distribute it along with the report itself? Should you redraft your mission statement? or turn the whole matter over to your public affairs officer?

ALA's 1975 Code of Ethics for Librarians was the last to embody the notion of the web of relationships and the possibility of conflicting duties. It is indicative of the particular problems of special libraries that the American Association of Law Libraries modeled its own code, approved in 1978, on this version of the ALA code and retained it, with modifications for its own needs, rather than adopting the 1981 Code of Ethics.

I would suggest that the two-part test I have proposed might form the basis for identifying values shared between special librarians and the organizations they serve. Common to professional and business groups are a set of core values and a web of sometimes competing professional relationships. The BNA compilation includes codes of professional responsibility for various businesses whose institutions or firms might be served by a special library: accountants, architects, bankers, engineers, and insurance brokers. Each code details the multiple obligations of these professionals to their clients, to their professions, and to the general public. Even more striking, each code articulates professional goals consonant with those of the library profession: to provide the highest level of service, to protect patron confidentiality, to avoid conflict of interests. Despite different kinds of service, the overall professional concerns are remarkably similar.

The librarian is an information expert who can enhance the performance and further the objectives of the institution served by a special library. Just as the performance of these professionals is improved by adherence to ethical standards of conduct, so too is the performance of information professionals. Articulating your own professional standards and identifying values shared across professional lines are first steps in securing recognition of your professional values within your organization.

What additional role can the information specialist play in an organization to further the ethical dialogue while promoting the library and its services? Do what you do best—provide information:

- On **copyright,** detail obligations established by law, indicate the costs of noncompliance, and inform your company about legal alternatives.

- On questions of **business ethics** generally, provide information on what other companies in their field are doing and how ethical behavior supports other corporate goals.

- **On matters affecting the operation of the library,** point out the ways in which violations of its rules can undermine high quality information service. If staff routinely appropriate needed material or ignore the conditions of interlibrary loan, the library may lose its good reputation within the organization and among its fellows.

- Finally, on the risks of **information malpractice,** make available information on the importance of quality data as an ingredient of corporate decision-making and the role of your library in providing it.

As indicated at the beginning, ethics is an area of great challenge to special librarians. By presuming the applicability of the standards of

the librarian's Code of Ethics and balancing the librarian's obligations to the organization, patrons, profession, and the public, I believe ethical conduct can enhance both the quality of your service and the standing of your library among those you serve. ■

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Start-Up Information Centers: How to Keep Them in Business

by Patricia L. Morrison

■ **Corporate information centers can be especially vulnerable in their first years. There may be company profitability concerns, management changes, or marketing problems. The author, who has started up three corporate information centers in five years, shares her perspective on how to avoid losing the information specialist position or the information center in those early years. Many of these suggestions apply to other types of corporate information centers as well.**

Much has been written describing the one-person corporate information specialist's skills, personality, and continuing education needs. Guy St. Clair addresses those three topics in his 1987 article, "The One-Person Library: An Essay on Essentials Revisited,"[1] an update of his initial 1976 article, "The One-Person Library: An Essay on Essentials."[2]

There even exists a newsletter entitled *One-Person Library*.[3] Such resources are indeed useful for one-person information specialists who work in an environment that demands different skills, traits, and responsibilities than other types of information specialists use.

But the one-person information center has to begin at some time and, for those at this beginning stage, there should be as much concern for keeping it in service those first years as there is for solid, ongoing library management issues.

Introduction

Since graduating from University of California, Berkeley in 1984 with a Masters in Library and Information Studies, I have started up three one-person corporate information centers.[4] In each case, the information center had periods of vulnerability, with one case ending in outright dissolution. As a result of these experiences, I have developed nine rules for the ongoing success of the one-person start-up information specialist.

The Groundwork

Laying the groundwork is an important aspect which can be easily overlooked. It happens during the interview stage. Besides all of the standard interview questions, the start-up information specialist should also cover three other elements.

- All of the key employees in the company who could affect the information center's success should be interviewed.

The goal is to discover if there are any key employees who were ambivalent about or opposed to, the development of a new information center.

If there are key employees whom the information specialist has not had an opportunity to interview, she should gently insist on meeting them, even if it means inconveniently returning for another interview. More often than not, it is these key people not met who will end up detractors rather than supporters. Meeting them during the interview stage will not only help insure that they give a positive vote to the recruiter which will be difficult for them to retract later, but it provides an opportunity for

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the information specialist to do some initial educating and marketing.

- The information specialist should query his or her prospective manager on the main reason for the development of an information center, and on the manager's vision for how this mission can be accomplished.

It is a good sign when the manager's answer ties the information center to company profitability. It is an even better sign when the manager has a concrete vision for how this will occur.

Here is an example of what can go wrong when some of these questions remain unasked: When I asked this question of one prospective manager, his response was that the main mission of the information center was to consolidate journals corporate-wide. This is a common, and good, reason to begin a corporate information center, since savings, the other way to increase company profitability besides revenue gain, may be invoked. If I had delved further, however, I would have discovered that the journal consolidation was supposed to cover information services costs, even though the combined costs of information center start-up and a one year salary for the position was $120,000. If I had inquired still further about my manager's vision for implementing consolidation, I might have learned of his reluctance, for political reasons, to create and enforce a policy that only one journal of the same title be held by the company, through the information center. Consequently, the journals were never consolidated and the information center never had the opportunity to fulfill its mandate of paying for itself. It was dissolved after one year.

- The information specialist should attempt to procure a guarantee that the position will report to the same manager for a minimum of one year.

It is unlikely that an unqualified guarantee will be forthcoming, but the manager might at least state that no plans exist to change managers in the near future. In all cases where I started up an information center, I was shuttled to a new manager of lesser status within six months. In two of the three cases, the managers were aware during the interview stage that this change would take place. My experience is that, when the information center acquires a less powerful manager, it in turn loses power in the form of reduced management support, budget allocation, and decision-making authority.

Getting Grounded

Once the position has been accepted, the next challenge is to understand the priorities of the corporate environment so that the information specialist can function advantageously within it. Most information specialists underestimate the kingly position that corporate profitability plays in decision-making, and therefore in the library's longevity. The importance of profitability implies that certain functions should receive a lot of attention from the start-up information specialist.

- One of the start-up information specialist's primary functions must be that of internal marketer of information services.

Most corporate information specialists must market information services internally to their clients, the company employees, but marketing is especially important for the start-up information specialist. Clients will not be accustomed to using the information services unless coaxed by appropriate means and will not understand the potential of the information services unless coached. Even when these two are accomplished, they will not make information services usage a habit unless they receive outstanding service. Most librarians know how to give good service. What they fail in is the neglect of the all-out marketing and education effort it takes to produce the questions which they answer so well. It practically goes without saying that if the information center is not getting enough business, it is not increasing corporate profitability. For a long list of marketing ideas, Corilee Christou's "Marketing the Information Center: A Blueprint for Action" is helpful.[5]

- The start-up information specialist must acknowledge and act upon the fact that "line staff" are generally more important than "support staff" for the information center's longevity.

The information specialist will probably report to a support position manager, such as in Training and Development, Business Systems, or Human Resources. Undoubtedly, the information specialist will quickly become comfortable with the employees in the department. It is necessary, however, to focus on getting up to speed on the company's business or industry in order to serve the technical or line staff. To offer a service which fulfills this group's need is to be valuable to the only group which directly affects company profitability.

- The information specialist should insure she is worth information services' overhead, and can prove it.

A start-up information specialist is usually hired during a lucrative period for the company. But in most cases, company profitability recedes after the initial "high." Company management is invariably faced with cost-cutting. Since a beginning information center does not have a track record to protect it, it must rely instead on quickly achieving value. The information specialist's ever-present bugaboo is to also be able to prove the value that the information produced—in a world where the link between information and its value is anything but clear. It is suggested that the start-up librarian go a step further than mere statistics; value can be graphically pointed out by computing the ongoing cost savings of journal consolidation or by finding out exactly how the information was used to make money for the firm. In the case of the value of information services, money does indeed talk.

Losing Ground

Despite best efforts, the information specialist may discover that things seem to be slipping. Maybe business is slow, or all of it is coming from support staff. In any case, when things take a downturn, three approaches may help.

- A proactive approach to problems yields the best results. Problems don't stay the same or go away; they get worse.

Bringing the problem to the attention of the information specialist's manager, suggesting solutions, and discussing the manager's ideas will help get the information center back on the track. Once a possible solution emerges, it is a worthwhile exercise to write steps toward its implementation and then follow them. Talk with no action is wasted time.

- Transferable skills can work to the information specialist's advantage if the information center is jeopardized.

Often the skills already acquired by the information specialist can be useful company-wide skills such as budgeting, writing, management, research, and using computers for information retrieval and manipulation.[6] It is useful to be prepared by knowing or creating transferable skills, so that, should the information center fall upon hard times, the information specialist can still secure a position within the same company. This could buy just the time needed to find an information specialist position with another company if desired.

- If all else fails and the information specialist is searching for a new start-up opportunity, the recent experience can be an advantage.

Consulting to companies as a start-up information specialist could not only be lucrative and diverse, but there is no danger of losing a permanent position. Instead, the next start-up challenge awaits.

Summary

The start-up corporate information specialist can adopt a number of approaches at different stages to insure information center longevity by asking some key questions during the

hiring interview, by linking the information center to company profitability, and finally, if there should be a down-turn despite best efforts, by proactively choosing the most viable solution.

For the start-up information specialist who wants to see the information center survive and flourish, it is no longer permissible to merely excel in information services, it is essential to be a savvy business person as well. ■

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Agricultural Documents: Acquisition and Control

by Helen Smith

■ **Agricultural information is often disseminated via publications of the State Agricultural Experiment Stations (SAES) and the United States Department of Agriculture (USDA). The nature of these documents ensures that their acquisition and management are cumbersome at best. A survey of libraries at Land Grant Universities determined the methods used to acquire, process, and maintain SAES and USDA publications.**

Land Grant Universities supporting active agricultural programs historically have had to deal with the unique problems encountered with agricultural literature. Traditionally, much agricultural information has been disseminated via publications of the United States Department of Agriculture and the State Agricultural Experiment Stations. Indeed, the Hatch Act of 1887 mandated the publication of bulletins or reports for the transfer of information.[1] The 1914 Smith-Lever Act which initiated the Cooperative Agricultural Extension Service, also stressed the dissemination of information.[2] Almost from the beginning, the Land Grant University libraries were confronted with the vagaries of government publications. This created problems evident as early as 1927, especially with the cataloging and classification of these documents.[3-6] The situation concerning the control of, and access to, agricultural documents has received renewed interest in recent years, especially with coordinated microfilming projects and a Title II-C grant that the University of Illinois received to improve bibliographic control.[7-9]

But how are these publications managed in the Land Grant libraries today? Government publishing has changed, especially since the implementation of the 1980 Paperwork Reduction Act, and this may have a subsequent effect on how agricultural publications are managed.[10] In today's changing economics and technology, it is necessary to evaluate library collections, policies, and services. There are many studies on managing state and federal documents but none recently that specifically target agricultural documents. This is an important area because of the special significance of these materials to the agricultural literature. It is premature to describe the advantages or disadvantages of the different methods of bibliographic management of these materials because the methods themselves have not yet been defined.

Method

This paper reports the results of a questionnaire administered in the summer of 1988 that attempted to discover the methods that Land Grant libraries were using to acquire, process, and maintain State Agricultural Experiment Station and United States Department of Agriculture publications. The intent was not to produce a statistically reliable study, but rather to provide a general picture of the methods used by the libraries in their collections. In this way, concerns and interests of the libraries could be discovered, and new research areas explored. It was considered unrealistic for libraries to provide detailed numbers or percentages of materials handled in specific ways. At best the respondents were able to give "guesstimates" derived from their perceptions

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and overall knowledge of their collections.

In late June of 1988, the questionnaire and an explanatory letter were sent to the agricultural/science librarian, or to the director of the library, of 50 Land Grant University libraries. Thirty questionnaires were returned with 29 usable responses for a 58 percent usable rate. The survey was composed of 20 questions designed to have the respondents estimate the percentages of the identified material treated in different ways, and to describe the changes made in the recent past. The first nine questions pertained to publications from the State Agricultural Experiment Stations (SAES). Questions ten through seventeen related to United States Department of Agriculture (USDA) publications. The final three questions were of a general nature. There was also an area for respondents to make additional comments.

Acquisition of SAES Publications

State governments have seen many of the same budget constraints in recent years as the federal government. This may affect the acquisition of SAES publications which traditionally have been sent free of charge. There may also be fewer series, or numbers in a series published. Libraries too, have recently had to closely examine their policies due to lack of space, increased cost of retention and binding of materials, and the increased cost of previously free information. The initial questions attempted to provide an idea of how the Land Grant libraries have controlled these acquisition problems.

Most of the responding libraries (62 percent) attempt to collect SAES publications from all 50 of the states or collect from all states sending the publications free of charge. The 38 percent of the libraries which limited their collecting concentrated on those materials from states in their surrounding geographic area. Only 21 percent collected from ten or fewer states. Apparently libraries consider these publications important enough to acquire, and were still willing to process, bind, and house the materials. These publications may be acquired through a variety of methods. The overwhelming majority received 95 to 100 percent of the publications through a traditional "Land Grant exchange," or as outright gifts. A smaller group acquired 40 to 85 percent of their publications through the gifts and exchange programs. Purchases accounted for relatively small amounts of materials. Some of the responding libraries indicated that microfilm was the item primarily purchased.

In an effort to determine any trends in the area of agricultural documents, the respondents were asked whether their collecting activities had changed over the last five to ten years. Twenty-one percent mentioned no change, but the rest of the respondents indicated problems such as they were no longer able to maintain a comprehensive collection, there was more difficulty in getting the individual documents (materials were not being sent to libraries), and the cost of purchasing some items. As a result, some states no longer collect from all the other states and some no longer collect extension material extensively. These problems may continue to have ramifications on major agricultural libraries' abilities to serve the needs of their patrons. If costs continue to rise, libraries may increasingly have to depend upon interlibrary loan for access to SAES publications.

Control of SAES Publications

Publications issued by the SAES are very often the research results of a project funded by federal or state moneys. They usually consist of a series entitled "bulletin" or "report," often prefixed by "research" or "technical." Each number of the series then has an individual title and author. Because of their monographic nature, these publications are not always cited correctly (i.e., given their proper series title and number), resulting in difficulty in accessing the publications. Additional problems occur because of the nontraditional nature of these publications. They are irregular, frequently changing titles and issuing bodies, and may have a "series within a series," creating more confusion. Location of this material also varies. They may be shelved by format (in the government docu-

ments department) or by subject (with other agricultural material), and even occasionally in a separate collection.

The importance of obtaining the series information for locating these materials is evident by the fact that ten of the responding libraries catalog 90 to 100 percent of SAES publications as series. Another six process 70 to 85 percent of their collections in this way. A few libraries mention the publications as still being classified in the Dewey Decimal system, while the rest of the library is classified using the Library of Congress system. Another significant group of libraries do not catalog their SAES collection in either the Dewey or the Library of Congress system, instead it is housed in the government documents section of the library. These publications are not frequently cataloged as monographs, which may result in making their access more difficult for the users.

A question concerning how these publications are accessed did not elicit any surprise responses. The *Bibliography of Agriculture* in some form (print, online, or compact disc) was mentioned by over 50 percent of the libraries responding to the question. Other modes of access included the libraries' catalog (both card and online), other traditional agricultural indexes (most notably the CAB International publications), RLIN, and OCLC. One interesting observation is the variety of access tools that were mentioned by the respondents. Such variety serves to underline the need to use a wide variety of tools to ensure complete access to these publications.

The most popular response to the question of physical location of these materials was the general stacks, with the documents department as the second most popular location. A separate collection was mentioned by a few libraries for at least some of their SAES publications, usually those from their own state. The point that many of these publications are treated as journals is brought home by the fact that 31 percent of the libraries house at least part of their collection with the journals.

SAES Special Problems

Twenty-one of the 29 responding libraries provided better access or control over publications from their own state's agricultural experiment station than they did for those from other states. The superior access took the form of more copies available, housed in a separate location, fully or partially cataloged or analyzed, and the existence of a separate index or catalog (by author, title, and subject). Practices such as those listed above may have resulted from pressure due to reference questions, interlibrary loan requests, and expectations of easier access and better control for the publications pertaining to the library's own state.

The collecting of cooperative extension material was also addressed. Extension service material is written for the public and translates the research information into recommendations for the individual circumstances of each state. Many of the Land Grant libraries collect the research (experiment station) material and not the popular (extension service) material. Only five states said they attempted to acquire all extension publications. Other states were more restrictive. Nine collected extension publications from either the states in their own area, or whatever came free of charge. Six libraries attempted to collect only those extension publications from their own state, two libraries collected from their state plus one other, and one library made retention decisions based on the content of the publication. Obviously extension service publications are not considered as important for Land Grant libraries to collect as the research information emanating from the experiment stations. With space, time, and money constraints, extension material may be the first to be weeded or discontinued.

SAES System Pros and Cons

Librarians were questioned regarding their views of the advantages and disadvantages of their particular systems of bibliographic control for the State Agricultural Experiment Station Publications and whether the system had seen any changes in recent years. Advantages mentioned both from libraries with the publications in the documents department, and those with the publications in the general stacks (as

series), was that all the numbers of one series stood together and were easy to locate. Also, this was a quick way to process the material, and it is easy to browse. One disadvantage to a collection in the documents department was the separation of the publications from the subject indexes which serve them. Often only the *Monthly Checklist of State Publications* is at the documents site. Since many documents are not in library catalogs, patrons may have difficulty locating the series. Disadvantages to collections cataloged as series in the Library of Congress system include, lack of analytics, difficulty in access due to the series corporate entry, frequent title changes, and no subject access except through the indexes. The result is that the material is often overlooked and has little bibliographic control. Knowledgeable staff was one advantage at a "branch" library. Many changes have occurred in recent years, the most obvious being that fewer publications are being published, fewer are being received (especially free), and that requests for this information are on the decline. Some positive changes include better control (due to online public access catalogs), and easier interlibrary loan retrieval (resulting in less of a need to purchase the publications).

Acquisition of USDA Publications

The United States government has seen a variety of changes in information policy in the recent past. Concerns have been expressed with regards to increasingly restricted access to government information.[11] The United States Department of Agriculture (USDA) is now publishing fewer documents, and more of the information is available only on a cost recovery basis. Another problem with USDA publications is the frequent changes in title and issuing bodies.

The libraries were asked from what services of the USDA they were actively collecting. Most of the responding libraries (38 percent) indicated they collect from all those services available from the Government Publishing Office (GPO) through the depository system. Twenty-eight percent of the libraries attempt to collect from all of the services within the USDA. A somewhat smaller percentage (14 percent) collect from services available through the GPO plus one or two other agencies, usually those publishing statistical information. One library listed 17 services, one listed six, and one specified that they received or retained only the scientific or technical documents. One problem associated with collecting all depository items is that more documents, especially those containing statistical information, have moved toward non-depository status.

USDA documents were received primarily through the depository system, with 69 percent receiving 90 to 100 percent of their USDA publications in this way, and another 17 percent getting at least 80 percent this way. Publications are also received free of charge directly from the services themselves. Some materials still need to be purchased however, either directly from the GPO, or through other services, such as the American Statistics Index (ASI) non-depository microfiche collection.

Compared to collecting activities for SAES materials, more respondents (48 percent) felt that their USDA collecting activities had not changed in the past five to ten years. There were some changes mentioned however. A few libraries indicated that more purchasing was necessary in order to ensure a complete collection, especially in the area of statistical publications. A number of libraries mentioned that there is less material being published, and received from the USDA. The fact that the depository copy for many documents is now being received on microfiche was another change in the system.

Control of USDA Publications

USDA publications pose many of the same managerial problems as were seen with the SAES publications. Many of the documents are published as part of a series and this can make access difficult. USDA publications change titles and issuing bodies so frequently, retrieval can be complicated, especially to the uninitiated user. Fourteen of the responding libraries use the Superintendent of Documents (SuDoc) classification system for cataloging 90 to 100 percent of their USDA publications,

and another four libraries process 80 to 89 percent in this way. Cataloging in the Library of Congress system, as a series, was the second most popular method to process these documents with one library doing 95 percent of the collection this way, and another four libraries classifying at least part of the collection as a series in the Library of Congress system. A few unique methods of classification were mentioned by other libraries. One library has 100 percent of the collection uncataloged, and shelved by series within the issuing bodies. Another library has 90 percent of the collection classified as a series in the Dewey Decimal classification system. The importance of obtaining series information for USDA publications is indicated by the fact that only one of the responding libraries has 90 percent of their collection classified as monographs in the Library of Congress system. Most libraries have 0 to 9 percent of their USDA publications classified as monographs. Other methods of handling the materials, especially the microfiche publications, include ASI classification and National Technical Information Service (NTIS) accession numbers.

A question concerning the ways in which USDA publications are accessed did not elicit any surprise responses. The standard agricultural tools of *AGRICOLA/Bibliography of Agriculture* and the *Monthly Catalog of Government Publications* were the most often mentioned items. Other tools included OCLC and RLIN, *American Statistics Index,* local catalogs, USDA Bibliographies, inhouse serial records, *Government Reports Announcements and Index,* and documents department card catalogs. The variety and number of tools mentioned by each library indicates the need to use a wide number of bibliographic tools in order to be as complete as possible in a search for USDA information.

As was expected, most libraries house their USDA publications in the government documents section of the library. Indeed, 48 percent house 90 to 100 percent of their collection there and another 21 percent house 80 to 89 percent in that section. The second most popular location for USDA publications was the general stacks. One library houses 95 percent of their collection in the stacks, another houses 80 percent, and two house 65 to 75 percent there. Other locations mentioned included with the journal collection, as a separate collection, in the Dewey collection, in a storage location, and in a microforms area. All these locations housed less than 15 percent of any one library's materials.

USDA Special Problems

Many government publications are now being published on microfiche and a question was asked to determine how these publications are being managed. Most of the libraries agreed that 10 percent or less of their USDA publications were coming on microfiche and another group estimated that 20 percent arrived this way. Only two libraries felt that 50 to 70 percent of their USDA materials were in microformat. The materials on microfiche are usually arranged by their SuDoc classification number but are housed in a variety of locations. A microforms department, documents fiche area, and a microfiche storage area were mentioned. Seven libraries indicated that they treated the microfiche in the same manner as their paper USDA publications, except for the shelf location (which was a microfiche cabinet). One library bound the fiche in with the paper serial when appropriate. The same problems occurred when trying to locate microfiche documents as when locating other documents, i.e., the patrons must check numerous locations to determine an item's availability.

USDA System Pros and Cons

A final question in the USDA section requested the respondents to indicate their views of the advantages and disadvantages for their system of bibliographic control of USDA publications, and whether the system had seen any changes in the past five to ten years. Some advantages mentioned were that there was more access and better bibliographic control as online public access catalogs become operational. The SuDoc classification system was mentioned as beneficial for series control because all the items are kept together, provid-

ing rapid access. Personnel in government documents sections have expertise with government publications, and may be more equipped to handle patron requests. One library, which had its own system for arranging USDA publications, used a system similar to the one used by the *Bibliography of Agriculture* (which does not give SuDoc numbers) and simplified access for the patrons. It was also felt that it is advantageous to acquire USDA publications directly from the agencies, rather than depending on the GPO depository system.

Disadvantages mentioned for some bibliographic control systems include that the publications may be split between locations (paper versus microfiche, USDA separate from other agriculture publications, etc.). Older publications do not have online access (a situation which is changing with the University of Illinois' Title II-C grant). There is a continuing problem with the corporate author entry for many USDA publications and in general, there is very little bibliographic control. Systems are complicated, cumbersome, and time consuming. Patrons may think that the library does not own the publications. There are numerous title changes and also changes in the SuDoc classification numbers. In many cases there is no access to USDA publications via the library's catalog, either card or online. Eight libraries indicated that there had been no change in their bibliographic control systems for USDA publications. Others indicated a variety of changes. These include an increased amount of access, which is creating more demand for the publications, and more precise acquisitions records. One library has created a previously non-existent government documents section to achieve better control over its documents, and subsequently reclassified publications from the Library of Congress classification to SuDoc classification.

General Questions

A few general questions were asked to determine what kind of resources the libraries had available. Eleven libraries indicated that an online catalog was the primary catalog for the library. Ten libraries indicated the use of both a card and an online catalog and seven libraries indicated that only a card catalog was available at the present time (although there were numerous plans to add an online catalog in the future). The existence of an employee specifically assigned to agricultural documents was investigated. Ten libraries said there was no such employee, ten said the work was merged with other documents activities. The remaining nine libraries indicated there was such a position with the hours worked varying from two to 29 each week. Most of the respondents indicated that the agricultural documents were essential to an agricultural library. Some of these publications were heavily used, especially the USDA publications and those from the library's own state. The respondents felt that even if the publications were not heavily used, they were essential.

There were a number of general comments from the respondents. There is a strong recommendation for online catalogs to enhance access to this type of information. It was noted however, that priorities are difficult to set. What should libraries emphasize considering their limited manpower and resources? One University was de-emphasizing agriculture, and consequently so was the library.

Discussion

There are many areas of concern with regard to the management of SAES and USDA publications. The information produced by these organizations is important, but is often overlooked by the researcher. Difficulty in accessing and locating this information only serves to make this situation more pervasive. The increasing prevalence of online catalogs may serve to alleviate some of this problem, as will the increased access due to the Title II-C grant the University of Illinois received to catalog these publications. However, there are still problems associated with the systems. The high incidence of these publications cataloged as series will still cause problems in locating the material unless online catalogs allow for the analyzing of individual series. Patrons will still be required to utilize many different areas

of their library in order to access all the information on their topic. Cataloging problems abound as each new state or federal administration takes power and brings changes in the organization and in the names of departments and agencies. Libraries will continue to have to deal with such problems.

As in all cases of library management, the importance of access to information must be weighed against the cost of providing for that access. USDA and SAES materials are important to researchers, but they may not be considered important enough to provide for their special access. Many problems would be solved if libraries could afford to fully analyze series on online catalogs and pull together seemingly disparate corporate authors. The cost of services also comes into focus when collecting activities are reviewed. With greater access to SAES and USDA materials in national bibliographic services, it may prove beneficial to decrease expensive collection acquisition and management activities, and rely increasingly on interlibrary loan services to provide the materials. Individual libraries must make their own decisions in these areas while keeping their own priorities in mind.

■

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A Space Station Library Service

by Diane M. O'Keefe

In 1984, President Reagan directed NASA to begin the development of a permanently based, manned space station. This space station, to be named "Freedom," will be assembled in the 1990s and will include components from the European Space Agency and from Japan. Among the many purposes are materials processing for commercial use, servicing and repair of satellites, assembly of large space structures, scientific research, as well as being a starting point for future manned space exploration within the solar system. The space station will orbit the Earth in a low-earth orbit and is designed for a six to eight-man crew. The crew will be changed and the station resupplied every three to six months.[1]

Information will be needed to support the research of the scientists aboard the space station. The duration of their stay in space will make it impossible for the scientists to learn in advance everything they will need to know to support their work in the space station. It is also impractical to communicate large amounts of information from Earth via satellite linkups to the space station.[2] The situation will best be served by the inclusion of a self-contained library service on the space station to meet the information needs of the astronauts and scientists in space.

The largest component of a space station library would be reference materials to support the scientific and technical research in progress. Much of the materials will have to be the most current information available, as most of the research will be on the leading edge of scientific discovery. Accordingly, the collection will include a great number of serial publications. A core scientific reference collection of book publications will also be necessary. Major subject areas covered in the collection will be materials science, biomedicine, astronomy, physics, and space science. Other disciplines included will be meteorology, pharmacology, pharmacognosy, heliology, and robotics. Specific technical information on the satellites to be repaired and the structures to be built will also be required for the astronauts who handle those functions, as well as technical information for repairing or modifying any systems in the space station itself. Presumably, a doctor will be one member of the crew and will need medical references necessary to treat any trauma or ailment that might arise among the crew, including the area of dentistry. The doctor will also use the previously mentioned biomedical information to support ongoing experiments in this area which will be performed in the space station.

Reading material of a purely recreational nature will also be an important part of the space station's library. In both the Soviet and American space programs, there has been much study of the psychological problems that can accompany long-term habitation in space. Separation from a normal Earth environment and the enclosed nature of the space station environment can create great psychological stresses on the astronauts. The much lower

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level of sensory stimuli in such an environment also adds to the stress.[3] Measures must be taken in advance to prevent psychological problems that might arise during the six months or more the scientists and astronauts will be spending in the space station.[4]

Providing reading material can help satisfy both the need for additional sensory stimuli and the need for an acceptable leisure activity to give relief from the ambitious work schedule which has been the norm in all previous space station missions. The presence of recreational reading material aboard the space station can lessen the feeling of isolation accompanying long-term space duration and will also give the individual astronauts and space scientists an activity they can enjoy privately, something that is difficult in such an enclosed and limited environment. The provided entertainment can reduce the possibility of personality conflicts that can easily arise in such a situation.

The recreational collection will also include one disk for each space station crew member containing recreational reading tailored to the crew member's individual tastes. This would help provide the leisure activity necessary to the maintenance of good psychological health.

Both the informational and recreational needs of the space station occupants can be met by a self-contained library of materials aboard the space station. A self-contained library is a better solution than the communication of all information needed via satellite because, even with the massive data relay capabilities of the United States' TDRSS (tracking and data relay satellite system), it will not be possible to meet all of the ongoing information needs of the scientists aboard the station;[2] furthermore, much of the TDRSS capabilities must be reserved for more essential daily data relay, such as telemetry. The time factor is another consideration. Transmission does take time, and with many scientists working on multiple experiments, there may not be time for all of them to wait for their data to be transmitted from Earth. Far better to have the data readily available aboard the space station and to reserve the satellite communication system for more essential information.

It is out of the question to consider a library of hard-copy materials as weight is an important consideration when transporting materials into space. The cost of sending cargo into space aboard the space shuttle, which is the most probable vehicle to be used in the construction of the space station, is more than $3,000 per kilogram.[5] Cost alone makes weight a major factor in choosing the form of the station's library. Grikhanov (1983) suggested a library on microfilm for the Soviet space station.[6] At the time that he wrote, a microfiche library may have been the most reasonable choice, but advanced technology now offers a much better solution. Laser disk technology offers the ability to have an entire library on a few compact disks. Each disk is approximately 16.1265 grams. A similar number of volumes on microfiche would weigh approximately 1,700 times as much and hard-copy books would weigh about 38,000 times as much. The cost of mastering the necessary compact disks would be several thousand dollars each,[8,9] a cost that would be offset by the tremendous cost savings when transporting the library into space. Also, the compact disk is a highly durable format—an important consideration because the material must withstand the stresses of a shuttle launch. Several laser disk readers could be incorporated into the space station to allow multiple users of the library. Laser disks could also be used by the scientists to record their observations and results of their experiments and could easily be transported back to Earth.

Development of the collection of materials to be included in the space station library will have to be handled carefully because of the limited space.

A general reference collection including a standard encyclopedia, almanac, and dictionary as well as standard handbooks in all of the sciences would be a good beginning. Some materials, such as directories, could be left out as they would have little use in that environment. "Freedom" will be a cooperative project between several nations and will be staffed by crew of different religious backgrounds; consequently, the Bible, Koran, Torah, and other sacred writings should be included. Also, be-

cause of the multinational composition of the space station crew, it would be advisable to include texts on the languages, customs, and culture of each country represented. This would aid in good relations among the crew members, which is a major consideration in any long-term space mission.

Each disk included in the space station library will also include its own indexing for ease of use of the materials included.

All of the considerations of user needs, possible alternatives and costs involved indicate the possibility of a self-contained library service aboard the United States' proposed space station "Freedom." This service should take the form of a laser disk library with several access points and should contain research information, general reference information, and recreational literature. A library of this type could be of great service to the space program and will help further efforts in the exploration of space.

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Subject Access to Serial Publications in Toronto Bank Libraries

by Steven Blake Shubert

■ **The situation among Toronto bank libraries is presented as an illustration of trends in subject access to serial publications. In manual systems serials are often uncatalogued and hence no direct subject access is provided. Once serial operations are automated, computerized printouts of serial holdings are easily obtained and some form of subject listing may be provided. The advent of microcomputer-based library systems, however, has encouraged the implementation of full subject access to serial as well as monographic publications.**

In March 1989, the five major bank libraries in Toronto, Canada were surveyed concerning the type of subject access provided to their serial publications. The bank libraries included in this survey are those of the Bank of Montreal, Canadian Imperial Bank of Commerce (CIBC),1 Royal Bank, Scotiabank, and Toronto Dominion Bank. As a result of this survey, it was evident that the impact of library automation and particularly the latest generation of microcomputer-based library systems had a significant impact on the type of subject access to serial publications offered in special libraries, at least in the business sector.

The question considered here was whether and how to provide subject access to the serial publications themselves, as opposed to the individual articles contained. It seems clear that access to individual articles on a particular topic was largely through known references, subject indexes (both printed and online), and perhaps serendipitous or directed browsing. The standard published periodical indexes in the banking/business field include *American Banking Association (ABA) Banking Literature Index, Business Periodicals Index, Canadian Business Periodicals Index, Canadian News Index, Predicasts F&S Index* (U.S. and International editions), and *World Banking Abstracts.* In addition to published indexes, CD-ROM products (e.g., *Business Periodicals Index* and Ulrich's *International Periodical Directory)* and online searches such as Infoglobe, Financial Post Online, and Dialog are important tools for information retrieval in the libraries surveyed.

Despite this impressive array of access tools, all five Toronto bank libraries felt a need for general subject access to their serial titles through their online catalogues. In no case has this been fully implemented yet, but the aims and reasons for subject cataloguing for serial titles are the same—the common need of the bank libraries to provide current, accurate, and comprehensive coverage on business topics for their corporations. The printed subject indexes, CD-ROM products, and even the online bibliographic databases are all several months behind in their indexing. Such a time lag means that the most up-to-date information can only be gained by going directly to the serial publications themselves. Subject cataloguing of serial publications is an efficient aid to guiding library staff and users to the latest issues of these serials in order to retrieve the most up-to-date information on an industry, region, or other topic.

Some have felt that the broad, generic subject headings which tend to be assigned to serial publications are so vague and all encompassing as to be virtually useless.[2] There is an element of truth to the belief in that subject

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cataloguing for serials cannot be said to have the same importance as that for monographs. Fortunately, classification and subject cataloguing are rarely, if ever, as tricky for serials as they are for monographs.[3] Some general news magazines, such as *Time* and *Newsweek*, do not respond well to subject analysis because of the diversity of their subject matter.

Similar subject heading, such as "Business" in a corporate/banking setting may easily be overused. It is more of a problem in the manual environment, where the card catalogue may acquire so many cards under a general subject heading that it becomes a real trial to wade through them all. In the case of an online catalogue, it is true that for general terms the hit rate may be so high as to engender similar problems with searching, but the capabilities of Boolean searching offer many possibilities for restricting broad searches. On the other hand, periodicals such as *Atlantic Insight* and *Journal of Canadian Studies*, which are also nonspecific regarding subject matter, do admit to specific description by geographic terms. Numerous subject or industry-specific journals, such as *Canadian Footwear Journal* and *Toronto Construction News* respond well to subject analysis and access to them through the library's catalogue is certainly desirable, even if not a priority among library services.

Routing of periodicals is another method of providing for up-to-date subject access to the information they contain. Four of the five bank libraries surveyed route copies of journals to bank staff. Only the Bank of Montreal Business Information Centre in downtown Toronto does not route journals, although their counterpart in Montreal does. Even though it is a high profile service for these information centres, serial routing is also expensive in terms of staff time and energy. Multiple copies are likely to be needed and there is the problem of priority on the routing lists and trying to keep materials circulating in a timely fashion, combatting procrastination, transfers, vacations, and other absences. To be effective, serial routing is best restricted to core reading; the CIBC Information Centre and the Scotiabank Library, for instance, restrict their periodical routing service to ten titles per person.

Current awareness service supplements periodical routing services. The typical current awareness service provides photocopies of the tables of contents of selected journals to staff members, who may then either request individual articles of interest be photocopied and forwarded to them or visit the library to read or scan relevant material. An alternate method is for library staff to systematically scan current serial literature and notify personnel of new articles in their subject areas. Similarly, selected dissemination of information services periodically update bibliographic searches done online, adding more recent citations to those already retrieved. These methods are effective in retrieving information on a given subject from disparate sources.

Whereas serial routing and current awareness services keep bank staff up-to-date in developments within their subject areas, subject cataloguing of serial publications brings these publications to the library staff's attention when they do subject searches in the library's online catalogue, either in response to reference inquiries or in the course of compiling bibliographies or literature surveys. Subject cataloguing of serial publications will also help bank staff intelligently select serials for their routing lists. This need is particularly likely to be felt by new staff or by staff with newly-assigned responsibilities to monitor certain industries or geographical regions.

At present, in order to select periodical titles for routing and current awareness service in three of the Toronto bank libraries, a complete list of the library's serial publications arranged alphabetically by title must be reviewed. At the Bank of Montreal Business Information Centre in downtown Toronto with 326 periodical titles, and even in the Toronto Dominion Bank Library with approximately 600 serial titles, the review is not an impractical task. At the Scotiabank Library, however, with over 1,000 serial subscriptions, such an approach is clearly unsatisfactory.

None of the bank libraries surveyed have a classified arrangement of their serial publications. All five Toronto bank libraries arrange their serials alphabetically by title. The arrangement allows for easy retrieval of cita-

tions from periodical indexes, references, or bibliographies without the added step of searching the individual library's catalogue to obtain a class number, as is necessary to locate a book in any of these libraries. The consistency in arrangement of serial publications is particularly striking when compared with the diversity of shelf arrangement and classification for books in these same libraries. The Library of Congress classification is used for shelf arrangement of books in both the CIBC Information Centre and the Scotiabank Library. The Royal Bank Information Resources Centre arranges its books by the Dewey Decimal Classification and the Bank of Montreal Business Information Center, as well as the Toronto Dominion Bank Library, use in-house systems, that of Toronto Dominion being based upon the Federal Reserve Bank of Chicago Research Library system.

The only exception noted to the alphabetical arrangement of serials is that selected issues of some serials, such as directory issues, are catalogued and integrated with the rest of the collection, thus appearing in both the serial and book online catalogues. This takes place at three of the bank libraries. However, the number of serials, their format, and the space available for shelving necessitate various divisions for storage in the different libraries. Newspapers are generally kept separate from journals. Newsletters along with bulletins often form a third category of serial; at the Scotiabank Library the newsletters and bulletins are stored in file cabinets. The CIBC Information Centre also contains 55 serial titles on microfilm. Depending on retention policies, a storage area for back issues may be necessary, separated from the main periodical display area. The number of journals displayed varies considerably. The CIBC Information Centre has only 20 titles on its display racks, which are adjacent to the main periodical storage area where journals are shelved with their spines visible in small shelf units or bins. On the other hand, the Scotiabank Library has 220 titles on its display racks.

In addition to the size of the serial collection in an individual library, the other factor most directly related to providing subject access to serial publications is the degree to which library operations are automated. In a manual environment, adequate access to serial publications is achieved by an alphabetical arrangement on the shelves by title, with referrals from library staff, subject bibliographies, references, and periodical indexes (in print, CD-ROM, or online versions). Serial check-in and control of individual issues can be accomplished manually by means of a kardex system. This was essentially the system currently in place at the Bank of Montreal Business Information Centre in downtown Toronto at the time of the survey. All the other Toronto bank libraries have automated their serials check-in, holdings renewal, claiming, and routing.[4]

The advent of the automated library serial systems at the end of the '60s and early '70s was based on access to a mainframe computer. As computer technology has advanced, these library mainframe systems are slowly becoming obsolete and are no longer being supported, hence the computer-produced subject indexes which they made possible are also becoming outdated. At the Royal Bank of Canada Information Resources Centre, the mainframe-based Library Serials System at the Ontario Processing Centre can still be used to generate lists of serial publications by subject. A single subject heading field is provided for each serial publication. The printed list of serials by subject contains just under 200 subject headings covering accounting, banking, finance, and legal topics. Its usefulness is seriously compromised by the lack of any authority or syndetic structure (i.e., cross references, broader and narrower terms) for the subject descriptors and by the limitation of only a single heading per record. Moreover, since the system is no longer being adequately supported, problems have developed with updating the readers list for periodical routing, leading the Royal Bank's Information Centre to begin to phase out this mainframe-based serials system. The Library Periodicals System, a mainframe system originally designed for use in Ontario government libraries, is likewise currently being phased out at the CIBC Information Centre.

With the impending demise of the old mainframe computer serials system, both the Royal Bank of Canada Information Resources Centre and the CIBC Information Centre have turned to microcomputer-based systems. At the Royal Bank, serial records were input into a microcomputer system using the Microlinx software designed to interact directly with the mainframe computer of Faxon's subscription service in Boston. Microlinx is thus sort of an offshoot from a mainframe system. It provides for automated serials receipt and claiming operations as well as for serials routing, viewing, and updating of the records and report generation. The Microlinx system allows for access to the serial records by **keyword** as well as by title, record number, and location. This keyword feature is used by the Royal Bank to augment the old subject list of periodicals provided by the Library Serials System.

The Microlinx system has a subject access capability, but this as yet has not been implemented at the Royal Bank. Subject access is dependent on a one to three-letter code based on the Library of Congress classification system (e.g., B is religion and D is history). These subject codes are not applicable to a banking/business collection. A special project at the Royal Bank to evaluate the use of Microlinx's subject access feature[6] determined that it would be possible to alter the LC subject codes to represent items in a different authority list (e.g., B for Banking, C for Credit, etc.), but the LC subject codes would have to be deleted individually from each record, as there is no global delete. A complete subject code table would also have to be developed. Once all this were done, the Microlinx system would be able to generate a report of its periodicals by subject

In addition to the subject codes, Microlinx allows for headings to be added to a subject field in the bibliographic record. These headings can be retrieved using the view command and printed using the print screen command, but, at the time these banks were surveyed, could not be used to generate a separate report. It is possible, however, that Faxon will be able to develop this capability for the system. As the Microlinx system is still being implemented, other functions are taking priority in the Royal Bank of Canada Information Resources Centre over improving the subject access achieved through keyword access.

The Microlinx system continues the separation of serial and monographic cataloguing, which has been traditional library practice in the recent past.[7] By definition, a serial is a publication issued successively under the same title at intervals of a year or less, whose parts are therefore somehow enumerated and which are intended to continue indefinitely.[8] Because serials are continuing entities, there are significant differences between serials and monographs in library processing. Principal of these is that whereas monographs are usually catalogued once and then are finished as far as library processing is concerned, serials tend to have a life of their own. At the very least the checking in of each new issue that is received means that processing a serial is a continuous task. Mergers, split offs, title changes, subscription cancellations, and renewals often mean that serial cataloguing is also an ongoing process.

An alternative to this differentiated approach is an integrated automated library system which can handle acquisitions, cataloguing, circulation, and serials control. Although these different functions may each have their own file or module, an integrated approach means that basic bibliographic data need only be entered once, all functions drawing on this data as needed, thus saving on disk space and enhancing file management.

One such automated system, the Sydney Library system, was introduced into the Scotiabank Library in the Summer of 1987 and became operational in the Fall of that year running on a Compaq 386/25 file server with a 300MB hard disk and Novell 2.15 with six workstations.9 The implementation of the serials check-in and routing functions by the Summer of 1988 allowed bibliographic searching of periodicals by library catalogue users for the first time in the Scotiabank library. Prior to this, as in the Bank of Montreal Business Information Centre and the Toronto Dominion Bank Library, serial titles were not catalogued in any way.

The bibliographic records in the Sydney Library system have a separate authority field, which is divided into author, corporate author, conference, series, and subject types. Once a term is entered into a record in one of these authority types, the system automatically enters it into the appropriate evolving online authority file. Separate online authority files are thus maintained for authors, corporate authors, conferences, series, and subjects. These terms are then available for later manipulation, as well as for cataloguing and searching.

In fact, what happens is that each authority term is stored once in the system and then linked through pointers to the relevant bibliographic records. There is room for up to 20 of these pointers or links to be added to any individual record. "Global" changes can be made with a single command, since the authority term need only be altered once for it to be changed on all affected records. Using a Sydney Library System option to define its own authority types, the Scotiabank Library has established additional authority types for geographic terms and for formats, which are given as subdivisions of major subject headings according to LCSH. Carrying this principle one step further, the Scotiabank Library wishes to limit each subject descriptor term to a single concept wherever possible. Relationships among terms are not expressed by precoordinated index strings, but through the syndetic structure of the online thesaurus and the capabilities of Boolean searching, combining, adding, or deleting these concepts. New terms may be added in the cataloguing mode; to add cross-references to the online authority file, one must create a separate authority mode. In this mode, one can either enter new authority terms or modify existing ones with such cross references as "USE," "USE FOR," "BT"=broader term, "NT"=narrower term, and "RT"=related term.

The Sydney Library System is menu driven and easy to use, although the number of screens necessary to accomplish simple tasks is a bit cumbersome and tedious for experienced users. Alternate title entries would certainly enhance online searching for serial titles in the Sydney Library System. Spacing can cause confusion. For instance, *BusinessWeek*, written as one word on the magazine cover, is officially two words and *CAmagazine* is officially one word, although it looks like two words on the magazine cover. Another problem is the presence or lack of periods after abbreviations. For instance, if *PC World* is entered under *P.C. World*, the periods are necessary for online retrieval.

The Scotiabank Library also has some trouble with non-filing characters. When entering serial titles, once a number of non-filing characters has been entered, they became the default entry and were attached to inappropriate titles, which therefore did not index properly. In addition, the Sydney Library System has a rather limited ability to format and produce reports; the Scotiabank Library has downloaded information from the Sydney Library System and then reformatted it according to the abilities of their word-processing system, Multimate. The Sydney Library System displays the advantage of being able to handle multiple subject headings, provide online authority control of terms with a well-developed cross reference structure, and the ability for terms to be both searched online and used to generate reports in authority term order. Whatever the automated system used, these features will be desirable for effective subject access to serial titles in special libraries in the future.

A new microcomputer-based software program for serials management called Davex PC is being marketed by Serials Management Systems (SMS), Canada Limited, of London, Ontario. An integrated system based on Davex PC is being worked on, but is not yet fully operational. The CIBC Information Centre is the beta test site for this new library system. The serials management component of the Davex PC system keeps track of serial holdings and check-in information, vendor and budget control, as well as serial routing and binding. The individual records are not too different from those found in the Sydney Library System in that bibliographic information is not given in MARC format, but rather in a list of numbered fields. In the Davex PC system more information on other serial functions,

such as check-in and routing, is kept with the basic title record than in the Sydney Library System. Records can be accessed by title (both full and received), keyword, ISSN number, serial identification number (SIN), and vendor or purchase order number in the Davex system. As with the Microlinx system, the capability of keyword searching can be used for subject access.

As the CIBC's serial records are converted from their IBM batch system, they will retain the single-subject category assigned for the CIBC's "Journal by Subject" list. These subject categories have been assigned through a code which refers to the selection of 32 generic subject headings. These headings have been developed by the CIBC Information Centre based on the subject terms in the *Business Periodicals Index*, which in turn are based on *Library of Congress Subject Headings*. They are the same headings as those used in the Library's acquisition list to publicize newly-acquired monographic material. Space for four additional subject headings per serial title was promised by the vendor for the Davex PC system.

With their card catalog closed since 1986, the CIBC Information Centre has been using Inmagic software for cataloguing their monographic collection. This cataloguing is now being converted into a separate module of the Davex system, called Davex Plus. As in the Sydney Library System, an online authority file or thesaurus for subject terms is being developed complete with a cross reference structure. The system will keep track and display the number of entries posted against each subject term. When fully developed, the system is expected to allow searching of the book and serials modules either separately or together.

The result of the Toronto bank survey is to document three distinct levels of subject access to serial publications. The first level consists of a manually-based system with no formal subject access to serial publications. This is superseded by computer-aided systems in which the sorting capabilities of computerized serial management systems are utilized to generate printed lists of serials arranged by subject. The most recent development is the advent of online library catalogues with subject access to both serial and monographic material using Boolean searching capabilities. Online catalogues with their own online authority files have already been implemented and the next step in subject access will be to allow online retrieval of material based on the syndetic structure of the online subject thesaurus (i.e., cross references such as broader, narrower, and related terms).

This trend in subject access to serial publications is not limited solely to bank or even special libraries. The New York University Library stopped producing its computerized printout of periodicals in the Fall of 1987, replacing this with access through the University's online catalogue BOBCAT. In the public library sector, there is a project to add subject access to the *Guide to Periodicals and Newspapers in the Public Libraries of Metropolitan Toronto* (GPN), but this has been delayed due to the lack of funding.[10] Much the same factors are undoubtedly at work in public and academic libraries, but the fact that their priorities are different along with their obligations to various bibliographic utilities means that they may not react as quickly or in quite the same way as special libraries in the business/banking sector. ■

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Research Activity

Washington, D.C. Special Library Job Requirements: An Analysis of *Washington Post* Job Advertisements 1983–1989

by Tobi A. Brimsek

This study examined special library job advertisements in the *Washington Post* over a seven-year period from 1983 to 1989 to define trends in the kinds of knowledge, skills, and experience specifically *required* for the jobs advertised. The resultant data was also evaluated from the perspective of expanding the study to geographic areas other than Washington, DC, for purposes of developing comparative data.

The *Washington Post* is recognized as a key source for special library job advertisements for the metropolitan Washington, DC area. For the period of 1983–1989, and for the purposes of this study, 1,020 job advertisements were considered. To be included, the listing had to have a clear indication that the job was in a special library setting. Any advertisements from which such a determination could not be made were excluded from the study.

For each of the listings, all of the job requirements as stated were recorded. Ultimately, the following categories of requirements were established: 1) degree requirements; 2) management/supervisory background and/or experience; 3) experience level; 4) experience type (i.e., a specific special library environment); 5) languages spoken/written; 6) online skills/training/knowledge; 7) subject area knowledge/expertise; 8) communication skills (both oral and written); and 9) computer skills. It should be noted that positions advertised for several weeks consecutively or biweekly were included only once in the study. Another study parameter was that education, skills, knowledge, or experience had to be listed specifically as a requirement to be included. Elements noted as "helpful," "desirable," "a plus," etc. were excluded from this analysis.

Table 1 indicates the number of jobs advertised over the years included in the study as well as the breakdowns among full-time, part-time, and temporary positions.

Table 1. Number and Type of Jobs Advertised By Year

Year	Total Number of Positions	Full-Time #	Full-Time %	Part-Time #	Part-Time %	Temporary #	Temporary %
1983	106	93	87%	7	7%	6	6%
1984	104	98	94.9%	5	5%	1	.9%
1985	121	112	93%	9	7%	0	—
1986	155	140	90%	8	5%	7	5%
1987	147	134	91%	13	9%	0	—
1988	164	152	92%	6	4%	6	4%
1989	223	205	92.2%	16	7%	2	.8%
Totals	1,020	934	92%	64	6%	22	2%

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Table 2. Highlights of Work Environments: Percentages of Jobs Advertised

Year	Association/ NonProfit	Consulting Firms	Corporate/ Company	Gov't[1]	Hospital/ Healthcare Medical[2]	Law/ Law Firm	Technical & Sci-Tech Libs
1983	14%	11%	8%	8%	3%	14%	4%
1984	13%	7%	4%	4%	7%	10%	10%
1985	21%	4%	7%	5%	4%	17%	9%
1986	14%	3%	6%	3%	6%	27%	5%
1987	17%	3%	5%	14%	3%	21%	6%
1988	22%	5%	4%	7%	5%	24%	5%
1989	21%	7%	5%	11%	3%	24%	4%

[1]Includes jobs advertised by the National Library of Medicine (NLM) and the Library of Congress (LC)
[2]Excludes NLM.

Table 2 highlights some of the types of special library environments for these jobs. The table accounts for 55% to 75% of the jobs in a given year. Other special library environments which appeared in the advertisements but are not part of the table include newspapers, engineering, advertising agencies, publishing, R & D firms, and museums, to name a few. It should also be noted that there were instances of a generic designation, that is, "special library," with no further type identifier in the advertisement.

As can be seen from Table 2, consistently the most heavily-advertised jobs in the *Washington Post* in this timeframe were in the law firm and association/nonprofit environments—not at all surprising in the Washington, D.C. metropolitan area. Only a small percentage of government jobs appeared in the *Post*, resulting in the relatively low government numbers.

Before specifically discussing the trends in actual requirements, an interesting observation on salary data is appropriate. In terms of salaries listed, the average percentage of job ads with that data was approximately 14% per year. Though not calculated, it can be observed that, most frequently, the salaries listed related to hourly rates for the part-time or temporary positions, followed closely by government special library jobs. Government job ads tended to include salary ranges. In short, listed salaries for these positions are infrequent. While, as stated, the average number of special library advertisements running salary information averaged around 14% per year, it went from as low as 9% in 1989 to as high as 23% in 1983.

As mentioned, numerous categories of requirements were developed from the analysis of the advertisements. Following is a discussion of each of the previously specified categories.

MLS Required

Seventy percent of all of the jobs listed required an MLS or stated "MLS or equivalent experience" required. On an annual basis, that requirement ranged from a low of 62% of the jobs advertised in 1986 to as high as 85% of the jobs advertised in 1984. Percentages for 1983, 1985, 1987, 1988, and 1989 are 73%, 72%, 70%, 70%, and 66% respectively. This requirement is solidly entrenched in a majority of the special library listings under analysis.

Previous Experience

On the average, 50% of these job advertisements required some kind of experience. Experience was expressed in a number of ways. One of these ways was a designated number of years, ranging from one year to as high as ten

A second type of required experience related to a particular special library environment such as law, sci-tech, business, etc. Yet another category of experience required was either skill or knowledge-based experience such as research, cataloging, environmental information, census information, etc. Again, an average of 50% of the jobs advertised required some type of experience. In 1988 and in 1989, however, there was a slight decrease from the average with 48% and 41% respectively of the jobs advertised in those years requiring experience.

Management/supervisory background, experience, or skills was another recurring theme throughout the analyzed job advertisements. This requirement could overlap with the experience requirement depending on how stated in the advertisement. For the purposes of this analysis, any advertisement requiring a management component was considered in this category. Seven percent of all jobs in the study required this component. Broken down by year, the data, like the previous data reviewed, remained consistent:

1983 - 10%[1]
1984 - 5%
1985 - 7%
1986 - 8%
1987 - 5%
1988 - 7%
1989 - 7%
[1]Percentages reflect the percentage of jobs advertised that year.

Fluctuations could be due to the types of special library jobs advertised in a given year.

Other Requirements

There were other components in these advertisements which occured less frequently but formed a consistent core level of requirement. One of these was language skills. Overall, 3% of all of these jobs required spoken or written knowledge of at least one foreign language. On an annual basis this fluctuated somewhat:

1983 - 2%[1]
1984 - 1%
1985 - 7%
1986 - 3%
1987 - 5%
1988 - 2%
1989 - 3%
[1]Percentages reflect the percentage of jobs advertised that year

Another core component to special library positions is subject expertise/knowledge. Overall, 6% of these advertisements required a specific subject expertise. Reviewing the advertisements on an annual basis provided some insight to the distribution of this requirement over the seven-year time span:

1983 - 23%[1]
1984 - 8%
1985 - 5%
1986 - 3%
1987 - 3%
1988 - 2%
1989 - 4%
[1]Percentage reflects percentage of jobs advertised that year.

One of the most commonly occurring requirements every year from 1983 to 1989 was online searching skills. Overall this requirement appeared in over one-quarter of all jobs in special libraries in the *Washington Post* from 1983 to 1989. Following is the breakdown of jobs requiring online skills on an annual basis, with the percentages reflecting the percentage of jobs advertised that year:

1983 - 25%
1984 - 38%
1985 - 26%
1986 - 32%
1987 - 27%
1988 - 23%
1989 - 30%

Hand in hand with the requirements for online searching skills is the requirement for knowledge of a particular database, database system, etc. More than 20 different online

tools appeared in these advertisements over the seven-year period. As would be expected, Lexis, Westlaw, Medline, Dialog, BRS, SDC, and others were specifically listed. DROLS, SCORPIO, JURIS, BASIS, and INQUIRE were also specified. Throughout the sever-year period there were some 347 tools specified including not only online tools but also AACR2, LCSH, and MARC record format. As with many of the other requirements, the level of occurrence of requirement for specific tools was fairly consistent throughout the study period.

Computer skills was another area showing growth since 1983. In that year less than one percent of the special library jobs advertised required computer skills. It leaped to 10% of the jobs advertised in 1984, increased to 15% in 1987, and peaked at 17% of the jobs advertised in 1989. This is not a surprising trend in that special librarians have always espoused technology to advance their leadership roles and create new solutions to information handling. Overall, 11% of all special library jobs advertised between 1983–1989 listed computer skills as a job requirement. Predictably,

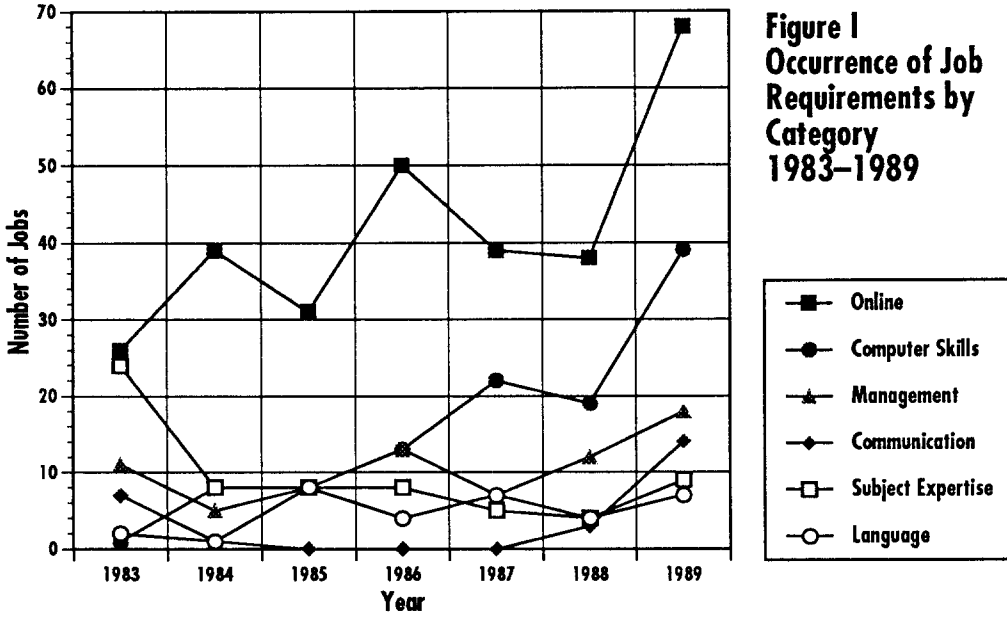

Figure 1
Occurrence of Job Requirements by Category 1983–1989

One component of the job advertisements which appeared in 7% of all jobs analyzed is communication skills. As discussed in this study, communication includes both oral and written skills. While this is an innate component of special libraries jobs, it was specifically required in only 7% of the jobs advertised in 1983, 1% in 1984, and did not appear as a specific requirement again until 1988, where it appeared in 2% of the jobs advertised that year. 1989 saw a greater increase in that 9% of the jobs advertised had this requirement. This requirement followed a somewhat different pattern from the others in this study in that it was not a constant in all years studied.

this will continue to be the case.

In summary, there seemed to be a core group of requirements consistently appearing in the advertisements throughout the seven-year period. These included management skills, language skills, and subject expertise. Online skills also belong to that group, but as with the MLS or equivalent experience, it is a component set apart by its high level of occurrence in comparison with these other types of requirements. Communication skills inconsistently appeared throughout the study years, but had a clear resurgence in 1989. Figure 1 depicts graphically the occurrence of these categories of requirements.

The question remains: Are the requirements changing as depicted in these *Washington Post* advertisements? The response is that the requirements are expanding. Just as the role of the special library is a growing and expanding one, so is the role of the information professional managing in those settings. Requirements reflect the de facto operations of special libraries and information centers—more online tools, more computer skills, communication skills in meeting user needs, and of course, management skills. It would seem that the listed requirements for these jobs in special libraries mirror the challenges and opportunities of the field.

A final analysis of the data do indicate that it may be useful to replicate this project in another geographical area to develop comparative data. Specific newspapers and geographic locations have been considered. The *New York Times* classifieds will be the next source of study to get a glimpse of the metropolitan New York job market via the job ads. ■

Tobi A. Brimsek is Director, Research, Special Libraries Association.

Current Research

by Tobi A. Brimsek
Director, Research

■ This biannual column begun last year provides a forum for sharing information on research activity within the special libraries community. The research activity covered in the column will range from dissertations, academic or empirical research, to action or applied research projects, investigations, and studies carried out in the workplace.

Project: The Needs and Availability of Information on Contemporary Japan

Abstract: Questionnaires were mailed to 230 SLA members, randomly selected from 813 members listed in the Social Science Division of Who's Who in Special *Libraries 1988/89*. Ninety-five responses were received providing a response rate of 41.3%.

Researcher(s): The Japan Foundation
142 West 57th Street
New York, NY 10019
Contact: Isao Tsujimoto

The results have been published only in Japanese with several summary tables in English.

Project: A Study of Resource Sharing by Business and Sci-Tech Corporate Libraries.

Timeframe: In progress

Abstract: This project is a study of the resource sharing (networking) behavior of 300 business-finance and 300 sci-tech corporate libraries, based on a self-administered survey. Half the libraries in each group are from urban areas with high concentrations of corporate libraries, yielding a 2 x 2 analytic design. The following questions are addressed:

(1) How does resource sharing by corporate libraries differ from academic and public libraries? Do these library types differ in their reliance on formal networks, consortia, and informal networking practices?

(2) Among corporate libraries, are there differences in the resource sharing behavior of sci-tech and business libraries?

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(3) What role does proximity to other corporate libraries play in determining resource sharing patterns?

Researcher(s):

Sharyn J. Ladner, Assistant Professor
Otto G. Richter Library
University of Miami
P.O. Box 248214
Coral Gables, FL 33124

Funding:

Research Grant, University of Miami Research Council, General Research Support Award. Funding period: 1990 calendar year.

Publications:

Several articles are planned. The working titles for a two-part series of articles are: (1) "Resource Sharing Patterns, Practices and Attitudes: Business and Finance Special Libraries (2) "Resource Sharing Patterns, Practices and Attitudes: Science-Technology Special Libraries." A third article planned will compare science-technology libraries in academic and public libraries and sci-tech corporate libraries.

Project:

Survey of SLA Scholarship award winners 1979/80 1989-90

Timeframe:

In progress

Abstract:

Since 1955 SLA has devoted resources to encouraging qualified students to undertake library or information science education on the graduate level by means of awarding scholarships. In an earlier survey of award winners, 1955–1978, SLA scholarship recipients were surveyed as to their attitudes about the awards and the effect of the award on their careers. Responses were also elicited about participation in SLA, types of library positions occupied, and other indicators of professional activity. The present project will bring the original survey up to date and show whether earlier findings are still viable or whether they have altered over time. The survey findings may be used as a basis for recommendations that the authors expect to make to the SLA Board of Directors regarding future directions of the Association's scholarship program.

Researcher(s):

Vivian D. Hewitt
Past President SLA 1978/79
862 West End Avenue
New York, NY 10025

Muriel Regan
Past President SLA 1989/90
Gossage Regan Associates
25 West 43rd Street, #812
New York, NY 10025

Publications:

Hewitt, Vivian D., and Muriel Regan. "Whatever Happened to that Kid Who Got the Scholarship?" *Special Libraries*, October 1983, pp. 345–357.

SLA staff are also involved in a number of research projects. Two of those currently in progress are highlighted below:

Project: Analysis of special librarian job advertisements in the *New York Times* 1983–1989

Timeframe: In progress

Abstract: This is a replication of a similar project conducted using the *Washington Post*. The results of that project appear in this issue of *Special Libraries*. The data in the *New York Times* are being analyzed to provide comparative data on job requirements in special libraries in the New York metropolitan area during the timeframe of 1983–1989. The planned analysis will include not only the New York data but will also consider the similarities and differences between the requirements in the New York and Washington, DC metropolitan areas.

Researcher(s): Tobi A. Brimsek, SLA

Project: Profiles of association libraries and information centers and the individuals that run them.

Timeframe: In progress

Abstract: The purpose of this project is to develop profiles of United States and Canadian trade and professional association librarians/library directors and their special libraries/information centers. Participants have been selected from the *United States Directory of National Trade and Professional Associations* and from the *Directory of Associations in Canada*. The profiles will be developed from the responses to questions in the following areas: I. Professional profile of the individual responsible for the library/information center; II. Association characteristics and history; III. Facilities; IV. Staff size; V. User population and requests handled; VI. Promotion and fees; VII. Financial; VIII. Library/information resources; IX. Technology; and X. Services

Researcher(s): Tobi A. Brimsek, SLA

The Special Libraries Association awards Special Programs Fund Grants annually. The project funded in 1990 is described below:

Project: The Quality of Information Services: Comparisons and Contrasts

Abstract: A team of Rutgers University investigators proposes to contribute to the development of client satisfaction measures that are applicable in determining the potential value of new information services. Using focus group and individual interviews, they will compare and contrast client and information specialist perceptions concerning the quality and value of current and future services. The goals for this study are twofold: first, to

assist in illuminating the discrepancies between client and information service provider perceptions of information services; and, second to enhance future product development. The overall purpose is to initiate a line of investigation that will ultimately link research in client perceptions, the value of information, and information services design.

Researcher(s):

Dr. Betty J. Turock
School of Information, Communication, and Library Science
Rutgers University
4 Huntington St.
New Brunswick, NJ 08903

On the Scene

1991/92 Candidates for SLA Office

For President-Elect

CATHERINE "KITTY" SCOTT

• **CATHERINE "KITTY" SCOTT** is the Senior Reference Librarian and Information Specialist for the Central Reference and Loan Services at the Smithsonian Institution Libraries, Washington, DC.

Past Employment: Chief Librarian, Museum Reference Center, Smithsonian Institution (1983–89); Chief Librarian and organizer of the National Air and Space Museum Library, Smithsonian Institution (1972–83); Chief Technical Librarian and organizer of the Bellcomm (AT&T) Library, Systems Engineering support for NASA's Office of Manned Space Flight (1962–72); Reference Librarian and Assistant Librarian, National Housing Center, National Association of Home Builders Library (1955–72); Assistant Librarian, Export-Import Bank of the United States (1953–55).

Education: B.A., (English and drama), Catholic University of America (1950); M.S.L.S., Graduate School of Library and Information Science, Catholic University of America (1955).

SLA Member Since: 1956.

SLA Chapter Activities: *Washington DC Chapter:* President (1971–72); first Vice-President/President-Elect (1970–71); Corresponding Secretary (1968-69); Chair, Nominating Committee (1966–67); Chair, Publicity Committee (1963–68, 1973–75); Consultation Officer (1976–88); member, Consultation Committee, (1975–present); member, Awards Committee (1989–90); Chair (1990–91).

SLA Division Activities: *Aerospace Division:* Chair (1980–81); Chair-Elect and Program Chair (1979–80); Secretary (1968–69); Chair, Nominating Committee (1969–70); Chair, Publications and Special Projects Committee (1978–79); Board Proctor (1986-89). *Science-Technology Division:* Chair, Sci-Tech Group, Washington DC Chapter (1969–70); Chair-Elect/Program Chair, Sci-Tech Group (1968–69). *Museums, Arts & Humanities Division:* member, speaker, Board Proctor (1986–89). *News Division:* member. *Library Management Division:* member, Consultants Section.

SLA Association-level Activities: Director (1986–89); mem-

ber, Committee on Committees (1986–88); Board Proctor: Cataloging Committee (1986–88); Networking Committee (1986–87); Publisher Relations Committee (1986–89); Professional Development Committee (1988–89); speaker, Consultation Service Committee (1978, 1980 Conferences); moderator, Contributing Session, Annual Conference (1990); Chair, Publicity Committee (1962 Washington, DC Conference); member, Local Arrangements Committee (1980 Washington DC Conference); member, Planning and Goals Committee (1972–73).

Other Professional Activities: member, American Society for Information Science: Publicity Chair, Local Arrangements Committee, ASIS 1972 Conference; drafted ASIS "Eight Key Issues for the White House Conference on Library and Information Services" (member, ASIS Public Affairs Committee, 1979); member, National Commission on Libraries and Information Science (1971, reappointed 1972–76, Vice-Chair 1972–73); NCLIS Copyright, Public Relations, and Public-Private Sector Interface committees; Delegate, Federal Library Committee, Pre-White House Conference (1978); Observer, White House Conference on Library and Information Services (1979); Delegate FLICC/FLAG Federal White House Conference (1990); President, Executive Council, Friends of Catholic University Library (1979–86) member, Executive Council (1986–present); President, Catholic University of America Library Science Club (1971); Member, Board of Visitors, Catholic University School of Library and Information Science and the Catholic University Library (1974–84); member, Local Arrangements Committee and Publicity Chair, 1974 IFLA Conference (Washington); registrant, IFLA 1976, 1982, 1985, 1988, and 1989 conferences. Over a 14-year period, consultations for the SLA Washington DC Chapter have included advising organizations in planning new libraries and museums, recommending improvements in existing services, and space planning. Consultations have also included advising foreign governments, trade and professional associations, science research centers and museum boards, and both the corporate and nonprofit sector.

Honors: Smithsonian Institution: Secretary's Exceptional Service Award (1976); Apollo Achievement Award, NASA (1969); Catholic University of America Alumni Achievement Award for Public Information (1977); Medal for Distinguished Federal Service, National Commission on Libraries and Information Science (1985); SLA Chapter Membership Award to the President (1972). Biographical listing in *Who's Who of American Women* (10th ed. 1977–78 to 16th ed. 1989–90); *Who's Who in Washington* (1983–84, 1st and latest edition).

Publications: *Aeronautics and Space Flight Collections*, Editor and Contributor. New York: Haworth Press, 1985 (also published

as *Special Collections*, vol. 3, nos 1/2. Fall/Winter 1984). *International Handbook of Aerospace Awards and Trophies*, Editor. Washington, DC: Smithsonian Institution Press, 1976. (Supplement, 1980, compiled under the sponsorship of the Special Libraries Association, Aerospace Division). *A Directory of Sources for Air and Space History*, Contributor. Washington, DC: National Air and Space Museum, 1989. She has also published articles in SLA's Chapter and Division bulletins and other professional journals.

ANN W. TALCOTT

• **ANN W. TALCOTT** is a self-employed library management consultant.

Past Employment: Library Network Support Manager, AT&T Bell Laboratories, Holmdel, NJ (1986); Market & Executive Information Services Manager, AT&T-BL, Murray Hill, NJ (1985–86); Murray Hill & Short Hills Library Manager, AT&T-BL (1976–85); Group Supervisor, Library & Services to Western Electric, AT&T-BL, Naperville, IL (1970–76); Reference Librarian, AT&T-BL (1969–70); Cataloger, Alderman Library, University of Virginia, Charlottesville, VA (1968–69).

Education: B.A., Vanderbilt University, (1967); M.A. in Library Science, University of Michigan (1968); Certificate in Management, Smith Management Program, Smith College, (1985).

Member of SLA Since: 1969.

SLA Chapter Activities: *New Jersey Chapter:* President (1982–83); First Vice-President (1981–82); Secretary (1979–81); Past President (1983–84); Chair, Awards Committee (1984–85, 1986–87); Chair, Finance Committee (1977–79); Chair, Nominating Committee (1985–86); NJSLA 50th Anniversary Committee (1984–85). *Illinois Chapter:* member.

SLA Division Activities: *Library Management Division:* Chair (1987-88); Chair-Elect (1986–87); Past Chair (1988–89); Chair, Awards Committee (1989–90); Chair, Nominating Committee (1989–90); Chair, 1986 Program Committee, Boston Conference (1984–85). *Business & Finance Division:* member.

SLA Association-level Activities: Director, SLA Board of Directors (1988–91); Chair, Strategic Planning Committee (1989–90), member (1988–89); H.W. Wilson Award Committee (1986–88); President's Task Force on the Value of the Information Professional (1986–87); Membership Records Committee (1986–88); Ad Hoc Committee on Public Relations (1982–84).

Other Professional Activities: New Jersey State Library Net-

work Review Board (1988–present); mentor, New Jersey Library Leadership Institute (1988–present); Editorial Advisory Board, *MLS: Marketing Library Services* (1987–present); Lecturer, Rutgers School of Communications, Information & Library Studies (1988, 1989); Lecturer, University of North Carolina School of Library Science (1989).

Honors: SLA President's Award; Beta Phi Mu.

Publications: In addition to many articles in Chapter and Division bulletins, Ms. Talcott has published seven papers and given many talks of which the following are most representative of her present interests: "A Case Study in Adding Intellectual Value: The Executive Information Service"; *Report of the President's Task Force on the Value of the Information Professional,* SLA (1987); "Your Money's Worth and a Whole Lot More," presented at the "Marketing Your Library: Outreach, Public Relations" Conference (1990).

For Treasurer

NICHOLAS E. MERCURY

• **NICHOLAS E. MERCURY** is Director of Information Services at System Planning Corporation, Arlington, VA.

Past Employment: Reference Librarian, Institute for Defense Analyses (1970–81).

Education: B.A., George Mason University (1980); M.S.L.S., Graduate School of Library and Information Science, Catholic University of America (1982).

SLA Member Since: 1980.

SLA Chapter Activities: *Washington DC Chapter:* Immediate Past President (1987–88); President (1986–87); President-Elect/First Vice-President (1985–86); Chair, Information Technology Group (1984–85); Program Chair, Information Technology Group (1983–84).

SLA Association-level Activities: member, Pittsburgh Conference Program Committee (1988–90); Chair, Statistics Committee (1984–85), member (1984–87).

Other Professional Activities: panelist of Special Libraries, Association of American Publishers, Professional and Scholarly Publications Division (1990); testified on behalf of SLA before House Subcommittee on Government Information, Justice, and Agriculture (1989); appearance on behalf of SLA on USIA's Worldnet television program (1989); testified on behalf of SLA,

Public Hearings, Report of the Register of Copyrights, Library Reproduction of Copyrighted Works (17 U.S.C. 108) (1987); member, Board of Directors, Interlibrary Users Association of the Washington-Baltimore Area (1982–88); member, Steering Committee, Committee on Information Issues (1984–88); Instructor, Annual Conference Professional Development Program (1985–90); panelist, SLA's first State-of-the-Art Institute on "Government Information" (1986).

Other Professional Memberships: President, Board of Directors Alumni Association, School of Library and Information Science, Catholic University of America (1988–89).

RICHARD E. WALLACE

• **RICHARD E. WALLACE** is Manager of the Technical Information Center at the A.E. Staley Manufacturing Company in Decatur, IL.

Past Employment: Manager, Information Services, Archer Daniels Midland Company, Decatur, IL (1971–1985); Science Librarian, Case Western Reserve University, Cleveland, OH (1970–71); Assistant Supervisor, Library Systems, Deere & Company (1968–70); U.S. Army (1966–68); Engineering Research Reference Librarian, Deere & Company, Moline, IL (1965–66); Reader Services Librarian, Cuyahoga County Public Library, Cleveland, OH (1964–65).

Education: B.S., (mathematics), Michigan State University (1963); M.S., (library science), Case Western Reserve University (1964); M.B.A., Illinois State University (1977).

SLA Member Since: 1963.

SLA Chapter Activities: *Illinois Chapter:* Board of Directors (1980–82).

SLA Division Activities: *Food, Agriculture & Nutrition Division:* Chair (1975–76). *Library Management Division:* Treasurer (1986–88); Chair, Finance Committee (1989–91). *Business & Finance Division* and *Chemistry Division:* member.

Association-level Activities: Publisher Relations Committee (1976–80, 1982–84); 1982 Conference Program Committee (1980–82); Committee on Committees (1988–89).

Other Professional Activities: American Library Association, Oberly Awards Committee (1977–79); Rolling Prairie Library System, Board of Directors (1980–1984); Instructor, ILLINET/OCLC Users Group; Illinois Library Association; Illinois Heartland Online Users Group.

Honors: SLA Scholarship Award (1963); Beta Phi Mu.

Publications: Editor and contributor, *Food Science & Technology: A Bibliography* (National Agricultural Library, 1978); co-editor of March 1980 issue of *Illinois Libraries.*

For Chapter Cabinet Chair-Elect

CHARLENE M. BALDWIN

• **CHARLENE M. BALDWIN** is Head Map Librarian and Manager of the Current Periodicals, Newspapers, and Microforms Room of the University of Arizona Library, Tucson, AZ.

Past Employment: Reference Librarian, Science-Engineering Library, University of Arizona (1984–88); Chief Reference Librarian/Automation Librarian/Head of Circulation, Lockheed-California Company, Burbank, CA (1980–82); Corporate Librarian, Tetra Tech, Inc., Pasadena, CA (1976–80); Cataloger, University of Ife Library, Ife, Nigeria (1975–76); Librarian, Munger Africana Library, California Institute of Technology, Pasadena, CA (1974–75).

Education: B.A., (with Honors) California State University, Sacramento (1970); A.M., Graduate Library School, University of Chicago (1973).

SLA Member Since: 1977–83, 1984–present.

SLA Chapter Activities: *Southern California Chapter:* member, Program Committee, 1981–82; Chair, Community Relations Committee, 1982. *Arizona Chapter:* Immediate Past President (1989–90), President (1988–89), President-Elect (1987–1988); Co-Chair, Long-Range Planning Committee (1989–90); Chair, Positive Action/Affirmative Action Committee (1987–89); member, Graduate Library School Curriculum Advisory Committee (1988–89); member, SLA/GLS Colleague Program (1987–90); member, Bylaws Committee (1987–88); Professional Development Officer (1985–87); NTIS Liaison Representative (1986–87); member, Nominating Committee (1985–86).

SLA Division Activities: *Information Technology Division:* ITE 1991 Program Planner, San Antonio Conference (1989–91); Chair, ITE Government Information Section (1989–90); Chair-Elect, ITE Government Information Section (1988–89).

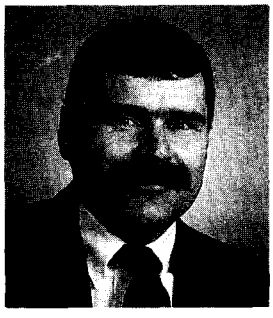
SLA Association-level Activities: member, H.W. Wilson Award Committee (1988–89).

Other Professional Activities: Friends of the Caltech Libraries (1979–83): founding member; member, Board of Directors; Vice-President (1982). American Library Association (1971–

75, 1987–present): member, Map and Geography Round Table (1989–90); member, International Relations Round Table (1988–1990). Arizona Online Users Group (1984–1990): Program Chair (1984–85); Chair (1985–86). Arizona State Library Association (1987–90): founding member, International Librarianship Round Table (1988); member, Program Committee (1988–89); Chair (1989–90). Member, Steering Committee, Transborder Library Forum/Foro Binacional de Bibliotecas (1989–91).

Honors: Phi Kappa Phi, *Who's Who of American Women; Directory of Librarians in International Development; Directory of Library and Information Professionals; ALA Librarian Career Resource Network Directory.*

Selected Publications: Ms. Baldwin's interests include automation, international librarianship, and bibliography. She has authored over 60 publications and presentations, including monographs, journal articles, research reports, newsletter articles, book reviews, instructional manuals, and in-house bibliographies; presentations to chapter, regional, national, and international organizations have been published in conference proceedings and other sources. Ms. Baldwin's most recent works include "Computer-Assisted Reference Services in Map Librarianship: Electronic Access to Cartographic Information" (joint author), *Crossing Borders: New Territories in the '90s.* Phoenix, AZ: Arizona State Library Association, 1990, pp. 15–[22]; "Information Management Projects in Developing Countries: The Challenge of Working with Varying Levels of Infrastructure" (joint author), to be presented at the IAALD 1990 VIII World Congress, Budapest, Hungary, May 1990, and to be published in its proceedings; "Information Access in Niger: Development of a West African Special Library," *Special Libraries* 80:1 (Winter 1989), pp. 31–38; "From Stacks to Stacks: A Look at Information Management in Developing Countries," to be presented at the Annual Business Meeting of the Arizona Chapter, Special Libraries Association, Casa Grande, AZ, May 1990.



WILLIAM MICHAEL WOODRUFF

• **WILLIAM MICHAEL WOODRUFF** is Manager, Communications Center, at Hershey Foods Corporation in Hershey, PA.

Past Employment: Technical Communications Specialist, Hershey Foods Corporation (1979–81); Head of Cataloging, York, PA County Library Systems (1977–78); Librarian, Lemoyne Middle School (1976–77).

Education: B.S. Ed., (library science), Shippensburg State University (1975); M.S.L.S., Villanova University (1980).

SLA Member Since: 1979.

SLA Chapter Activities: *Central Pennsylvania Chapter:* President-Elect (1980–81); President (1981–82); Director (1982–83); Chapter Consultant Officer (1983–84). *Philadelphia Chapter:* Director (1986–89); Chair, Technology Committee (1989–90).

SLA Division Activities: *Food, Agriculture & Nutrition:* Director (1980–81 and 1986–87); Awards Committee (1989–90). *Library Management:* member. *Information Technology:* member.

SLA Association-level Activities: Chair, New York Conference Planning Committee (1989). Professional Standards Committee (1982–84).

Other Professional Memberships and Honors: Governor's Advisory Council/Federal Advisory Council (1988–91); Chair, South Central Pennsylvania CE Council (1983–85); Secretary, Three Valley Online Users Group (1984); National Computer Graphics Association; Association of Records Managers & Administrators; Association of Information Managers.

Other Professional Activities: Mr. Woodruff has presented nine papers at various conferences, and has been a member of six panels over the last five years. He has served as a panelist at 1989 Pennsylvania Libraries Association session on the "Serials Dilemma," and most recently as a panelist at the Greater Philadelphia Law Librarian Association, 1990 Annual Institute on "Concerns for the Decade: The Librarian & MIS."

For Division Cabinet Chair-Elect

MARJORIE A. WILSON

• **MARJORIE A. WILSON** is Director, Research Information Services at SRI International.

Past Employment: Head, Cataloging and Reports Sections, Technical Information Services, Argonne National Laboratory, IL (1980–87); Head, Cataloging Section, Technical Information Services, Argonne National Laboratory, IL (1977–80); Materials Science Librarian, Technical Information Services, Argonne National Laboratory, IL (1975–77); Technical Librarian, General Motors Research Laboratories, Warren, MI (1973–75); Assistant Librarian, Head, User Services, NRTS Technical Library, Aerojet Nuclear Co., Idaho Falls, ID (1971–73); Associate Librarian, Layman Library, Museum of Science, Boston, MA (1968–70).

Education: B.A., Tufts University, Boston (1965); M.S., in L.S., University of Washington, Seattle (1971); M.B.A., Keller Graduate School, Chicago (1990).

Member of SLA Since: 1974.

SLA Chapter Activities: *San Andreas Chapter:* Director (1988–90); Treasurer (1990–92).

SLA Division Activities: *Information Technology:* Chair, Technical Services Section (1984–85); Chair, Long-Range Planning Committee (1985–86); Chair-Elect (1986–87); Chair (1987–88); Nominations Chair (1988–89).

Other Professional Memberships: ORSA/TIMS, ACM, ASIS, ALA.

Honors: Beta Phi Mu Library Honor Society. Chosen as LC Special Recruit candidate by UW faculty.

MELISSA A. YOUNG

• **MELISSA L. YOUNG** is the Manager of the Library Network Support Group with AT&T Bell Laboratories in Holmdel, NJ.

Past Employment: Library Manager, AT&T Bell Laboratories, Middletown, NJ (1986–88); Technical Reference Librarian, AT&T Information Systems. Lincroft, NJ (1982–86); Reference Librarian, Bell Laboratories, South Plainfield, NJ (1980–82); Librarian, Defense Technical Information Center, Alexandria, VA (1978–80); Information Science Intern, Defense Technical Information Center, Alexandria, VA (1976–78).

Education: B.A., (biology) Gettysburg College (1974); M.S.L.S., Shippensburg State University (1976); M.B.A., Monmouth College (1987).

SLA Member Since: 1976.

SLA Chapter Activities: *New Jersey Chapter:* 2nd Vice-President (Program Chair) (1989–90); Membership Chair (1988–89); Hospitality Chair (1985–86).

SLA Division Activities: Telecommunications Division: Chair (1990–91); Chair-Elect (1989–90); *Information Technology* and *Science and Technology Divisions:* member.

Other Professional Activities: member, American Library Association; American Management Association; Brookdale College Advisory Group (1986–89).

Publications: *Douglas C. McMurtie: Bibliographer and Historian of Printing* (1979).

M. HOPE COFFMAN

• **M. HOPE COFFMAN** is the Director of the Technical Information Center at the Charles Stark Draper Laboratory, Inc., Cambridge, MA., a position she has occupied since 1972.

Past Employment: Intern, Widener Library, Harvard University.

Education: B.A., Boston University (1969); M.S., Simmons College Graduate School of Library and Information Science (1972).

SLA Member Since: 1975.

SLA Chapter Activities: *Boston Chapter:* Long-Range Planning Committee (1985–86, 1984–85); member, 75th Anniversary Committee (1983–84); President (1982–83); President-Elect (1981–82); Chair, Program Committee; Chair, Education Committee (1980–81); member, Program Committee (1980–81); and member, Scholarship Committee (1979).

SLA Division Activities: *Library Management Division:* Chair, Nominating Committee (1987–88); Past Chair (1986–87); Chair (1985–86); Chair-Elect (1984-85); and Program Chair, New York Conference (1984).

SLA Association-level Activities: Chair, Public Relations Committee (1989–90); President's Task Force on the Enhancement of the Image of the Librarian and Information Professional (1988–89); Board of Directors (1986–88); Chapter Cabinet Chair (1887–88); Chapter Cabinet Chair-Elect (1986–87); Long-Range Planning Committee (1987–88); Awards Committee (1987-88); Chair, Ad Hoc Committee on Committee Programs at Conferences (1985–86); Professional Development Committee (formerly the Education Committee) (1982–85).

SLA Presentations: Hope has presented papers at numerous SLA conferences and seminars including: "Mentoring," presentation to Division Cabinet, Winter Meeting, Pittsburgh (1988–87); Division and Cabinet Leadership Training (1986–87, 1987–88); "Team Building," Anaheim Conference (1987–88); "Long-Range Planning," presentation to Joint Cabinet, Nashville Winter Meeting (1985–87); "Program Planning," presentation to Chapter Cabinet, and "Professional Development Seminars," Committee presentation, Winnipeg Conference (1985); "Chapter Dynamics," presentation to Chapter Cabinet, New York Conference (1984); "Marketing Professional Seminars," Professional Development Committee presentation, New Orleans Conference (1983); and "Internships," Education Committee presentation, Detroit Conference (1982). Hope also coauthored "Continuity in Change: Boston, the Oldest Chapter" with Margaret Miller and Ruth Seidman, New York Conference (1984).

Other Professional Activities: member, the Massachusetts Planning Committee for the White House Conference on Library and Information Services (1989–90); Technical Committee on Technical Information, American Institute of Aeronautics and Astronautics (AIAA) (1988–89); Advisory Committee for Special Libraries, Online Computer Library Center (OCLC) (1987–present); Guest Lecturer at Simmons College Graduate School of Information and Library Science, Special Libraries Course (1989, 1984–85, and 1980); Given numerous presentations on the "Role of Information Services in a Research and Development Environment"; participant in the Senior Management Development Program at the Charles Stark Draper Laboratory (1988–90); invited participant at "Preserving the History of the Aerospace Industry," a conference sponsored by the Smithsonian Institution, AIAA, GLENNON-Webb-Seamans Project for Research in Space History (1989); member, Beta Phi Mu; President, Simmons College Graduate School of Information and Library Sciences Chapter (1983–84); Advisory Training Committee for the Greater Boston United Way (1978–80); Corporate United Way Keyperson, Draper Laboratory (1977); participant, Senior Management Development Training Program, Boston College Graduate School of Management (1976); Member of the American Library Association and the American Society of Information Science.

Honors: Cogswell Award (1976); Oustanding Achievement Award, Greater Boston United Way (1977 and 1979); Visiting Scholar at Huntington Library, San Marino, CA (1980); Visiting Scholar, Dove Cottage Library and Archives, Wordsworth Trust, Grasmere, Cumbria, England (1977); Visiting Scholar, British Museum, London, England (1977).

Publications: Numerous contributions to the Special Libraries Association's *Boston Chapter Bulletin*, the *Library Management Division Bulletin*, and other publications, including "Trends in Industrial Information Resource Centers," which appeared in *Science and Technology Libraries*, VI, No. 3 (Spring 1981) pp. 41–54.

ELIZABETH BOLE EDDISON

• **ELIZABETH BOLE EDDISON** is Vice-President and Board Chair of Inmagic, Inc., a software company in Cambridge, MA, which she helped to found.

Partial Past Employment: helped clients by solving their information management problems, Warner-Eddison Associates, Cambridge, MA (1973–88); Assistant Librarian and member of the Board of Directors, Colegio Nueva Granada, Bogota, Columbia (1969–71); Vice-President, Association of American Foreign Service Women and Coordinator of Social Services, Urban Service Corps, Washington, DC Public Schools (1965–69).

Education: A.B., (political science), Vassar College, (1948); M.S., (library science), GSLIS, Simmons College, (1973). Numerous workshops, institutes, and courses.

SLA Member Since: 1972.

SLA Chapter Activities: *Boston Chapter:* member (1972–present); Program Committee (1979).

SLA Division Activities: *Business & Finance:* member; speaker and moderator at conferences and workshops. *Information Technology:* member. *Library Management:* member; Program Chair (Winnipeg) (1983–85); Career Guidance Chair (1985–86); Professional Development Chair (1986–88); Chair-Elect/Chair (1988–90). Speaker and moderator at conferences and workshops. *Science and Technology:* member; Chair, Tellers Committee (1988).

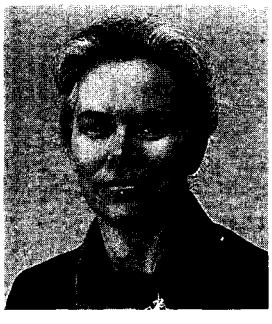
SLA Association-level Activities: Instructor, Annual Conference professional development programs (1982–85); Member, Strategic Planning Committee (1989–90).

Other Professional Activities: Betty Eddison has made speeches and led workshops for the library, business, government, and education communities throughout the United States and in many other countries. Topics covered include database design, information management, small business management, women in business, and international education. Member, Editorial Advisory Board, Database *Magazine* (1988–present); member, Board of Advisors, International School of Information Management, Irvine, CA (1984–present); member, Advisory Council, Engineering Information, Inc., NY (1988–present); member, Citizens Advisory Committee, School Media Resources Center, Lexington, MA (1989–present); member, Small Business Committee of the Governor's Business Advisory Council, Commonwealth of Massachusetts, (1985–89); member, Steering Committee, State House Conference on Small Business, Commonwealth of Massachusetts (1986–88); member, Computer Applications Committee, Cary Memorial Library, Lexington, MA (1986); member, Board of Directors, Information Industry Association (IIA), Washington, DC (1982–84); Chair, IIA Publications Committee (1983–87); Chair, IIA Small Business Committee (1986–89); member, Board of Directors, Associated Information Managers (1984–86); member, Advisory Committee on International Investment and Technological Development, U.S. Department of State (1980–83).

Other Professional Memberships: American Society of Information Scientists; Associated Information Managers.

Honors: Beta Phi Mu (1973); Alumni Achievement Award, GSLIS, Simmons College (1986); Disclosure Award, Business & Finance Division, SLA (1987); Knox Award, Associated Information Managers (1988); Entrepreneur Award, Information Industry Association (1989); listed in *Who's Who in the East, Who's Who in the World, Who's Who in Finance and Industry, Who's Who of American Women,* and *Who's Who in the Computer Industry.*

Publications: Columnist, "ETC Column," Business & Finance Division *Bulletin,* (1983–85); frequent contributor to the *Library Management Quarterly;* columnist, "Database Design Column," *Database Magazine,* (1984–89); "How to Plan and Build Your Own Database," *Database Magazine,* 15–26, (June 1988); "A LAN Toolbox," *Database Magazine,* 15–22, (June 1989); "Teaching Information Professionals About Database Design," *Database Magazine,* 33–37, (February 1990); "Who Should Be in Charge?" *Special Libraries,* 107–109 (April 1983); "Strategies for Success (or Opportunities Galore)," *Special Libraries,* 111–118 (Spring 1990); Compiler, *Words That Mean Business* (Neal-Schuman, 1981); numerous articles, manuals, guides, workbooks, and training manuals.



MARY ELLEN JACOB

• **MARY ELLEN (MEL) JACOB** is founder and principal of M.E.L. Jacob Associates, a consulting firm, and publisher of *ENTRAK,* a quarterly newsletter on environmental trends and reports affecting libraries and information services.

Past Employment: Vice-President, Library Planning Group, OCLC (1984–89); Director, Library Planning, OCLC (1982–84); Director, Users Services, OCLC (1977–1982); Associate Librarian (Technical Services), University of Sydney (1971–77); Systems Officer (Library), University of Sydney (1968–71); Reference Librarian and Systems Librarian, Sandia Corporation (1964–67); Cataloger, Sandia Corporation, Albuquerque (1963–64); Library Aide, Dearborn Public Library (1960).

Education: B.S., (Mech. Engr.), University of Michigan (1960); A.M.L.S., University of Michigan (1963); M.S., Engr. Sci., (Op. Res.) University of New South Wales (1979); Executive Program in Business Administration, Columbia University (1979).

SLA Member Since: 1963.

SLA Chapter Activities: *Central Ohio Chapter:* Long-Range Planning Committee; speaker at the recent SLA Great Lakes Regional Conference; working with planning committee for next Great Lakes Regional Conference.

SLA Association-level Activities: member, Research Committee (1988–90); speaker at SLA annual meetings.

Other Professional Activities: member, American Association for the Advancement of Science; American Management Association; American Association for Information Science (Conference and Meeting Committee (1989–90, International Relations Committee 1989–90, Networking Committee 1982–84, Standards Committee 1984–87); American Library Association; American Society for Mechanical Engineers (Central Ohio Chairperson 1986, Newsletter editor 1983–84); Planning Forum (Columbus Vice-President, Membership); World Future Society; Association for Computing Machinery; National Information Standards Organization Z39 (Board member 1983–91, Vice-Chair 1985–87, Chair 1987–89, Past Chair 1989–91); International Federation of Library Associations (IFLA) Statistics Section, Secretary 1987–76; Association of College and Research Libraries continuing education course 111 1987–88; Beta Phi Mu.

Publications: numerous articles and several books including *Planning in OCLC Member Libraries, Telecommunication Networks: Issues and Trends, Strategic Planning for Libraries: A How-to-do-it Manual,* and *Domestic Technology: A Chronology of Events.* Among the more than 90 articles are: "Special Libraries and OCLC" in *The Special Library Role in Networks,* "Special Libraries and Databases: A State-of-the-Art Report" in *Special Libraries,* "Costing and Pricing: The Differences and Why It Matters" in *BottomLine,* and "Book Catalogs: Their Function in Integrated Library Systems" in *Special Libraries.*

SYLVIA E.A. PIGGOTT

• **SYLVIA E.A. PIGGOTT** is Manager, Business Information Centre, Bank of Montreal in Montreal, Canada.

Past Employment: Assistant to Director, McGill University Graduate School of Science and Information Studies, Montreal, Canada (1979–81); Documentalist, Teleglobe Canada (1981).

Education: B.A., (anthropology), McGill University (1977); M.L.S., McGill University (1979); a variety of computer science and management courses.

SLA Member Since: 1977.

SLA Chapter Activities: *Eastern Canada Chapter:* President (1986–1987); Chair, Nominating Committee (1989–90); Chair, Consultation Committee (1989–91); Chair, Program Committee (1985–86); member, Long-Range Planning Committee (1988–89); Associate Editor, *Bulletin* (1982–86); member, Union List Committee (1982–85); Chapter representative for Positive Action Committee (1989–90).

SLA Association-level Activities: Chair, Nominating Com-

mittee (1988); member, Nominating Committee (1987); member, Public Relations Committee (1989–91).

Other Professional Memberships: Canadian Information Processing Society; American Society for Information Science; Association for Systems Management; American Management Association International; Canadian Library Association (Quebec representative on Council, 1984–85); Quebec Library Association (President, 1983–84); Association Pour L'avancement des sciences et techniques de la documentation.

Other Professional Activities: Chair, Advisory Board of Concordia University Library Studies Programme; invited speaker to special libraries class, McGill University; regular panelist at McGill University Graduate School of Library and Information Studies for introduction program for incoming MLIS students; lecturer in library automation class, McGill University; invited speaker to business literature class, McGill University; member, Curriculum Committee for Self-Study Report for Accreditation, McGill University Graduate School of Library and Information Studies; consultant in library automation.

Publications: Published articles and book reviews, contributed to Chapter *Bulletin.*

Information-Rich, Knowledge-Poor: The Challenge of the Information Society

by Ruth K. Seidman
President, SLA

■ Following is a speech SLA President Ruth Seidman presented to several Chapters during her year as President-Elect.

Let me share with you some thoughts on an issue that confronts our society, and some solutions that librarians can provide.

First, the Challenge

We are surrounded by information—in the workplace, in the market-place, and in our homes. Gertrude Stein once remarked: "Everybody gets so much information all day long that they lose their common sense." The paperless society, once envisioned as the result of electronic data processing, seems far away as we observe the piles of computer print-out arriving daily in our offices. Books continue to be published at a great rate—about 50,000 titles a year in the U.S. Should this not be enough, another 58,000 are published annually in Great Britain! Periodicals, both popular and scholarly, continue to proliferate, as our shell-shocked library budgets can attest. And the number of government and company documents in a given year in the United States is indeed staggering. For *scientific* publication, we can best understand this phenomenon as the Law of Exponential Growth. Derek de Solla Price and others observed that numbers of publications and numbers of scientists doubled every 15 years from 1660 to 1960. Another way to look at this is that half the scientists who have ever lived are alive today.

Not only are we flooded with publications, but we are also deluged with new products—gadgets with complicated instructions to make them work. Even celebrities, pseudo and otherwise, come at us at a great rate. As Andy Warhol is reported to have said: "Someday everyone will be famous for 15 minutes."

We are clearly "information-rich." We are also, I believe, knowledge-poor. What is the difference between information and knowledge? *Information* has been defined as data that has been gathered and perhaps arranged, but that has not been processed, synthesized, or understood. *Knowledge*, on the other hand, is information that *has* been processed into clear perception, into understanding, into enlightenment.

To have knowledge is to have taken information and made it one's own.

In what way are we knowledge-poor? For one thing, there isn't *time* to read, much less absorb, even a small portion of what is published, whether in print or electronic format. The process of forming knowledge takes *time*. But decisions must be made quickly, so that action can be taken. Special librarians often see the phenomenon of a project engineer or a marketing manager who has an important meeting tomorrow (or maybe in half an hour!), who needs to be brought up to date on some subject matter in his or her field. It can be done, but not always very well.

Lest we think this phenomenon is limited to practitioners, and that scholars are exempt from the problem, consider the following. Beverly Lynch, addressing a Midwest Collection Management and Development Institute,

described faculty as follows:

> "The senior people on the cutting edge do not use libraries in ways we would like to think they do...a prominent sociologist described how he worked—he wants to be protected from the library. He says, "My search procedures are disorderly and accidental ... The main thing I require of libraries is that they build ever stronger brick walls to keep that mountain of literature from engulfing me. I require libraries to hide most of the literature so that I will not become delirious from the want of time and wit to pursue it all ... The problem is not access, it is the reverse, containment. And when I need to poke a small hole here or there to tap a tiny possible matter, I will send someone else on that risky mission, someone indifferent to all that is left behind in the alleyways when they leave... Were I now to browse the stacks, as I could do in the luxurious days of student status or that of a very new assistant professor, I would drown, or panic, and certainly lose my way."

In addition to the *proliferation* of information, we have *socialization*. People nowadays know more and more about less and less. Specialization, as you know, is one reason for the spate of new journals initiated every year. Rather than being expert in an entire discipline, such as medicine, law, physics, or sociology, the educated person today knows only a sub-specialty of the field. However, that person would like to know what is going on in the rest of his or her discipline. Having barely the time to keep up with the sub-specialty, it is impossible to know fully even what is supposedly one's own field. This is indeed frustrating.

In what other ways are we knowledge-poor? People have shorter and shorter attention spans. Radio and TV commercials used to be 60 seconds; now they are 30, 15, 10, or 5. I recently read an article in the *New York Times* about a time-compression machine. These machines are used by television broadcasters to make room for more commercials by accelerating the speed of movies and old TV programs. Somehow, the developers of this technology found a way to increase the speed of an audio tape "without (we are told) making the (voice) sound like Donald Duck." Further, "An early version of this device was used to speed up the sound of guns firing in the film 'Full Metal Jacket.' This saved money on ammunition and made the battle sound more fierce."

An extremely serious aspect for our society of being knowledge-poor is adult illiteracy. While the demands of the workplace require greater and greater sophistication from the average worker, there are major problems with reading and computation skills, as well as with reasoning ability. An article in *Supervisory Management* stated that there are more than 27 million adult Americans who are functionally illiterate. They cannot fill out a job application, write a check, or read a newspaper. There also may be as many as 45 million more adults who are marginally illiterate.

In the workforce, it is estimated that about 14 million workers cannot read above the fourth grade level and 23 million read only at the eighth grade level. Yet one analysis indicated that in the typical job, most of the material to be learned ranges between the ninth and twelfth grade in difficulty. Over time, requirements will become more and more stringent, but the workforce seems to be falling farther and farther behind. Many American corporations have now embarked on massive education programs to train their employees in basic literacy.

How Can We Meet This Challenge?

I'd like to suggest some ways in which information professionals *ARE* meeting this challenge, and then indicate what the Special Libraries Association, as an organization, is doing.

As individuals, information professionals act as mediators between knowledge-seekers and the proliferation of information that is available. In this age of technology, it is important to stress the *personal* role of the li-

brarian, whose expertise can help guide the information seeker through a confusing maze of print and electronic resources. The special librarian is skilled in *selecting* a limited number of items from the confusing multitude of possibilities, thereby anticipating the questions that will be asked by a specialized clientele. The librarian knows how to obtain the material rapidly. He or she then *organizes* the material in such a way as to make it readily retrievable. As a final step, the librarian has developed an ability to *listen* effectively, and to answer questions by using appropriate material.

The librarian can also work as a consultant to those who are setting up private files, conducting end-user searches, and obtaining needed material for their own use and retention.

These skills are the mark of a librarian who provides value-added service to the organization, whether that organization is a company, a research group, a government agency, or an academic department. "Value-added service" turns information into knowledge—it fashions many separate and seemingly unrelated sources into something usable.

How do you identify a librarian who gives value-added service?

- She or he is *future-oriented*, appreciating the fast pace of our society, and watching for trends. This person does not fear change, but *welcomes* it.

- This librarian is part of the parent organization's team, sharing its mission and goals. This requires the librarian to achieve a detailed understanding of how the organization works, and what its priorities are at any given time.

- This librarian is articulate, creative, and innovative.

- The value-added library is managed in a cost-effective, productive manner. It is appreciated as a dynamic part of the organization. It is not viewed as a warehouse or an order desk.

- You will recognize this librarian and this library when you see them. They are responding to the dilemmas of the information society with professional expertise, with technological innovation, and with good management techniques.

What is Special Libraries Association Doing?

The Association strives to keep its members on the cutting edge of the profession. It does so through publications; through local, regional, and international programming; and through continuing education. A few examples: designed for mid-level information professionals, the Middle Management Institute offers 75 hours of instruction, to be taken over several sessions, in five topic-related units such as "Marketing and Public Relations" and "Analytical Tools." Recently, SLA initiated the Executive Development Program, preparing a small number of individuals for executive and leadership positions.

Another way in which SLA meets today's challenges is by increasing public awareness of the information profession, so that the unique skills and abilities of our profession can become better known. An active public relations program is at work to increase awareness of the abilities and accomplishments of special librarians. Our Government Relations program makes SLA's voice heard in the public arena. Right now, the Association is participating in plans for the Second White House Conference on Libraries and Information Services, to take place in July 1991. Its theme will be "Library and Information Services for Productivity, for *Literacy*, and for *Democracy*"—a recognition of the library's potential role in addressing key issues faced by this country. Each type of library has a significant role to play. Public library professionals, for example, have provided leadership in seeking creative solutions to the problem of adult illiteracy. SLA is helping to frame the specific issues to be considered at the Conference. We are particularly concerned with:

- ways the library community can and

should work with the private sector in disseminating government information;

- privatization/contracting out of government libraries and information centers;
- the growing role of librarians and information specialists in the globalization of information;
- the important role played by corporate, federal, and other special libraries and information centers;
- strengthening public-private partnerships as federal funding for library-related initiatives dwindles;
- maintaining open access to government information to guarantee a democratic and economically sound society;
- protecting the confidentiality of library records maintained in public institutions;
- preservation of books and other publications; and, lastly,
- marketing the profession and other resources offered by librarians and information specialists regardless of the type of library or information center.

Finally, SLA has decided recently to re-emphasize the importance of serious research to encourage innovation in meeting the challenges of the information society. A standing Research Committee has been established, and a staff position in our Headquarters office has been assigned to this area. On the research agenda are such topics as the information-seeking behavior of library users, measures of productivity and value, measures of client satisfaction, and the impact of possible future technologies on libraries. I would welcome input from the membership as the Association continues to define its research agenda.

What About The Future?

There are many unsolved issues for special librarians as we face this information-rich, knowledge-poor society. Some of these issues are:

- too few of our numbers are of the "value added" variety;
- our potential is often unrecognized by the larger community;
- in the face of economic uncertainty, information facilities have been downsized or eliminated;
- how will we handle electronic publishing?
- will the end-user revolution render us obsolete? and
- the library, whether in business, government, or academia, is competing more and more for resources with other parts of the parent organization.

These and many more questions can and should be raised. Dealing with such issues assures us of continued challenges as we stride into the 1990s. We must remain confident of our ability to be key players in the effort to turn a knowledge-poor environment into one that is knowledge-rich. ■

References

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Cutting Periodical Costs Without Dropping Subscriptions

by Ted Kruse

■ **By careful examination of periodical purchasing methods, libraries can contain some of the ever-increasing periodical costs. Libraries can substitute controlled free subscriptions for paid subscriptions, negotiate with periodical agencies, use institutional memberships, obtain the lowest rate for subscriptions, purchase discounted packages of subscriptions, use multi-year rates, and specify air freight for overseas periodicals.**

Ever-increasing periodical costs have forced libraries to continuously review all periodical subscriptions. Dropping titles is one obvious method of containing periodical costs. This article explores several purchasing methods to reduce periodical costs without canceling subscriptions.

Controlled Free Subscriptions

Substituting controlled free subscriptions for paid subscriptions reduces costs. Many trade magazines are available free to people who meet the publisher's criteria for a free subscription. These magazines will state on their title page "sent to qualified persons" or have tear-out, postage paid postcards to request free subscriptions. Publishers and their advertisers are interested in reaching people who recommend, specify, or purchase equipment, materials, or supplies.

With a few exceptions, library subscriptions do not qualify. However, libraries which purchase and route these titles can substitute free subscriptions sent by the publisher directly to routing recipients for purchased copies. Nearly all publishers welcome the opportunity to expand their circulation by reaching more decision-makers. Circulation managers are more than willing to send free subscription qualification forms. In this case, the library actually improves services to library users by assisting users in obtaining their own free copies. Library costs are lowered by cancelling paid routing copies and reducing staff time involved in routing periodicals.

Because of the increased computerization of libraries, many librarians qualify for controlled free computer magazines. These titles must come in the name of an individual, not a general library address.

Buy Groups of Subscriptions

Purchasing a group of titles from a publisher rather than several individual titles can reduce costs. Professional societies often offer a package rate for subscriptions to more than one of their periodicals. For example, the American Concrete Institute offers its three periodical titles at a nearly 25 percent discount when ordered as a package. In most cases, these packages can be ordered through library subscription agents. Occasionally, it is cheaper to order the entire package of periodicals and discard titles of no interest rather than purchasing individual titles.

Overseas Shipping

The method of delivery on overseas periodicals can greatly influence the price. Sea mail is the least expensive, air mail is the most expensive, and air freight is somewhere in the middle. Air freight is often the best buy because some overseas publishers have arranged for

their titles to be air-freighted to North America and then placed in the U.S. Mail. This type of delivery narrows the time lag between the more expensive air mail and air freight. For example, a one-year subscription to *Times of London* costs $304 for air freight and $651 for air mail (1989 subscription prices). A slight delay in receiving this newspaper by air freight cuts the cost by over 50 percent.

Negotiate Service Charges

Negotiating with subscription agents for reduced service charges directly lowers costs. In spite of the sales claim that service charges are set rigidly by headquarters' management or by a computer model, if pressed, many subscription agents will cut service charges one-half to one percent to keep an account. Send the library's periodical list to other agents. If a lower charge is found, ask your existing agent to meet the competitor's service charge.

Another option is to offer to pay the subscription list early for a reduction in service charge. Many agents find this attractive and have standard prepayment discount programs for paying slightly earlier in the year. Compare the service savings offered on early payment to the prime interest rate to determine if the discount is large enough to consider. For example, an agent offering a 1.5% discount for paying one month early is, in effect, offering an interest rate of 18% per year. If the prime rate is less than 18%, this is a favorable offer. Not all agents' plans will be to the library's or library's parent institution's advantage when judged by the prime interest rate.

Get the Best Rate

Carefully checking subscription rates can yield savings. Along with type of delivery, other factors also influence price. Is the agent providing the publisher's multicopy rate? Some popular magazines have special bulk rates starting as low as five copies. Some expensive newsletters offer a discount on even a second subscription sent to the same address. A few publishers give special **lower** rates to some types of libraries. For example, *Pollution Engineering* gives public libraries a 25% discount.

Institutional Memberships

Institutional or corporate memberships in associations held by the library's parent organization offer several cost-cutting opportunities.

Institutional members often receive some to all of the association's publications as part of the membership package. One approach is to have the individual receiving all these publications send them to the library and drop library subscriptions. In most cases, the designated individual is overwhelmed with material and is glad to send it to someone. Sending a supply of library mailing labels to the individual will improve the flow of materials through the inter-office mail to the library.

Other institutional memberships provide a number of individual memberships as part of the institutional membership.

Other organizations offer member discounts on periodical subscriptions. In some cases, these member-priced subscriptions can be handled by library subscription agents.

Purchasing or accounting departments can be helpful in locating these institutional memberships because account systems often provide a separate expense classification for memberships. A list of institutional memberships can also save money on purchasing nonserial publications.

Multi-Year Subscriptions

Multi-year subscriptions on some titles can reduce subscription costs by 25%. Care must be taken to insure only periodicals of continued need are placed on longer term subscription and the periodical is financially healthy to survive the term of the subscription. New titles, regardless of the discount offered, should not be placed on longer term subscription.

In periods of tight budgets, it will be difficult to find the additional money for long-term subscriptions. But, starting a few long-term subscriptions each year will control periodical costs. Some subscription agents provide as-

sistance in starting multi-year subscriptions staggered over two or three years so renewal of multi-year subscriptions will not cause variations in the periodical budget.

Librarians need to be experts not only in the value of the content of periodicals but also in the most cost-effective method of purchasing. A systematic review of purchasing methods of periodicals can yield savings without dropping titles. ■

Ted Kruse is Technical Services Librarian at the University of Baltimore, Baltimore, MD.

IFLA 1990: Libraries—Information for Knowledge

by Emily R. Mobley
SLA Delegate, IFLA

The International Federation of Library Associations and Institutions (IFLA) conducted its 56th General Conference August 18–24, 1990 in Stockholm, Sweden. The conference theme was "Libraries Information for Knowledge." Paul Nauta, the Secretary General of IFLA, commented "this was the biggest Conference in the history of IFLA," with a total of 5,000 persons present. One hundred and twenty countries were represented by 1,660 delegates accompanied by 117 staff, 100 journalists, 300 volunteers, 200 day visitors, and 2,000 exhibition-only visitors who viewed the 170 exhibits attended to by 510 exhibitors. Approximately 250 attendees came from the United States. At least 10% of the U.S. attendees were Special Libraries Association (SLA) members, and the European Chapter of SLA was well represented.

His Majesty King Carl XVI Gustaf opened the Conference by speaking of the importance of books and libraries as guardians of the freedom of speech. Hans-Peter Geh, President of IFLA, during his opening speech spoke not only on the Conference theme, but also on the need to insure libraries remain central to the process of providing access to information and helping to erase illiteracy. One notable quote was "I am very optimistic that libraries will, also in the future, continue to play their central role in communicating information, provided, to underscore the problem once again, that they adapt to the relevant situation, adopt new technological developments, and employ correspondingly qualified staff in order to be able to fulfill the many varied and specialized tasks which will be facing them."

The city of Stockholm and information professionals in the area rolled out the red carpet and copious food carts of hospitality. The venue for the meetings was a spacious and comfortable conference center in suburban Stockholm. There were numerous social events and opportunities to network with information professionals from all over the world. Stockholm has a number of special libraries which were open for tours. Ones of particular interest to SLA members were: The Art Library (a department of the Swedish National Art Museums); Federation of Swedish Industries Library (industry and industrial history); Pharmacia AB, Library (pharmaceutical company in Uppsala); Royal Dramatic Theatre, Archive and Library (the Theatre's archives and library for drama and theatre arts); Royal Institute of Technology Library; Scania Library (automotive manufacturing-Saab); Statistics Sweden Library; Supreme Administrative Court Library; Swedish Employers' Confederation Library; Swedish Environmental Agency Library; Swedish Institute of Building Documentation; Swedish Telecom Library; and the Swedish Trade Council Library.

Information professionals in the United States can take solace in knowing that our issues and concerns are shared globally. The impact of new technologies, rising prices, the value of our work, censorship, and educating the public and ourselves were among the topics debated both formally and informally. The formal programs were varied, numerous, and offered a smorgasbord from which to choose. Interest in many of the topics was evident from the number of standing-room only sessions. The exhibits did not measure up to the standards we have come to expect from SLA, Annual Conferences, but they were interesting from a different perspective. One aspect was the political nature of some of the exhibits. I was given, though not too graciously once he read

my badge, a copy of Mommar Ghadify's speeches by a Libyan vendor. The Islamic Republic of Iran's booth was virtually destroyed by some Iranian exiles. Thus, armed policemen were present for the duration of the Conference.

Programs

The best paper of the Conference, from my perspective, was given by SLA member Michael Koenig. Entitled "The Information and Library Environment and the Productivity of Research," the paper reported the results of a study which attempted to determine the relationship between the research productivity of pharmaceutical companies and the library and information environment of those companies. The study found that the more productive companies were characterized by greater openness to outside information; rather less concern with protecting proprietary information; greater end-user use of information systems and more encouragement of browsing and serendipity; greater technical and subject sophistication of the information services staff; and relative unobtrusiveness of managerial structure and status indicators in the R & D environment. Koenig stated that this paper reports early information as the analysis is not completed. One hopes that Koenig will publish completed findings as rapidly as possible because the study is of great importance to information professionals.

The impact of computer technology on cartography was quite evident in the papers by Ochman on "Digital Mapping on CD-ROM"; Baarnhielm on "Map Catalogue and Graphic Interface from the PC Version of the Swedish National Atlas"; and Van de Waal's "Documentation and Interactive Cartographic Systems."

In her paper on "Problems of Performance Evaluation in Academic Libraries," Roswitha Poll gave an excellent overview of the topic. Although it was geared towards academic libraries, many of the problems she noted are relevant to special libraries.

Graham Cornish's paper on "The Conflict Between Copyright and Document Supply: Real or Imagined?" gave a good synopsis of the issues surrounding copying for document delivery and copyright. Owners of copyrights see copying as undermining publishers, sales, depriving authors of financial benefit, extending access at no extra cost, and allowing commercial and industrial interests to carry out profit-making research—which brings no benefit to the author/publisher. At the same time, users see copying as giving wider access, improving intellectual activity, and economic use of resources. The paper was particularly good in its discussion of the impact of technology on copyright and vice versa. He made an interesting point that in the use of fax machines, most often three or four copies of the same document are made: a photocopy for sheet feeding; a digitized copy (what is transmitted from machine to machine and is a copy in the legal sense); the retransformed copy at the other end; and another photocopy which a user often makes due to the instability of fax paper. By the strict legal definition, the additional copies required by use of this technology could be considered infringement of copyright. The author feels that the economics of interlending and document supply poses no threat to the sales of copyright materials and that the conflict is more imagined than real.

Lena Sewall discussed the integrated hospital library in her paper on "Development of Hospital Libraries in Sweden." According to the author, this type of library which provides both medical and general library service, with a few exceptions in Denmark, Norway, and Great Britain, is unique to Sweden.

Attendees found out that European libraries encounter differential pricing of materials from U.S. publishers during a presentation by Karen Hunter on "Differential Pricing: STM Publishers, Practices and Perspectives." IFLA attendees were challenged to work with publishers to move beyond differential pricing arguments to a discussion of the broader issues confronting the international scholarly community.

A number of SLA members are active in various working groups, round tables, and sections of IFLA. Reports were received from two members.

Dorothy McGarry, Chair of the Section on Classification and Indexing, reported on pa-

pers covering classification and indexing in Nordic countries and the UDC in Finnish classification policy and recent events related to UDC at the international management level. She also reported that the Section's Working Group on Subject Authority Files was very busy this year working on guidelines for subject authority and reference entries. The Group hopes to complete drafts and revisions in the coming year so that a final version of the guidelines can be prepared at the next IFLA meeting.

SLA Executive Director David R. Bender reported that the Round Table for the Management of Library Associations will focus upon five activities during the next year: the model library association's project will provide assistance to the Federation of Brazilian Library Associations; continued investigation by Hans Prins on the Image, Status and Reputation of Librarianship and Information Work project; the creation of the Library Association Resource Center; a seminar titled "Library Association on the Move—Effective Management and Flexible Planning" to take place prior to the 1991 Conference; and a pre-Conference program on Image and Status to take place at IFLA 1992. He also reported that the Working Group on Management established the following activities as its program priorities for the next year: survey of current developments in management; cost recovery imperatives; case studies on comparative management issues; and review of training needs and curricula content. The group will also sponsor a half-day workshop on management during the IFLA 1991 Conference.

The papers listed below may be of particular interest to SLA members. Copies have been forwarded to the library at SLA Headquarters and are available upon request. The numbers in parenthesis refer to the paper number.

"The Information and Library Environment and the Productivity of Research." Michael E.D. Koenig, USA. (106)

"How to Nominate Members for Standing Committees." 1991. Hope E.A. Clement, Canada. (150)

"Newspaper Production Technology Today and in the 20 Years to Come." Juhanni Allard-Kurikka, Sweden. (118)

"Documentation and Interactive Cartographic Systems." Hans Van de Waal, Netherlands. (128)

"Map Catalogue and Graphic Interface from the PC Version of the Swedish National Atlas." Goran Baarnhielm, Sweden. (124)

"Digital Mapping on CD-ROM." Peter G. Ochman, Australia. (102)

"CD-ROM: Impact on the Interlending Area." Graham P. Cornish, UK. (89)

"CD-ROM and the Reference Librarian: the End of Innocence." Richard Biddiscombe, UK. (91)

"Introducing CD-ROM in a University Library—Problems and Experiences." Lilian Madsen, Denmark. (140)

"The Impact of CD-ROM on the End-User." Derek G. Law, UK. (69)

"Strategic Planning as an Instrument of Improving Library Quality." Maurice B. Line, UK. (26)

"Library Staff Development Consultancy: A Means to Achieve a Better Library?" Christopher J. Hunt, UK. (25)

"Measuring Academic Library Performance." Barbara J. Ford and JoAn S. Segal, USA. (12)

"Performance Measurement in the Danish Libraries." Niels Ole Pors, Denmark. (11)

"Problems of Performance Evaluation in Academic Libraries." Roswitha Poll, Germany. (155)

"On the Problem of Library Collections Requiring Constant Amendment and Updat-

ing, as Exemplified by Patent Specifications Which, Together with Other Literature, Constitute Legally Relevant Documentation when Examining for Novelty." Gerhard Kruss, Germany. (159)

"Differential Pricing: STM Publishers, Practices and Perspectives." Karen Hunter, Netherlands. (35)

"Cataloguing Simplification: Trends and Prospects." Karen Horney, USA. (27)

"The Strategic Management of Information: An Essential Element in the Training of Engineers." Jean Michel, France. (59)

"Instructing the User or Improving the System: Research and User Feedback for Interactive Library Catalogues." Micheline HancockBeaulieu, UK. (76)

"Why User Education and How Can Information Technology Help?" Nancy Fjallbrant, Sweden. (58)

"Information Skills Across the Curriculum." Ann Irving, UK. (60)

"Distributed Intelligence in Library Systems: Prospects and Problems." S. Michael Malinconico, USA. (13)

"Development of Hospital Libraries in Sweden." Lena Sewall, Sweden. (78)

"Automation at Landspitalinn Medical Library." Solveig Thorsteinsdottir, Iceland. (79)

"Success Factors in Transforming a Traditional Medical Library into an Information Center for the Future." Elisabeth Buntz, Norway. (80)

"International Standardization of Requirements to Permanent Paper: A Status Report." Ivar A.L. Hoel, Denmark. (32)

"The Conflict Between Copyright and Document Supply: Real or Imagined?" Graham P. Cornish, UK. (44)

"The Philosophy Behind International Interlending and its Implications for the Visually Handicapped." Graham P. Cornish, UK. (63)

"The Development of Library Technicians: A Review of Experience in Selected Countries." Ian M. Johnson, Scotland. (81)

IFLA 1991

The 57th Council and General Conference of IFLA will take place August 18–24, 1991 in Moscow. The Conference theme will be "Libraries and Culture: Their Relationship." Subtopics include knowing and understanding each other, libraries as cultural centers, science without boundaries, libraries and new thinking, libraries and world art, libraries in a multinational state, library services to multicultural populations, librarians as internationalists, international book exchange as a form of mutual cultural enrichment, children as creators of the 21st century, libraries in the international upbringing of children and youth, access to the information resources of world culture by modern technological methods, international library networks, preservation and conservation as a means of retaining the cultural legacy of the world, and librarians and the system of continuous education. Members interested in attending may contact IFLA Headquarters for registration materials. The final program announcement contains many of details (registration fees, hotels, etc.). If you need the information in a hurry, contact the author.

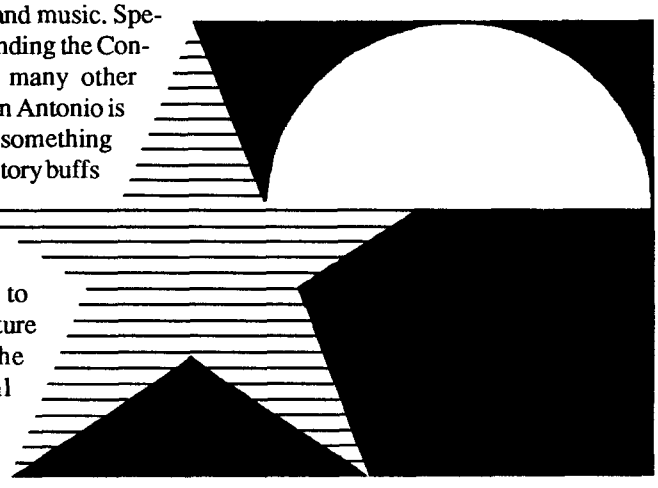
The Council which meets biennially to vote on officers, dues, and other business will convene during the 1991 conference. ■

Emily R. Mobley is Dean of Libraries, Purdue University, and a Past President of Special Libraries Association. She is the 1990 SLA delegate to IFLA.

Masterminding Tomorrow's Information—Creative Strategies for the '90s

The Special Libraries Association 82nd Annual Conference San Antonio, TX June 8–13, 1991

San Antonio—one of America's top 10 largest cities retains a small-town warmth and friendliness. While other Texas cities, such as Houston and Dallas, exhibit the hustle and bustle of modern living, San Antonio is a wonderfully leisurely place that loves flowers, romance, fiestas, and music. Special librarians attending the Conference will find many other charms as well. San Antonio is fun! And there's something for everybody. History buffs can tour the five Spanish missions. Shoppers will migrate to La Villita. For nature lovers there's the Lucile Halsell Conservatory or Sea World of Texas. And are you hungry? Don't miss any of the many fine restaurants lining the River Walk. The River Walk, gives you 2 1/2 miles of the most relaxing, tranquil "get-away" available anywhere in a U.S. urban setting.



Mark your calendars now for **June 8-13, 1991.** That's when you'll want to be in San Antonio....for fun, relaxation, for meeting new and old friends, and most of all to attend the 82nd Annual Conference.

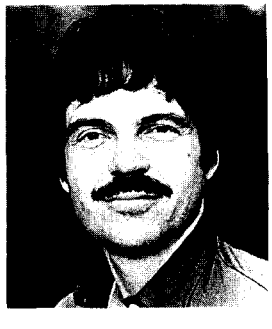
With a theme of "Masterminding Tomorrow's Information—Creative Strategies for the '90s," the 1991 Conference will focus on the organization and coordination required to provide effective information services in the new decade. As the complexity of information access increases, the information professional's ability to pull together sources and resources will become more and more critical. Conference programming will emphasize assertive management, innovative problem-solving, and strategic planning—essential skills for the '90s information manager.

A number of Conference activities from program content to tours to the exhibits are highlighted on the following pages.

General Sessions

SLA is pleased to announce that two outstanding speakers have been engaged for the general sessions on Monday and Tuesday, June 10 and 11, 1991: Alan C. Kay and Joel Arthur Barker.

Joel Arthur Barker is founder and President of Infinity Limited, Inc., an internationally-known consulting firm that invented the concept of "strategic exploration." He formed his company in 1978 after directing the Future Studies Department of the Science Museum of Minnesota for four years, and has been busy ever since working with top management teams of the Fortune 500. While Mr. Barker is known for a broad range of strategic exploration tools that improve an organization's ability to shape its own future, he is especially known for his presentation on the "Power of Paradigms." It is from this lecture that he drew the information and examples on which his first book is based; *Discovering the Future: The Business of Paradigms* helps explain how revolutionary change occurs. It focuses on business needs and examples, but its ideas are useful for anyone interested in understanding more clearly how the future is determined.



"Father of the Personal Computer" is a title **Alan Kay** disclaims, but many state that it was Kay's ideas that succeeded in getting the industry's attention for the personal computer. Much of this attention resulted from work done at the Xerox Palo Alto Research Center (PARC) whose alumni are responsible for much of the current leading-edge computer technology.

The Golden Age of PARC occurred between 1971 and 1976, when Xerox gave a blank check to a group of young and talented computer scientists in a creative think-tank environment. It was here that Kay conceived Dynabook, the powerful lap-sized personal computer of the 1980s, that would allow people to write and draw anywhere. Dynabook was the inspiration for ALTO, the forerunner of Apple Computer's Macintosh. Another particularly celebrated contribution was Smalltalk, a high-level object-oriented programming language used by non-programmers. He pioneered the use of icons instead of typed commands for telling computers what to do next.

Division and Committee Programs

The core of SLA's Conference is the business and informational sessions developed by SLA Committees and Divisions. All SLA Divisions and most SLA Committees will host business meetings during the conference. It is important for members to schedule attendance at their respective business sessions; it is an opportunity to stay abreast of activities and ongoing projects. Most importantly, it is a chance to voice opinions on projects and decisions that will guide SLA into the '90s.

To augment the business sessions, SLA Divisions have prepared sessions specifically addressing issues of concern to the profession; sessions will discuss specific technical issues of interest to Division members and how those issues impact upon the profession as a whole.

Session content includes:

- Competitor Intelligence;
- Privacy Issues in Telecon Technology;
- Optical Storage Technology;
- International Information—Emerging Markets;
- Proprietary Scientific Data;
- The Petroleum Industry—and its future;
- Global Climate Change;
- Coping under Adverse Conditions;
- Nutrition;
- Expanding Your Influence Beyond the Library;
- Environmental Auditing; and
- Online Database Construction.

Professional Development Programs

SLA's Professional Development Program provides appropriate learning opportunities for information professionals at every career level. Whether you are an entry-level information specialist or seasoned manager, SLA's Annual Conference Professional Development Program has a learning experience designed to meet your needs. A broad range of topics and activities will be offered at the 1991 Conference. The San Antonio Conference will feature 22 one-day continuing education courses, two units of the Middle Management Institute, and an advanced management course for seasoned information professionals preparing for positions at the executive level.

Continuing Education Courses. Since the 1960s, SLA's continuing education courses have been instrumental in providing information professionals with the knowledge and skills to succeed. By preparing them for new responsibilities in library and information management, SLA's continuing education courses help members meet the changing requirements of the profession, enabling them to advance their careers.

This year's 22 one-day continuing education courses will take place Saturday, June 8 and Sunday, June 9. Topics such as artificial intelligence and managing new technologies will be offered in the information management area. A new course on value-added service will be introduced this year to give members an opportunity to explore the concept in depth and learn more about proven techniques. Courses on working smarter, performance appraisal, and management communications will help participants sharpen key management skills.

SLA's Annual Conference continuing education courses offer entry and mid-level professionals many topics to choose from. Those with more experience may want to take advantage of this valuable educational resource to supplement their knowledge in a particular area, or find out more about emerging technologies and management concepts. Participants will earn 0.6 continuing education unites (CEUs) and a certificate upon completion of each course.

Middle Management Institute. SLA's Middle Management Institute (MMI) focuses on the needs of information professionals with five or more years of management experience. The MMI is the second step in SLA's Professional Development Program which provides a progression of learning opportunities.

Developed to provide practical training in key areas of management, this certificate program sharpens participants' skills through a combination of expert instruction, and interaction learning exercises. The MMI is a 75-hour program consisting of five integrated units. Units may be taken independently or as part of the complete MMI sequence.

Topics include:

- management skills;
- analytical tools;
- human resources;
- marketing and public relations; and
- technology and application.

Each unit is 2 1/2 days (15 hours) in duration. Participants earn 1.5 CEUs for completing each unit. A certificate of achievement is presented upon completion of all five MMI units.

Besides the Conference MMI opportunities, MMI units are offered in various geographic locations throughout the calendar year. The "Analytical Tools" and "Human Resources" units will be offered in conjunction with the 1991 Annual Conference on Friday, June 7 through Sunday, June 9.

Advanced Management Course. A new course designed for experienced information professionals with advanced learning needs will be introduced at this year's Annual Conference. This 1 1/2 day program will feature Dr. Kevin Kearns, one of the most popular instructors from SLA's award-winning Executive Development Academy.

The program will focus on managerial decision-making and the tasks of leadership.

Employment Clearinghouse and Career Advisory Service

The SLA Employment Clearinghouse is a service available to all Conference registrants and employers. Through this service, job applications and employers are brought together to discuss future employment.

If you have any questions about special librarianship and the information management field in general, or your career in particular, take advantage of SLA's Career Advisory Service. Experienced SLA members will serve as counselors to help you find the answers you need.

Full details will be provided in the *Preliminary Conference Program.*

SLA Exhibit

The exhibits are a vital and exciting component of the Conference. Nearly 400 exhibit booths will be set up at the San Antonio Conference. This is your opportunity to meet with knowledgeable representatives of leading manufacturers and suppliers specializing in products and services relating to the field of library science and information exchange.

At this years' exhibit, you will have the opportunity to gather information on such products as:

- CD-ROM;
- information storage and retrieval;
- library automation software;
- optical publishing;
- specialized books, periodicals, and directories; and
- library furnishings and supplies.

You will also learn about such services as:

- alerting and search services;
- book jobbers;
- consultants;
- database search services;
- government information services;
- indexing and abstracting services; and
- subscription agencies.

The exhibits will be housed in the San Antonio Convention Center. Exhibit Hall hours will be:

Sunday, June 9	**12–5 p.m.**
Monday, June 10	**10 a.m.–5:30 p.m.**
Tuesday, June 11	**10 a.m.–6:30 p.m.**
Wednesday, June 12	**9 a.m.–2 p.m.**

SLA is pleased to announce that the following organizations have purchased exhibit booths in the this year's show:

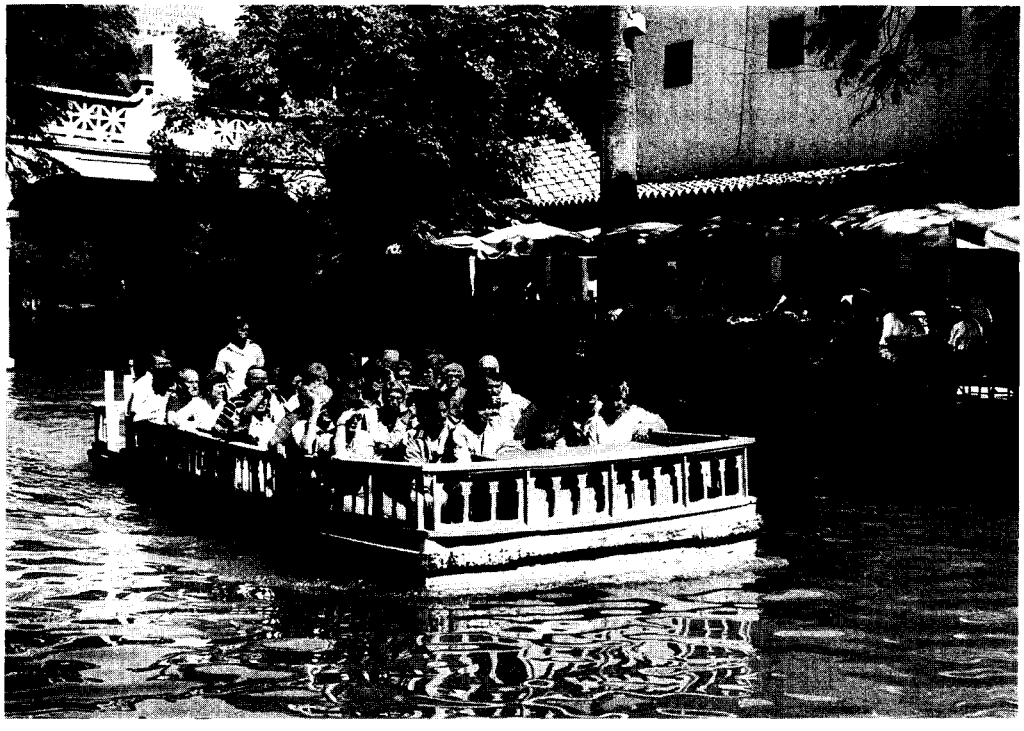
- Disclosure
- EBSCO
- Faxon
- International Library Systems
- DataTimes
- IEEE
- Readmore
- R.R. Bowker
- Dow Jones & Co.
- Datatrek
- GTE ImageSpan
- Information Handling Service
- Highsmith Company
- Dawson
- UMI

For individuals unable to register for the Conference's program sessions, but interested in examining the various products and services in the Exhibit Hall, write for a complimentary pass and specify the number of persons attending. Send a self-addressed stamped envelope to SLA Exhibit, 1700 Eighteenth Street, NW, Washington, DC 20009

Conference attendees are urged to schedule ample time to visit the exhibits. This is your chance to influence new applications on information technology by interacting directly with the producers and developers.

Conference Field Trips

A special feature of the Annual Conference are the field trips. More than a dozen field trips sponsored by SLA and the Divisions will be conducted for the San Antonio Conference. Some trips will allow you to visit a place of



special interest to your Division. Others will allow you to learn about the geographic area and its history. And some are just for your pleasure and enjoyment.

A full listing of these events will be detailed in the Preliminary Conference Program. You will be able to select from such diversions as:

- Sea World;
- Historic tour of Old San Antonio;
- The Botanical Gardens;
- The Zoo; and
- The LBJ Library.

SLA Fund Event

Fiesta!!! Picture a giant block party San Antonio style. This will be a whirlwind celebration bursting with color, character, food, music, history and ear-to-ear grins. Crack open cascarones and throw them in the air. Grab some fresh tortillas and savory anticuchos. Slip up on a chalupa. Rock with a fajita or roll with a tamale or two. Leave room for dessert and don't forget the margaritas and beer. You've only started. Kick up your heels to the "Cotton-Eyed Joe." Prance through a polka. Stroll with the mariachis or strut with some Dixieland jazz. This will be one event everyone wants to attend.

Conference Travel Information

Full Conference information—the *Preliminary Program*—will be mailed to all SLA members in March 1991. Along with detailed session information, official housing and registration forms will be provided. All Conference attendees are urged to use these forms. While program planning is in the final stages of preparation, the following information concerning travel, housing, and registration fees is final to help you plan your budget now.

Air Travel. American Airlines and Continental Airlines have been chosen as the official co-carriers for the 82nd Annual Conference.

To make reservations on Continental Airlines, call 800-468-7022 and ask for account number EZ6P33. Continental offers 50% off full coach or first class fares with no advance bookings required or penalties, or 5% off any

available fare. All rules and restrictions apply.

To make reservations on American Airlines, call 800-433-1790 and ask for "Star File" S0261GW. American offers 50% off the coach fare for tickets purchased up to 14 days in advance, 45% for tickets purchased up to 7 days in advance, or 5% off any available fare. All rules and restrictions apply.

SLA Conference Hotels/Rates**

	Single Rate	Double Rate
Marriott Rivercenter	$112	$128
Marriott Riverwalk	$105	$120
Hilton	$115	$130
Hyatt	$105	$120
La Quinta	$64	$74
Menger	$59–73	$73–83
Plaza	$ 90	$105
Gunter	$80	$90

** *Remember to use the SLA Housing Form supplied with the Preliminary Program. Reservations will not be honored by hotels without utilization of this form. No reservations may be called or faxed into the Housing Bureau.*

SLA works hard to help its members get the best value for their money. Seminars, field trips, and special events are planned so that attendees receive the most for each dollar spent. In keeping with this philosophy, SLA is pleased to inform its members that registration costs for the 1991 Annual Conference have once again been maintained at the same rates as previous years.

A sizeable attendance is expected at this Conference, and advance registration is strongly recommended. In addition to avoiding long, time-consuming lines, advance registration can also save you money. Registration fees for this conference are:

*Member, Advance (by May 1)	$115
*Member, One Day	$85
*Member, On-Site (after May 1)	$145
Nonmember, Advance (by May 1)	$140
Nonmember, One Day	$105
Nonmember, On-Site (after May 1)	$175
Student/Retired/ Accompanying Person	$65

* SLA member rates apply to SLA, ASIS, ARLIS/NA, AAL, and MLA.

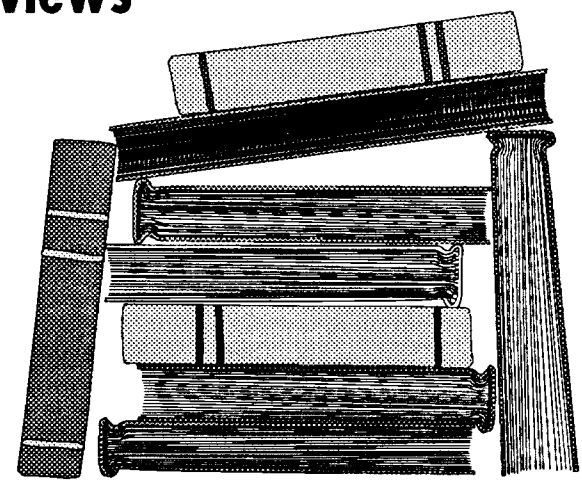
On-site registration will take place in the San Antonio Convention Center, beginning Friday, June 7, at 12 noon.

If you have any questions regarding the Annual Conference, or if you are a nonmember and wish to be placed on the mailing list to receive a preliminary program, please contact Manager, Conference and Exhibits, 1700 Eighteenth Street, NW, Washington, DC, 20009.

The Conference Program Committee, the Conference Planners, the Texas Chapter, and the Association staff are all working to put together a memorable conference.

Y'all come! ■

Book Reviews



***A Guide to Optical Storage Technology*, by John A. McCormick. Homewood, IL: Dow Jones Irwin, 1990. ISBN: 1-55623-320-5**

Librarians and records managers have at least one challenge in common—the need for cost-effective information storage technology. Whether the information to be stored is proprietary or public, problems of space, cost, file integrity, and ease of use are in need of solutions.

The author of this book, John McCormick, maintains that the only viable solution is optical storage. McCormick is East Coast Bureau Chief for Newsbytes News Network, a computer industry wire service, and his writings have appeared in over 300 computer-related publications.

McCormick describes, compares, and evaluates CD-ROM, WORM, Erasable, Digital Paper, and other High-Density, OptoMagnetic Storage Devices. We all know what CD-ROM is, but what is WORM? It is Write Once Read Many, as opposed to Read Only Memory. While some consider the read-only feature of CD-ROM a drawback, McCormick points out the advantages of the inviolable nature of information stored in this way, particularly with regard to computer viruses and the dreaded accidental erasure.

In a further discussion of CD-ROM, the author lists various applications including self-publishing, which he considers to be an economical, in some cases even profitable, venture. One example of self-publishing is given in which Arthur Anderson & Company published their manuals and software on CD-ROM and supplied them to 15,000 employees worldwide. The savings in shipping alone, in this case, paid for the conversion from print to CD-ROM in a single year.

Each type of optical storage technology is reviewed with regard to the method of production, how it works, what it costs, and appropriate/inappropriate uses. The language is highly technical, but the writing is concise and clear.

Perhaps the most useful section of the book is Appendix I, a Comparison of Various Technologies Used to Store or Distribute Information. The index outlines the capacity, features, cost, and best uses of each medium.

Other appendices include a resource list of companies and organizations involved in optical storage, and a buyer's guide for CD-ROM, WORM and erasable with details on selected drives. There is also a selected list of business-oriented CD-ROM publications with prices and ordering information.

The audience of the book appears to be MIS departments, judging by the technical orientation of the text, but information specialists of any stripe will find useful, practical, and up-to-

the-minute optical storage answers here.

Jean Fisher
Mead Data Central
Morristown, NJ

***Human Resources Management in Libraries*, by Gisela M. Webb. Binghamton, NY: The Haworth Press, 1989. 130 pp. ISBN: 0-86656-938-3**

The subject of human resources in libraries is one that has not been explored to any great extent until recently. *Human Resources Management in Libraries* (a monograph published simultaneously as *The Journal of Library Administration Vol. 10, No. 4)* is a welcome addition to the literature. In this collection of eight articles, edited and introduced by Gisela M. Webb, the individual authors share their opinions regarding future needs and coming trends in human resource management within the library profession as the "Information Age" unfolds. Each article has a specific and diverse focus but certain themes and trends are apparent. The ever-increasing effects of change upon libraries and library staff have created the need for more sophisticated human resources management in libraries and for a book like this one.

"The Role of Library Education in Meeting the Personnel Needs of Public and School Libraries" by Teresa Heyser and Richard G. Heyser addresses the challenge facing schools of library and information science in providing a relevant curriculum. It also suggests competencies for public and school libraries based on a review of relevant literature. It reinforces what most library professionals who have sought employment after graduation have known for some time now that employers want employees with interpersonal, communication, management, entrepreneurial, marketing, and leadership skills. The authors believe that "Librarianship, in general, if it is to survive must take on a much more active role. The all too true image of the passive/reactive librarian must come to an end, and strong leadership demonstrated if the profession is to survive."

"Integrating Public and Technical Services Staff to Implement the New Mission of Libraries" by Jennifer Cargill deals with the changing mission of libraries now that automation has relieved staff of many routine tasks. The author believes that "libraries and librarians will remain guardians of information" but that "methods of accessing the information will continue to diversify." Cargill advocates organizational change, an increased use of multifunctional positions, and the integration of public and technical services to meet future needs.

"Challenges for Information Services Librarians to Meet the Needs of an Information-Based Society" by Frances Benham urges us to "rethink priorities and roles" in light of today's sophisticated technology.

"Allocation of Staff in the Academic Library: Relevant Issues and Consideration of a Rationale" by Donald G. Frank points out that the allocation of professional and classified staff is a complex, sensitive process which should be done within the context of organizational goals and priorities. Since human resources account for over 50% of the expenditures of the library, staff needs to be used effectively and efficiently. The author concludes with the question that we in the field will need to answer," on what basis should staff be allocated to a particular activity?"

"Creating a New Classification System for Technical and Supervisory Library Support Staff" by Lucy R. Cohen is a description of the University of Michigan Library Personnel Office Classification study. The author goes through the processes of setting goals, data gathering, data analysis, and the implementation of results. Especially useful are the appendices containing the position description questionnaire and library task analysis forms.

"Training for Change: Staff Development in a New Age" by Anne Grodzins Lipow reemphasizes the fact that staff is the most important resource in any library. There is a critical need for staff development in light of the changing mission, tools used, and patrons in libraries. As the author points out, "our response to change has up to now been stepped up staff development programs with a focus on

training; we need now to move to training programs that focus on change."

In "The Technicolor Coat of the Academic Library Personnel Officer: The Evolution from Paper-Pusher to Policy Maker," Dana C. Rooks emphasizes the fact that personnel administration is a relatively new and specialized function in most libraries. The human resource officer has the critical role of "Change Agent" in helping libraries survive by adapting to the future.

"Accountability of Human Resource Professionals" by Frances O. Painter advocates a proactive approach to human resource management in libraries, providing a fitting conclusion for the collection.

The collection, though small, is thought provoking and enjoyable reading. *Human Resources Management in Libraries* provides valuable insights for the effective information manager.

Sandra Saddy
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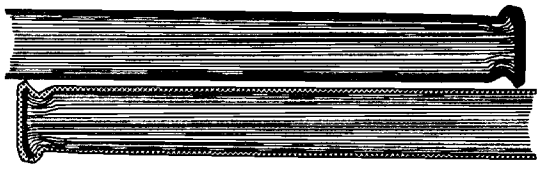

***Introduction to Librarianship—Third Edition,* by Jean Key Gates. New York, NY: Neal-Schuman Publishers, Inc., 1990. 234 pp. ISBN 1-55570-065-9.**

Does this title seem elementary or inappropriate for *Special Libraries* readers? Don't be fooled: Gates' third update of her text is a bracing tonic for special librarians immersed in a demanding career and perhaps remote from the "big picture" days of library school and their first professional job. Maybe you've forgotten the impact of Trajan on the development of libraries, what Ben Franklin's Leathern Apron Club was all about, or the kind of education you need to be a school librarian media specialist (or maybe you want to know what one does). Gates states that this book is about "libraries, librarians, and librarianship...what they have been, what they are now, what they should be, and what they may become. It does not exhaust these subjects; it only introduces them." Modesty aside, the book superbly fulfills its function as an introductory reference text for the undergraduate, graduate, or career-switcher contemplating or beginning a course of professional study.

The book is in three sections: the historical "Story of Libraries," "Librarianship as a Profession" (with generous information about the standards, issues, and trends in the expanding area of library education), and the extensively updated "Types of Libraries and Library Services." These 19 chapters are strengthened by good notes, a five-page bibliography, and an appendix with items like Dewey's 1876 "The Profession," the Library Bill of Rights, and more recent ALA Council statements. Each chapter briskly informs in readable, streamlined fashion—no padding here. Absent is dull and elitist jargon which could derail a novice's (or anyone's) ardor about the field and almost naturally (but not necessarily) typifies the more specialized reading we must eventually battle.

Chapter 18, "Special Libraries," is a typical example of Gates' method in the third section. She gives an historical overview (John Cotton Dana and the origins of special libraries), discusses the variations the word "special" currently has (along with the official SLA Bylaws definition), and gives salient characteristics of the special library regarding collections, services, staff, training, and professional associations. Federal, state, public, school, academic, and research libraries are similarly outlined, some with more attention to recent problems and trends—the academic and research libraries for example. The total effect leaves the reader with a powerful impression of the wide range of many functions and services of today's libraries. Gates also

emphasizes the variety of non-print formats needed and used by patrons and librarians alike.

The only serious lack here is the total absence of any salary examples. Although compensation statistics become quickly dated and vary widely by location, some 1989 figures would have been at least a point of reference. Gates' other material is so scrupulously updated that this omission, clearly intentional, is hard to fathom. An introductory text is admittedly not the ideal place for much discussion of this controversial issue, but neither is it fair to ignore the matter entirely. One of the book's strongest messages is the rigorous educational requirements librarians need to keep apace in the '90s; shouldn't the reader have an idea what to expect in return?

Nevertheless, most of Gates' effort is praiseworthy. The last chapter, "Librarianship and Information Science," imparts sense and order to an often cryptically defined area. She characterizes this hydra-headed newcomer as the vehicle which has brought librarianship out of the library and into virtually every environment and endeavor.

Gates' proposition (quite correct, I believe) that the history of libraries "reflects the social, economic, cultural and educational needs" of society makes the historical chapters (antiquity to nineteenth century America) vivid and entertaining reading. Not surprisingly, Chapter 6 ("The Seventeenth Century to the Twentieth Century")is a bit lightweight—but that is forgivable given the staggering and daunting developments during those golden (in many areas) centuries. Gates' short shrifting of eighteenth century France is balanced by a finely detailed account of the growth of nineteenth century American libraries. Yet there are no apologies needed for the book's introductory nature. It is so full of well-indexed, essential information that its value as a basic text in schools or a quick reference source on your bookshelf cannot be underestimated.

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Journal of Interlibrary Loan & Information Supply. Binghamton, NY: The Haworth Press, 1990. ISSN: 1042-4458

This new quarterly journal about interlibrary loan is the first of its kind in North America. It looks at the past, present, and future of interlibrary loan on a local, regional, national, and international basis. Interlibrary loan activities in the United States, Canada, England, Australia, and the Third World are described, examined, and analyzed.

The editor, Leslie R. Morris, Director of Libraries at Niagara University Library in Niagara University, NY, has created a periodical that is well-balanced in scope, audience, and types of articles. The columns, surveys, and essays are about non-technological, as well as technological problems. Two of the problems are: how do we create universal electronic messaging, and what is the correlation between the level of use journals receive and the amount of mutilation in them based on their subject categories? Topics of a general interest include an interlibrary loan workshop in Colorado, a brief history of IFLA (International Federation of Library Associations and Institutions) and its activities, and the results from *The Interlibrary Loan Policies Directory* survey, which was submitted to 2,000 public, academic, and special American and Canadian libraries. From this survey, an analysis is made about transmission methods, average turnaround time, books, foreign libraries, and periodicals.

Many of the surveys and essays provide ample statistical data for librarians to compare an institution's interlibrary loan service with others throughout the United States and the world. This information may also help them determine, among other things, if they should make changes in their interlibrary loan policies, purchase a telefax machine, and/or buy indexes on compact discs.

Although this first issue is interesting and addresses various interlibrary loan concerns, the editor wants to expand the scope of this journal to include articles on "interlibrary loan news in your area, comparisons of different systems of interlibrary loan transmission, interlibrary loan

costs, electronic publishing and interlibrary loan, experience with foreign interlibrary loans, specialized types of interlibrary loan, i.e., music, and all aspects of interlibrary loan."

Regardless of how successful he may be, this publication is important to interlibrary loan librarians in public, academic, and special libraries. It will improve communication among librarians and provide valuable information that may help them to solve problems, standardize many of their forms, equipment, and policies, find resource organizations, and learn about "the enhancement of interlibrary loan as a specialization and career growth position in library organizations." There should be a strong desire among interlibrary loan librarians to read this journal, to contribute to it, and to subscribe it.

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***Library Planning and Policy Making: The Legacy of the Public and Private Sectors,* by Redmond Kathleen Molz. Metuchen, N.J.: The Scarecrow Press, Inc., 1990. 219 pp. ISBN 0-81082272-5.**

Library planning is essential to libraries large and small. Most library managers have some concept of where they are going and how they plan to get there, but few have studied the theory and history of library planning. In this very concise volume Professor Molz provides the theoretical framework necessary to understand the dynamics and complications of planning and why it is not always a rational process. She does not tell the reader how to plan. That topic is left to other works.

This book consists of five chapters, a selected bibliography, four case studies, and an index. "The Emergence of Library Administration" discusses the development of administration theory and its early applications. The second chapter, "Planning for Library Service: A Derivative of the Public and Private Sectors" describes governmental attempts at rational planning models such as Planning, Programming, and Budgeting System (PPBS), Management by Objectives (MBO), Zero Based Budgeting, and others. Strategic planning and incremental planning are also discussed. Chapter three, "Rationalism and Incrementalism in Planning and Decision Making," gives perspective to the two major planning styles. In chapter four, "Planning and Decision Making: What Do The Managers Do?", five studies of managerial behavior are analyzed. The final chapter, "The Case for Future Planning and Policy Perspectives," reviews the many attempts at planning for libraries, analyzes them in relationship to changing concepts, and discusses the implications of various factors to the future of planning and policy formulation. An extensive selected bibliography follows the text. Four case studies in the appendix illustrate incremental planning in actual situations.

The author represents libraries as complex social institutions. As a result, larger libraries are emphasized but the concepts of planning and decision making can certainly be applicable to small special libraries which are part of larger organizations. She particularly makes the case for "an alternative planning style, one that is incremental and pluralistic in nature, flexible in operation, and further characterized by intuitive, judgmental, and experimental factors that are incapable of quantification." (p. 72). The background and concepts contained in this volume should be of interest to all library managers.

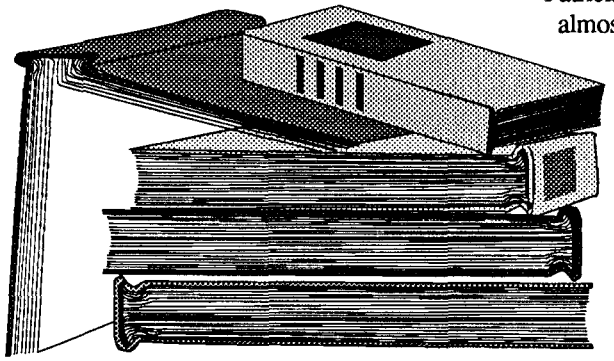
Professor Molz is exceptionally qualified to author this volume. She has written other books on planning and policy formulation including *National Planning for Library Service 1935-1975* and *Federal Policy and Library Support.* She has extensively documented her current work. A total of 284 citations are made in the 141 pages of the main text. That is followed by a selected bibliography that does not repeat

The majority of the works cited in the footnotes. According to Dr. Molz, the bibliography presents a "selection of the writings that have been used in shaping my knowledge of planning within both the public and private sectors." The four case studies that follow the bibliography help the reader apply the con-

cepts presented in the text.

Library Planning and Policy Making is the second in the Scarecrow Press series on library administration. As stated in the preface by series editor Lowell Martin, the purpose of the series is to prompt the reader to think—this volume certainly accomplishes that goal.

Janice Boyer
Assistant Director for
Administrative Services
University of Nebraska at Omaha



***Library Use Skills in the General Education Curriculum*, edited by Maureen Pastine and Bill Katz. Binghampton, NY: The Haworth Press, 1989. 334 pp.**

Maureen Pastine, Director of Libraries at Washington State University and former Chair of the ACRL Bibliographic Instruction Section, and Bill Katz, Professor of Information Science and Policy, SUNY, at Albany and former editor of *Reference Quarterly*, have compiled a welcome addition to the literature of library instruction. The authors, including librarians from community colleges, four year colleges, and universities, have extensive experience in planning and administering user instruction programs. The focus of this collection of articles is the integration of library use skills and research methodologies into the general education curriculum of colleges and universities to ensure students' ability to use libraries and new technologies for life long learning. The premise is that an effective library education program should be an increasingly sophisticated one built on basic library skills and thoroughly integrated into the curriculum at all levels from high school to graduate school and beyond.

The volume is divided into several sections: General, Bridging the Gap Between High School and College, Library Skills in a Community College, Library Skills in Colleges and Universities, Library Skills for Off Campus Programs, Other Considerations for Integration of Library Use Skills, and The Past and the Future.

In a well-thought out introductory chapter, Patricia Breivik notes that libraries have been almost completely overlooked in recent reports advocating educational reform and urges librarians to take a more active role. She deplores the tendency of librarians to confine their writing and other professional activities to library publications and organizations. She points out that the priorities of a few research libraries are not representative of academic libraries as a whole. The section on library skills for college-bound high school students is presented in a thoughtful, balanced manner. Barbara MacAdam and Barbara Kemp offer perceptive comments on the development of critical thinking skills in bibliographic instruction. Particularly useful are the chapters dealing with growing non-traditional constituencies, such as adult independent learners, students enrolled in off-campus programs and courses, and international students.

The role of microcomputers, CD-ROMs, and end-user searching are analyzed from several points of view and practical suggestions are offered. Many authors throughout the volume offer insightful comments on improving librarian-faculty relationships. In summary, the descriptions of some of the innovative and effective library instruction programs offered by the compilers make this volume a valuable resource for all involved in library instruction programs at any level.

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***Microcomputer Management & Maintenance for Libraries*, by Elizabeth S. Lane. Westport, CT: Meckler Corp., 1990. 205 pp. ISBN 0-88736-552-1.**

Microcomputer Management & Maintenance in Libraries developed from a perceived need for a source on computer maintenance. The author, believing that management and maintenance of computers are closely linked, integrated both of these areas into her book. *Microcomputer Management & Maintenance* does not discuss particular brands of computer hardware or software in detail, but rather provides a comprehensive overview of the issues and problems in setting up a computer facility in the library. In *Microcomputer Management & Maintenance*, the author considers microcomputers for both patron and staff use, making it an appropriate guide even for libraries that do not provide public access.

Microcomputer Management & Maintenance is divided into two parts. Section One covers the management of microcomputer facilities in libraries. This section contains nine chapters, covering topics such as orientation and training, system requirements and needs assessment. Chapter Two, which covers the planning process, includes a sample outline for arranging documentation into a formal proposal. Liberal use of subheadings throughout the text makes it easy to find specific information, while bulleted lists provide handy checkpoints for later reference.

In Section Two, the author concentrates on the maintenance of microcomputers and peripherals. Chapters Eleven and Twelve discuss preventive and responsive maintenance. These chapters are subdivided by type of hardware, with specific instructions on care and simple repair techniques. Chapter Eleven also examines environmental factors, such as dust and spills, which are associated with maintenance problems. Two tables are included which list tools and other supplies essential to cleaning and simple hardware repair. Chapter Thirteen focuses on maintenance costs, including in-house maintenance, evaluating repair facilities, and service contracts.

Four appendices are provided in *Microcomputer Management & Maintenance*. Appendix A is a glossary of microcomputer terms, with definitions for words like "analog," "hardwired," and "spooling." Appendix B is a short bibliography, divided into two parts to correspond with the two sections of the book. Lists of library-oriented and popular journals are provided in Appendix C, with journal title, publisher, address, and brief annotation. Finally, Appendix D lists several organizations and online services related to the use of microcomputers in libraries, although it is by no means a comprehensive directory. A brief description is included for each entry, along with address and telephone number.

A book which covers both the management and the maintenance issues of microcomputers in libraries is a worthwhile and welcome addition to the library literature. *Microcomputer Management & Maintenance* is concise, practical, and easily understood. It lacks intense examination of specific machine characteristics, such as bits and bytes, and focuses on the broader issues of justifying, selecting, and protecting what can be a considerable investment for any library. The clearly organized text and numerous appendices make *Microcomputer Management & Maintenance* a source that will be consulted often, rather than read and forgotten.

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Corrections

The headings for Figures 2 and 3 in the article "Special Librarians to the Core: Profiles with the MBTI" are incorrect. Figure 2 appearing on page 334, should read "SLA Member Survey Participants—Female." Figure 3, appearing on page 335, should read "SLA Member Survey Participants—Male."

Author Steven J. Bell's name was spelled incorrectly in the Summer 1990 issue of *Special Libraries*.

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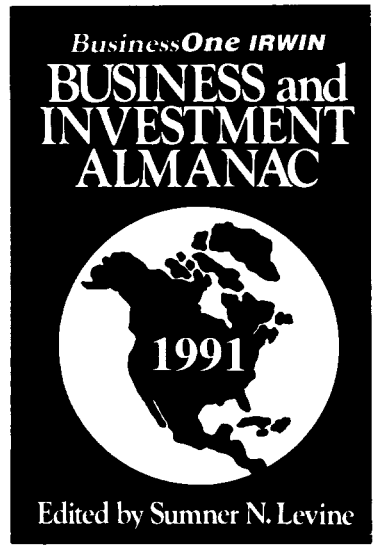

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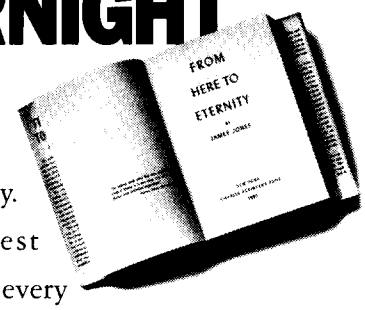

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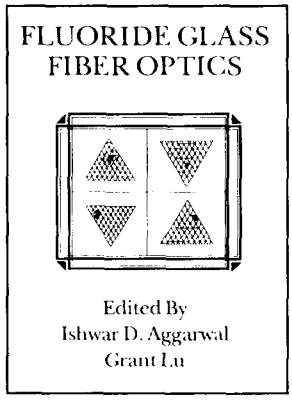

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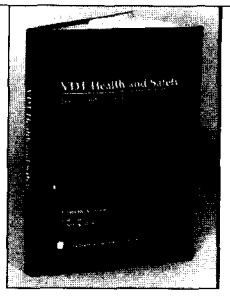

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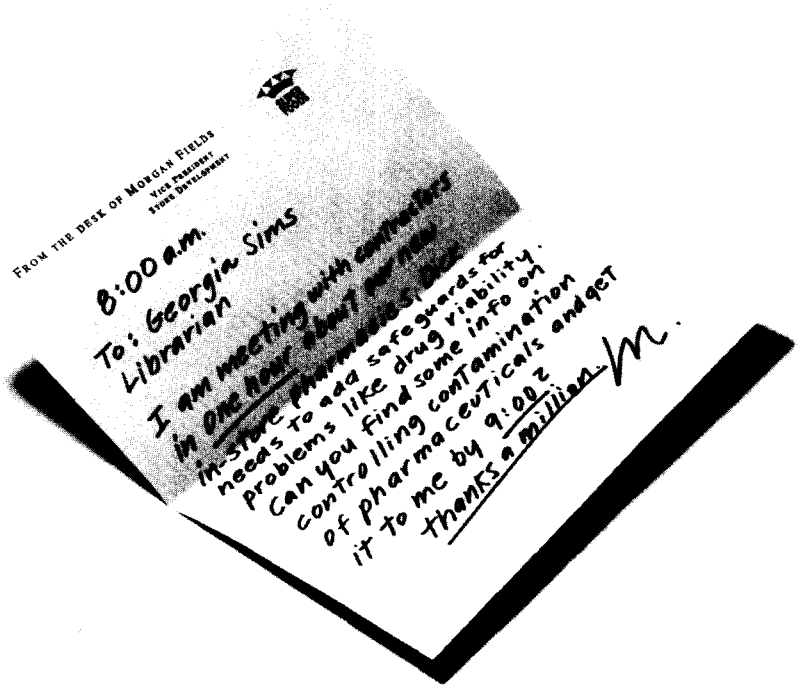

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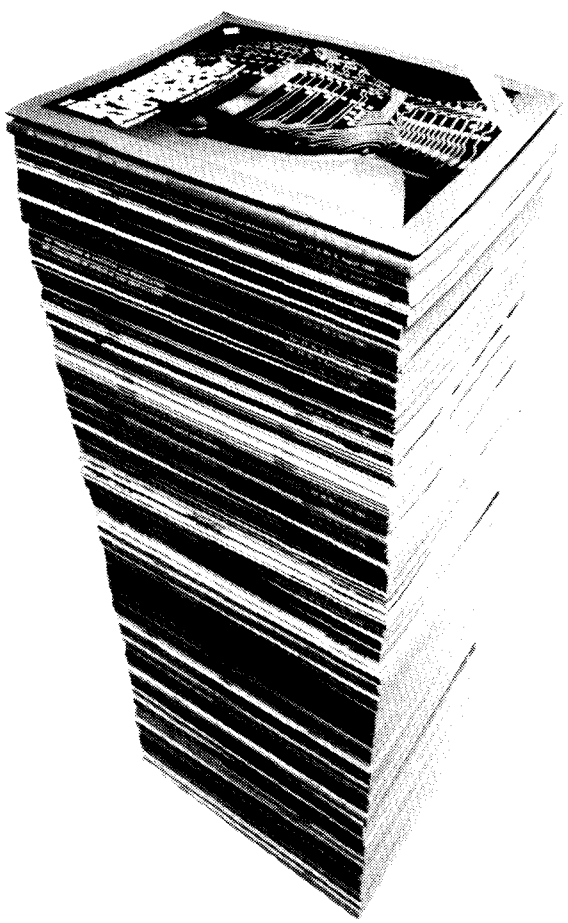

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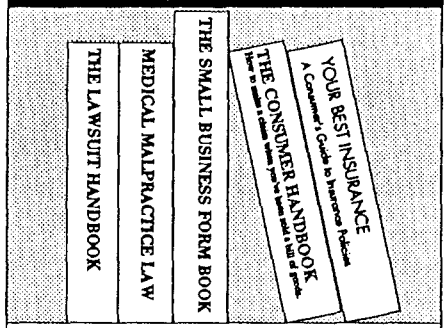

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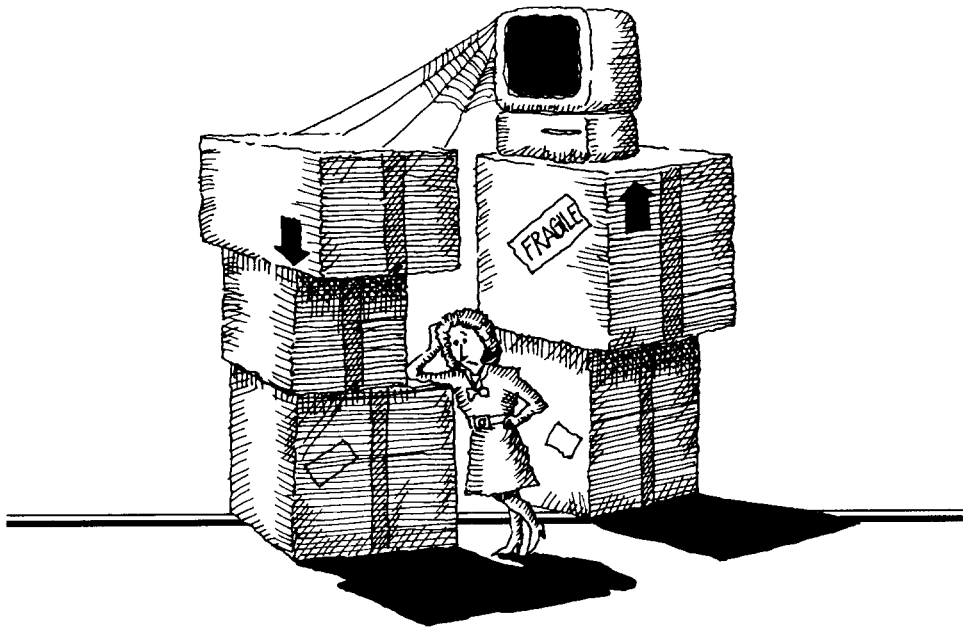

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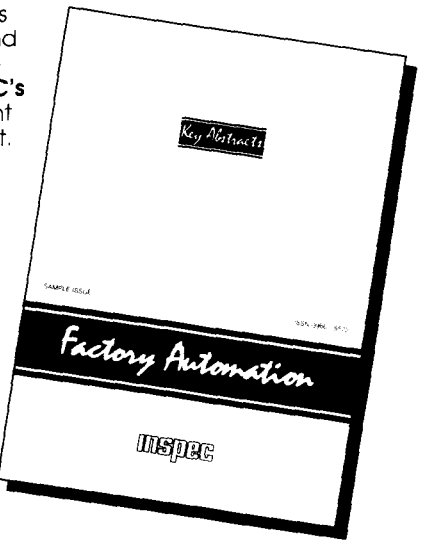

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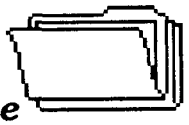

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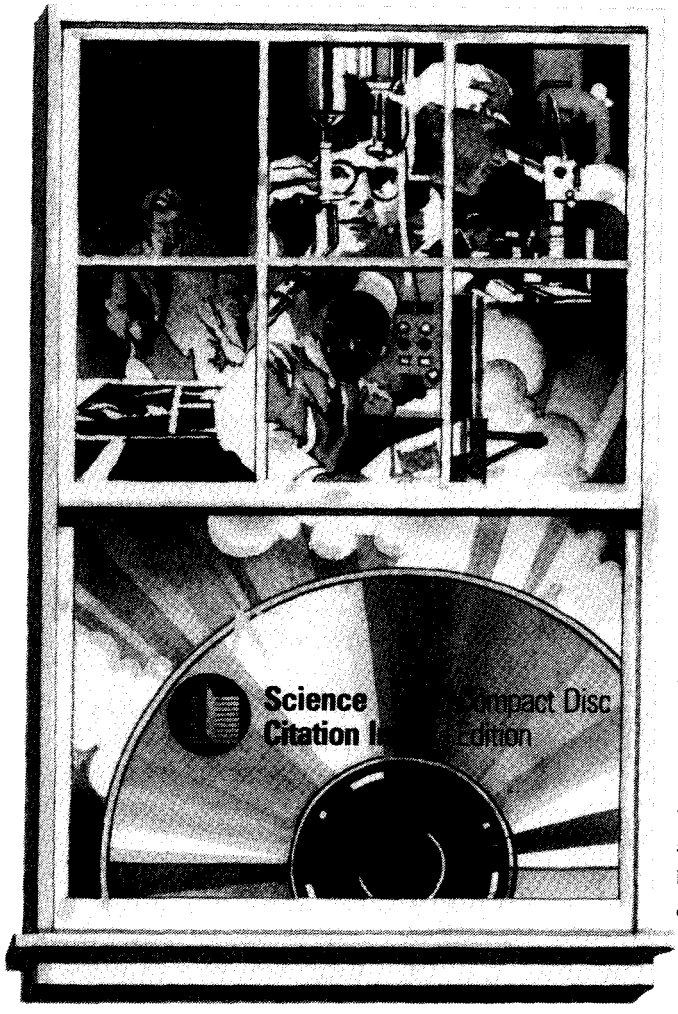

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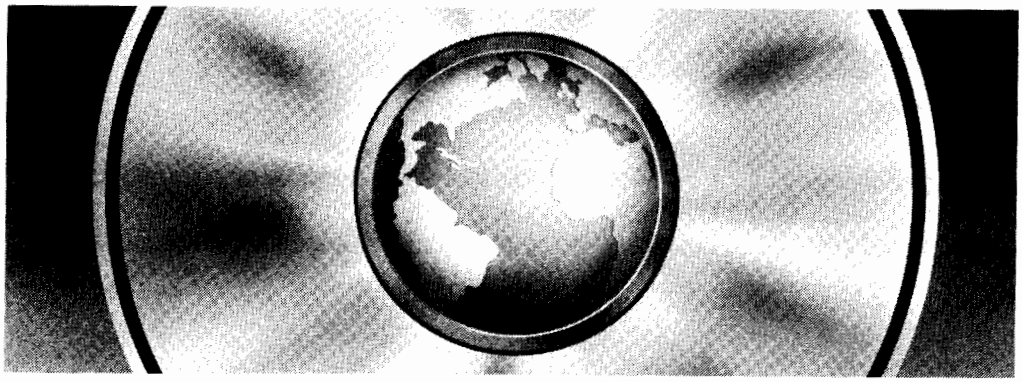

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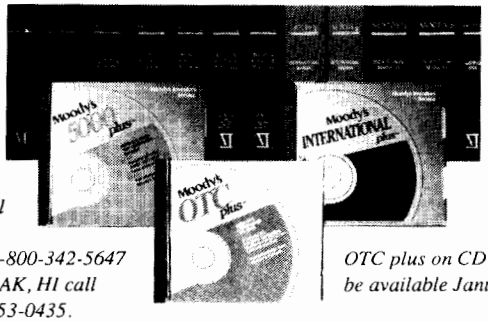

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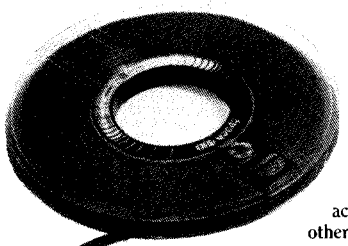

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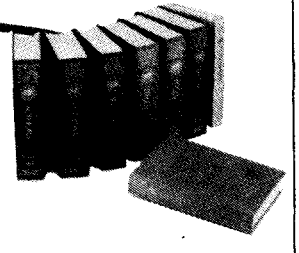

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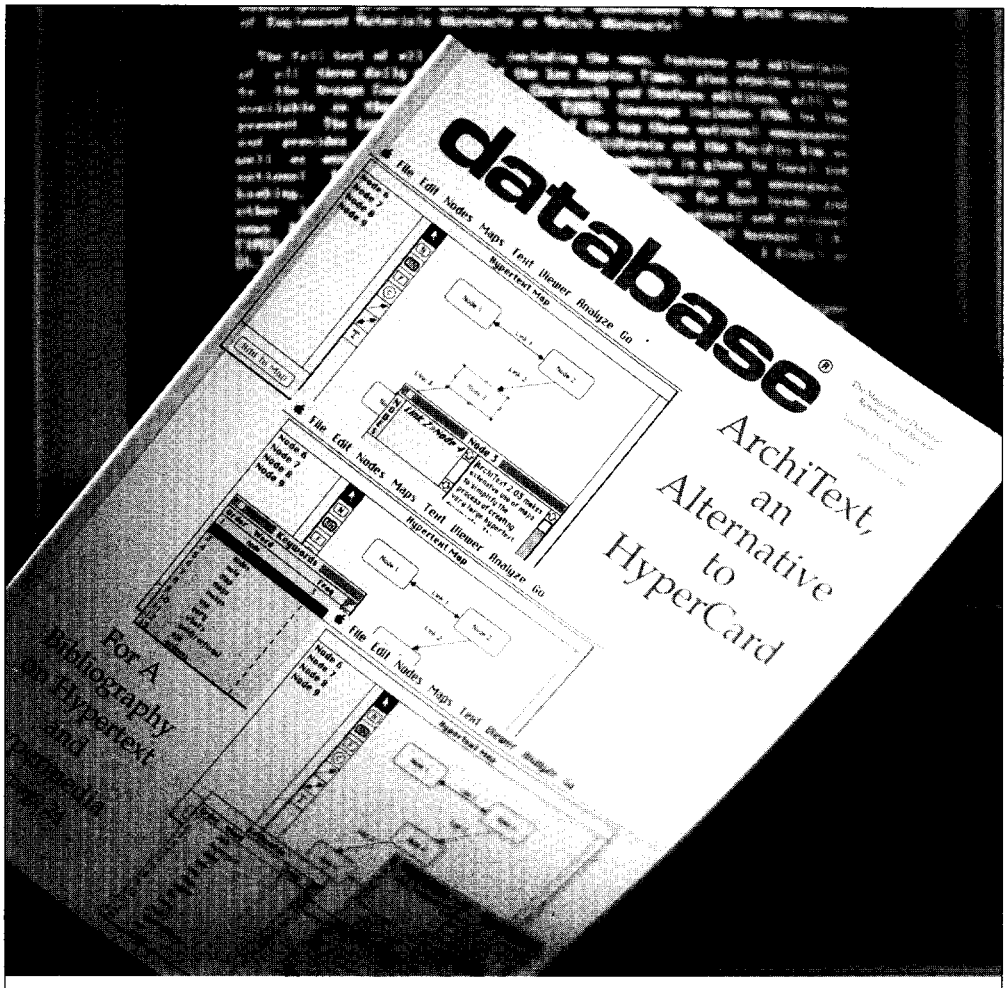

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