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College & Research Libraries (ISSN 0010-0870)
is the official journal of the Association of College and Research Libraries, a division of the American Library Association. It is published bimonthly at 50 E. Huron St., Chicago, IL 60611. Second-class postage paid at Chicago and at additional mailing offices. POSTMASTER: Send address changes to College & Research Libraries, 50 E. Huron St., Chicago, IL 60611.

Manuscripts of articles and copies of books submitted for review should be sent to the Editor: Charles Martell, Editor, College & Research Libraries, The Library, 2000 Jed Smith Dr., California State University, Sacramento, CA 95819. Phone 916-278-6466.

Instructions for authors and further information on submission of manuscripts are included in a statement on p.103-4 of this volume of College & Research Libraries.

Production and circulation office: Central Production Unit, ALA, 50 E. Huron St., Chicago, IL 60611. Advertising office: Art Beck, Advertising Sales Manager, Choice, 100 Riverview Center, Middletown, CT 06457, 203-347-1387. Change of address and subscription orders should be addressed to College & Research Libraries, for receipt at the above address, at least two months before the publication date of the effective issue.

Subscription price: to members of ACRL, $17.50 per year, included in membership dues; to nonmembers, $35 per year in U.S., Canada, Mexico, Spain, and other PUAS countries, $45 in other foreign countries. Retrospective subscriptions not accepted. Single copies and back issues, $7.50 each.

Inclusion of an article or advertisement in College & Research Libraries does not constitute official endorsement by ACRL or ALA.

A partial list of the services indexing or abstracting the contents of C&RL includes: Current Index to Journals in Education; Information Science Abstracts; Library & Information Science Abstracts; Library Literature; and Social Sciences Citation Index. Book reviews are included in Book Review Digest, Book Review Index, and Current Book Review Citations.


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Editorial

Library Superstars Revisited:
One More Time

Winners—even in mundane, declining, battered or regulated environments—don’t do only a percent or two better than the norm. They do hundreds of percent better—at least.—Tom Peters and Nancy Austin.

In *A Passion for Excellence*, Tom Peters and Nancy Austin study winners, not so much to recognize their achievements, but rather to understand the characteristics of winners. Through this understanding the authors hope to learn about standards for excellence and how excellence is attained.

The Library Superstar series of editorials has a similar purpose. We can learn a lot from the winners in our professions. The standards that they set for themselves could potentially be adopted by many of us. This series, however, is only an incomplete substitute for what is most needed—in-depth study and analysis across the profession on questions such as:

- What is personal excellence?
- What is institutional excellence?
- How is it achieved?
- Who achieves it?
- What are the rewards or benefits of excellence?

The study of excellence can give us models to emulate. Perhaps more of us can acquire a passion for excellence; a passion for setting high goals, overcoming limitations, and doing whatever is necessary to achieve these goals. Peters and Austin find that their winners “believe in truly listening to the customer, taking the customer’s views as more important than [their] own.”

This user orientation goes beyond the typical library public service setting in which the needs of users and corresponding functions are structured a priori, e.g., channeling users to fixed service points such as circulation and reference although the needs of individual users may be much more varied and extensive/intensive than the respective service desks can handle.

In business, a truly listening spirit has sometimes led people in production, an area often removed from direct customer contact, to work directly with a customer often to tailor a product to the customer’s unique specifications. Library technical service units are the closest equivalent to the production function in business.

The Library Superstar series concludes by listing each remaining nominee. They represent our colleagues’ choices.
Ann Bristow is Head of Reference at Indiana University.
Bristow is frequently described by librarian and faculty colleagues as a model librarian who is devoted to outstanding library service.

Susan Griswold Blandy is Reference Librarian at Hudson Valley Community College in Troy, New York.
Blandy has indomitable energy and concern for her college and community; she says "yes" when others say "no."

Deborah Cheney is Reference Librarian at Bucknell University.
Cheney commands great respect as a librarian of ability and intelligence.

John Edens is Director of Central Technical Services at SUNY-Buffalo.
A bright, hard-working, tough-minded, achievement-oriented librarian, Edens never loses sight of the service function of the library and of the unit he supervises.

Pat Ensor is Coordinator of Database Searching at Indiana State University.
In a single year Ensor conducted more than 400 one-on-one database search interviews with faculty and others.

Deborah Greene is Music Librarian at Cleveland State University.
Greene personifies the new academic librarian of the 1980s and 1990s. She inspires everyone around her to do more and better work and has limitless energy and a tremendous thirst for knowledge that she communicates to all who come in contact with her.

Katherine (Kathy) Jackson is Head of Reference at Texas A & M University.
Jackson epitomizes the quality and personality of those who best represent our profession—dedicated, with a spirit that always reflects enthusiasm, academic excellence, and a desire to serve all with whom she comes into contact.

Deborah Jones is Head of Reference at Butler University.
Not only does Jones work harder, smarter, longer, and better, she also works faster and with greater persistence.

Marcia Pankake is Bibliographer for English and American Literature at the University of Minnesota.
Pankake demonstrates a spirit of cooperation, the fostering of high standards, the mentoring of younger members of the staff, and the striving for excellence on all fronts. There is something about knowing her that does a person good.

Ruth Shipley is Clinical-Medical Librarian at the University of Missouri–Health Sciences Library.
Shipley goes the extra mile and meets challenges with great enthusiasm. Highly motivated and conscientious, she pays no attention to clocks, coffee breaks, lunch breaks, or whether it is time to go home.

Sandy Slade is Extension Librarian at the University of Victoria in British Columbia.
If Slade chose to run for public office in any of the communities he serves, he'd be a shoo-in!

Siegfried Vogt is Reference Librarian at Washington State University.
One of our professors is fond of telling the story of how Vogt found the answer to an elusive question six years after the original request. This personal, caring touch is one of the hallmarks of his reference service.

Antoinette (Toni) Paris Powell is Head of the Agricultural Library at the University of Kentucky.
The collaborative, supportive atmosphere she creates, combined with her ability to bring people and technology together with very favorable results, has made her branch a center of activity and innovation.
Judith Pryor is Coordinator of Library Instruction at the University of Wisconsin–Parkside. Pryor is the glue that has held together and helped advance an innovative library program that has been recognized nationally and internationally. She has been a role model for her colleagues because of her commitment to excellence and high standards, her example as a learner, and her unselfishness in terms of time and expertise.

Each of the nominees may demonstrate what Peters and Austin cite as the only two ways to create and sustain superior performance over the long haul.

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Inventing the Electronic University

David W. Lewis

Higher education is confronting a fundamental change. The transition from print on paper to digital and electronic technologies is transforming instruction, scholarly communication, and the storage and preservation of knowledge. What is required is not the automation of old systems, but the restructuring of institutions. The drive for autonomy, needed for effective scholarship, and the push for standardization, needed to assure easy and open access to information, will create conflicts difficult to resolve. Universities must find new ways of funding and financing information services and new staffing patterns if they are to continue as effective learning and research centers.

Twice in recent years librarians, joined by faculty and university administrators, have gathered at corporate conference centers to consider developments in communications and computing technology and their effects on the scholarly enterprise. The first meeting was held at Conoco's Purple Sage Ranch in Bandera, Texas, in November 1985 under the auspices of the Research Libraries Group. The second followed eight months later, sponsored by OCLC at the Johnson Foundation's Wingpread Conference Center in Racine, Wisconsin. These gatherings demonstrated a commitment to, in Patricia Battin's words, "create an institutional capacity to reinvent the university in the electronic age." For 500 years knowledge has been communicated and stored largely through the use of printed documents. This technology is rapidly being supplemented and replaced by one that is digital and electronic. The power of the new media and the failings of the old system are driving scholarly institutions toward change.

For librarians, the papers presented at these conferences, and other recent works, are important because they mark a change of perspective. The change can be illustrated by comparing Battin's statement above with one she made only four years earlier. In 1980 she wrote, "We must reinvent the research library in the network environment." Then the goal was to reinvent the library; today it is to reinvent the university. A dramatic shift, the issue is no longer library automation: it is remaking the structure of scholarly communication. Many in the academy may be surprised that librarians have these concerns, but as Hugh Kenner, citing the examples of the incandescent light and the copying machine, states, "One lesson the past has to teach is that every new technology, when it applies for admission to a citadel of the intellect, has invariably received its first welcome from the librarian."

This is a time of transition and fundamental changes in institutions. The research university, for 100 years the locus of scholarly communication, has become a large, inertial social and institutional structure. It is also a playing field, where intellectual contests not only advance knowledge, but reap rewards of prestige and funds for the players. The current debate over the course and extent of the change is complicated because the partici-
pants, almost without exception, have a stake in the existing structure and play the academic game. This paper will attempt to sort through the rhetoric and to bring the issues into focus. For if this transition is not carefully considered it will be, as Wilfred Lancaster warned a decade ago, "one of disruption and chaos rather than one of ordered evolutionary progress."  

**LEARNING AND TEACHING**

The use of computers for teaching holds great promise but also threatens to disrupt traditional roles and practices. Richard Cyert, the president of Carnegie-Mellon University, sees a revolution resulting from the instructional use of electronic media in higher education. He cites three ways in which the computer will have an impact. First, it will increase students' comprehension by building complex simulations and "real world" problems. Second, "intelligent tutors" will guide students, at their own pace, through the body of knowledge to be mastered. Finally, the computer, by acting as a gateway to large bodies of knowledge, will expand students' ability to learn on their own.  

But what Cyert sees as revolutionary, Harvard's president Derek Bok, after reviewing similar developments, sees as an occasion for "cautious enthusiasm." Such is the range of views.  

In a closer look at instructional technology, Gregory Jackson defines four classes of software: (1) "computer assisted instruction" (CAI) software, which "tutors," usually through individualized drill and practice; (2) "tool" software, such as word processors, which manage the procedural details that often interfere with learning; (3) "problem" software, which serves the same purpose as any problem set, but can be more complex; and (4) "simulation" software, which allows students to experiment easily with real-life situations and observe the results. CAI is usually an individual activity, and the other three are often used by groups of students. Most of the applications now in use are CAI. Jackson suggests that its focus on individual activity may be one reason for CAI's lack of impact, an interesting insight in light of current thinking on collaborative learning which argues the most effective way to think about learning is to focus on its social nature. It takes place among people, not between a person and things. As Kenneth Bruffee argues, "Students learn better through noncompetitive collaborative group work than in classrooms that are highly individualized and competitive." The combination of a collaborative style of teaching with tool, problem, and simulation software may present an opportunity for significant improvements in instruction.  

Maurice Glicksman, noting the failure of computer technology to significantly affect instruction, reminds us that even though most faculty have no pedagogical training, they generally consider themselves good teachers and see little need to change their methods of instruction. The resistance that Glicksman cites is compounded because teaching in general and the development of instructional software in particular are not highly valued academic activities. In addition, the development of effective teaching software requires skills not often possessed by teaching faculty. Knowledge of the subject, an understanding of cognitive theory, and an ability to combine the two into a software package are all required. Richard Van Horn expresses a very different view. For him faculty are not the key; rather, making electronic tools available for students' use is what matters. Then, as he says, "All the faculty member must do is assign problems relevant to the discipline, and students will decide how to solve these problems... Students can use computing whether a faculty member loves computing, knows anything about computing, or even cares." For many years the library has been the primary teaching tool outside of the classroom, and except for faculty, librarians have been the only university staff to assist large numbers of students in the academic process. The use of other technologies will require new skills and will involve other staff in academic activities outside the classroom.  

The revolution in instructional technology will also change libraries. First, librarians can put the technology to use them-
selves. Much of what needs to be taught about library use is tutorial and appropriate for computer packages. Second, and more importantly, there will be competition for resources, both dollars and space. The university will need to decide where to locate the new computer tools, both physically and administratively. Libraries are an obvious choice, but many librarians will be uncomfortable supporting tools rather than resources, especially if no new money accompanies the request for service. There will be debates like those over nonprint materials, and the result will be similar. Community colleges and medical schools, where nonbook materials are already common, will slide easily into the new role, as may four-year residential colleges where the library is already one of the centers of campus life. University libraries, especially those associated with prestigious universities, will have a more difficult time accepting this nontraditional role.

An important impact will be rising user expectations. Students may expect the library to be as powerful and easy to use as electronic teaching tools. Unfortunately, libraries are rarely easy to use. If analysis with new computer tools becomes easier and more productive than library research, students can be expected to use the new tools rather than the library. If libraries do not improve their services so that they remain an essential teaching tool, they risk becoming irrelevant to the teaching process. If this is allowed to happen, it is easy to predict a decline in library funding.

"If, as Van Horn suggests, improvements in learning will come not in the classroom, but outside of it, librarians and other support staff will have a key role to play."

There will also be opportunities. If, as Van Horn suggests, improvements in learning will come not in the classroom, but outside of it, librarians and other support staff will have a key role to play. Librarians combine a knowledge of the academic process with an attitude of service unique in the university. But, university libraries and librarians have been strained and stretched by the breakdown of the paper system of scholarly communication. Much of the stress has been passed on to library users in the form of lines, cataloging backlogs, and inadequate service staffs. As the process of scholarly communication becomes more completely electronic, efficiencies will come into play and library service both inside and outside the library should improve. To take a mundane example, when books and articles are online, there is little reason to require students to wait in lines at reserve desks, or even come to the library, to read them. Librarians will be able to create and provide information resources that reach beyond their walls. Dial-up access to the catalog will be only the beginning. Grolier Electronic Publishing already offers site licenses for the Academic American Encyclopedia, Facts On File, and a number of other standard reference sources, and Carnegie-Mellon University provides access to this material through their campus network.13 Similar developments have been reported at the Georgia Institute of Technology.14

To make the new modes of instruction successful, librarians will have to abandon comfortable roles, and the library will need to become the institutional provider of scholarly tools in all forms. The most important tool will be, as it has always been, the ability to communicate with the scholarly record. Books will continue to play a large part but so will databases of all kinds. Also required will be tools to manipulate the scholarly record: word processors, statistical and graphics packages, concordance programs, and simulations. All will have their place. In its electronic form the scholarly process will become seamless; students and faculty will use the same machines for data collection, analysis, and communication. The library will need to encompass all of these activities. It must become, in John Sack's phrase, "the public space for scholarship on campus."15
COMMUNICATION BETWEEN SCHOLARS

Forty years ago Vannevar Bush, noting the press of scholarly work, proposed a device, what he called the "memex," that was probably the first expression of the scholar's workstation. The device was to serve as a researcher's personal information system. What is usually remembered about the memex is the use of microfilm as the storage medium. One has an image of a 500-pound desk with lots of screens, motors, and whirling reels. It is easy to chuckle at Bush's mistaken choice of medium. But more importantly, he was incorrect in a fundamental way—the memex was unconnected. What is important about today's personal computers is not that they have the capacity to store books, but that they can communicate. As Francis Crick has said, "communication is the essence of science," and indeed all scholarship. Electronic communication is not simply a link to colleagues, but a link to resources. It can replace storage, or as a librarian would put it, access can replace ownership.

"Electronic communication is not simply a link to colleagues, but a link to resources. It can replace storage, or as a librarian would put it, access can replace ownership."

When we consider the effects of the electronic media we must begin with the essential fact—the formal print system is no longer adequate. More than 300 years ago the scholarly journal was created because scientists could no longer keep up with each other's work through word of mouth and correspondence. The weight of the system, based on the printed scholarly journal, has become more than existing structures can bear. The evidence is all around us. Publishing delays are such that no self-respecting scholar depends on journal publication as a primary means of staying current. Preprints and working papers have become a way of life, and formal journal publication is more for posterity and tenure committees than communicating with colleagues. Journals proliferate and become more specialized, and libraries can no longer afford to acquire this scholarly output. Scholars are overrun with a deluge of publications, many of which add little to the corpus of knowledge.

Kenner suggests that one of the problems with the paper system is that we have been asking it to do things for which it is not well suited. He points out that the paper publications are mass-produced, and as such must be made in quantity. The mechanics slow the process, and the economics require that many copies will be uselessly stored on library shelves. Kenner points out that in many situations alternative forms of communication would be preferable. As he says, "much scientific communication is essentially news, news of what's going on in whose lab, news only interesting when it is hot." He cites the distribution of dissertations on demand by University Microfilms as one appropriate alternative. The emerging electronic technology promises to provide others.

The electronic journal is an early example. The first attempts were not entirely successful, but the more recent BLEND experiment has demonstrated the feasibility of such a system. Like earlier attempts, BLEND showed that mechanics, such as ease of access to terminals, cause much of the difficulty. The personal computer, with its word-processing and communications capabilities is, as Donald Case puts it, "the 'missing link' between yesterday's and today's methods of publication." A recent study in the social sciences and humanities indicates that most scholars now have access to computers and close to half have a personal computer for their exclusive use. The more important point that Case makes is that scholarly communication is a bottom-up enterprise. When scholars find that it is easier to keep in touch by electronic mail, they will use it or any other method that works. Electronic means of scholarly communication will not have a quick or radical effect. As Priscilla Oakeshott predicts, based on
the BLEND experience, the more likely result will be, "the gradual integration of electronic publishing with on-demand printing and retrieval systems over the next twenty years or so." 24 An array of communication options will be available, from electronic mail messages arranging lunches to electronically referred journals. In this world the distinctions between formal and informal communication will blur.

Bryan Pfaffenberger argues that electronic communication has the potential to reduce the tendencies toward elitism and internal stratification present in much of scholarly communication. As he states, "Because computer-based communications media tend to foster group attachment, a focus on intellectual issues, equity among participants, and informality, they seem ideally suited to research network communication." 25 Pfaffenberger suggests that small-scale systems based on personal computers or public access systems such as the Source will have greater impact than large, expensive systems such as ARPANET, the Department of Defense research network. Michael Spitzer looks at communications in computer conferencing systems and discusses the in-between nature of the medium. It lacks both the permanence of written prose and the personal presence of face-to-face conversations. Like Pfaffenberger, Spitzer notes a leveling and democratizing effect of electronic communication. It rewards, he claims, clear thinking and persuasive writing, without necessarily giving clues as to the author’s status or position. 26

Electronic communication can make research data that are not now easily accessible available to many users. Up to now, the data collected for one research project has rarely been usable by another researcher, but his is changing. To quote Kenner:

But as more and more material gets onto tape and disc, for whatever purpose, more and more workers are going to be thinking of other things to do with it: a departure from the rule that used to govern all research, that raw material, raw data, gathered by no matter what effort, never seemed to get used a second time by anybody. . . . But we are now able to think of such data as a community resource. Moving it around the continent by modem or even mail will soon be, I hope, routine. 27

The Inter-University Consortium for Political and Social Research already fills this role to some extent for numeric social science data sets, and some journals have taken to distributing programs and data on floppy disks in conjunction with printed articles. At least one scholarly journal, World Cultures, is published only on floppy disks. Problems with documentation and data integrity, exist but this established trend will continue.

The formal paper-publishing system serves not only as a means of communicating and storing ideas, but as Alan Singleton states, "The journal plays a crucial role in the social system of science, conferring public recognition and thus reward on authors of published papers." 28 Singleton identifies the criteria an electronic system must have if it is to replace the printed journal’s social role. First, all authors must have access to the system; it can not operate on closed networks. This problem already exists. Douglas E. Van Houweling states that ARPANET has become such an important means of communication in a number of fields that, "persons without access . . . are effectively cut off from effective collaboration." 29 Second, all interested readers must have access to the system. The availability of appropriate equipment has been largely overcome, but restrictions on transnational data flow complicate the creation of an international electronic journal. Beyond these two criteria the system must have accepted prestige. Articles, whether read or not, can be counted by review committees, and the pecking order of academic journals is well understood. Similar recognition will need to be granted to electronic forms of scholarly communication.

Beginnings can be seen as the editors of Medical Care stated when they distributed a floppy disk containing a computer program with their July 1987 issue, "The academic reward system traditionally values the printed scholarly publication. In our opinion, accessible computer programs should be given equal, and on occasion
more, weight in judging an academic research career." Disciplines where the results of research can be separated from the reporting of results will find the transition easier than disciplines where a large part of the scholarly task is the expression of understanding. A biochemist receives a Nobel Prize for work done in the lab, but a historian will receive a Bancroft, not for work in an archive, but only for a book.

In the paper system, printed materials are an institutional resource. A university's library is among its most valuable, if not always most appreciated, possessions. Scholars cluster around university libraries because they are necessary tools. An electronic system makes possible the distribution of resources, and scholars will not need to be associated with large universities to have access to the corpus of knowledge in many fields. Electronic mail and conferencing systems can connect colleagues even if they are not on the same campus. Many scholars already feel isolated; the recent ACLS report on scholarly communication indicates that 25 percent had no one in their department who shared their research interests. Electronic means of communication will help overcome the isolation, but the social impact will not stop there. In the past, the large library collection available only at a large established research university was a requirement for world-class scholarship. Tomorrow, a wide range of scholarly resources will be available at smaller institutions. Great libraries alone will no longer draw or keep the best faculty.

PRESERVATION AND ACCESS

The conservation of knowledge by collecting and preserving the artifacts containing recorded information has been one of the library's historic missions. The library's other traditional mission has been to make the accumulated stock of knowledge available for use. In the print system, information is distributed as a physically tangible object—a book or journal. The information is locked in an unchangeable state when it is printed and becomes a fixed piece of the written record. Both the preservation and distribution of the information are tied to the physical artifact. Libraries, especially academic research libraries, have long been caught in the dilemma of wanting to encourage use, which threatens the physical object, and to preserve the object, which limits use. The electronic medium has the potential to resolve this conflict. The physical form of electronic information, at least in theory, makes distribution to many people across great distances and secure storage compatible.

"Libraries, especially academic research libraries, have long been caught in the dilemma of wanting to encourage use, which threatens the physical object, and to preserve the object, which limits use. The electronic medium has the potential to resolve this conflict."

If this sounds too good to be true, it may be. As Gordon Neavill, in a thoughtful study of the problems of the electronic media for libraries, states

The malleability of information that is one of the major advantages of computer-based electronic systems has its corollary the potential transience of information. Nothing inherent in the technology of computer-based electronic systems ensures that information in the system will survive. . . . When information is freed from the confines of a physical container it is rendered vulnerable. It can be altered or revised without any indication that a change has been made. It can be purged from the system altogether. Information without a physical container cannot survive on its own.

It is interesting to look at Neavill's concerns in the context of Timothy Weiskel's structuring of the problem. Weiskel begins by defining information as the nonrandom arrangement of energy or matter, and, because entropy drives both energy and matter toward a random state, no such arrangement can be permanent. Because this is so, Weiskel argues, to preserve information it must be renewed by switching it from one medium to another. Weiskel calls this activity channel switching, and for him it has always been a li-
library function. With the advent of new and powerful channels he predicts that moving information between different media, both to distribute it and to preserve it, will become increasingly important. The switching technology exists. Optical scanners are being developed that can recognize many typefaces and alphabets and can digitize text at speeds of 50 to 100 pages an hour. Once digitized the information can be stored on magnetic, optical, and even paper media. The magnetic media are malleable and flexible; they allow for the easy manipulation of information. Some optical media, such as CD-ROMs, are mass-produced and can be used flexibly, but are not malleable. Write once read many (WORM) optical technology need not be mass-produced. Paper digital systems are as of yet largely unapplied, but they appear to have all the advantages of other paper media. The important point is that digital information makes the channel-switching process significantly faster and easier than it has ever been before. There exist any number of containers for digital information; taken together they should be able to meet all the requirements for preservation, distribution, and manipulation of recorded knowledge.

The ease with which digital information can be copied from one medium to another raises significant concerns for the ownership of intellectual property. Current concepts of intellectual ownership will probably not hold up in the digital environment, and this will lead to an instability in the information marketplace. Copyright has served as the protection for a publisher or author's return on investment. If electronic media render this protection ineffective, other mechanisms will need to be developed. Some of these will certainly be in conflict with the desire for unencumbered distribution of information. Universities and their libraries may be required to act as agents of control if they are to acquire some kinds of commercially produced information. Another view, which is either realistic or shortsighted, is expressed by D.I. Raitt, "Copyright? Forget it! ... So long as the library has it or can get it—who cares who owns it? Anyway possession is nine tenths of the law!"

The ease with which electronic media can be used will have another effect. Many items that have not been published in the traditional sense will be broadly distributed. Publishers, with their editorial screening and quality control, have been gatekeepers of the public record. The loss of the publication hurdle, which occurs when everyone becomes a desktop publisher, will lead to an enormous increase in low-quality materials, and the already challenging intellectual task of selecting items for inclusion in library collections will become even more difficult.

The routine use of electronic communication by scholars and students can be expected to change not only the way they work, but the roles played by the library in the process. It may be useful to look at online searching for some of the trends. As the first electronic component of the scholarly communication system, bibliographic databases have been widely used for over a decade. These databases are usually supplements, rather than substitutes, for the printed versions and were, until recently, accessed primarily by librarians. In the last year or two this picture has changed. New systems, pricing schemes, and marketing aimed at the "end-user," have changed the librarians' role from the intermediary to the facilitator who provides access to terminals, instruction, and guidance in choosing the best system for the task at hand. Importantly, the library continues to make information available to all members of the community. This has not been without stress. Funding expensive systems and the need to control costs on pay-as-you-go systems make free unrestricted use difficult.

The university, through its library or some other mechanism, will need to provide access to networks, bulletin boards, and electronic journals just as it has provided access to the printed record. The systems acquired and the barriers to access, such as fees or limited access to terminals, imposed will in large part define the working environment of the university. As electronic scholarly resources become widely available, institutional status will not be enhanced simply by owning
materials. What will matter in the competition for students and faculty will be the ease of access to information and the extent to which the institution will pay the bills.

**STANDARDIZATION OR AUTONOMY?**

The fundamental issue in the application of electronic technology to scholarship will be the balance between central control and standardization, on one hand, and the need of individual scholars to apply idiosyncratic applications to special situations on the other. Much of the current opinion leans toward decentralization and away from central control. Van Houweling makes this case strongly and clearly:

The strength of higher education is derived from its decentralization and diversity. Since the new economics of information technology reinforce these institutional characteristics, diversity and decentralization will be fundamental to achieving our information technology goals. As a result, central activities need to be carefully targeted and designed so as to make the maximum amount of resources available to the various decentralized units in our colleges and universities. Therefore, while almost any information technology activity can be accomplished, in principle, through a central organization, the best organizational strategy for the future is based on quite the opposite premise.

Information technology activities in higher education should be pursued at the lowest level of the organization consistent with their efficient and quality performance. ³⁶

"Information technology activities in higher education should be pursued at the lowest level of the organization consistent with their efficient and quality performance."

However, this view is not universally held. Battin argues the other side:

The paradox of our situation is that the achievement of our goal, because of the character and cost of computer and communications technologies, will require a substantial level of initial cooperation and centralization that runs counter to the strongly autonomous nature of scholarly inquiry. The very diversity of scholarly inquiry and information needs requires in the electronic age an unprecedented degree of centralized, coordinated linkages and compatibilities to serve that diversity and permit the autonomy necessary for productive and creative scholarship. ³⁷

An important aspect of this debate involves administrative structures. Many observers have suggested the convergence of the library and the computer center. ³⁸ The electronic technology has created a situation in which these two organizations share similar resources and service responsibilities. Many campuses have already begun to integrate academic computing and library services, and, at least among librarians, the good sense of this approach is no longer an issue for debate. The more important concern is the conflict between the central organization and the many, often semiautonomous, departments, institutes, and centers that make up the university. The question will be who buys what machines with which money. The debate will be over turf, but as Weiskel reminds us the relationship between scholars and libraries is symbiotic. ³⁹ Faculty need to be involved in planning for the university's use of electronic technology, but this is not always the case, as the example of Brown University's scholar's workstation project shows. ⁴⁰

For Sack it is less the autonomy required by the scholarly process than the nature of the technology that will make centralized control impossible. For him the real revolution will be in the way individuals adapt to the new tools. He believes the malleability of electronic information and the openness of the systems containing it will "combine to encourage the spread of information and ideas beyond the capacity or control—for better or for worse—of information specialists." ⁴¹ Sack suggests that the openness of information systems will allow institutions to become more flexible. An institution should become, as he says, "more able to shape itself to the scholar, becoming less a specific place than a service and a near-transparent medium." ⁴² To do this will require a change of orientation. The traditional "Ptole-
"The traditional 'Ptolemaic,' or institution-centric view needs to give way to a 'Copernican,' or scholar-centric view."

The traditional 'Ptolemaic,' or institution-centric view needs to give way to a 'Copernican,' or scholar-centric view. The fundamental truth of Sack's analysis is that the technology will allow a department or an individual to supply services for themselves if central services are not appropriate to their needs. The result may not be in the best long-term interest of the university.

It is difficult to argue that institutional changes are not in order. Diseconomies of scale are clear in most research libraries and many university computer centers. Concurrently, the ease with which information can be communicated has outstripped the individual scholar's ability to manage it. Institutional support must be used to build networks and to assure open communication. The extent and complexity of the technology require that the integrating network function be institutionalized.

It will also be necessary to identify electronic resources within the university, to assure access to them, and to preserve them. In this effort, incentives rather than regulation will be effective. Individual scholars and departments need to be convinced that centrally controlled systems can provide better service than they could provide for themselves. If they are not convinced, they will go their own way. What Richard W. McCoy says about library networks is also true about electronic structures within the university, "It is of critical importance that research institutions spend the time it will take to understand and internalize the apparently subtle difference between decentralized (fragmented) vs. distributed processing."40

**ISSUES OF STAFFING**

The ability of individuals to tap into the electronic systems and to access resources without a large upfront investment may lead toward deinstitutionalized information services. Scholars have always created their own information systems by building personal collections of books and journals, by traveling to conferences, and by maintaining a network of colleagues. It is therefore not unreasonable to expect them to add electronic sources to their repertoire. The more interesting change may come to librarians, who may now be able to function independently. R.R. Featherlingham suggests that reference librarians and information specialists, "may tend increasingly to freelance their services, to bring their remuneration more under their own control."41 This trend is already apparent in business, but academics, except those with large grants, do not have the cash required to support freelancers on a large scale. Nonetheless, it is easy to imagine academic reference librarians moonlighting. This possibility raises ethical and policy issues that few libraries have faced.

Evelyn Daniel suggests that librarians will need to work more closely with research teams because of the complexity of information systems and the interdisciplinary nature of many projects.45 When access replaces ownership as a significant means of providing scholars and students information, high-quality reference and consultation services will become part of expected institutional support. This will likely lead to an organizational structure based on client-centered work groups as suggested by Charles Martell.46 The client-centered approach will require staff with strong subject backgrounds and an understanding of the scholarly process as well as library and computer skills. In fact, the former may be more important than the latter.

Diane Cimbala considers the Scholarly Information Center model as presented by Battin and points out a number of potential problems of combining library and computer center staffs.47 Academic librarians are generally required to have at least a M.L.S. and often a second subject master's degree; the profession is largely female, and salaries are generally low. Computer center personnel in equivalent positions often have only a B.A.; they are more likely to be male, and they enjoy...
higher salaries and opportunities for lucrative employment outside the university. Librarians are often faculty, or have "academic" rank; computer center personnel are generally considered staff. Combining these two groups into one organization has the potential to cause much tension. Librarians have for many years distinguished between professional and nonprofessional staff with the M.L.S. being required for entry into the professional class. The organizational structures that will be required for effective service in the electronic environment may require groupings of staff with many backgrounds, and the class structure may be forced to give way.

ISSUES OF FUNDING AND FINANCE

There are two mechanisms that can be used to fund information resources or any other general service in the university. Contributions can be taken from all members of the university community in the form of "tax," or fees can be imposed for use. The traditional mechanism for funding libraries has been a tax, usually as a percentage of general funds allotted to the library from tuition, gifts, and the administrative overhead on grants. Occasionally, as in the case of online searching, libraries charge for services on a fee-per-use basis. In these cases, the demand is usually price sensitive, and use is low. The computer center, on the other hand, has generally supported itself by the imposition of fees for use, usually through the sale of CPUs. In the past these systems have worked for both libraries and computer center. Because most of their costs have been fixed, libraries have been able to manage on a set budget allocation. For computer centers, until the recent influx of naive computer users who require large amounts of support, most services could be tied to CPU use, and costs could be covered by billing back to departments and outside users on this basis.

Ironically, as the library becomes more like the computer center and the computer center becomes more like the library, the traditional funding mechanisms have begun to fail. When libraries provide information by accessing online systems their costs are often variable. In these cases, fees are usually imposed to recover costs; this has tended to limit use of these systems. As Nancy Kranich points out, many libraries discourage use by charging fees while at the same time aggressively promoting their services. Fees therefore undercut attempts by the library to establish itself as the information center on campus. However, if fees are not charged, there is real danger of losing control of costs. Fortunately many online systems have moved to flat fees or subscriptions, and CD-ROMs are fixed cost systems. Even so, as information becomes more and more a service and less and less a set of purchased items, price structures will become more complex. Libraries also must supply, at least in the short term, services in parallel forms. During the transition, both printed and electronic copies of the same sources will need to be acquired. This duplication will put severe pressures on library budgets.

Computer centers are also in a difficult situation. With the introduction of small powerful computers, many individuals and departments are purchasing their own machines. As a result they no longer use central time-shared equipment; they no longer buy CPUs, and computer center income declines. At the same time, the individuals and departments need and expect the computer center to supply advice and consulting services; of course, they are expected to be supplied at no charge. Communication networks have increased in importance, and computer centers are usually asked to supply the technical and consulting support to install and maintain them. Unfortunately, rarely do substantial budget increases accompany the new responsibilities, nor are the full costs of networks billable.

Most computer centers have seen the services that have traditionally generated income decline and the demand for free services increase. Libraries are expected to supply variable cost services without charging fees, and computer centers are expected to supply a fixed-cost service
with no tax base. They are both confronting severe budget problems as a result. The combination of the two organizations will not provide any financial relief to the university, but it may focus attention on the need. This is certainly to be preferred to the two competing in a zero-sum game.

Battin offers a structure that may lead towards a solution: "The vastly expanded potential for expensive services makes it necessary to analyze our information functions, regardless of format, and establish new policies for centrally subsidized services with a series of optional, incremental fee-based services available on request." The approach is supported by Michael Cooper's analysis of the nature of information. He shows that information is best understood as a merit good. A merit good is, as he explains, "a private good that society thinks is important enough to be supplied publicly. It is supplied by interfering with consumer preferences, because, left alone, the consumer would purchase less than society thinks worthwhile." Cooper goes on to conclude that in some cases and for some users information services should be supplied free of charge, as are Battin's subsidized services. In other cases and for other users direct charges should be applied. This is simple notion, but it belies the difficult political decisions that will be required to implement it. The university with its diverse needs will have great difficulty making these decisions, and disgruntled departments or individuals can easily set up their own systems in response to policies or prices that do not suit them.

However the decisions are made, two things are clear. First, the university will need to allocate more for information services. The new information technology will make students and faculty more productive, and, at some point, there will be a need to shift funding from faculty to infrastructure. Some of this has already happened; universities today are spending more on their libraries and computer centers combined than they spent on their libraries alone forty years ago. This trend will continue, but it will be hard fought each step of the way. Second, libraries must find ways to limit the need to provide services through both print and electronic means. In most cases this will require giving up print.

"We must not be afraid to follow through on our ideas even when this requires reconsideration of orthodoxies and established practice."

CONCLUSION

The creation of the electronic university will require radical thinking and action. As librarians, we must not be afraid to follow through on our ideas even when this requires reconsideration of orthodoxies and established practice. How we respond will in large measure determine whether our campuses succeed in making a smooth transition to the electronic world. Traditional approaches will be ineffective, especially if coupled with short­sighted notions of turf. Among the issues will be:

- **Structure.** The structure of the information function in the university will combine the current functions of the library, the computer center, and the telecommunications office. Such a combination will quickly move beyond a common reporting relationship to a mixing and melding of staff and responsibilities.

- **Educational Technology.** There will be a need for a public scholarly space on campus. Here students will find the traditional reference services of the library, but beyond these will be everything from facilities for viewing Soviet television or listening to Mozart, to computing on all types of machines from micros to supercomputers. The challenge will be to integrate these sources and services to create an open and inviting environment for both individual exploration and group learning.

- **Communications.** Effective communications networks require standard protocols and compatible software. Without these, intellectual collaboration may be-
come easier off campus than on, and it will be difficult to share institutional information resources. Together these restraints will render the university ineffective. The key to building and maintaining a campus communications infrastructure will be central control over the links to the outside. If control over these links is lost there will be little incentive for departments to cooperate or accept institutional standards. Battles to maintain control over links to supercomputers and networks such as Bitnet, and even OCLC or RLIN can be expected.

- **Electronic Archives.** More and more scholarly resources will be created in digital form. Many of these will be raw data, and they will not be published by commercial firms. These data nonetheless have potential research value and will need to be preserved in a fashion that will allow their later use. Individual scholars will not be up to the task, and an institutional commitment will be required.

- **Staffing.** This issue will be particularly difficult for librarians who have fought long and hard to gain their present status in the university. The traditional skills provided by the M.L.S. and possessed by many practicing librarians will no longer be adequate for many positions. Subject experts and computer programmers without library backgrounds or credentials will be hired. What it means to be a librarian will change, as may the name.

- **Intellectual Property.** Copyright in its present form will cease to be effective when information is digital and subject to easy transmission and manipulation. Other mechanisms will be needed to assure that the creators of information resources receive an equitable return on their investment. Universities will need to resist inappropriate assertions of the right of "fair use." License agreements and other contracts will become common and will need to be carefully negotiated and honored.

- **Funding.** Ways will need to be found to both control costs and provide equitable access to information. This will require at least a two-tiered system. Some services will be provided free to all members of the university community and will be paid for from general university funds. Other services will be available only on a fee-per-use basis. Subsidies may be required when equity needs to be assured.

- **Cooperative Programs.** Universities will have to work together to create a series of regional and national resources centers to assure that scholarly resources are acquired and preserved. Printed materials need to be given first priority because of the great needs for preservation and because they will be the first thing given up by individual institutions. In addition, many electronic resources, such as remote sensing data or large text files, will require cooperative support. The resulting interdependence will not easily coexist with institutional pride.

Finally, we need to recognize that though technological developments will force changes, we can shape the way technology is used. People, not machines, create institutions. We, not the machines, will invent the electronic university.

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**REFERENCES AND NOTES**


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24. Oakeshott, "The 'BLEND' Experiment," p.34.


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45. Evelyn Daniel, "An Examination of Faculty and Administrative Knowledge Workers and Their Major Information Support Units," in *Campus of the Future*, p.52.


Automated Collection Analysis Using the OCLC and RLG Bibliographic Databases

Nancy P. Sanders, Edward T. O'Neill, and Stuart L. Weibel

This study examined the feasibility of automating the labor-intensive process of collection analysis. Collections in botany and mathematical analysis from institutions holding membership in the Committee on Institutional Cooperation (the Big Ten universities plus the University of Chicago) served as the study population. The databases of the Online Computer Library Center (OCLC) and the Research Libraries Group (RLG) were initially used as the sources of holdings information. The study found that the methodology provided a promising alternative means of analyzing and comparing library collections. However, due to varied cataloging practices of the participating libraries, accurate results could not be obtained without local verification of the holdings data.

The growing trend toward research library participation in cooperative collection development agreements has prompted collection managers to seek consistent means to evaluate and compare their collections. Unfortunately, most methods currently available are labor-intensive. The purpose of this study was to test the feasibility of using the databases of the bibliographic networks for computerized collection analysis to reduce the labor required.

The project was formally initiated in summer 1985 when the Online Computer Library Center (OCLC) and the Research Libraries Group (RLG) were invited by the Committee on Institutional Cooperation (CIC) to participate in a meeting of its science bibliographers and collection development officers. The meeting explored the potential for cooperative collection development among CIC institutions. Discussions with participants and program planners suggested that science and technology collections would be good subject areas for study.

The CIC meeting was held at the University of Chicago, September 12 and 13, 1985. During that meeting, some preliminary analyses for the OCLC member libraries were presented. Following the discussion, it was decided to expand the study to include all CIC member universities: Chicago, Illinois, Iowa, Michigan, Minnesota, Wisconsin, Indiana, Michigan State, Ohio State, and Purdue.

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A literature review revealed substantial work in the area of collection analysis, particularly in collection overlap. This previous work is summarized in William Gray Potter's review of relevant research. Much of the work completed in the 1960s and 1970s investigated the feasibility of establishing processing centers, union catalogs, or cooperative collection development agreements.

Several overlap studies based on methodologies different from that planned for this study were examined for relevant findings. Many earlier studies were based on random sampling from card catalogs or shelflists. For example, William Nugent's study of six New England state universities; Ellen Altman's investigation of the optimum composition of a secondary school interlibrary loan system; William Cooper, Donald Thompson and Kenneth Weeks' study of overlap in the University of California system; and Edward O'Neill and Mary Lynn Seanor's analysis of the library collections in western New York State take this approach.

Later studies such as those by Thomas Nisonger of the libraries in north Texas; Barbara Moore, Tamara Miller and Dan Tolliver at the University of Wisconsin; and Glyn Evans, Roger Gifford, and Donald Franz in New York State employed OCLC archive tapes in collection analysis. Potter used the LCS library computer network in Illinois academic institutions. While these studies, based on comparisons of random samples rather than recommended lists, were of interest, the methodologies and populations were sufficiently dissimilar to render comparisons difficult. The potential problems common to overlap studies in general were well documented by Michael Buckland, Anthony Hindle, and Gregory Walker.

**SAMPLING METHODOLOGY**

Random samples of 500 monographic records from each of the two subject areas, botany and mathematical analysis (which includes calculus, functional analysis, functions, and differential equations), were extracted from the OCLC Online Union Catalog. These two subject areas were selected because their bibliographic charac-
sample record. This procedure maintained the statistical validity of the sample, ensuring that each text had an equal chance of being included in the sample regardless of the number of records in the database representing that text.

Different editions were considered different texts with the exception of "editions" from Latin America and non-English-speaking Europe where so-called editions are most often "printings." Therefore, different "editions" from these countries were considered to be the same text, and the records were collapsed or eliminated based on their OCLC number unless there was evidence of revision. Translations were considered to be distinct texts.

Obvious serial (not monographic series) articles that had been cataloged separately and entered as monographs were also eliminated from the sample. In most cases, determining whether two records represented the same item was not simple. Some decisions were later found to be erroneous when bibliographers examined their local records or an item in hand. These errors simply point out the problem long recognized by those who catalog in an online environment: determining whether an existing record represents a work in hand is often difficult, if not impossible, given the idiosyncrasies and lack of standardization in the publishing industry and the impossibility of adequately describing an item to distinguish it from different, though similar, works using current cataloging criteria.

Following the manual search of the database and the elimination of records not representing unique texts, 392 records remained in the botany sample and 454 in the mathematical analysis sample. As the sample was searched, all relevant OCLC holdings data were appended to the selected bibliographic records. However, because only six of the eleven CIC institutions (Illinois, Indiana, Michigan State, Ohio State, Purdue, and Wisconsin) are OCLC members, not all CIC member holdings were represented. Four of the institutions (Iowa, Michigan, Minnesota, and Northwestern) are RLG members. Chicago is not associated with either bibliographic network. To obtain holdings data for the RLG members, a listing of the bibliographic records in the samples was sent to RLG where it was checked against that database.

To test the completeness of the networks' holdings data, the OCLC holdings information was compared with local records at Ohio State. It was obvious that the networks' holdings data were incomplete, largely due to local cataloging practice. Frequently, Ohio State had cataloged an item by attaching its holdings symbol to a series or serial record, rather than adding it to the record for the individual item or "subunit." This finding highlights the problems that arise when databases designed for one purpose, in this case cataloging, are used for a different purpose, such as collection analysis.

To determine the magnitude of the "subunit" problem, the searcher located the record for each serial or series that was cited within the subunit monographic record. Each was examined to determine whether it would be feasible to assume that a given library held the monographic item if the library's symbol was attached to the serial holding record (assuming that the library holding symbol was not attached to the monographic record). In the majority of cases it was decided that it was not possible to assume this because many series contained several hundred to more than one thousand associated monographs.

As a result of this early finding and the number of records belonging to this subunit category, the libraries were asked to verify their holdings. At the same time, Chicago was asked to identify the materials held. All of the institutions agreed to check the sample against their catalogs. However, due to local difficulties, the botany sample could not be verified at Michigan and Northwestern. The Michigan data provided by RLG were used without validation, recognizing that the botany holdings for Michigan are underestimated. Because Northwestern had only recently begun entering records into the RLG database, its unverified holdings were known to be seriously underrepresented. Therefore, its botany data were excluded from the analysis.

The results of the local verification, shown in figures 1 and 2, confirm the earlier suspicions that holdings indicated by
"Holdings indicated by the bibliographic networks may not accurately reflect a library's collection; therefore, the records for the bibliographic networks should be only one of several sources used to measure collection strengths."

the bibliographic networks may not accurately reflect a library's collection; therefore, the records for the bibliographic networks should be only one of several sources used to measure collection strengths. The reason for the discrepancies vary. For example, the holdings discrepancy figures show all of Chicago's holdings as "added by the library" because records from bibliographic networks were not available at the time the sample was taken. Also, data for Minnesota underrepresented their botany holdings because the wrong holdings symbol was used during data extraction. Local cataloging practices may account for other variations, such as the "subunit" problem noted above, but further examination and explanation await future research.

HOLDING PATTERNS

Of the analyses developed from the various holdings data, three focus on individual libraries' holdings. Five examine collections of the CIC institutions as a whole and provide an overview of the potential for cooperative collection development in the consortium. Of particular interest is the frequency distribution for the number of libraries per title that shows the duplication patterns for both botany and mathematical analysis (figure 3). The distributions reflect both differences in the character of the samples and collecting patterns in the two disciplines: 44% of the botany titles and 22% of the mathematical analysis titles are not held by any of the CIC institutions. An examination of the sample titles and associated holdings patterns suggests a reason for the higher botany figure: the botany sample contains a significant number of publications on regional flora and fauna that are collected primarily by libraries in the geographic area covered. From the analysis of items held by only one institution, it is clear that the collections in mathematical analysis and botany lack uniqueness. Contributing factors may be the classifications examined, i.e., the subject areas may not lend themselves to specialization, or more likely, selection of a narrower classification range would be required to identify unique collections. Similar problems have been voiced by those using the classification ranges specified for the RLG Conspectus, adopted by the Association of Research Libraries (ARL) for the North American Collections Inventory Project (NCIP). They have been criticized as too broad to describe adequately the strengths and weaknesses of major research collections.

For titles held by 2 or more libraries, the percentages are similar for botany and mathematical analysis and the distribution...
is relatively flat. The number of items held by multiple libraries reflects the similarity among the collections. In botany, 25% of the sample was held by 5 or more of the 10 participating libraries. For mathematical analysis, 41% of the sample was held in 5 or more collections, and 36% was held in 6 or more libraries, indicating greater similarity among the mathematical analysis collections. The average number of libraries holding each title also indicates a greater duplication of the mathematical analysis material. Mathematical analysis items were held by an average of 4.2 CIC libraries, while the botany items were held by an average of only 2.3 libraries. Even when Northwestern’s mathematical analysis holdings are excluded—to be consistent with botany—the average mathematical analysis book was still held by 4 libraries.

The pool of available materials was quite different for mathematical analysis and botany. During the period of study, approximately 350 books were published annually in mathematical analysis and 660 in botany. However, a greater proportion of the mathematical analysis materials was acquired. The CIC libraries each acquired an average of 134 books annually in mathematical analysis and 152 books in botany. The higher acquisition rate from a relatively small pool of available materials could potentially explain the higher duplication rate for mathematical analysis.

An analysis of titles not held by any CIC institution was undertaken as a result of numerous comments from CIC participants that the sample was not representative of research collections because it included many popular books, texts, and other nonresearch materials more suitable for public or school libraries. While the sample had been intended as a selection of all material published in the subject areas, the investigators questioned whether the material not held by the CIC institutions would be generally considered to be “research material.” To address that question, the types of libraries holding the sample items not held by a CIC institution were analyzed. The findings are shown in figures 4 and 5.

For this analysis, a research library was defined as a member of the ARL, and academic libraries were defined as all other college and university libraries. The public libraries group also includes processing centers, school libraries, and state libraries. Only North American library holdings were included in the analysis. The examination showed that 61% of the 101 mathematical analysis titles and 60% of the 176 botany titles not held by CIC institutions were held by a least one other research library. Also notable is the number of items not held by a CIC institution that were held only by another research library: 45% in the mathematical analysis sample and 32% in the botany sample. In all cases, the sample items were more often held by research libraries than by any other type of library.

Other academic libraries held the second
largest portion of the titles not held by a CIC institution, followed by public and special libraries. For mathematical analysis, academic libraries held 52%, exclusively 28%; public libraries held 17%, exclusively 2%; and special libraries held 10%, exclusively 2%. For botany, academic libraries held 44% of the titles, 21% of them exclusively; public libraries held 10% of the titles, 2% of them exclusively; and special libraries held 36%, exclusively 10%. Thus, almost all of the materials not held by academic and research libraries were held by special libraries, especially in botany. Therefore, it appears likely that the materials were not acquired by any CIC library for reasons other than their lack of scholarly focus.

**COLLECTION OVERLAP**

Collection overlap was analyzed to determine the extent of duplication among CIC libraries. The results of the analysis are shown in tables 1 and 2. Overlap was determined by measuring the number and proportion of titles held in common by pairs of CIC libraries, i.e., by each CIC library compared sequentially with every other CIC library. The number held in common is shown in tables 1 and 2 below the diagonal space while the percentage appears above. Percentages were calculated by first determining the number of volumes in the sample that were held by paired institutions (e.g., 89 + 109 or 198, in the case of the Ohio State and Wisconsin botany collections). The number of duplicated items was then subtracted (198 - 67 = 131 in the example), leaving the number of titles held by the two libraries. The number of titles held in common was divided by the number of titles held, yielding the percentage of titles held in common by the two libraries (67/131 = 0.511, or 51.1%).

A related research project by Charles Davis and Deborah Shaw suggests that overlap is predictable by collection size. In the present study a significant positive correlation (r = 0.58) was found between overlap and number of volumes held by both institutions for botany. In mathematical analysis, however, there was no significant correlation (r = -.01). The botany finding does not support the Davis and Shaw study. However, the method of computing the overlap was different and could account for the inconsistency. Further research is required to understand the relationship between collection size and overlap.

The overlap percentages were, on average, higher for mathematical analysis than for botany. The differences are likely due, at least in part, to factors noted earlier: the
TABLE 1
COMMON HOLDINGS IN BOTANY

<table>
<thead>
<tr>
<th>Institution</th>
<th>No. of Titles Held</th>
<th>Ohio Institution Held</th>
<th>Michigan</th>
<th>Minnesota</th>
<th>Ohio State</th>
<th>Purdue</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td>65</td>
<td>37.8 37.0 39.6 33.7 35.8 34.4 35.1</td>
<td>31.9 42.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Illinois</td>
<td>132</td>
<td>54 38.8 47.5 36.6 52.8 47.3 51.4</td>
<td>32.6 60.7</td>
<td></td>
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<tr>
<td>Indiana</td>
<td>61</td>
<td>34 54</td>
<td>42.7 39.6 42.4 32.7 45.6</td>
<td>36.5 46.6</td>
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<td></td>
<td></td>
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<tr>
<td>Iowa</td>
<td>76</td>
<td>40 67 41</td>
<td>42.0 53.2 43.4 48.6</td>
<td>29.7 50.4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Michigan</td>
<td>66</td>
<td>33 53 36 42</td>
<td>43.0 38.7 44.9</td>
<td>30.1 36.7</td>
<td></td>
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<td>117</td>
<td>48 86 53 67 55</td>
<td>52.4 54.9</td>
<td>31.3 60.3</td>
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<tr>
<td>Minnesota</td>
<td>142</td>
<td>53 88 50 66 58</td>
<td>89</td>
<td>45.3 31.3</td>
<td>47.6</td>
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<td>89</td>
<td>40 75 47 54 48 73 72</td>
<td></td>
<td>37.1 51.1</td>
<td></td>
<td></td>
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<tr>
<td>Purdue</td>
<td>55</td>
<td>29 46 31 30 28 41 47 39</td>
<td></td>
<td></td>
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<tr>
<td>Wisconsin</td>
<td>109</td>
<td>52 91 54 62 47</td>
<td>85 81 67</td>
<td>44</td>
<td></td>
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<td></td>
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</table>

TABLE 2
COMMON HOLDINGS IN MATHEMATICAL ANALYSIS

<table>
<thead>
<tr>
<th>Institution</th>
<th>No. of Titles Held</th>
<th>Michigan State</th>
<th>Minnesota</th>
<th>Northwestern</th>
<th>Ohio State</th>
<th>Purdue</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td>124</td>
<td>58.1 52.9 44.1</td>
<td>51.4 46.8</td>
<td>47.0 52.2</td>
<td>50.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illinois</td>
<td>301</td>
<td>47.6 42.4 70.7</td>
<td>44.0 46.4</td>
<td>32.7 58.9</td>
<td>42.7</td>
<td>48.4</td>
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<tr>
<td>Indiana</td>
<td>170</td>
<td>57.6 55.7 55.5</td>
<td>59.3 45.5</td>
<td>51.4 56.2</td>
<td>57.1</td>
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<td></td>
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<tr>
<td>Iowa</td>
<td>142</td>
<td>49.8 54.6 57.2</td>
<td>48.8 50.4</td>
<td>59.7 56.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michigan</td>
<td>252</td>
<td>151 131</td>
<td>48.9 54.9</td>
<td>38.4 59.0</td>
<td>51.1 56.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michigan State</td>
<td>141</td>
<td>100 100</td>
<td>57.5</td>
<td>46.4 52.7</td>
<td>54.0 58.3</td>
<td></td>
<td></td>
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<tr>
<td>Minnesota</td>
<td>163</td>
<td>124 111 147</td>
<td>111 48.9</td>
<td>53.0 58.2</td>
<td>61.2</td>
<td></td>
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<tr>
<td>Northwestern</td>
<td>105</td>
<td>86 81 99</td>
<td>78 88</td>
<td></td>
<td>40.3 50.9 45.3</td>
<td></td>
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<tr>
<td>Ohio State</td>
<td>198</td>
<td>125 114 147</td>
<td>117 125</td>
<td>87</td>
<td>51.3 49.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purdue</td>
<td>147</td>
<td>114 108 135</td>
<td>101 114</td>
<td>85 117</td>
<td></td>
<td>56.6</td>
<td></td>
</tr>
<tr>
<td>Wisconsin</td>
<td>174</td>
<td>125 114 154</td>
<td>116 128</td>
<td>87 123</td>
<td></td>
<td>116</td>
<td></td>
</tr>
</tbody>
</table>

smaller body of mathematical analysis material published and the geographical specificity of some botany material. It is highly likely that institutional collection policies also affected the overlap patterns, though this was not explicitly examined in the study.

COMPOSITION OF THE COLLECTIONS

Language of publication was found to be a useful attribute for characterizing the literature of a given subject field and for distinguishing the collecting policies of research libraries. Figure 6 shows the proportion of foreign-language material held by each institution. As might be expected, the majority of each library’s collection was in English. The larger collections contain a higher proportion of non-English material. This generalization proves stronger for the mathematical analysis sample, in which the total collection size and the proportion of the foreign-language collection are closely correlated. In the botany sample, Chicago, Michigan, and Ohio State have higher percentages of non-English material than would be predicted by their comparative collection sizes. Michigan’s figure is probably explained by under representation of its collection; Chicago’s by its heavy research emphasis; and Ohio State’s by its Herbarium staff’s interest in Latin America and resulting purchases in Spanish and Portuguese, and the emphasis on Systematics for which the Biological Sciences Library purchases in many foreign languages.

The foreign-language composition of the sample, shown in figure 7, provides yet another means of illustrating the differences in the character of the two samples. The non-English portions of the mathematical analysis sample were primarily German
The botany foreign-language material was published more frequently in French (35%), German (24%), Russian (13%), and Spanish (10%).

**IMPLICATIONS**

The concept of analyzing library collections by comparing their current acquisition patterns to the pool of available monographs was found to be a viable approach to collection evaluation. Although the resulting data could be used either to compare the relative strengths of different subject areas within a single library or to compare relative strengths in a given subject among different libraries, the investigators believe that the absolute numbers are far less significant than the relative numbers. Knowing that a library acquires 25% of all available material tells little about the strength of the collection. It is only when the acquisition rate is compared to that of peer institutions that the assessments become meaningful. For example, by comparing all CIC collections, it became clear that a library acquiring 30% of the available botany material is likely building a strong collection. However, in mathematical analysis, the acquisition of 30% of the available material would produce only an average collection. Further research would be required to build a basis of comparative data for other subject areas.

The acquisition patterns for both botany and mathematical analysis materials indicate a considerable potential for coopera-
tive collection development among the CIC institutions. Since only approximately 5% of the acquisitions are unique, a relatively small shift in acquisition patterns could result in a significant reduction in the amount of material not acquired by any CIC institution. The result of such changes in collection development policies would be that library users would experience a small decrease in the proportion of their needs met locally, but a higher proportion would be met within the consortium. Whether the overall results of such changes would be desirable would depend on usage patterns, local expectations, and political conditions, none of which was examined in this study.

The relation between collection size and overlap bears further investigation. If such analysis could substantiate a strong positive correlation between size and overlap, then libraries contemplating cooperative agreements might rely with some confidence on the more easily obtainable collection size statistics for a particular subject classification rather than computing common holdings. Of equal importance in such a study would be a careful analysis of the collections that do not conform to the model to derive an explanation of their uniqueness.

From the analysis of the holdings, it is clear that local library cataloging practices and bibliographic networks' policies affect the utility of the online databases for collection analysis. The responses from the CIC institutions indicate a pattern of cataloging practices that require local validation to achieve reliability. Cataloging policies that resulted in partial cataloging of monographic series and no cataloging for some reserve, technical report, and theses collections became apparent in this study.

Potential uses for the results of comparative collection data include accreditation reports, collection strength analysis for proposed new programs, cooperative project viability, and Conspectus or NCIP work sheet validation. However, unless a method can be found to compensate for the unreported holdings, local validation of the holdings data is necessary to obtain consistent and reliable results. The expense of that process obviously limits its application to selected subject areas.

REFERENCES


State Coordination of Higher Education and Academic Libraries

Vicki L. Gregory

This study consists of a historical descriptive exploration on the attention given over the past twenty years by state coordinating agencies of higher education to academic libraries in terms of (1) funding and funding formulas and (2) statewide library networks and other statewide cooperative programs. A mailed survey was conducted in fifteen states, representing all regions of the United States, and forty-five interviews were conducted in eight states. Several factors were identified that appear to be related to the perceived success in the interaction of the state coordinating agencies and their respective academic libraries, and a theory concerning that interaction is advanced.

In the period following World War II, almost every state established an agency to coordinate centrally the planning and/or financing of state colleges and universities. Prior to 1950, less than a third of the states had such agencies; however, by 1983 all but three states possessed some kind of coordinating agency. Today, these agencies are of three main types: advisory coordinating boards, regulatory coordinating boards, and consolidated governing boards. These different types of boards can be defined as follows.

An advisory coordinating board is defined as a "state-mandated agency [by statute, executive order, or constitutional provision] which does not supersede institutional or segmental governing boards and gives advice and recommendations on higher education to institutions and state agencies."

A regulatory coordinating board is defined as a "state-mandated agency which does not supersede institutional or segmental governing boards and has final approval powers in at least certain key policy areas."

A consolidated governing board is defined as "one single board which governs and coordinates all public higher education with the state, except possibly public community colleges."

In the study of statewide coordination of public higher education, several trends can be clearly discerned in table 1. The first is the obvious trend toward some type of statewide coordinating agency. Second, the number of coordinating boards with regulatory powers has greatly increased, while the number with purely advisory powers has decreased. Third, there has been some movement from coordination through coordinating boards to coordination through consolidated statewide governing boards.

Clearly, academic libraries and librarians must function today within a budgeting and policy framework that is dimensionally broader than the traditional
library/university administration/board of trustees structure. The movement toward consolidated statewide governing boards places each institution’s academic library in the position of being not just the library but rather a library within a statewide system. As such, while many of the traditional problems of library funding and programs remain to be faced, new ones must be taken into account. Among them is the library’s position as perhaps the most funded and easily shared resource within a statewide system. A chemistry laboratory cannot be moved easily, but a book (or even more so an electronic text) on chemistry can be moved and shared. The potential impact on system and institutional budgeting is obvious, as is the tremendous positive potential for coordinated statewide cooperative programs. These and other implications of heightened statewide-level coordination of academic institutions may not, however, be presently fully realized, either by university administrators or librarians.

STATEMENT OF PURPOSE

Numerous books and articles have been written on the origins and functions of coordinating agencies, but little on the influence of these agencies on particular programs or activities of the affected institutions, such as the operation of their libraries. The increasing costs of operation and the declining (in real dollars terms) budgets of many universities and colleges in the 1970s resulted in the involvement of some state coordinating agencies in both programmatic coordination and the funding of academic libraries on a statewide multi-institutional basis, ostensibly in order to make more efficient use of the state’s limited resources. This involvement has received only cursory study. The purpose of this study was to examine the development over the past twenty years (1965–85) of the relationship between state coordinating agencies and statewide library cooperative programs and the funding of academic libraries in public universities of selected states.

METHODOLOGY

This research project was a qualitative study utilizing the grounded theory approach. Briefly, formulating a grounded theory requires a comparative approach in which data collection, coding, analysis, and theorizing are both simultaneous and progressive. During the course of the study, opinions and facts were gathered to synthesize them into a picture of the relationships among various factors that seem to influence the funding of academic libraries in public institutions and the existence and perceived success of statewide library cooperative programs.
Sample Selection

The initial sample involved a survey mailed to all public institutions offering graduate work in the following fifteen states: Alabama, Arkansas, California, Florida, Georgia, Illinois, Louisiana, Massachusetts, Minnesota, North Carolina, Oklahoma, Texas, Virginia, Washington, and Wisconsin. The second phase of the project consisted of a more intensive study, including on-site interviews, in the following states: Alabama, Arkansas, Georgia, Louisiana, North Carolina, and Texas. In addition, Oklahoma and Florida were visited for the purpose of reviewing their current statewide automation/networking projects.

Theoretical factors were considered both in selection of the fifteen states surveyed by mail and the six states studied intensively. The first of these factors was the type of coordinating structure utilized. All three types of coordinating structures currently in existence were present in selected states during the entire time period studied. Other factors were also considered in the selection of the sample such as the number of both public and independent institutions of higher education in the state; enrollment trends to insure inclusion of states with relatively stable, increasing, and decreasing enrollments; personal income per capita; and tax revenue per capita.

Data Collection

Three methodologies were used to collect the data: content analysis, survey, and interview. First, basic factual data were gathered on the funding process in each state and the existence of statewide library programs. Second, a mail survey was conducted in fifteen states, utilizing questionnaires sent to library directors, university administrators, and staff members of state coordinating agencies in each state. The information gained from this portion of the project determined issues to be focused upon in the more intensive portion of the study.

The next phase of the project focused on qualitative techniques to build theory. A content analysis of the available publica-

"An attempt was made to evaluate statewide library/program successes and failures as judged by interviewee’s perceptions."

ions of the coordinating agencies concerning academic libraries in each of the six states studied intensively was performed. The purpose of the content analysis was to identify concerns and the solutions to these concerns that have at least been suggested in print. The onsite interviews focused on issues identified in the survey and in the analyzed publications. The interviews also were intended to identify concerns not expressed and possibly could not be expressed in any of the documents. An examination of the factor of individual and institutional leadership was conducted at this stage. An attempt was made to evaluate statewide library/program successes and failures as judged by interviewee’s perceptions in order to suggest relationships among the various situational variables that might influence the perceived success or failure of these programs or policies.

ANALYSIS OF DATA

Three kinds of data were considered: content analysis data, questionnaire data, and interview data. The discussion here must be of a representative nature only as the full descriptions of the programs and policies of the states where interviews were conducted are necessarily long and detailed. For a more complete discussion, see the dissertation.

Content Analysis

First, only in the six preselected states where interviews were conducted was a concerted effort made to collect and examine systematically all pertinent documents. Unfortunately, even in these states it was occasionally difficult to obtain access to all the potentially relevant materials, due to limited publication runs of some items for immediate administrative
usage only and the supposed confidentiality of some of the information. In the other nine states, documents forwarded with survey responses or mentioned by survey respondents in cover letters or by another researcher were examined.

As would be expected, funding was found to be in all states a major, if not the major issue. Beyond funding, however, the issues naturally become somewhat dissimilar in the states studied; nevertheless, several issues, when described in generalized terms, were found to be common to several states. For discussion purposes these other issues were collapsed into two additional categories: (1) networking and resource sharing, and (2) program approval and collection development.

Questionnaires—General Data

Two hundred library directors and the same number of chief academic officers, constituting the total population of library directors and chief academic officers in universities supporting graduate education in the fifteen states studied, were sent questionnaires. In addition, eighteen staff members of the various coordinating agencies were surveyed, along with two directors of academic library networks funded by a state coordinating agency. The reason for more than fifteen agencies is that in three states with consolidated governing boards, a coordinating council existed in addition to the board and questionnaires were sent to both. (John Millett suggests in his book Conflict in Higher Education that there may be a developing trend toward this type of structure.) During the interviews it was discovered that one of the agencies, the Georgia Commission on Postsecondary Education, no longer existed, so only one coordinating agency failed to respond in some form or the other. A follow-up mailing was sent to nonrespondents one month after the initial mailing. Some of the responses not deemed usable consisted of letters, some of which contained information utilized in either the content analysis or in the interview analysis.

Interviews—General Data

Forty-five interviews were conducted in eight states with thirty-nine of these interviews being conducted in the six states studied intensively. Representatives of the three groups surveyed (library directors, chief academic officers, and coordinating agency staff) were interviewed (see table 2). In each of the interviews, issues identified from the survey results and from the content analysis were explored in as much depth as time and the knowledgability of the interviewee permitted. While an effort was made to ensure that the same basic matters were touched upon in each interview, no attempt was made to circumscribe the discussion, and the particular interests of each interviewee were therefore explored in some depth.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Survey Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sent</td>
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<tr>
<td>Library directors</td>
<td>200</td>
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<tr>
<td>Chief academic officers</td>
<td>200</td>
</tr>
<tr>
<td>Staff coordinating boards</td>
<td>20</td>
</tr>
</tbody>
</table>

FINDINGS

First, some of the questionnaire results will be discussed. This discussion will be followed by the major conclusions drawn from all data, i.e., content analysis, survey, and interview.

All segments surveyed were asked to respond to a list of statements using a five-point scale: strong agreement, agreement, neutral, disagreement, or strong disagreement. The first of these statements to be discussed is "Academic libraries in recent years have received greater attention from the state coordinating agency." The results can be seen in table 3.

In the aggregate, the most frequent response was "agreement." When the data were cross-tabulated on the basis of the type of coordinating board, those respondents from states with consolidated governing boards tended to indicate strong
agreement with the statement; those in states with regulatory coordinating boards divided their responses between strong agreement and agreement, and those in states with advisory coordinating boards showed random responses. When the responses from library directors were cross-tabulated by ARL and non-ARL libraries, the ARL library directors indicated strong agreement with the statement.

All three groups were similarly asked to respond to the following statement: “Library directors have an appropriate degree of influence on policies of coordinating agencies that affect libraries.” The results can be seen in table 4.

The majority of the staff members of the coordinating agencies responding agreed with the statement, while about a third of the library directors and less than half of the chief academic officers agreed. When the library directors’ responses were compared—based on whether or not there is an advisory committee of librarians to the coordinating agency (see table 5)—it was discovered that 53% of those responses from states where no advisory committee exists disagreed with the statement, as compared to 21% of the responses from states where a committee does exist. On the other hand, in states where advisory committees exist, 45% of the library directors agreed with the statement as compared to 17% in states where no such committee exists.

Turning to the funding/budgeting process, all three groups surveyed were asked to respond to this statement: “State coordinating agency has a key role in financial support of libraries.” Respondents tended to indicate agreement with the statement. Fifty-two percent of the library directors, 65% of the chief academic officers, and 66% of the coordinating board staff members responded either in agreement or strong agreement with the statement.

Again, all three groups were asked to respond to the statement that “State coordinating agencies have diverted funds from research libraries.” The above statement verbalizes a fear that has appeared in the library literature as at least a possible outcome of library funding influenced by state coordinating agencies. The responses do not indicate a general percep-

### TABLE 3

<table>
<thead>
<tr>
<th></th>
<th>Library Directors</th>
<th>Chief Academic Officers</th>
<th>Coordinating Board Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong agreement</td>
<td>32 (24%)</td>
<td>23 (17%)</td>
<td>5 (33.33%)</td>
</tr>
<tr>
<td>Agreement</td>
<td>50 (38%)</td>
<td>55 (40%)</td>
<td>5 (33.33%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>28 (21%)</td>
<td>34 (25%)</td>
<td>5 (33.33%)</td>
</tr>
<tr>
<td>Disagreement</td>
<td>19 (14%)</td>
<td>20 (15%)</td>
<td>0</td>
</tr>
<tr>
<td>Strong disagreement</td>
<td>4 (3%)</td>
<td>4 (3%)</td>
<td>0</td>
</tr>
<tr>
<td>Total responses</td>
<td>133</td>
<td>136</td>
<td>15</td>
</tr>
</tbody>
</table>

### TABLE 4

<table>
<thead>
<tr>
<th></th>
<th>Library Directors</th>
<th>Chief Academic Officers</th>
<th>Coordinating Agency Staff</th>
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</thead>
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<tr>
<td>Strong agreement</td>
<td>11 (8%)</td>
<td>11 (8%)</td>
<td>2 (13%)</td>
</tr>
<tr>
<td>Agreement</td>
<td>47 (35%)</td>
<td>57 (43%)</td>
<td>9 (60%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>25 (19%)</td>
<td>31 (22%)</td>
<td>1 (7%)</td>
</tr>
<tr>
<td>Disagreement</td>
<td>40 (30%)</td>
<td>30 (22%)</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>Strong disagreement</td>
<td>10 (8%)</td>
<td>5 (4%)</td>
<td>0</td>
</tr>
<tr>
<td>Total responses</td>
<td>133</td>
<td>134</td>
<td>15</td>
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</table>
TABLE 5
DIRECTORS' ANSWERS TO THE QUESTION CONCERNING THEIR INFLUENCE ON POLICIES OF COORDINATING AGENCIES WHEN COMPARED TO EXISTENCE OR NOT OF ADVISORY COMMITTEE

<table>
<thead>
<tr>
<th></th>
<th>Advisory Committee</th>
<th>No Advisory Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong agreement</td>
<td>11 (13%)</td>
<td>0</td>
</tr>
<tr>
<td>Agreement</td>
<td>39 (45%)</td>
<td>8 (17%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>12 (14%)</td>
<td>10 (21%)</td>
</tr>
<tr>
<td>Disagreement</td>
<td>18 (21%)</td>
<td>25 (53%)</td>
</tr>
<tr>
<td>Strong disagreement</td>
<td>6 (7%)</td>
<td>4 (9%)</td>
</tr>
<tr>
<td>Total responses</td>
<td>86</td>
<td>47</td>
</tr>
</tbody>
</table>

tion that any such diversion is taking place at least in most of the states studied. Sixty-one percent of the library directors, 61% of the chief academic officers, and 80% of the staff members of the coordinating boards responded either in disagreement or strong disagreement. No staff member of a coordinating board agreed with the statement, but three did mark the neutral box. Since most of the responses in agreement with the statement came from two states, such diversion as suggested by the statement may in fact be occurring in a few cases. When the library director and chief academic officer responses were compared on the basis of ARL and non-ARL libraries, the responses did not vary for the overall pattern.

Turning to library cooperative programs, all three groups were asked to respond to the statement "State coordinating agencies have encouraged library cooperation." Most respondents indicated agreement with the statement with only a very small percentage indicating either disagreement or strong disagreement. The staff member of a coordinating agency who disagreed with the statement indicated in the comments section of the questionnaire that while his particular agency encouraged library cooperation, he did not believe other coordinating agencies were as concerned about academic library cooperation.

When asked to respond to the statement that the "Advantages of statewide coordination of library cooperative programs outweigh the disadvantages," the majority of all three groups indicated either strong agreement or agreement.

A list of cooperative programs was provided to library directors as part of their questionnaire, and they were asked, if these types of programs existed in their state, whether in their opinion such programs have been successful, moderately successful, generally unsuccessful, or very successful. The results can be seen in table 6.

MAJOR CONCLUSIONS

Based on the survey and interview data, several factors were identified that coexist with successful interaction between academic libraries and state coordinating agencies as evidenced by special funding programs for libraries and successful library cooperative programs. While the type of coordinating agency was not found to be in itself determinative, a change in the type of agency, whatever the change, was seem to result in an increased level of activity between the academic libraries and the coordinating agency. In some states, of course, after a brief flurry of such activity, progress did not continue, but in others sustained activity was exhibited. The effort itself to bring about the change in the coordinating agency no doubt occurred because of dissatisfaction with the older agency, a dissatisfaction that may have itself been engendered because of an unwillingness on the part of institutions to work together
under the old system. The new or strengthened agency may have had a legislative mandate to make the institutions work together.

A second important factor was found to be the presence of a permanent advisory committee of librarians attached to or reporting to the coordinating agency. From the survey data, which covered fifteen states, eleven states have such a committee and four do not. Three out of the four that do not have such a committee are states with an advisory coordinating council; only Minnesota had this type of committee. Only one state, Louisiana, which has a regulatory coordinating council, and no states that have a consolidated governing board, lacked an advisory committee of librarians. In states such as Arkansas and Louisiana where no such group exists on a permanent basis, it is evidently difficult to keep library concerns before the coordinating agency, and it is particularly difficult for strong leadership to emerge to present those concerns to the coordinating agency.

In specific, the more homogeneous the makeup of the committee in terms of the type of institutions the more effective it would appear to be. For example, a separate committee for community and junior colleges and a separate committee for university libraries, etc., tends to maximize common interests. In North Carolina, the library directors of the University System, which is composed of sixteen institutions, were able to obtain increased funding in order to upgrade their collections substantially during the 1970s, and more recently received a special legislative appropriation for automation. In Florida, the nine university libraries are participating in a statewide automation project that has been funded separately from the normal institutional appropriations. On the other hand, in states such as Georgia, where the advisory committee contains representatives from the smallest junior colleges all the way up to those of ARL institutions, it has proven to be very difficult to achieve the kind of nearly unanimous agreement on a proposed project that is usually required to get the attention of a coordinating agency.

**TABLE 6**

<table>
<thead>
<tr>
<th>Program</th>
<th>Successful</th>
<th>Moderately Successful</th>
<th>Generally Applicable</th>
<th>Very Unsuccessful</th>
<th>Not Applicable</th>
<th>No Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director borrowing</td>
<td>43</td>
<td>25</td>
<td>4</td>
<td>1</td>
<td>22</td>
<td>5</td>
</tr>
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Third, it appears that in order to optimize the chances of success for a statewide library program requiring additional state appropriations, the early presence of an influential person in higher education in the planning states can lend more weight to the appeal for financial support and cooperation from all parties involved. In Alabama, a university president was chair of the committee that brought the Network of Alabama Academic Libraries into being, and in North Carolina the library directors have benefited from the active support of an associate vice president of the University of North Carolina System, whose influence appears to have helped libraries stay high on the system’s priority list for funding, both as to continuing programs and as to new project money. Similar examples exist in Oklahoma and Florida.

A fourth factor found to be important is the existence of a person, preferably someone with a library background, on the staff of the coordinating agency with the academic libraries as all or a large part of their permanent responsibilities. In states where library cooperative programs are being implemented with the assistance of the state coordinating agency such a position almost invariably exists, although it is not always filled with a librarian.

The presence of these four factors appear to create the optimum environment for successful interaction between the academic libraries and the state coordinating agency in terms of both cooperative programs and library funding.

"There did not appear to be any relationship between the relative economic condition of a state and the existence of a close working relationship between the academic libraries and the state coordinating agency."

Perhaps surprisingly, there did not appear to be any relationship between the relative economic condition of a state and the existence of a close working relationship between the academic libraries and the state coordinating agency, at least as evidenced by the existence of successful special funding programs or successful statewide cooperative library programs.

Other factors that were examined but concluded to be unimportant were the relative rising or declining enrollment counts and the balance of private to public institutions of higher education in the state.

When comparing the answers to the survey questions concerning the importance of persons or entities outside the particular institutions, the library directors’ responses varied considerably from those of the chief academic officers and the staff members of the coordinating agencies. Such a difference may reflect a naiveté on the part of too many library directors as to the various outside influences on their budgets and a simple acceptance of whatever the university is willing to dole out to them rather than an active participation in obtaining maximum funding for their library. Also, in the interview process it was apparent that in many cases new library directors had not concerned themselves with the history of library funding and cooperative programs in their state, but rather had started fresh, so to speak. This statement is not meant to imply that a full-scale knowledge of the appropriate history is required of all directors, but some understanding of those earlier efforts could lead to the implementation of more successful programs in the future.

The importance of the statewide agency may not be as readily apparent to the academic libraries “inside the system” as it may appear to the outside observer. The indubitable policies surrounding many state coordinating agencies doubtless have some impact here—such policies may seem no different from those traditionally practiced by state legislators. In any event, university administrators seem clearly more likely to recognize the difference than do library directors, and presumably they can act upon their perceptions.
The theory advanced is that effective relations between state coordinating agencies of higher education and academic libraries of public institutions and the perceived success of the activities that are undertaken require the existence of an interfacing mechanism to make academic librarians a part of the coordinating process. The theory is grounded in the observations drawn from this study that advisory committees of librarians constituted in a manner to facilitate communication between institutions and coordinating agencies exist in those states in which generally favorable perceptions exist respecting library-related programs or functions of coordinating agencies. It is not submitted that the mere existence of such an interfacing mechanism is itself sufficient to produce invariably effective relations between state coordinating agencies and academic libraries.

Implications for Academic Libraries in Public Institutions

In many of the states studied a sizable number of academic library directors do not appear to perceive the importance or potential importance of the state coordinating agency to their library. Often the institution, meaning the university as a whole, is perceived to block out or filter any effects from a state agency. However, both from a logical standpoint and based on discussions with chief academic officers and with the staff members of various coordinating agencies this is clearly not always the case in reality. In many cases library administrators need to be more proactive in putting forth the needs of their libraries and not just reactive to coordinating agency proposals or policies deemed to be harmful or incorrect. For example, when funding formulas are used at the agency level, library directors should ensure that they are aware of all the factors on which the formula calculations are based, but this research has shown that far less than all of them actually do.

If they are not aware of what the formulas are determined, how can they individually or collectively hope to know whether the formulas are "just," or know whether and how to make a case for a fairer or more accurate formula? Also, since it would appear that there has become an increasingly faster turnover rate in library administrators, new library directors need to make themselves more aware of the history of library funding and cooperative programs in their state and their relationship with the state coordinating agency. Except for those few who spend their careers in virtually one place, it is difficult for a director, who may spend only a couple of years in one state and then move on to another, to have any sense of historical perspective about what may be seen as local issues; but it is also obviously important that the historical perspective be recognized if the libraries in a state are to build upon prior actions, plans, and successes.

Limitations of the Study

1. The theory generated from the study needs to be tested. As none of the sampling was random, one cannot know whether the patterns identified necessarily hold true throughout the nation.

2. Due to financial and time limitations, the states studied intensively were mostly in the southeastern United States.

3. The economies of three states where interviews were conducted, Louisiana, Texas, and Oklahoma, were being seriously affected by the significant decline in world oil prices taking place at the time and the concomitant contraction of the domestic oil industry. In those states the institutions were in the middle or at the be-
ginning of a major funding crisis that was not anticipated when the study was planned, and its effect on the study results cannot be accurately measured.

REFERENCES AND NOTES

1. During the fifties and sixties there existed a few voluntary boards formed by the initiative of institutions rather than by the initiative of state government. These boards were generally formed to try to avoid the creation of such an agency by the state. By the 1970s these voluntary boards had been replaced by state agencies.


The Political Economy of the Academic Library

Dennis P. Carrigan

Because there are economic and political aspects to the operation of the academic library and its parent university, it is appropriate to refer to the "political economy of the academic library," and fruitful to apply the political economy paradigm in an effort to understand the library fully. Three significant aspects of the political economy of the academic library are discussed, as is the anarchic nature of the university, and implications for the academic library.

Just as where a person stands exerts a powerful influence on what is seen, so the place a person looks for the answer to a question delimits the set of potential choices.

The foregoing is obvious. It is equally obvious that every individual, group, or organization exists and functions within an environment with which it must relate and by which it is influenced. Similarly, a question about how an organization works may yield one answer if the analysis is limited to the internal workings of the organization and quite another if it is limited to its environment.

When setting out to understand an organization fully, one must go beyond its internal workings and seek an understanding of any parent institution, the relationship between the two, and the constraints that the parent imposes upon the smaller organization. The American university is an excellent case in point. To understand the American university and its evolution over the past century and a quarter one must have an understanding of the greater society and the profound changes it has endured.

In his study of the emergence of the American university, Laurence Veysey writes, "The American University of 1900 was all but unrecognizable in comparison with the college of 1860." Veysey contends that the transformation was the result of several forces, of which the three most important were "Europhilic discontent, available national wealth, and immediate alarm over declining college influence." All were the result of changes that occurred not within the university, but rather within the broader American society.

The rapid development of research universities that occurred between the late 1800s and 1920s was also vitally related to changes in the broader society. In this regard, Roger Geiger cites three issues: the ability to acquire social resources; the conversion of some resources to create a research capability; and most importantly, the securing of an "extramural supply of resources earmarked for research," an undertaking in which the large general-purpose foundations had become increasingly important, especially following World War I.

Geiger makes it clear that the research universities could not have succeeded if society had not produced the wealth and the frame of mind essential for their support. Economic expansion was especially
robust from the last years of the nineteenth century through World War I. During that period higher education qualified as a growth industry in two respects: Directly, because of surging enrollment; and indirectly as a "beneficiary of the burgeoning national economy." These factors enabled research universities' incomes to grow by a factor of five between 1900 and 1920.3

Growth in higher education during the first part of the twentieth century was not limited to research universities, as a result of the formation and development of a "culture of aspiration," to use David Levine's felicitous phrase.4 Further, the growth of American higher education was stimulated by a remarkably dense confluence of economic, social, and intellectual developments that had first appeared in the Progressive Era and gathered momentum after World War I. . . . Expansion served the needs of the rapidly growing professional and service-oriented sectors for training and legitimacy. . . . The curriculum became inextricably tied to the nation's economic structure, particularly its burgeoning white-collar, middle-class sector.5

Institutions of higher learning were not driving changes in American society. Quite the reverse was true, and it is only by understanding the broader society that we can appreciate the dramatic changes that occurred in higher education.

Clark Kerr writes that "[t]he university does not fully control the direction of its own development" and concludes that "it seldom has."6 In his classic study, The Uses of the University, Kerr states that "the truly major changes have been initiated from the outside" and the university's "directions have not been set as much by the university's visions of its destiny as by the external environment. . . . The industrial, democratic, and scientific revolutions," Kerr observes, "have gradually moved in on the universities and changed them almost beyond recognition."7

The university of today bears little resemblance to its historical antecedent, but it does bear a strong resemblance to its host culture. Harvard president Derek Bok writes that the contemporary American university has grown "out of deep-rooted values in the native culture: a distrust of government and an abiding faith in competition."8 As Abraham Flexner wrote more than fifty years ago, this is because the university, "like all other human institutions," is "an expression of an age."9

THE ACADEMIC LIBRARY AND THE POLITICAL ECONOMY PARADIGM

The academic library, like its parent institution, is embedded within the fabric of something larger. To understand the academic library, one may turn to such standard texts as those by Guy Lyle on college library administration, or Rutherford Rogers and David Weber on university library administration.10 Alternatively, one may focus on the library as an organization, as an economic system, or as a life system.11 Another fruitful, important approach is the exploration of the academic library's link with and the nature of its parent university, in short, what I refer to as the political economy of the academic library.

The term political economy has a rich history, although it has fallen into disuse. Edwin Seligman pointed out more than fifty years ago that "the line of demarcation between the subject matter of economics and that of other social scientific disciplines is very shadowy."12 Moreover, political science and economics, now separate disciplines, grew out of a common concern for the social distribution of things of value.

"The study of politics is the study of influence and the influential . . . those who get the most of what there is to get."

Economics today is defined as "the study of the allocation of scarce resources among unlimited and competing uses."13 In his classic work suggestively entitled Politics: Who Gets What, When, How?, Harold Lasswell asserts that "the study of politics is the study of influence and the influen-
tial. ... those who get the most of what there is to get."¹⁴

Few would disagree with the statement that there is a vital economic dimension to the operation of the academic library and its parent university. Moreover, I anticipate general agreement with the statement that the academic library exists and functions within a political context. But it is imperative that political be understood in a value-free sense. Too often the term is used pejoratively to describe "a milieu hospitable to scheming and manipulation," or, to use Emerson's term, "cunning."¹⁵ That is not the sense in which the term is used here. I refer to that which is "predominantly oriented toward the authoritative allocation" of valued things in a society or a group, to include, of course, a university. David Easton defines authoritative allocations as those that "distribute valued things among persons or groups" by requiring the surrender of, obstructing the attainment of, or providing access to the valued things. An allocation is authoritative "when the persons oriented to it consider that they are bound by it." Thus, when we use the expression political system of groups, we understand it to include the political system that is a vital part of the university and the library.¹⁶

It is the intrusive presence of an economic dimension and the existence of a political context within which the university and the library exist and function that make the application of the political economy paradigm useful in our efforts to understand the library fully. The political economy paradigm, according to Peter Jackson, "focuses attention upon resource allocations and decision making within an organisation, irrespective of the organisation type." For our purposes, the relevant organization is not the library, but rather its parent university. "Focus upon the internal processes of decision making and resource allocation [within the university] brings together political and economic dimensions of the same problems," Jackson continues. These problems concern bargaining over competing goals, the arrangement of goals in a hierarchy, de jure and de facto bargaining and decision-making systems, and the allocation of scarce resources among competing claims. It is this inevitable bringing-together of the economic and the political that renders the term political economy so felicitous.¹⁷

The sociologist Mayer Zald argues that:

"The revolution in information technology has created . . . totally new capacities for generating, storing, and providing access to scholarly information—capacities which no longer represent or require links to physical objects in stationary collections."

Zald's first observation pertaining to a technology-determined division of labor reminds us that for centuries technology has ordained the academic library model that continues to exist today. Neverthe-
less, as Patricia Battin writes, "The revolution in information technology has created...totally new capacities for generating, storing, and providing access to scholarly information—capacities which no longer represent or require links to physical objects in stationary collections."

And, it should be obvious, these are capacities that contain the potential for profound change in the political economy of the academic library. Yet as profound as the possibility is, the second of Zald's observations, that "the mechanisms for allocating men, facilities, and money are carried out either by inter-group bargaining or by hierarchical assignments," is of greater interest to us.

THE LIBRARY AS AN EXTERNALLY CONSTRAINED ORGANIZATION

It is far more likely that one would overestimate, rather than underestimate, the importance of hierarchical assignments in considering the allocation of university resources for the library. Conversely, it is more likely that one would underestimate the importance of intergroup bargaining.

Further, we must appreciate fully Zald's point that although the degree varies among organizations and circumstances, nevertheless organizations tend to be dependent upon the external environment for the resources they require. Thus, as Pfeffer and Salancik have written, an organization is "externally constrained," and faces an "environment of competing, frequently conflicting, demands." Moreover, it is because of this competition for resources that "establishing a coalition large enough to ensure survival is an organization's most critical activity." Although their external environments differ, both the library and its parent university are "externally constrained" organizations. However, the degree of external constraint is far greater in the case of the library.

Beyond establishing a coalition, however, an organization survives by entering into exchanges with relevant segments of its environment. The organization provides something of value—goods or services—in return for which the recipients provide the support the organization requires. It is this process of exchange that gives rise to the supporting coalition. The majority of exchanges are characterized by their bilateral nature, in which goods or services are provided to a customer who, in turn, provides support in the form of money. Examples abound, from the barber shop to the automobile dealer. The hallmark of such exchanges is the close link between the level of customer satisfaction and the level of support provided.

THE POLITICAL ECONOMY OF THE ACADEMIC LIBRARY: THREE CONSEQUENCES

No simple exchange exists between the academic library and its "customers," and the absence of a direct exchange relationship is one of the most significant aspects of the political economy of the academic library. In the academic library, the exchange is at best trilateral. Patrons who consume library services do not control or provide the resources upon which the library depends. On the other hand, the administration, which does control the resources, is not a major consumer of library services.

Patron satisfaction with library services may work to the library's advantage when the administration allocates resources. However, at times of resource inadequacy—the very times the library most needs the help of its supporting coalition—it is likely to have the least support. This is because, under these circumstances, the library is competing in a zero-sum game.

Money for the library means less money for the university's other constituencies, and at such times even those members of the university community who are normally members of the library's supporting coalition can be expected to place their own, more narrow, interests first.

The zero-sum nature of the competition for resources at times of revenue shortage is aggravated by a third significant aspect of the political economy of the academic library: in the typical university, power is highly dispersed, making it difficult to achieve significant changes in the funding pattern. Power, like political, is a term we may prefer to think of as irrelevant to the
academy, yet such a thought is self-deceptive. Power permeates the academy, as it does the relations among all social units and “the behaviors of one or more units . . . depend in some circumstances on the behavior of other units.”

UNIVERSITY AND ANARCHY

In his study of the modern “multiversity,” Clark Kerr deals extensively with the related issues of governance and power. “What I meant by the word [multiversity],” Kerr writes in the postscript to the 1982 edition, “was that the modern university was a pluralistic institution—pluralistic in a number of senses: in having several purposes, not one; in having several centers of power, not one; [and] in serving several clienteles, not one.” Kerr suggests that although the modern university is “devoted to equality of opportunity, it is itself a class society. A community . . . should have common interests; in the multiversity, they are quite varied, even conflicting.”

Seeking a way to describe governance in the modern university, Kerr turns to the city for analogy: “It is . . . a system of government like the city, or a city state. . . . It may be inconsistent, but it must be governed—not as the guild it once was, but as a complex entity with greatly fractionalized power. . . . There is a ‘kind of lawlessness’ in any large university with many separate sources of initiative and power;” Kerr continues, “and the task is to keep this lawlessness within reasonable bounds.” Faculty are at the same time both major competitors for that power and the principal assurance that it will remain fractionalized. Kerr goes on to quote Robert M. Hutchins’ assertion that “the faculty really ‘prefer anarchy to any form of government.’”

Anarchy and sharply constrained power emerge as major themes in Michael Cohen and James March’s study of the American college and university president. The American college and university, they write, belong “to a class of organizations that can be called organized anarchies.” They view “college [and university] presidents as generally more powerful than others in the college [or university] but as having less power than casual observers or participants frequently believe they do, or than they often expect to have on entering office. . . . Except for a very few cases,“ Cohen and March observe, “presidents do not appear to dominate directly the decision making in their institutions. They face a poorly understood and rather tightly constrained managerial world. . . . Their ability to control decision outcomes is often less than expected by those around them and by themselves.”

Yet, if the president has less power than might appear to be the case, where does power reside? The answer seems to be: Everywhere—and therefore nowhere. “Both formal authority and informal influence are widely diffused in a university, as compared with other types of formal organizations,” Frederick Balderston writes. Moreover, “the individuals in a university retain very significant autonomy. This gives them many vetoes over the official intentions of authority.”

From the perspective of fifteen years as president of Harvard, Derek Bok observes that “universities are anarchic by nature and flourish by giving professors free reign.”

Clark Kerr writes that, especially with regard to research universities, “the faculties are substantially in control.” Kerr comments on the major consequence of nearly twenty years of evolution in the governance of the university, during which decision making has become ever more diffused: “It is ironic that participatory democracy . . . has meant . . . more veto groups, less action, more commitment to the status quo—the status quo is the only solution that cannot be vetoed.”

POLITICAL ECONOMY, ANARCHY, AND IMPLICATIONS FOR THE LIBRARY

For the library, the most important implications of the structure and functioning of the university are obvious. On the one hand, it is difficult to secure increases in the percentage of the university’s operating budget that is allocated to the library.
"During times of financial hardship, the library budget is especially vulnerable."  

On the other, during times of financial hardship, the library budget is especially vulnerable. "When [university] budgets are tightened," Balderston points out, the library's subsidy budget is likely to come under attack for various reasons. First, the library is a supporting activity, not a direct contributor to goal attainment. (It stands in weak complementation to academic goals.) Second, circulation of books is an observable work-load factor, but the penalty to scholarship from a cut-back in numbers of new titles is hard to prove (and is tied to the more exotic research outputs, which are not likely to find as much favor with legislative or alumni fundors as does the accommodation of students). Finally, the yardstick of collection quality in each field is a moving target, consisting ideally of the inclusion of everything old and everything new. Because no library can meet this ideal, the issue is how far to compromise. When put in these terms, the subsidy investment in the library collection is very difficult to objectify.  

Balderston's conclusion—that the library's budget is vulnerable—is correct, but I wonder if his reasons are. They strike me as too antiseptic, too dispassionate, too far removed from the way the world, including the university, works. He is substantially closer to the mark, it seems to me, when, concerning the reality within which a budget reduction must be implemented, he writes: "There is . . . an internal distribution of power and influence in the academic leadership, [and e]ven during the early stages of [a budget reduction], some units may demand par-
tial or full exemption from the cuts."  

Before members of the "academic leadership" would "demand partial or full exemption" from budget cuts, they would have to be quite certain of their power and influence within the university. Is it likely that a library director would be in a position to make such a demand? Almost certainly, there have been directors who enjoyed such a position. There may be some today, but there will never be many. The position they occupy simply does not carry with it such power and influence. In this regard, Patricia Battin makes an observation that is no less accurate for being painful:  

The most striking feature of traditional academic organizations, and the one I believe is most misunderstood and ignored by our academic colleagues, is the virtual isolation of the library in the organization. Despite the rhetoric about it being the heart of the university, the library and librarians have been for years isolated from the policy councils of most institutions.  

Whether library directors' academic colleagues misunderstand and ignore "the virtual isolation of the library" in the university, or whether, in fact, they understand fully the relative position of the library and find that position to be both appropriate and nonthreatening, is a matter worthy of debate. What is beyond debate, however, is Balderston's observation that "librarians administer large, hierarchical organizations and large, institutionally subsidized budgets. Because of the competing and often contradictory demands for relations with insistent outside users, librarians are often experts in political accommodation." Or, if they are not experts, they need to be; for such is the reality of the political economy of the academic library.  

REFERENCES AND NOTES  
3. Ibid., p.39-40.  
5. Ibid., p.18-19.
7. Ibid., p.105; p.122; p.98.
23. Ibid., p.24-25.
27. Ibid., p.20; 35; 31.
33. Ibid., p.222-23.
34. Battin, “The Library,” p.27.
Sources of Professional Knowledge for Academic Librarians

Ronald R. Powell

More than three hundred ARL librarians were asked where they had acquired their professional knowledge and where they thought it would be best to acquire it. Respondents indicated that library school and on-the-job experience provided most of their professional education and training but suggested that they would prefer to acquire more of their knowledge from continuing education and staff development programs than is presently the case. Other sources of information investigated include nonlibrary science degree programs and internships. Earlier research on the amount and importance of university librarians' professional knowledge is summarized.

The demands being made of academic librarians are changing at a rapid rate. Librarians also need to be proficient in an ever-increasing number of areas. What is not known with any certainty is exactly what skills are most important for librarians and where those skills are optimally acquired.

The knowledge, skills, and/or proficiencies needed by academic librarians have received considerable attention in the literature during the past several years. Articles and other reports have been authored by, among others, Millicent Abell,1 Toni Carbo Bearman,2 Patricia Battin,3 Sheila Creth and Faith Harders,4 the Association of Research Libraries (ARL),5 and Jose-Marie Griffiths and Donald King.6 Yet there is still a need for more specific data on the proficiencies important to university librarians.

Ronald Powell and Sheila Creth conducted a study in 1985 designed to answer the following questions:

1. To what extent do librarians consider themselves knowledgeable in relevant areas?
2. To what extent are these areas of knowledge considered important for effective job performance?
3. Where do librarians tend to acquire their relevant knowledge?
4. Where do librarians think such knowledge is best acquired?

In order to gather necessary data to answer these questions, the researchers mailed questionnaires to a random sample of 539 ARL librarians with nine or fewer years of professional experience. Three hundred and forty-nine usable questionnaires were returned, representing about 65 percent of the sample. The questionnaires collected information about the librarians' current positions, job and educational experiences, sex, age, and knowledge bases. (Knowledge base denotes the proficiencies, skills, and information possessed by the participating librarians.)

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Initial analysis of the data focused on the professional knowledge of the respondents and the value they attached to specific knowledge bases. The results of that analysis were reported in the January 1986 issue of *College & Research Libraries.* A brief summary of those findings follows.

**IMPORTANCE AND AMOUNT OF KNOWLEDGE**

For each of fifty-six knowledge bases, participants indicated how much of the knowledge they possessed and how important it was for their own job performance. The fifty-six knowledge bases are presented in table 1 (table 2 of the 1986 article) in order of their perceived importance (see the first two columns). The third and fourth columns of table 1 indicate how much knowledge was held by the respondents and the corresponding rankings. The importance of each knowledge base was measured on a five-point scale: one designates essential; two, very important; three, important; four, of little importance; and five, of no importance. The amount of each knowledge base possessed by respondents was measured on the following four-point scale: one, extensive; two, moderate; three, slight; and four, none.

In brief, an examination of the data in table 1 reveals that, generally, traditional knowledge areas tend to be ranked relatively high in importance by respondents. In fact, most of the top twenty areas fell into one of two categories: traditional core and management. Analysis of the data also indicated that several of the knowledge bases, especially less traditional ones, that were considered quite important did not receive correspondingly high rankings on the amount of the knowledge that the respondents reported they actually possessed.

The results of the analysis supported the authors' contention that not every important skill is being acquired in library school. But given that it is not possible for a student to learn in one or two years all that he or she will need throughout an entire professional career, we are left with the question of where the important skills can be most conveniently and effectively acquired. Consequently, data relating to where the respondents had acquired their professional knowledge and where they thought it would best be acquired were analyzed.

**KNOWLEDGE BASES: WHERE ACQUIRED?**

The following analysis, a summary of the data regarding where librarians acquire their knowledge and where they think it should be acquired, is limited to the knowledge bases ranked among the twenty most important and the top twenty in terms of amount held.

The majority of knowledge bases were acquired in library school and on the job (see table 2). (The number of "yes" responses can be greater than the number of respondents as many skills were acquired from more than one source.) Almost 29 percent of all "yes" responses represent library school and about 35 percent on-the-job experiences. Continuing education and staff development combined represented over 16 percent of the "yes" responses. Other degree programs, internships, and "other" accounted for the remaining 20 percent.

The skills reported as being most frequently acquired in library school were familiarity with and use of: bibliographic tools, general reference sources, reference interview, cataloging codes/rules, subject cataloging, subject classification, and the structure of subject literature. All of these bases represent traditional core areas of formal library education programs.

On the other hand, the proficiencies most frequently obtained on the job involved: oral communication skills, knowledge of specialized reference sources, decision-making ability, search strategy, planning, online searching, selection of materials, personnel management, library automation, structure of subject literature (tie), bibilographic instruction, and staff training and development. These skills are generally less traditional in nature than those more frequently acquired in library school. The two remaining proficiencies, writing skills and knowledge of a subject field, were most frequently gained in other degree programs.
### TABLE 1
RANKING AND MEAN SCORES FOR "IMPORTANCE" OF KNOWLEDGE BASE AND "AMOUNT" OF KNOWLEDGE

<table>
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<th>Knowledge Base</th>
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Table 2 lists the twenty knowledge bases most highly ranked on the amount of the knowledge possessed by the survey respondents. There are only three skills in this table that were not included in table 2. Research methods, one of the additions, was reported as being most frequently acquired in library school. Knowledge of filing rules and higher education were most often obtained on the job.

In that the contents of the tables are almost the same, it is not surprising that the totals are very similar. The respondents indicated that library school was the source of knowledge almost 30 percent of the time, on-the-job experiences represented 34 percent of the sources, and continuing education and staff development activities accounted for over 14 percent of the affirmative responses.

### KNOWLEDGE BASES: WHERE BEST ACQUIRED?

In contrast, the responses regarding
where the librarians believed the proficiencies would best be acquired produced some different patterns (see table 4). The participating librarians indicated nine proficiencies (of the twenty most important) that were best learned in library schools. Those were: bibliographic tools, search strategy, general reference sources, reference interview, selection of materials, catalog codes/rules, subject classification, and the structure of subject literature. Two of these areas of knowledge (search strategy and selection of materials) were not among the skills most frequently acquired in library school.

A more substantial difference was found in analyzing perceptions of the knowledge bases best acquired on the job. In fact, the workplace was seen as the optimal place to acquire only two knowledge bases: specialized reference sources and selection of materials (tie). In contrast, twelve knowledge bases were reported as having been most frequently obtained on the job. This finding seems to correspond with White and Paris’ observation that

### Table 3

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### TABLE 4
TWENTY MOST IMPORTANT KNOWLEDGE BASES AND YES RESPONSES FOR WHERE BEST ACQUIRED

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<td>18.1</td>
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<td>163</td>
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<td>7.4</td>
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<td>12.1</td>
<td>26.7</td>
<td>3.9</td>
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</table>

"the library directors who constituted the respondent population generally declared themselves willing to consider the transfer of certain topics or issues from what might otherwise be an overburdened and cluttered curriculum to on-the-job training. However, when they were asked to suggest specific courses or topics amenable to such treatment, very few recommendations emerged, and no consensus was apparent."

Another significant difference between the responses for where proficiencies were acquired and perceptions of where they are best acquired was that nine knowledge bases were perceived as best gained in continuing education and staff development activities. No skills were reported as having been most frequently acquired from these two sources, although they represented about 16 percent of the "yes" responses (see table 2). The participants recommended that the remaining proficiency, knowledge of a subject field, be obtained through another degree program.
TABLE 5
TWENTY TOP KNOWLEDGE BASES RANKED BY AMOUNT HELD AND YES RESPONSES FOR WHERE BEST ACQUIRED

<table>
<thead>
<tr>
<th>Knowledge Base</th>
<th>Library School</th>
<th>Other Degree Programs</th>
<th>Internship</th>
<th>Continuing Education</th>
<th>Staff Development</th>
<th>On-the-Job</th>
<th>Other</th>
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<td>93</td>
<td>130</td>
<td>89</td>
<td>282</td>
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<td>9.6</td>
<td>13.4</td>
<td>9.1</td>
<td>29.2</td>
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<td>26.7</td>
<td>4.3</td>
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</table>

Apparently, relatively new librarians and library directors are not in complete agreement on this issue. The librarians participating in this study supported continuing education as a valuable learning experience and suggested skills best learned through such programs. White and Paris observed that library directors supported continuing education but "there would appear to be no consensus that anything in particular should be ... acquired through continuing education."10

The tables also reflect the respondents’ shift from on-the-job training (see table 2) to continuing education and staff development (see table 4). While the total percentages of "yes" responses remained about the same for library school as a source of knowledge, total "yes" responses for "on the job" dropped from 35 percent to about 27 percent and continuing education and
TABLE 6
SUMMARY OF YES RESPONSES TO WHERE KNOWLEDGE WAS ACQUIRED AND WHERE IT IS BEST ACQUIRED

<table>
<thead>
<tr>
<th>Knowledge Base</th>
<th>Library School</th>
<th>Other Degree Programs</th>
<th>Internship</th>
<th>Continuing Education</th>
<th>Staff Development</th>
<th>On-the-Job</th>
<th>Other</th>
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</thead>
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<td>539</td>
<td>1,290</td>
<td>929</td>
<td>4,750</td>
<td>1,105</td>
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<td>Most important and where best acquired</td>
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<td>1,245</td>
<td>1,234</td>
<td>2,509</td>
<td>2,029</td>
<td>4,483</td>
<td>659</td>
</tr>
<tr>
<td>Change in percentage</td>
<td>-1.0%</td>
<td>-0.4%</td>
<td>+3.4%</td>
<td>+5.4%</td>
<td>+5.2%</td>
<td>-8.4%</td>
<td>-4.3%</td>
</tr>
<tr>
<td>Amount held and where acquired</td>
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<td>550</td>
<td>1,161</td>
<td>746</td>
<td>4,543</td>
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<td>1,364</td>
<td>1,191</td>
<td>2,245</td>
<td>1,748</td>
<td>4,290</td>
<td>684</td>
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<tr>
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<td>-1.1%</td>
<td>+3.3%</td>
<td>+5.3%</td>
<td>+5.3%</td>
<td>-7.4%</td>
<td>-4.1%</td>
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</tbody>
</table>

An analysis of the twenty top knowledge bases as ranked by the perception of the amount of knowledge held (see table 5) revealed few differences. Again, the use of different rankings produced only three differences: research methods, filing, and higher education replaced personnel management, library automation, and staff training and development. Filing did shift from the on-the-job training category (see table 3) to the library school category (see table 5). The total percentages of "yes" responses are about the same in tables 4 and 5. A comparison of totals in tables 3 and 5, however, reveal changes in percentages similar to those evidenced by tables 2 and 4. That is, internships, continuing education, and staff development activities were more often reported as preferred than as actual sources of knowledge while the reverse was true for on-the-job training. Responses for library school again remained about the same.

Table 6, which presents only the totals from tables 2 through 5, further illustrates the differences just discussed. Comparing the "where acquired" and "where best acquired" cells in the upper and lower halves of the table, the major increases are in the continuing education and staff development columns, and the major decreases are in the on-the-job column. The increases in the percentages for the internship column are significant as well.

SUMMARY AND CONCLUSIONS
This article has focused on the second phase of a study of ARL librarians and their perceptions of the amount and importance of their professional knowledge, where they acquired such knowledge, and where they think it should be acquired. Findings of the first phase indicated that, while a traditional core of library knowledge is still highly valued, proficiencies in areas such as automation and management are deemed important by this group of librarians as well.11 Of concern, however, is the fact that these librarians seem to lack substantial knowledge in some of the areas that they perceive as important. Assuming that is indeed the case, it becomes critical to identify where librarians are acquiring what knowledge they do have and to develop recommendations for where relevant knowledge can be obtained most effectively. Such concerns provided the major rationale for the additional data analysis in this report.

The second stage of the data analysis shed light on where librarians gain their

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Sources of Professional Knowledge

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knowledge. Formal library school programs and on-the-job training account for the bulk of the professional knowledge among the study’s participants, with library schools imparting more traditional learning. Study participants prefer to rely more heavily on continuing education and staff development programs and less heavily on on-the-job experience. Their recommendations for what should be learned in library school remain about the same as reported in the first analysis.

A shortage of appropriate opportunities may be the reason why librarians have been learning more on the job than through continuing education. As White and Paris noted, “reports from professional societies, state agencies, and individual libraries report a level of participation [in continuing education] which touches at best only a small part of the profession and then only haphazardly.” Yet academic librarians, at least, appear to prefer continuing education over on-the-job training as a mode of learning.

If librarians are not content to acquire as much of their professional expertise on the job as in the past, then appropriate agencies may need to expand their continuing education offerings and library administrators may need to strengthen their staff development programs and support for alternative opportunities. Schools of library and information science may be well advised to take another look at the desirability of expanding their curricula to two-year programs, as some have done already. In short, an appropriate variety of educational opportunities will be necessary to meet the increasing needs of librarians in a more complex environment.

REFERENCES AND NOTES

8. A recent study found that the directors of large academic libraries recommended sixteen courses deemed essential for the preparation of entry-level professionals. Of those sixteen courses, ten were primarily bibliography or reference courses, two dealt with collection development, two with cataloging and technical services, one with management, and one with automation. See Herbert S. White and Marion Paris, “Employer Preferences and the Library Education Curriculum,” Library Quarterly, 55:1-33 (Jan. 1985).
9. Ibid., p.29.
his article follows the pattern set by the semiannual series initiated by the late Constance M. Winchell more than thirty years ago and continued by Eugene P. Sheehy. Since the purpose of the list is to present a selection of recent scholarly and general works of interest to reference workers in university libraries, it does not pretend to be either well balanced or comprehensive. A brief roundup of new editions of standard works is provided at the end of the article. Code numbers (such as AD540, CJ331) have been used to refer to titles in Guide to Reference Books. (10th ed., Chicago: American Library Assn., 1986).

PERIODICAL INDEXES


The Wilson indexes are familiar faces in the reference collection. The H. W. Wilson Company has built a reputation on its indexing, and the quality is unquestioned. Available online for some time, these same databases are now available in a different format, CD-ROM, which offers several unique advantages over the other versions. These compact discs and their search software are meant for a relatively unsophisticated user to search a large database in a relatively sophisticated manner, without requiring knowledge of specialized commands.

The system runs on an IBM XT or compatible, with 640K of memory and DOS 3.1, and can support several makes of CD players. The discs include three or more years worth of citations, depending on the database, and are updated quarterly. Besides the Wilson indexes, the GPO Monthly Catalog, Film Literature Index (annual updates only for these two), and the MLA Bibliography are available.

The user chooses from four different search modes—Browse, Wilsearch, Wilsonline, and Expert Wilsonline. The Browse mode is similar to using the printed index. One types in the subject heading, and the screen displays an alphabetic thesaurus of neighboring terms and cross-references, and the number of citations associated with each term. The Wilsonline and Expert Wilsonline, as their names imply, both require knowledge of the Wilson command language. Since these two modes are so similar, it seems unnecessary to have them both.

Wilsearch, however, is the real success of the system, for it allows sophisticated search strategies, truncation, and Boolean operations, without having to know much about commands. In this mode, terms are searched as keywords in both subject or title fields, and these terms can be combined. Users can also search by author or subject heading or by journal name. This

Eileen McIlvaine is Head of Reference, Butler Library, Columbia University, New York, New York 10027. Although it appears under a byline, this list is a project of the reference departments of Columbia University Libraries, and notes are signed with the initials of these individual staff members: Mary Cargill, Beth Juhl, Anita Lourey, Kirk Moll, Louise Sherby, Sarah Spurgin, Junko Stuveras, Perry Willett (Butler Library); Jerry Breeze and William Middleton (Lehman Library).
search option lets users of all levels of understanding perform efficient, thorough searches simply and quickly—exactly what a database on CD-ROM should do. Some minor complaints are too many beginning menus and failure to display the name of the index on the screen at all times, so that someone walking up to the workstation may not know what the colorful display is all about.

Two features that merit praise are the printing and online functions. Printing a citation is easy, unlike some other CD-ROM products. One need only press one key to print the currently displayed citation or all citations found in the search.

The online feature allows users to update searches past the date of the compact disc (provided that a modem is attached). Subscribers are billed only for telecommunications charges, not for connect time or citation royalties. In any of the search modes, the user simply presses a key, and the system will dial up the Wilson mainframe computer, perform the search, transfer those entries (if any) that have been input since the cutoff date of the disc, and then disconnect. This means that searches can be performed first on the disc and then updated online inexpensively—the equivalent of searching the entire database online.

The Wilson disc system allows users to perform their own searches with no sense of urgency or intimidation. It is highly recommended that any library serving either undergraduate or graduate students consider subscription to at least one of the Wilson indexes on CD-ROM.—P.W.

THE PRESS


This annotated bibliography is an outcome of the Labor Newspaper Preservation Project (LNPP) launched in 1978 by scholars from eleven European and North American countries. The full name of the project explains its purpose: Bibliography and Archival Preservation of Non-English Language Labor and Radical Newspapers and Periodicals in North America, 1840s–1970s. The project initially planned to include South American, Asian, and African immigrants, but the lack of financial support has limited the present enterprise to the presses of immigrants from West and Eastern Europe in the U.S. and Canada. Institutions in North American and European countries have been funding the microfilming project of the respective language groups.

The volume in hand and the first in the series, Migrants from Northern Europe, includes labor presses of the Danes, Swedes, Norwegians, Finns, Icelanders, and the Scandinavians in general. Each language group is covered by an annotated bibliography and an essay on the history of immigration and immigrant presses of that group.

An entry contains: title, variant titles, if any, translations of the title into English, publication dates, frequency, category of the publication, type of preservation copy, depositories, and a note briefly describing the paper as to sponsoring body, history, etc.

RLIN and OCLC locations are also noted. Each section has indexes by title and place and a chronological table. There is a combined title index at the end. This bibliography is very useful as a survey of immigrant presses, a union catalog and an historical study of these periodicals—J.S.

NAMES


Begun by a committee from the British Academy in 1973, this Lexicon is intended
to revise, update, and expand the work of Wilhelm Pape in his *Wörterbuch der Griechischen Eigenamen* (volume 3 of *Handwörterbuch der Griechischen Sprache*, 1842-43). The new *Lexicon* demonstrates once again the ability of twentieth-century computing to fulfill the aspirations of monumental nineteenth-century works.

Names from thousands of inscriptions and printed sources are gathered here in one alphabet, with the source, geographic location, any identifying information (e.g., ‘‘daughter of’’), and dates that are known or surmised from other evidence. Time coverage extends from the earliest known Greek inscriptions up to the Byzantine era. Excluded are all geographic names and mythological or epic names (though some fictitious names are included, as well as mythological characters, such as founders of cities, whose names are repeated often among the local populace). Also excluded are Greek names in non-Greek script, though foreign names, such as those of Persian notables, do appear if transliterated into Greek script. Forthcoming volumes will cover, in turn, Attica, the Peloponnese and the Greek mainland, Macedonia and the Balkans, and coastal Asia Minor; an index volume will include all names with no geographic location, as well as bibliographies and analytical tables.

The *Lexicon* will prove extremely useful to epigraphers, papyrologists, and linguists; historians and students of classical literature will also find it helpful for specific references. One hopes that the editors and Oxford University Press have plans to make the data and database themselves available to scholars at some point in the future. Such a database, equipped with sophisticated search software, and combined with the *Thesaurus Linguae Graecae* database, would provide nearly complete online access to the written word in Greek.—B.J.

**RELIGION**

*Antisemitism: An Annotated Bibliography.*


This excellent bibliography is the first volume in a new biennial bibliographic series on the topic of anti-Semitism, begun by the Center for the Study of Antisemitism (established 1983). It covers secondary literature including ‘‘books, dissertations, masters’ theses, and articles from periodicals and collections—published in 1984-1985. It does not include newspaper articles, reviews, and works of fiction.’’ In this work ‘‘antisemitism is defined as antagonism toward Jews and Judaism as expressed in writings... in the visual arts... and in actions’’ (introd.). Related topics such as Christian-Jewish relations are included only when the author relates the subject to antisemitism. Parameters for inclusion are carefully defined for four large areas of material: the Holocaust period, Soviet Jewry, anti-Zionism, and the Arab-Israeli conflict, i.e., ‘‘works... which deal with antisemitism in the Arab world, but not with the political conflict between the State of Israel and its Arab neighbors’’ (introd.). Personal accounts of Jewish experience during the Holocaust and in the Soviet Union specifically discussing government policies of anti-Semitism are excluded.

The main section of the bibliography includes 1,255 annotated entries of materials in English, other European languages, Hebrew, and Yiddish. English translations are provided in brackets for works in languages other than French, German, Italian, and Spanish. The annotations are clear, concise, and a model of descriptive objectivity, summarizing the contents and point of view of the works being described. The bibliography is arranged under broad chronological headings and is subdivided for the modern period by region and country as appropriate. It also includes a section on bibliographies and reference works. Though the entries are arranged alphabetically under these fairly general headings, no section is so large
that the contents cannot be quickly
scanned (Germany, 1919-45, is the largest
with 128 entries). Good subject access is
also provided by a thorough subject in­
dex. The bibliography features two ap­
pendixes: a list of anti-Semitic periodicals
(with publishers names and addresses)
and a checklist of bibliographies pub­
lished on anti-semitism and the Holocaust
before 1984 including a list of "ongoing"
bibliographies in the field of Judaica which
regularly list material on antisemitism and
the Holocaust’’ (p.339). The volume ends
with an author index and a list of periodi­
cals and collections cited in the bibliog­
raphy—K.M.

Charlesworth, James H. The New Testa­
mament Apocrypha and Pseudepigrapha: A
Guide to Publications, with Excursuses on
Apocalypses. ATLA Bibliography Series,
no.17. Metuchen, N.J.: Scarecrow,
LC 85-18350.

This is an indispensable bibliography for
anyone doing research on the Christian
literature of the first few centuries of the
Common Era. It contains just over 5,000
citations to the primary and secondary lit­
erature concerning the extracanonical
writings which “purport to be apostolic
and scripturally [sic] equal to the 27 New
Testament documents” (introd.). It forms
a companion volume to Charlesworth’s
earlier work, The Pseudepigrapha and Mod­
ern Research with a Supplement (Chico, Cal­
if.: Scholars, [1981]), which covers writ­
tings relating to the Hebrew Scriptures.
Excluded from the coverage of the present
volume are: (1) The Apostolic Fathers (1
Clement, 2 Clement, Ignatius, etc.); (2)
The Nag Hammadi Codices (except the
Gospel of Thomas which is included, al­
though not mentioned as an exception);
(3) The Old Testament Pseudepigrapha;
(4) Some early Syriac writings; (5) Earliest
versions/translations of the New Testa­
ment, (6) Fakes; (7) Possible candidates
(listed in the introduction).

The bibliography proper begins with
five broad sections: general studies (562 ci­
tations); apocalyptic literature (77); apoc­
ryphal acts (84); canon (168); and agrapha,
fragments of unknown works (284). It
then lists citations under the names of 99
major writings or cycles of writings. En­
tries are arranged alphabetically, giving
basic information (with place of publica­
tion only, not publisher) and occasional
brief annotations. When the work con­
tains the original or translation of a text, it
usually is noted in square brackets. Cita­
tions to the standard collections of transla­
tions are an exception to this policy; that
the item contains a translation is not
noted, but reference is given by the abbre­
viation of the collection in question. Mate­
rials in virtually all appropriate languages
are included. The titles of books and peri­
odical articles written in East European,
East Asian, or Middle-Eastern languages
(including all non-roman alphabets) are
transliterated into English without transliter­
ation. Fortunately, the titles of periodicals
containing citations in these languages are
transliterated. The coverage of the bibliog­
raphy extends into the early 1980s.

This work also has three introductory
chapters that give a report of research on
the New Testament Apocrypha and
Pseudepigrapha and a helpful overview of
the issues and texts relating to Christian
and Jewish Apocalyptic literature. It also
includes an author index.—K.M.

Musto, Ronald G. The Peace Tradition in the
Catholic Church: An Annotated Bibliogra­
phy. Garland Reference Library of So­
cial Science, v.339. New York: Garland,
LC 86-31950.

This annotated bibliography is the sec­
ond volume in the author’s “three-part
study that hopes to document the history
of the peace tradition in the Roman Catho­
lic church from the Gospels to the twenti­
eth century” (pref.). The first part is Mus­
to’s The Catholic Peace Tradition (Orbis,
1986), which is a narrative history, and the
third part is projected to be an anthology
of texts. It should be kept in mind when
using this work that the author’s stated
purpose “is to show that there truly is a
continuing, unbroken, and self-
sustaining stream within catholicism that
bridges the gap between the martyrs and
pacifists of the early church and the work
of John XXIII and the peacemakers of our
own time” (pref.). In general, this does not detract from the descriptive character of the bibliography’s annotations, although occasionally the author’s point of view makes them more evaluative in nature.

The work has some 1,485 entries, nearly all of which have annotations ranging in length from a few sentences to several paragraphs. The entries are for materials in English, French, German, Italian, Spanish, Portuguese, and Latin and include items published through November 1986. Despite the wide variety of languages represented, this work is largely oriented to the student and general reader. Citations to articles in the standard Catholic encyclopedias are given throughout. In each section, many general works for background and introductory reading are included, which may or may not have special sections on peacemaking. Unfortunately specific bibliographic reference is not often given to the most relevant sections of these general works.

The bibliography has a classified arrangement, which begins with general works and continues chronologically, covering each period from ancient times to the present. Within sections it is subdivided quite finely and an average subdivision is only several pages long; so that although it lacks a subject index, access by subject is still quite easy to obtain. The greatest number of entries (945–1485) is in the final three chapters covering Europe since Vatican II, Latin America, and the United States. The entries include a wide variety of primary and secondary materials useful to anyone researching the Catholic peace tradition. The scope of these materials is also broad, covering materials that range from medieval writings on peace, to works about the just war tradition or pacifism, to theologies of peace, liberation, and social justice. The bibliography also has author, personal name, and title indexes.—K.M.

**FOLKLORE**


The purpose of this guide is “to help readers find reliable texts of any given folktale [available in English], not only in its best-known version, but also in less familiar variants” (introd.). The author, an associate professor of German at the University of Pittsburgh, has arranged the book by Aarne-Thompson numbers (Guide CF40, CF42), the standard folklore classification system. He provides brief plot summaries for the stories associated with each index number and then lists several collections in which versions of the story appear.

The author has also included a separate list of the titles of Grimm’s tales, with their classification numbers. A brief bibliography of secondary works on the folktale, and a list of folktale collections is also included. The index lists the titles of better-known stories and keywords from typical plots.

Though more selective than Norma Ireland’s *Index to Fairy Tales* (Guide BD246) and its supplements, the plot summaries and arrangement make identifying stories and motifs easier, and this should prove useful in both general and specialized collections.—M.C.


One of the results of the nineteenth-century boom in folklore studies was the urge to classify, analyze, and compare folktale from different countries and cultures. Type and motif indexes, with which folklorists can arrange tales and elements in tales in numeric sequences, have been developed to make comparisons easier. The best-known system is the Aarne-Thompson classification system, though other scholars have developed supplements and additions to Aarne-Thompson, or have devised their own.
This bibliography is the first compilation of all published, including dissertations, tale type- and motif-indexes. The 186 entries are arranged alphabetically by author, and there are separate subject and geographic indexes. Libraries with strong collections in folklore should find this guide useful.—M.C.

LITERATURE


As a somewhat abbreviated descendant of Spiller’s *Literary History of the United States* (Guide BD411), the *Columbia Literary History of the United States* is very much the product of its time. Where Spiller presents a comprehensive and unified progress through the centuries, the new volume is “modestly post-modern: it acknowledges diversity, complexity, and contradiction” (pref.). While librarians will continue to treasure Spiller, they may appreciate the representation here of previously unchronicled groups, genres, and authors such as native Americans, experimental fiction, and Dashiell Hammett, and recent re-evaluations of the American canon.

The work is divided into five broad time periods, each with a different general editor. Each of these sections reflects very much the opinions and tastes of its editor; coverage is in no way uniform or complete. Thus, there are chapters on women writers in each of the three sections that cover the time period 1810-1945, but none in the section from 1945 to the present. Chapters are by individual specialists and are signed. While there are many chapters on major American authors—Cooper, Dickinson, Poe, and so on, the majority deal with literary movements, ethnic, political, or social groups, and genres.

While the *Columbia Literary History* is furnished with an excellent index, it lacks the exhaustive bibliography of Spiller. Without a bibliography or footnotes, readers may have difficulty locating cited authors or works. Though by no means comprehensive, readers may find this work a compact and useful contemporary “take” on American letters.—Bj.

THEATER


Sponsored by the League of Historic American Theatres, this directory attempts to list “all available vital data about theaters built in the United States” that are still in existence. The editors included “theaters which are still operating and virtually unchanged since they first opened, buildings for which only the shell remains, and theaters . . . where just the facade remains” (pref.).

This list is based on work begun by the late Gene Chesley and supplemented by questionnaires sent to historical societies and libraries. It is arranged alphabetically by state, then by city. The entries include information about structural features, including state dimensions and equipment, seating capacity and size of the auditoriums; the architect, if known, and the opening date. Though the titles of opening presentations, if known, are given, and a few of the major stars are listed—without dates or titles of performances—the emphasis is on the theaters as buildings, not on the performances presented in them.

There are two indexes: the first lists names, including any variations, of the theaters; the second index lists performers, architects, theater owners, and titles of any plays, operas, and films mentioned in the entries. Unfortunately, individuals are not identified by professions, so it is impossible, for example, to identify quickly the names of architects.

William C. Young’s *Famous American Playhouses, 1716-1899* (Guide BG92) provides much more extensive information for the theaters it covers, and documents theaters no longer in existence. But only 118 buildings are covered, in contrast to the nearly 900 listed in this directory. Libraries with major theater collections will need both works.

An added bonus is the photographs of
nearly 80 theaters, ranging from Carnegie Hall to Callie Hall in Tallahassee, Florida, whose use as a loading dock does not completely obscure its theatrical origins.—M.C.


Comedy has never received the serious critical attention that tragedy has. Beginning, it seems, with Aristotle, comedy has not gotten any respect. However, as this bibliography demonstrates, in this century a more serious study of comedy has begun.

Evans has selected and annotated about 3,000 works on comedy, ranging from the purely theoretical to the specific, from Aristophanes to the Marx Brothers, from the history of cartoons to the psychology of the joke. He has divided the citations into several sections. General works on comedy are separated into the periods in which they were written, mainly pre- and post-1900. (One notices immediately that few works on comedy were written before 1900.) Works on specific authors are grouped under their respective nationalities. Finally, works about related subjects like satire, farce, jokes, and so on are grouped under their respective headings.

Each entry is numbered, with author and personal subject indexes. The citations chosen are English language only, which explains the skimpy number of entries under the national literatures. The personal subject index is useful for finding all the entries mentioning a particular author, for there are works that examine several authors’ works. However, there is no subject index as such, only a list of “see also” entry numbers at the end of each section. This is slightly annoying, for there is no way to tell from the number what the entry is specifically about, and there can be as many as 100 see also entries listed.

Still, this bibliography brings together a wide range of materials, making it a good source for those interested in researching comedy in its various forms and historical developments.—P.W.


The author, an associate professor of German at the University of Vermont, hopes this book will “facilitate investigation of the working repertory of German theatres between 1867 and 1890 by recording the productions of more than four thousand plays in ten selected [German, including Vienna] cities” (introd.).

She compiled the information from thirty-five published chronicles available in the United States; German records and printed sources not available in the United States were not used. Performances listed in volume 11 of the second edition of Goedeke’s Grudriss zur Geschichte der deutschen Dichtung (Guide BD811) were not included since this compilation is widely available.

The entries are listed alphabetically by playwright. Citations to biographical information located in ten standard sources are provided. The plays are then listed alphabetically under each author, with cryptic abbreviations indicating the genre; the number of acts; the language of the original play, if not German; a date of publication (not necessarily the first date of publication); and a year with the city or cities where the play was performed. The name of the theater and opening and closing dates are not provided, nor is the source of the information given. There is an index to play titles.

The lack of documentation and the unfortunate fact that German records were not examined means that this work will be most useful for its biographical references. This book, which appears to have been reproduced from a typed manuscript, is not up to Greenwood Press’ usual production standards.—M.C.

FILM

Wulff, Hans Jurgen. Bibliographie der Film­bibliographien/Bibliography of Film Bibliog-

Listing over 1,000 titles, this work is the most comprehensive guide to film bibliographies yet published and thus is a welcome addition to film reference collections. It casts a wide net to include bibliographies published as books, catalogs of individual library collections, pamphlets, articles, and parts of articles and books, in English and European languages. As a bibliography of bibliographies, it specifically excludes "filmographies" i.e., lists of films, although an exception has been made for filmographies of adaptations of literary works; an occasional filmography has slipped into other sections as well. Coverage appears to extend to materials published through 1985.

The bibliography is arranged according to a fairly detailed classification system that encompasses all aspects of film research and literature, including film theory, film and other disciplines, film techniques, film history, genres, national cinemas, persons and institutions, and related areas of mass media research. Liberal "see also" references at the end of each section alert the reader to related references in other sections; in addition, there are author and subject indexes, though the forms of entry used for corporate authors render them difficult to locate in the indexes. An unusual but useful feature is the list of "retrospective, cumulative indexes to individual film journals" (p. 64-70), a guide to cumulative indexes to such important journals as Cahiers du Cinema and Close Up.

The individual citations may appear strange to American eyes, partly because of the bibliographic format used and partly because of the fact that the bibliography is produced directly from typewritten copy. But the citations are complete, and many entries include annotations.—A.L.

SPORTS


The Dictionary of Sports Quotations attempts to "select quotations for their bearing on the human condition, for their profundity and for the way in which they provide a blanced insight into individual sports and related issues" (pref.). Done primarily from the British perspective, the volume tries to include quotations from the sports literature in all sports as well as quotations on related topics such as Fitness/Health, Journalism/Television, and Winning. The arrangement is by sport and then alphabetically by author. If more than one quote is chosen from a particular author, the quotes are arranged alphabetically according to the source of the quote and then by date.

The subject index is arranged by keyword and within each subject the entries are alphabetical by sport/topic. A similar arrangement is used in the author index. Because there are no cross-references (i.e., "Real Tennis see Lawn Tennis" or "Tennis see Lawn Tennis"), it is necessary to scan the complete "List of Sports and Topics" to find some entries (e.g., bowling is under "Bowls" and "Tenpin Bowling"). Recommended for comprehensive sports literature collections or comprehensive collections of quotations.—L.S.S.


An ambitious undertaking, the Sports Encyclopedia North America (SENA) aims to provide "the most complete reference guide to American and Canadian sports, present and past, that heretofore has appeared in print" (p.vii). The set is expected to be complete in fifty volumes with supplements and indexes issued as needed. Three volumes will be published each year; however the reviewer has seen only volume 1.

Primarily concerned with sports in the U.S. and Canada, attention is also given to athletes from other areas who have had an impact on North American sports. Also included are international sporting events that include participation by American
and Canadian athletes. The introduction "From the Editor" indicates all major sports and teams will be covered as well as intercollegiate athletics, athletes whose playing careers are over, each type of sport, major sports awards, major sports facilities, events and tournaments, terminology, and equipment plus the relationship of sports to other topics (i.e., sports medicine, economics of sports, etc.). Statistics and records are included with the appropriate article. In order to be included a sport must meet the criteria of physical activity, national organization, and competition. The articles are signed (unless done by the editorial staff) and include bibliographies. The Sports Encyclopedia North America reflects the growing popularity of sports in North America and will fill an important gap in the scholarly literature of sports.—L.S.S.

SOCIAL SCIENCE


The presence and influence of polls and surveys are pervasive in contemporary American life. The authors have conducted numerous polls with public interest groups and have targeted this book to those individuals and organizations involved with public advocacy issues. "This book presents hands-on information on how to plan, administer, and analyze a poll. And because polls can be used against you, this book also helps you to analyze the sampling, interpretation, and question-wording of polls conducted by other org[an]izations." The ten chapters take the would-be pollster step-by-step through the polling process: "Introduction to Polling," "Getting Started," "Questionnaire Wording and Construction," "Interviewing," "Preparing and Managing Your Interviews," "Sampling," "Processing Data: Methods and Options," "Analysis," "Shortcuts and Pitfalls." Each chapter includes tips for success, alerts to potential problems, and checklists that summarize important points, all highlighted graphically. An annotated bibliography, sample questionnaires, grids, and tabulations, and short glossary and index complete the volume. Recommended for all types of libraries—J.B.

WOMEN


So much has been in the newspapers recently about women in Ireland that this new bibliography is a valuable addition. Brady states that her aim is twofold: "to provide quick and convenient access in a single source to what has already been published,. . .to stimulate additional research in the area by indicating what gap exists in the literature. . .and also to facilitate comparative studies designed to differentiate that which is intrinsic in women's biology and temperament from that which is culturally conditioned" (introd). Coverage is stronger for Ireland but women in Northern Ireland are also treated; excluded are general accounts of Great Britain or England if they offer very small sections on Irish women.

All aspects of women's lives and activities are sought, from the Celtic period to the present day. Only secondary sources are listed—books, chapters in books, journal (not newspaper) articles, pamphlets, but not fiction and poetry. The arrangement is topical with each section preceded by scope notes, then alphabetical by authors. Numerous cross-references assist the reader as well as author and subject indexes. The annotations are descriptive rather than evaluative. All in all, a very useful compendium of references for the researcher.—E.M.


Citing other important bibliographies of
published American autobiographies and journals, Goodfriend has limited inclusion to the personal diaries and letters of American women writing in the United States. Stressing the immediate, rather than the retrospective, Goodfriend has excluded memoirs, autobiographies, and any extensive edited documents. The resulting bibliography includes approximately 700 items, listed in chronological order by initial date of composition. The annotations are very well written and are long enough to encourage browsing. The bibliography is followed by author and subject indexes, and the latter contains entries by topic, profession, religious affiliation, marital status, geographical location, nationality, and much more.

Although there is considerable overlap between this and Arkseyl’s *American Diaries* (Guide BD473), the emphasis on the personal and immediate in *The Published Diaries and Letters of American Women*, and the fact that *American Diaries* does not include letters or deal exclusively with women make both bibliographies valuable resources in a reference collection. Libraries not yet possessing *American Diaries* will wish to purchase it, but for those which already own a copy, this bibliography provides excellent annotations and a focus on women.—S.S.

**HISTORY AND AREA STUDIES**


Similar in presentation to *Sources in British Political History* (Guide DC287) also compiled by Chris Cook, the series expects to locate and identify unpublished personal papers of major Western European political figures of the nineteenth and twentieth centuries.

Volume 1 describes “over 1000 individuals active in the socialist, labour, radical, and revolutionary movements in Europe . . . from the revolution of 1848 through to the end of the Second World War in 1945” (introd.), excluding papers of the Eastern European, British, and Irish left. Volumes 2 and 3 will cover diplomacy and imperialism and war and resistance.

Entries are alphabetically arranged giving name, dates, brief biographical statement, and the location of manuscripts, papers, letters, etc. Occasionally a reference is given to published papers or to inventories. There are two brief appendixes describing archives relating to the Paris Commune and to the Norwegian labor movement.

This series will be a valuable resource for locating primary sources especially since many papers have moved around Europe and are not necessarily in the country where the person lived and worked. An index to the whole series will be a welcome enhancement, and one hopes that Cook and his co-compilers will consider a fourth volume indexing organizations, events, etc.—E.M.


Incorporating recent scholarship and earlier, more specialized biographical dictionaries on the Napoleonic era, this work offers biographies of the famous and less famous figures and extensive articles on major topics such as the continental blockade, public finances, and conscription. The articles, contributed by some 200 specialists in France and abroad, are signed and in general accompanied by a bibliography.

The Index Thematique conveniently groups articles under larger subjects; for example, one may find all the names of people who wrote memoirs under “Memoires (auteurs de).” Under “Nourriture,” relevant articles from agriculture to Brillat-Savarin are mentioned.

In a concise, one-volume format, the *Dictionary Napoleon* contains a wealth of information and is more comprehensive than the *Historical Dictionary of Napoleonic France, 1799-1815*, edited by Owen Connely (Greenwood, 1985). With black-and-white illustrations and color plates of Napoleonic iconography.—J.S.

The purpose of this encyclopedia is to make available "the highest level of contemporary scholarship on Asia to a non-specialist audience" (pref.). Geographically it covers the area from the Suez to the Pacific, including Iran and central Asia. Signed articles of varied length, but generally brief, cover topics in history, defined as "the interaction of the political, social, intellectual and economic movements that produce civilizations in all their rich and bewildering complexity." Well written and informative, they were prepared by an international team of professional historians. Although the emphasis is on political history, the Encyclopedia includes a number of articles in religion, philosophy, and art.

Most articles are accompanied by a bibliography of English-language works on the subject. The Encyclopedia has a synoptic outline, Wade-Giles/Pinyin conversion table, and general index. The synoptic outline is useful for systematic reading of related articles that form a concise survey of a national history. The black-and-white photographs and maps are well chosen and clearly produced—J.S.

Farenholtz, Brigitte and Wolfgang Grenz.

The stated purpose of this handbook is to provide "a guide to institutions and organizations in the member countries of the European Communities concerned with Latin America and the Caribbean" (introd). The compilers note the very broad scope of the project, which they hope will document the wide variety of organizations and institutions that form the basis for interaction between the two regions. In this respect the handbook is a unique tool, for it includes not only academic institutions (such as found in Carmelo Mesa-Lago's *Latin American Studies in Europe*) and individuals (profiled in more detail in *Latinoamericanistas en Europa*, compiled by Ida L. Suarez), but also governmental, business, technical, religious, media, and other types of organizations with interests in one or more of the Latin American countries.

The handbook was compiled from the results of a detailed questionnaire, completed by around 500 organizations, supplemented by less detailed information about a larger number of groups. The main part of the book is arranged alphabetically (in Spanish) by country within the European community, and within each country by city. All descriptions are in a standardized format, with text in both Spanish and English. The second part consists of eight appendixes (Institutions and Organizations in Austria, Switzerland, and Sweden; European Peridical Publications with Reference to Latin America and the Caribbean; Diplomatic and Consular Missions of the Latin American and Caribbean Countries in Europe; Bilateral Countries in Latin America and the Caribbean; Bilateral Trade Promotion in Latin America and the Caribbean; European Banks’ Representations in Latin America and the Caribbean; European Cultural Institutes in Latin America and the Caribbean) and indexes by personal name, region, subject (English and Spanish), institution or organization, and acronym. Although admittedly incomplete, this handbook fills a gap in the literature.—J.B.


In a time when so many reference books in area studies tend toward the dry, descriptive, and statistical, it is with admiration that one encounters an editor who refuses to "impose . . . any straitjacket of political or stylistic orthodoxy" and who admits that it "would be unrealistic to look for consistency from authors whose backgrounds differ widely and who are discussing events and conditions in a region that has become a byword for dissension and bitter controversy" (pref.). The forty-one contributors have provided an overview of the Middle East that should prove both useful and stimulating to a variety of researchers and students.
The first 180 pages are devoted to basic information on each country, followed by thirty-four pages of comparative statistics, most as current as 1985–1986, compiled by the Middle East Economic Digest. The remainder of the volume is divided into five parts: “General Background,” “The Countries of the Middle East,” “Political Affairs,” “Economic Affairs,” and “Social Affairs.” The country sections are expanded versions of the preliminary sketches, while the essays in the last three parts range from “Zionism and the Arab Question” to “Foreign Aid and Investment” and “Archaeology.” Each essay concludes with a short bibliography, including both standard and current works. A fifteen-page index concludes the volume. Altogether a work of great utility and scope.—J.B.

UNITED STATES


Typically an atlas is judged on the quality of its maps, and if maps were all this book had to offer, it would still rank as a first-rate reference tool. There are over 100 maps of the U.S. here, most of them the same full-page outline of state and county boundaries, but each devoted to a different ethnic group and shaded, county by county, to represent the percentage, or the absolute number, or both of that group in the population. Using data from the 1980 Census of Population, the authors have made it possible to see in a glance the distributions and densities of nearly seventy different ethnic groups. And by juxtaposing with these maps smaller, state-level companion maps based on data—whenever similar data were available—from the 1920 census, they suggest the shifts, trends, and movements of these populations. In addition, there are several maps devoted to particular ethnic groups’ U.S. migration patterns. Finally, a number of cartograms—graphs made of nested and proportionally sized rectangles and squares—show the relative proportions of selected ethnic groups in each state.

The authors also appreciate the true purpose of all this elegantly arranged graphic information: “like most maps, these may be best used as heuristic devices to stimulate curiosity” (pref.); one wants to know on seeing these maps how a certain people came to be in a particular place, and why they stayed or left. The text surrounding each map addresses just these questions, not, obviously, to exhaustion—each ethnic group averages about a page of concise prose—but historical factors and trends are broadly identified and traced.

The whole package—maps and text—is so attractive and accessible that some scholars might even find it off-putting; but although a high school student could indeed make good use of this book, its seriousness and scholarship will be appreciated by researchers in history, sociology, and geography.

The text includes a chapter on the quality of data from the 1980 census and a brief but very useful list of references.—W.M.


A year-by-year look at the last six decades in America. Each decade is introduced by a brief narrative of the social, political, and cultural trends for that ten-year span as well as a brief look at vital, economic, social, and consumer statistics. Categories covered for each year include: Facts and Figures, In the News, Deaths, Quotes, Ads, Radio (later TV), the Arts (Music, Theater, etc.), Science and Technology, Sports, Fashion. A Kaleidescope section attempts to capture the “flavor” of each year by giving costs, popular brands, new words, first appearances, etc. A fun book to browse but a name/subject index would have enhanced its usefulness for libraries.—L.S.S.
The first of a projected five-volume set, the *Handbook of the American Frontier* provides brief encyclopedia-like articles in a dictionary arrangement on all aspects of the Indian-white relationship. Subjects covered include "American Indian tribes and leaders, explorers, traders, frontier settlers, soldiers, missionaries, mountain men, captives, battles, massacres, forts, treaties" (p. vii) in the continental U.S. from the earliest explorations to the end of the Indian wars. Each volume will cover a different region: Southeastern Woodlands; Northeast; The Plains; Southwest and Pacific Coast; volume 5 will include the index, chronology, and bibliography. Cross-references to related articles within a volume are given, and brief bibliographies are provided. Some articles may be split between volumes as tribes moved from one region to another so there may be some difficulty in finding the primary article for some topics until the cumulated index volume becomes available. Although this set has a similar subtitle to the volumes by Francis Paul Prucha, Prucha's *Indian-White Relations in the U.S.* and *A Bibliographic Guide to the History of Indian-White Relations in the United States* remain the volumes of choice for bibliographic citations. Complements the *Handbook of North American Indians* but is not a substitute for it.—L.S.S.

**NEW EDITIONS, SUPPLEMENTS, ETC.**

Random House under the editorship of Stuart Berg Flexner has published a thoroughly revised *Random House Dictionary of the English Language* in a second revised edition (New York: Random, 1987, 2,500p. $79.95; 1st edition 1966, Guide AD9). Grown to about 315,000 entries, much updated, still descriptive, with an addition of the approximate date for the entry into the language of a word or phrase, it is a most desirable purchase of a contemporary dictionary for libraries and the home.

Clarence Barnhart issues a quarterly newsletter called *The Barnhart Dictionary*...
Companion January 1982-; (Guide AD69) in order to ‘report upon the wealth of change in the English vocabulary’ (pref.). Now he has issued an Index to the newsletter for the years 1982–85 (Cold Spring, N.Y.: Lexik House, 1987. 102p. $36) with 3,200 entries.


These pictorial or visual dictionaries have become prevalent. First we had the Oxford Dudens (Guide AD311, AD379); now we have Facts On File English/French Visual Dictionary: Look Up the Word from the Picture, Find the Picture from the Word (New York: Facts On File, 1987. 924p. $32.50) compiled by Jean-Claude Corbeil and Ariane Archambault. The illustrations are much clearer than the Duden and the orientation is more North American since the editors are in Quebec.

Within the Biblioteca Bibliographica Aureliana (Baden-Baden: V. Koerner) issues have been published since 1978 entitled Répertoire bibliographique des livres imprimés en France au XVIIe siècle (nr. 75, 81, 84, 86, 89, 91, 92, 94, 97, 98, 101-103, 111) listing by city, chronologically, works published there in the seventeenth century. Now they are beginning a new title to continue the coverage, Répertoire bibliographique des livres imprimés en France XVIIe siècle (Biblioteca bibliographica Aureliana, 112, 1988). Complementary to the latter Répertoire is La Siècle des lumieres: bibliographie chronologique by Pierre Conlon (Genève: Librairie Droz; Guide AA751). The next two volumes have appeared: v.4, 1737-42 (1986, 525p.), v.5, 1743-47 (1987. 539p. Fr 383) in the series Histoire des index et critiques littéraire, nr. 239, 250.


The obituaries from Variety (1905–86 obituary columns, news stories, and editorials covering deaths of individuals connected with show business) have been reprinted in Variety Obituaries (N.Y.: Garland, 1988. 10v. $1,250). The arrangement is chronological according to the date of publication; volume 11 is to be an index but is not yet published. Until then Jeb H. Perry’s Variety Obits: an Index to Obituaries in Variety 1905–1978 (Guide BG21) can be used as a partial index, although the Perry is very selective.

Benet’s Reader’s Encyclopedia (Guide BD50) has been revised after more than ten years of work by a staff at Harper’s. The third edition (New York: Harper, 1987. 1,091p. $35) has dropped a great number of short entries, about half non-Western, mostly identifications of characters or people (Aino Kallas, Kalyb, Kami, Edmund Kean). Added or expanded are current topics or people, and articles with emphasis on “the book’s international scope” (pref.). (Kafka expanded, Emmanuel Kazakevich, Elia Kazan and Buster Keaton new.) Otherwise the entries are the same, though the illustrations are dropped.

Long a standard literary dictionary, M. H. Abrams’ A Glossary of Literary Terms...
(New York: Holt, 1988. 260p. $11) is now in a fifth edition. Besides rewriting and updating the entries, the author adds a section on "Modern Theories of Literature and Criticism," which discusses seventeen literary theories. Also very useful is the index with pronunciations given for words likely to be troublesome.


*Volume 1* of T. H. Howard Hill's *Index of British Literary Bibliographies* (Guide BD494), which is entitled, *Bibliography of British Literary Bibliographies*, is now published in a "second edition revised and enlarged" (Oxford: Clarendon, 1987. 886p. $79). It incorporates the original listings with the additions that appeared in volume 2, pages 183–322, plus other books, parts of books and articles published 1890–1969 that had been omitted from the original bibliography. The index published as volume 6 (1980) of the *Index* was designed for use with this second edition. Volume 7 is in press and will cover 1970–79 publications.

Harold Bloom and his people at Chelsea House have been very busy this past year. *Twentieth-Century British Literature* (New York: Chelsea House) is now complete with volume 5, S–Z (1987) and volume 6, *Bibliographical Supplement and Index* (1987. $40). The *Bibliographical Supplement* covers 249 authors, listing each one's books with year of first publication up to 1985 and a few from 1986. The *New Moulton's Library of Literary Criticism*, which began in 1985, has extended its coverage from the Restoration through the Romantic periods (New York: Chelsea House, 1987. V.4–6, $65 each).

Scribner has issued supplement one to *British Writers*, edited by Ian Scott-Kilvert (New York: Scribner, 1987. 465p. $75; *Guide* BD573) with twenty-five essays ranging from Graham Greene to Tom Stoppard, arranged chronologically by birth date.

The enlarged and updated edition of Jean-Pierre de Beaumarchais' *Dictionnaire des litératures de langue française* (Paris: Bordas, 1987. 4v. $295) contains 237 pages more than the three-volume, 1984 edition (*Guide* BD997). More recent publications have been added to bibliographies; some articles were revised to incorporate new developments on the subject. Among the appendices are the lists of the members of the Académie Francaise, Académie Goncourt, and winners of various literary prizes, a handy table of literary terms and the title index of all works mentioned in the *Dictionnaire*. The color and monochrome plates, which are not illustrations for any particular articles but entries by themselves, now have an index.—J.S.


*Writers and Production Artists* is volume 4 of *The International Dictionary of Films and Film-Makers* (Chicago: St. James Pr., 1987. 484p., $55) and includes "a cross-section of writers, producers, art directors, cameramotographers, costume designers, composers (and musical directors, arrangers, and lyricists), editors, choreographers, stuntmen, and second unit directors, special effects and sound technicians, makeup artists and animators" (introd.). The introduction indicates that this is the last volume of the series but there is mention of a volume 5: *Title Index*.

*The Index to the Motion Picture Guide* by
Jay Robert Nash (Chicago: Cinebooks, 1987. 2v. $150) gives complete filmographies for 18,000 individuals active in film 1910–84, as well as an awards index; also included is a series index for titles of movies which form a series, e.g., Blondie or Roy Rogers, and an alternative title index for films released in Great Britain under titles other than ones used in the U.S.

Gale Research has expanded its Encyclopedia of Associations (Guide CA125) to include Regional, State and Local Organizations in seven volumes (Detroit: Gale, 1988-... $85 each volume). Thus far The Great Lake States and The Northeastern States have been published. Within each volume listings are arranged geographically with keyword and subject indexes. Besides "United States nonprofit membership organizations with interstate, state, intrastate, city or local scope" (subtitle), the volumes include resource and referral centers, clearinghouses, information services, etc., "if they disseminate information to the general public as well as the researcher" (pref.).

Ralph Chandler, Richard Enslen, and Peter G. Renstrom continue The Constitutional Law Dictionary (Guide CK401) with a supplement one to volume one covering 1983/84-1985/86 terms of the Supreme Court (Santa Barbara: ABC-Clio, 1987. 138p. $26) and volume two, "Governmental Powers" (Santa Barbara: ABC-Clio, 1987. 715p. $48.50). This second volume treats "concepts of constitutionalism, biographical sketches of leading justices of the U.S. Supreme Court, and words and phrases common to American constitutional law and landmark case decisions by the Supreme Court" (note).


Allen Smith has compiled a Directory of Oral History Collections (Phoenix: Oryx Pr., 1988. 141p. $74.50) based on answers to questionnaires sent to members of the Oral History Association and to institutions listed in library and oral history directories. The arrangement is geographical with subject and interviewee indexes. Smith lists more libraries and archives (though only in the United States) while Alan Meckler's Oral History Collections (N.Y., 1975, Guide DB63) has more extensive indexing, descriptions of individual histories, and a few foreign collections.


People in History: An Index to U.S. and Canadian Bibliographies in History Journals and Dissertations (Santa Barbara: ABC-Clio, 1988. 2v. $137.50) is the latest production from the America: History and Life (Guide DB47) database, 1976 to the present. Alphabetically arranged by biographee with a subject index and author index, the volume indexes all articles (including Dissertation Abstracts International, Guide AH19) "in which the focus was primarily biographical" (introd.). The company indicates they plan to issue a volume based on Historical Abstracts and to provide supplements to both.

Twenty-six students enrolled in a course on swine production retrieved information from a laser videodisc containing the full text of the Pork Industry Handbook. The attitudes of these novice searchers were assessed before and after they used the laser videodisc system. The degree of expertise on computers appears related to the initial attitude toward retrieving information from the laser videodisc system. However, neither expertise on computers nor initial attitudes determined success in using the system. A larger, though not significant, change in attitude was seen between those who were successful in using the system and those who were not.

Although laser videodisc technology has been available since the early seventies, librarians have only recently used it for information retrieval. Since 1981, when Pergamon introduced its short-lived Patsearch, several commercial applications of videodisc technology have become available. Major libraries including the National Library of Canada, the National Library of Medicine, the Library of Congress, and the National Agricultural Library have explored the capabilities of the laser videodisc.¹

This study concerns one group of users who helped evaluate the effectiveness of laser videodisc technology and other technologies in retrieving information. In 1984 the National Agricultural Library (NAL) initiated the project in which these users participated.² The vehicle for the project was the full text of the Pork Industry Handbook in three formats: hard copy, full text available online from a private file at Bibliographic Retrieval Services, and full text on laser videodisc. The NAL project provided an opportunity to study the attitudes of novice users toward the laser videodisc system.

In evaluating the usefulness of the laser videodisc or any other technology, how the user feels about the system is an important consideration. How readily a potential user accepts and utilizes a new technology may depend upon the attitude toward it. At least some designers of computers and software are aware of this.

Sarah A. Kelly is Assistant Life Sciences Librarian at Purdue University, West Lafayette, Indiana 47907.
Since the mid-seventies the decrease in computer costs has stimulated interest in good human factors as a marketing tool. Librarians also are aware of the importance of user attitudes as factors in accepting new technologies. Noble and O'Connor studied the relationship between attitudes toward computer technology in general and acceptance and evaluation of the VTLS online public access catalog (OPAC) in particular. Analysis of their data indicated "that those who distrust and are suspicious of the computer technology would have less use for OPAC in the future."

Some studies have indicated that computer experience may condition attitudes toward computers. In studying the attitudes of four professional groups, Zoltan and Chapanis observed that those who had learned to use computers held a more favorable attitude toward them than those who had not. Arndt, Feltes, and Hanak found that secretaries familiar with word-processing equipment felt more positive toward using it than those who had had no experience with it.

The objectives of this research were to examine (1) whether or not experience with computers affects attitudes toward the laser videodisc technology; (2) whether or not initial attitudes toward the laser videodisc system or experience on computers are related to user performance on the system; and (3) whether or not performance on the system is related to subsequent attitudes or increases in change of attitudes toward the technology.

**METHODOLOGY**

Twenty-six students enrolled in an eight-week class on swine production at Purdue University participated voluntarily in this study. A homogeneous group, all were farmers and all but one were under twenty-five years of age. The attitudes of the students toward retrieving information from the laser videodisc were measured before and after using the system.

The vehicle for measuring attitudes was a set of ten semantic differential scales (see Appendix A). A scale consists of an adjective and its antonym with seven blanks inserted between them. Scales for this study were selected from a list by Henerson, Morriss, and Fitz-Gibbon. A mean attitude score was computed over all items for each individual.

The hardware of the system consists of an IBM PC-XT with 512 kilobytes of memory with monitor and mono-adapter card, a Pioneer LDV-1000 videodisc player, a Laser Data Trio 110 controller with interface card and a Panasonic TR124 monochrome display monitor. The software is the PCIX operating system and BRS/Search.

The data stored on the videodisc was the full text, plus pictures and charts, of the *Pork Industry Handbook*, approximately two million characters. The *Handbook* is a major reference work for those involved in raising and selling swine.

The searchable data (which includes all of the text, some of the charts, and all captions for pictures and graphs) are displayed on one monitor; the pictures, graphs, and remaining charts are displayed on the second monitor. BRS/Search enables searching in three modes. The participants in this study used the mode for novice users. Called Searchmate, it is menu-driven and has help screens that can be called up during a search session. The user may combine search terms with positional AND/OR Boolean operators. After the documents are retrieved, the user has different options for displaying them. Andre has described fully the creation, operation, and capabilities of this laser videodisc system.

Each participant spent no more than one-and-a-half hours learning about and using the system. After reading a one-page description about what he was going to do during the session, he filled out the attitude scales to indicate how he felt in anticipating use of the system. I demonstrated how to retrieve documents from the system and how to display them. I also indicated written instructions on the search process located beside the computer. After the demonstration the participant was left to use the system on his own to find information on any topic he wished. After this period of exploration, I gave the student this question to answer: "What are the space requirements for
The student had up to thirty minutes to find the answer, which was contained in a chart, and show it to me.

In this study there were two measures of performance. The first was success in answering the question. (A participant either found the answer or did not. If during the search he asked for help, he was counted as not having answered the question.) The second measure was the amount of time elapsed between submission of the question and discovery of the answer. After this part of the session, the student filled in the same set of attitude scales as he had before as a measure of his feeling toward using the laser videodisc system. Each student was asked what instruction he had received in using computers and how many hours he used one. His experience using a computer was given the value of 1, 2, or 3, corresponding to a low, moderate, or high level. A student with no computer courses or with a course but no application was rated as having a low level of experience; one with multiple courses and no application or one course with minimal application was rated as having a moderate level of experience; one who used a computer on a regular basis was rated as having a high level of experience.

RESULTS AND DISCUSSION

A relationship does appear between users’ previous experience on computers and their initial attitudes toward using the laser videodisc system (see table 1). For this part of the study the data were complete for twenty-four of the twenty-six students. A simple regression analysis of this data showed for three of the ten scales and for the mean score of all scales a significant difference between the attitudes of those who had had more experience and those who had had less. One might expect that familiarity with a computer would foster a positive attitude toward a system with a microcomputer as a major component. In studying the attitudes of certified

TABLE 1

<table>
<thead>
<tr>
<th>Semantic Differential Scale</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Regression Coefficient</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boring/interesting</td>
<td>.04127</td>
<td>-.00231</td>
<td>-.203145</td>
<td>.94697</td>
<td>.3411</td>
</tr>
<tr>
<td>Uninformative/informative</td>
<td>.19005</td>
<td>.15324</td>
<td>-.435944</td>
<td>5.16222</td>
<td>.0332*</td>
</tr>
<tr>
<td>Confusing/clear</td>
<td>.05643</td>
<td>.01354</td>
<td>-.237553</td>
<td>1.31574</td>
<td>.2637</td>
</tr>
<tr>
<td>Purposeless/purposeful</td>
<td>.00917</td>
<td>-.03587</td>
<td>-.095766</td>
<td>.20363</td>
<td>.6562</td>
</tr>
<tr>
<td>Tense/relaxed</td>
<td>.03797</td>
<td>-.00576</td>
<td>-.194861</td>
<td>.86833</td>
<td>.3615</td>
</tr>
<tr>
<td>Unhappy/happy</td>
<td>.33667</td>
<td>.30652</td>
<td>-.580233</td>
<td>11.16603</td>
<td>.0030*</td>
</tr>
<tr>
<td>Angry/calm</td>
<td>.12258</td>
<td>.08269</td>
<td>-.350110</td>
<td>.94346</td>
<td>.3615</td>
</tr>
<tr>
<td>Worthless/valuable</td>
<td>.04112</td>
<td>-.00246</td>
<td>-.202783</td>
<td>3.07343</td>
<td>.0935</td>
</tr>
<tr>
<td>Useless/useful</td>
<td>.26370</td>
<td>.23023</td>
<td>-.513514</td>
<td>7.87898</td>
<td>.0103*</td>
</tr>
<tr>
<td>Unfriendly/friendly</td>
<td>.06511</td>
<td>.02261</td>
<td>-.255164</td>
<td>1.53214</td>
<td>.2288</td>
</tr>
<tr>
<td>Mean score of all scales</td>
<td>.20382</td>
<td>.16763</td>
<td>-.451468</td>
<td>5.63206</td>
<td>.0268*</td>
</tr>
</tbody>
</table>

Simple regression analysis of data used: \( y = a + bx + e \) with initial attitude as \( y \), the dependent variable, and prior computer experience as \( x \), the independent variable.

\[ df = 22\]

*\( p < .05 \).
public accountants, lawyers, and physicians, Zoltan and Chapanis found that experi-
enced users were more likely to be positive toward computers than inexperi-
enced users. But in this study of attitudes toward the laser videodisc system those
who had had more experience using a computer had less positive attitudes in antici-
pat ing their use of the system than those who had had less experience. It is
possible that a study with more participants would have had a different result.
The number of students with the highest level of experience was four, and those
with a moderate level was five.
The attitudes users held initially toward using the system did not appear to be re-
lated to their performance on the system. The data for this part of the study were
complete for twenty-four of the students. One measure of performance was
whether or not they were successful in answering the question. Eighteen (70 per-
cent) of the twenty-six students did an-
swer the question, although the
demonstration and exploration periods
were brief, only one-half hour each. How-
ever, from a simple regression analysis of
the data no relationship appeared be-
tween initially held attitudes and success
in answering the question.
The other measure of performance was
the time it took to answer the question.
According to a simple regression analysis
of the data there appears to be no relation-
ship between the initial attitudes of the us-
ers and this measure. This is not unex-
pected. Other factors probably affected
this measure of performance. Five of the
students mentioned that they did not
know how to type. This may have in-
creased their search time for an answer.
One can also speculate that the ability to
formulate and execute a search might be a
significant factor in determining perfor-
mance and might operate independently
of attitude. This ability might also be inde-
pendent of previous experience on com-
puters. A simple regression analysis of the
level of experience with computers in rela-
TABLE 2
SUCCESS IN ANSWERING THE QUESTION USING LASER
VIDEODISC SYSTEM RELATED TO CHANGE IN ATTITUDE

<table>
<thead>
<tr>
<th>Semantic Differential Scale</th>
<th>Not Successful</th>
<th>Successful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Difference in Scores</td>
<td>n</td>
</tr>
<tr>
<td>Boring/interesting</td>
<td>.88</td>
<td>8</td>
</tr>
<tr>
<td>Uninformative/informative</td>
<td>.50</td>
<td>8</td>
</tr>
<tr>
<td>Confusing/clear</td>
<td>1.14</td>
<td>7</td>
</tr>
<tr>
<td>Purposeless/purposeful</td>
<td>.50</td>
<td>8</td>
</tr>
<tr>
<td>Tense/relaxed</td>
<td>.62</td>
<td>8</td>
</tr>
<tr>
<td>Unhappy/happy</td>
<td>.75</td>
<td>8</td>
</tr>
<tr>
<td>Angry/calm</td>
<td>.00</td>
<td>8</td>
</tr>
<tr>
<td>Worthless/valuable</td>
<td>.12</td>
<td>8</td>
</tr>
<tr>
<td>Useless/useful</td>
<td>.62</td>
<td>8</td>
</tr>
<tr>
<td>Unfriendly/friendly</td>
<td>-.12</td>
<td>8</td>
</tr>
<tr>
<td>Mean score of all scales</td>
<td>.50</td>
<td>7</td>
</tr>
</tbody>
</table>

Analysis of variance used. Success in answering the question is the independent variable. Difference between posttest and pretest scores on attitude scales measures change of attitude, the dependent variable. df 1/24 except 1/23 for confusing/clear and mean score of all scales.
tion to performance on the laser videodisc system indicated that experience did not appear to be related to success in answering the question or the time required to answer the question.

An analysis of variance revealed that for eight of the ten scales and for the mean of all scales those who were successful in answering the question showed a more positive change in attitude than those who did not answer the question, where change in attitude is measured by subtracting the pretest response from the posttest response for each respondent on each scale. (see table 2). However, the change in attitude was not significant.

CONCLUSION

Because of the small number of students comprising the total number of participants in this study and the even smaller number belonging to the subgroups, conclusions drawn from the analysis of the data are tentative. This study indicates that previous experience on computers is related to initial attitudes toward the laser videodisc system, although not in the direction one might expect. It is not evident from this study that as more library users become computer users one can expect them to have favorable attitudes initially toward new technology involving computers. However, neither initial attitudes toward the system, nor previous experience on computers appear to be related to how successful people are in using the system. These findings suggest that factors other than initial attitudes or experience with computers are more important in predicting success in using the laser videodisc system. In this study typing ability may have been a factor. Probably more important is knowing how to execute a search. One would hope that successful use of the system to retrieve information would encourage a positive attitude toward this technology. This cannot be concluded definitely from the data. However, those who were successful in answering the question did show a more positive change in attitude than those who were unsuccessful.

REFERENCES

5. Ibid., p.9.
How do you feel about finding information using this system? Place an x on one of the seven lines between each pair of words.

boring ______ ______ ______ ______ ______ ______ ______ interesting
uninformative ______ ______ ______ ______ ______ ______ ______ informative
confusing ______ ______ ______ ______ ______ ______ ______ clear
purposeless ______ ______ ______ ______ ______ ______ ______ purposeful
tense ______ ______ ______ ______ ______ ______ ______ relaxed
unhappy ______ ______ ______ ______ ______ ______ ______ happy
angry ______ ______ ______ ______ ______ ______ ______ calm
worthless ______ ______ ______ ______ ______ ______ ______ valuable
useless ______ ______ ______ ______ ______ ______ ______ useful
unfriendly ______ ______ ______ ______ ______ ______ ______ friendly
Letters

To the Editor:

I support opportunities for professional recognition. Thus, I was pleased to see the announcement in the November 1987 issue of awards for distinguished librarians. However, I object to one of the criteria: that of "working longer." We should not be fostering a professional culture where overtime is rewarded. First of all, some who routinely work overtime are workaholics. Workaholism is an addiction that leads to loss of productivity as the person's life becomes increasingly out of balance. Second of all, hours worked overtime are hours away from the cultural, leisure, and family pursuits that contribute to the growth of intelligent, aware humanists and generalists—qualities I believe are necessary for the information specialist of today.

DONNA RUBENS
ESTIS Coordinator, University of Minnesota

To the Editor:

We appreciate the coverage of Dissertation Abstracts Online in "Dissertations—an Online Dilemma" (C&RL, January 1988, p. 78-84), by Donald Hartman and Manuel Lopez. We'd like to take this opportunity to address a few of the comments in the article that might be considered misleading.

While it is true that the entry in the database of Databases for Dissertation Abstracts Online does not include a document type field, the entry is the only one with "Dissertation" in the title (document type being a trifle redundant in this case). Often while searching a variety of databases we forget that specific field searching can be dangerous—causing glaring omissions such as those you discover.

Harvard University has been a member of UMI's publishing program since 1980. Citations appear as early as 1957. While the University of Chicago does not participate in UMI's publishing program per se, we do publish abstracts and make citations available online. Even though some schools do not submit everything, we attempt to be comprehensive by providing citations from our publication American Doctoral Dissertations.

Again, we thank the authors for reminding the online searcher not to ignore "this particular resource" in the area of dissertation searching.

CANDACE C. WISE
Manager, Online Support
Dissertation Abstracts and Japan Technology

To the Editor:

Michael Buckland (C&RL, March 1988, p.119) is not alone in claiming that paper publications require no equipment to use, but his considerable company does not make the assumption correct. Ever try to read in the dark? The use of a book requires adequate lighting and, about 80 percent of the time, corrective lenses for the reader. Some secondary consid-
erations include a suitable table or study carrel and a comfortable environment in terms of temperature and humidity. My nit-picking should not, however, spoil a perceptive article.

JOSEPH POPECKI
St. Michael's College
Winooski, Vermont

The American Antiquarian Society (AAS), one of the premier independent research libraries and learned historical societies in the United States, has never lacked, quite correctly, for the documentation of its own progress. In this century alone, even without regard to its own proceedings and transactions (which were first produced in 1820 and continue to the present), proud librarians of AAS have had their say at successive intervals. These watershed dates in the society’s long past were marked by histories, guides, and exhibitions of this fabled collection of Americana.

Such “memoirs” of AAS occurred, for example, in 1937 when, in its 125th year the society produced R. W. G. Vail’s Guide to the Resources of the American Antiquarian Society. Within four years of AAS’ reaching its 150th anniversary, Clarence Brigham produced his remarkable autobiography as librarian of the society, Fifty Years of Collecting Americana for the Library of the American Antiquarian Society, 1908-1958. Then in 1969, a decade after AAS’ current director and librarian, Marcus McCorison, arrived in Worcester, Massachusetts, to labor in the venerable institution, an exhibition catalog of truly memorable proportions was published—A Society’s Chief Joys. Today this catalog remains a model for this type of oft-produced “treasures” catalog, the kind that aspires to become a contribution to the greater accessibility of a collection. As all good exhibition catalogs do, these works innately provide a special service to those scholars needing an overview of a library’s subject strengths.

Each of these publications in their own time, in their own way, possessed a common purpose of collection promotion for usage and visibility and further development. The differences in the personalities of the writers or the circumstances of individual contexts do not obscure this singular similarity. In this way these works are part of a broader literature of research librarianship and library history that tends to be overlooked because it is so taken for granted. Such well-produced and well-described collection guides and rules of access, those maps to the great collections generated most vigorously between 1930 and 1970, unfortunately in most cases, badly need revision toward current standards, viewpoints, and changes. The attitudes of research librarians and their patrons over the last twenty years need better representation. However, great and humble libraries alike can still profit from examining such classic publications as Opportunities for Research in the John Carter Brown Library, the Newberry Library’s An Uncommon Collection of Uncommon Collections, or The Widening Circle: The Story of the Folger Shakespeare Library and Its Collections as models for their own collection surveys.
In the publication of *The Collections and Programs of the American Antiquarian Society: A 175th Anniversary Guide*, the tradition of celebrating a great research library’s acquisitional genius has been reaffirmed, not simply for the society’s own collection, but for the other independent research libraries, as well. As a joint effort of the entire professional staff of AAS, this guide delineates this collection for today’s researchers. Married to this main concern, photography is used to depict the building housing so much primary-source material for early American history. And over the entire production, the institutional “folk memory,” the attitudes of past staff members and current ones, of the former heads and current librarian McCorison’s summations are allowed to show through. The work, thus, becomes a true history of the collections amassed and not a mere guide to them.

While it revises older publications, this *Guide* depicts a research institution truly representative of the future potential of American historical scholarship in the context of the libraries that house the raw materials for future analysis of the nation’s past. In the last generation, AAS staff has more than doubled; its endowment is over ten times as large as it was in 1970. Indeed, the current achievement is underscored, not slighted. AAS has always been an institution that collected assiduously by the broadest sweep and, conversely, down to the most imaginatively resourceful, topical detail. Up to 1876 as a general collection cut-off date, there is no better library to turn to for studies concerning American imprints and U.S. printing history, for research dependent on almanacs and early newspapers, for early American municipal records, for trade catalogs of all sorts, for the social history of the original English-speaking center of settlement in America. Counterpointing this impressive, broadly defined collecting are the detailed treatments that each of AAS’ individually identified subjects afford for scholarly investigation. American social history is enriched accordingly by the organization that AAS has put on its collections of American political and intellectual documents, its religious history, and its literary and cultural records. These subjects have been treated in this collection guide with appropriate background history and purpose, along with thorough descriptions. A blueprint for the past, current, and future trends in scholarship is thus created for important library collections of the society, as well as a formal statement for future collection development.

The considerable care with which the numerous black-and-white photographs were taken indicate, as intended, visually how the library looks at this stage in its history. These images form a fitting companion to collection descriptions presented by curators. In fact throughout the *Guide*, in photographs, preface, chapter, and list, perhaps the main strength of the work, one that fulfills its purpose to be a commemorative piece is the work’s honesty, its candidness. We see the overcrowded stacks, the imperfections of the folio bindings, the tatters, as well as the treasures. We see the staff’s pride in a collection that is used—and used frequently by scholars—as well as the obligatory scenes of conservators and scholars at work, of computerized online projects, a crucial pioneering effort for other rare-book institutions in this country. And overall, we see a staff and a library thoroughly enchanted by its own great history. The previous staff and past events are not forgotten, but commemorated in the context of future opportunity. Even McCorison’s description of the society’s buildings and grounds is embued with this long-range view based on a thorough respect for the past. In this way the *175th Anniversary Guide*, becomes not only a memorial to a great independent research institution for humanistic endeavor, founded generations ago on the most altruistic notions and conceptions involving cooperation between the private and public sectors, but to general American library history as well.

Such “private” institutions should be regarded as the most “public” or civically spirited organizations of the early Republic. In the last generation they have rightly begun to receive appropriate federal support for programming. But even in an ear-
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lier day, great public officials—past American presidents in fact—were numbered on the boards and councils of such institutions as the American Antiquarian Society. A partnership in cooperation has always been recognized, at least tacitly. If there were any defect in an otherwise flawless production, this fact could have been better understood and expressed in the book’s foreword, since it was broached. As Vail called it in 1937, “This great public, reference library” will be helped by a Guide that furthers the goals of a research collection which has, as its greatest tradition, the strengthening of the links between Americans and their own past.—John Neal Hoover, St. Louis Mercantile, Library Association, Missouri.


A genre of research literature that deserves more attention than it gets is conference proceedings. At first glance, one might dismiss the papers delivered at a conference in favor of data from monographic or scholarly journal sources, assuming that most published proceedings are essentially the same. In fact they are not, and the possibilities for potential research value are numerous. These conference proceedings reflect that value.

The underlying purpose of this conference on integrated online library systems, and therefore of its proceedings, is to reflect on the trend toward “open” library systems and linkages to other systems. Contained in the proceedings is information for people who have already selected and installed a system as well as introductory information for those in the process of acquiring a new or replacement system. While some papers deal with the selection and implementation of library online systems and subsystems, others focus on the human element of automation and post-installation concerns.

This is a very basic book. Proceedings are by nature a hybrid, part instruction manual and part textbook. The contributed papers and plenary session papers cover the entire spectrum of data on integrated online library systems. In these proceedings, there are a great number of articles that cover a multitude of related interests including the evaluation, selection, and installation of IOLS; developing RFPs; staff policies; impact of library automation on management; data conversion; and requirements for subsystems.

The question logically arises: What makes this book such a good investment given the fact that the same information is also available in the journal literature? The answer is that while the information can be found in journals, the scope of this book and the fact that it is in one published volume make this purchase worthwhile.

There are thirty-one papers divided equally between plenary sessions and contributed paper sessions. Excluding the “how we do it better” articles, a surprising number of contributions are outstanding. Richard Boss’ article “Corporate Mergers and Consolidations and Coming Trends in Integrated Online Library Systems” merits consideration as does the eminently readable “Impact of Library Technology on Management” by Dwayne E. Webster. W. David Penniman’s paper “The Effect of ISDN and LAN on Integrated Online Library Systems” also is good as is Robert Walton’s contribution, “Microcomputer Library Systems and Subsystems: State of the Art Review.” In the contributed papers section, John Corbin’s superb twenty-page paper is what its title states—a primer in evaluating, selecting, and implementing an integrated online library system. Donald Riggs’ article on “Transformational Leadership and the Electronic Academic Library” is also highly instructive. The balance of the papers of note cover a variety of subjects such as record ownership, psychological preparation for automation, requirements for interfaces with acquisitions subsystems, retrospective conversion, and the human and organizational aspect of technological issues, just to name a few.

One minor drawback is the 1986 date of the conference. Another caveat is that as with journal literature, there is an uneven quality to any group of published papers.
Yet, if the whole is indeed the sum of its parts, then these proceedings in particular illustrate the potential value that published proceedings can have as a viable, information-rich research tool.—Tom Smith, Head, Circulation Section, Loan Division, Library of Congress


This volume brings together thirty-three articles by Richard De Gennaro, Director of the New York Public Library, focusing on the implementation of new technologies and changing environment in which libraries operate. The articles cover a twenty-year period—two-thirds of the author’s professional career—and are grouped under the topics: Libraries and the Information Marketplace; Managing the Library in Transition; Library Technology and Networking; and Library Automation: The Early Years.

The articles are introduced by six previously unpublished essays on the future in perspective. The compilation is highly readable—full of facts and thoughtful comments.

While the papers contain numerous clichés (“technological revolutions usually take longer than we think they will”) they are rich in analysis that goes beyond technology to the underlying needs libraries are seeking to satisfy. De Gennaro is at his best when he argues that libraries have a future, not as the overarching information agency of our society but as one of many. De Gennaro sees the role of libraries as limited, but vital. He stresses that it is unrealistic to think that any one information agency will dominate in a complex society. However, in his views “libraries . . . provide the only means of access in our society to any book, journal or document that is out of print or more than a few years old. . . . Most foreign books and journals, and most specialized documents are not obtainable at all through regular book-trade channels. . . . For-profit information companies will be offering an increasing number and range of information services, but it is unlikely that any of them will ever find it profitable to acquire and maintain comprehensive retrospective collections.

Whether writing about the future of libraries, the use of technology, or changes in copyright regulations, De Gennaro’s voice is restrained. He warns against ex-

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cessive enthusiasm or fear. There is also considerable pragmatism. A 1978 article in the collection argues that austerity or reduced support is something library administrators should learn to accept and manage, rather than wait out until the next period of affluence.

The greatest value of the compilation, especially when read chronologically, is its recording of major trends: austerity, technology, and resource sharing.—Richard W. Boss, Information Systems Consultants Inc., Washington, D.C.


Maurice Line, in his foreword to this volume, suggests that Lord Dainton’s “contribution to the library and information world must be one of the greatest ever made by a non-librarian.” This contributions includes serving as president of the Library Association (1977); establishing (while chairman of the University Grants Committee) a Working Party on Capital Provision for University Libraries, which resulted in the production of the famous (or infamous) “Atkinson Report” on size and funding of British academic libraries; and, most importantly, serving as chairman of the National Libraries Committee, which was directly responsible for the creation of the British Library in 1973. Lord Dainton became Chairman of the British Library Board in 1978 and served in that capacity for more than seven years.

The essays have little in common, other than the fact that they are all written by eminent librarians and other scholars who are among Lord Dainton’s admirers and friends. One brief essay is a “personal” bibliography of Scottish mountaineering and a second discusses Welsh authors and their books circa 1500-1642. Most, however, are directly related to librarianship and scholarly publishing. Of potential interest to academic librarians in the U.S. are the essays on the functions of the li-

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library in an “electronic campus” (by Lynne Brindley of Aston University); a description of the “role” of the British Library by Kenneth Cooper, its present chief executive; a discussion on the “gap between ideal and reality” in academic libraries (Brian Enright, University of Newcastle upon Tyne); a retrospective look at the Atkinson Report by J. Michael Sme­thurst of the British Library; Alexander Wilson’s discussion on library preserva­tion strategies; and Maurice Line’s views on what might constitute a “universal li­brary.”

In physical appearance this is an attractive book although it is somewhat marred by careless errors (e.g., the title of Enright’s article refers to “ideals and real­ity”). As to the contents, the heteroge­neous nature of the contributions make it exceedingly difficult to appraise. I would judge it to be of limited appeal to librarians in the U.S. because of its almost exclusive emphasis on the British scene and the fact that, despite the eminence of the authors, many of the essays are quite lightweight. While they serve the intended purpose of honoring a great man they do not collectively make a profound contribution to the literature of librarianship.—F. W. Lanca­ster, University of Illinois, at Urbana-Cham­paign.


American Literary Magazines will be in two volumes, the subtitle indicating the scope of this first installment, leaving the substantial body of twentieth-century American literary magazines to volume 2. The editor, Edward E. Chielens, has previously published annotated bibliogra­phical guides to information sources, The Liter­ary Journal in America to 1900 and The Literary Journal in America, 1900–1950, in 1975 and 1977 respectively in a Gale Re­search guide series.

The present work provides “profile” es­says of usually no more than three to five pages, each followed by notes, a bibilogra­phy of information sources, and a publica­tion history for (as the introduction puts it) “ninety-two of the most important” American literary magazines of the speci­fied period, with another ninety-nine “less important titles...covered in an ac­companying appendix.” The editor read­ily acknowledges the difficulty in deciding “which magazines of the thousands pub­lished deserved coverage in full profiles,” and, despite the pains he takes to explain and justify his choices, a number of inclu­sions and exclusions may strike some readers as capricious.

The exclusion of Vanity Fair, Puck, the Philistine, and similar journals “because they are being included in another book in this series on humor magazines” seems unfortunate (however defensible from the publisher’s point of view) for a collection and its projected companion volume that “are intended as comprehensive sources of information” on their subject.

The claim for comprehensiveness works against other exclusions as well—or, at least, decisions to provide a profile or rele­gate a journal to the category of “less im­portant titles.” Choosing to include a pro­file of Godey’s Ladies Book over its popular, long-running competitor, Peterson’s Maga­zine, may be defensible, since the latter published fewer distinguished and subse­quently less influential literary figures than did Godey’s. However, it seems a bit eccentric to relegate Lippincott’s magazine to the list of “less important titles” (actu­ally an appendix entitled “Minor and Nonliterary Magazines,” which includes very brief annotations for its ninety-nine entries). Lippincott’s may have been ultimately less successful than Scribner’s or the Atlantic, as its annotation claims, but it included among its contributors Sidney Lanier, William Gilmore Simms, Octave Thanet, Lafcadio Hearn, Paul Laurence Dunbar, Grace King, Henry James, and Anthony Trollope. Lippincott’s published Oscar Wilde’s “Picture of Dorian Grey” and introduced Conan Doyle’s Sherlock Holmes to American readers. The deci­sion not to profile Lippincott’s, Harper’s Weekly, Colliers, The American, or Demo­rest’s Monthly Magazine, and numerous others that have varying claims to literary interest or significance could be left to the
editor's discretion—when faced with possible constraints from the publisher—were it not for the claim of comprehensiveness and conversely puzzling decisions to provide full profiles for such titles as Holden's Dollar Magazine, which, apart from having reprinted Hawthorne's "Ethan Brand" in its first issue, catered purposely to popular tastes at the expense of literary merit. In fact, its lengthy profile reveals that the magazine is "probably better known today" for Herman Melville's "refusal to lend either pen or portrait to it." Elizabeth Peabody's Aesthetic Papers clearly had literary distinction, but it published only a single issue, and its concerns and most of its contributors were also associated with the long lived and more significant Boston Dial, which is appropriately profiled as well. The Lowell Offering is also given a full profile, certainly an interesting magazine, probably for more reasons than because all its writers were women factory workers, but its profiler concedes that, "the primary value of the magazine lies in its status as an historical and sociological document."

This last statement belies the editor's claim that the "reasons for including or excluding certain information and titles" is to "emphasize the literary aspects and importance of the magazines," which, Chielens points out, "is a different emphasis from Frank Luther Mott's in his seminal A History of American Magazines." Mott's five-volume work remains the measure against which the present work is judged. Certainly Mott's scope and focus were much broader than is intended in American Literary Magazines, but he is thorough in discussing the literary significance of those journals. I owe to his work much of the information I have included here about Lippincott's and other magazines.

My reservations about this work focus almost entirely upon the criteria for selection of titles fully profiled. This first volume of American Literary Magazines has many merits and much usefulness.
Chielens' introduction, aside from the contorted explanation of editorial choices, is an interesting and enlightening brief essay on the history and significance of literary magazines in America during the period. The profiles are uniformly well researched, well written, and synthesize a large body of disparate information on the ninety-two journals covered—a considerable accomplishment given the number of contributors (fifty-three) and the variety of experience among them (they range in such experience from students pursuing graduate degrees to established scholars with numerous publications to their credit). The notes and bibliographies appended to each profile provide a valuable and readily accessible starting point for anyone researching the profiled journals more extensively. No other source currently available provides the chronological scope and focus on literary journals that this one attempts, and, until a more comprehensive work is undertaken, this work and its anticipated companion will undoubtedly prove, in conjunction with Mott's History of American Magazines, to be valuable sources of information as well as tools for further research on American literary magazines.

I have one last quibble concerning arrangement. The profiles are presented in alphabetical order, which assists in locating specific titles. However, a chronological arrangement might have proven more interesting, and an alphabetical table of contents would have provided access to individual titles. An appendix, "A Chronology of Social and Literary Events and American Literary Magazines, 1774–1900," somewhat ameliorates this situation. However, nothing relieves the frustration ensuing from the chronological arrangement of the list of "Minor Literary Magazines and Nonliterary Magazines with Literary Contents." The user must scan the list in search of specific titles—a process made more difficult the absence of references in the index.—Dale Manning, Jean & Alexander Heard Library, Vanderbilt University, Nashville, Tenn.

OTHER PUBLICATIONS


Chant, Christopher. Compendium of Armaments
Recent CLIPpings

College Library Information Packets (CLIP Notes) collect data and sample documents for use by college and small university libraries to establish or refine services and operations.

Friends of College Libraries. CLIP Note #9, compiled by Ronelle K. H. Thompson.
$17.00 pb; ACRL member $14.00 134p. 0-8389-7171-7 1987

Periodicals in College Libraries. CLIP Note #8, compiled by Jamie Webster Hastreiter, Larry Hardestry, David Henderson.
$17.00 pb; ACRL member $14.00 116p. 0-8389-7143-1 1987

Managing Student Workers in College Libraries. CLIP Note #7, compiled by Michael Kathman and Jane McGurn Kathman.
$17.00 pb; ACRL member $14.00 182p. 0-8389-7097-4 1986

Special Collections in College Libraries. CLIP Note #6, compiled by Christine Erdmann.
$18.00 pb; ACRL member $15.00 95p. 0-8389-7004-4 1986

Mission Statements for College Libraries. CLIP Note #5, compiled by Larry Hardestry, Jamie Webster Hastreiter, David Henderson.
$20.00 pb; ACRL member $15.00 107p. 0-8389-6944-5 1985

Online Bibliographic Database Searching in College Libraries. CLIP Note #4, compiled by David Carlson and P. Grady Morein.
$19.00 pb; ACRL Member $15.00 132p. 0-8389-6624-1 1983

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