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Editorial

From the Drawer: To the Wall

"To Marta: From the Drawer" was the title of the September 1987 editorial in College & Research Libraries. Dissident Czech writers were discussed—how some felt compelled to put their work in the drawer, while others circulated their manuscripts to friends and colleagues. Knowledge of the circulated manuscripts increased and sometimes acquired a wide circle of readers. Occasionally their works appeared abroad. This is how I discovered a collection of short literary essays by Ludvik Vaculik.

In his introduction to these essays, Vaclav Havel, another well-known Czech writer, voiced concern that his country may have cut itself off from the rest of the world. He wondered if we would still be able to understand one another.

Directly, and forcefully, Havel partially answered his own question. Today he is President of Czechoslovakia. By struggling for and winning freedom, he and his countrymen reached out in a way that we can understand both symbolically and intuitively. The point of the editorial, however, was not focused on the attainment of freedom but on our experiences with and uses of freedom in daily life.

In his first essay, "Free to Use the Typewriter," Vaculik asks,

When did you last read anything interesting in the papers? By that I don't mean interesting reports about matters economic or technical, about natural phenomena or political revolutions, but an interesting idea on any of these subjects. You can progress along the road of discovery without anything really new being said until such time as someone gets a personal feeling about it and tries to put his thoughts into words.

The existence of interesting ideas in a culture is due to factors that lie much deeper than the popular conception of freedom implies. For example, are there societal or cultural constraints on our freedom of expression? Do we use our freedoms either individually or collectively to suppress new ideas, or the people who represent these new or divergent perspectives and experiences?

Some may think that these questions are not relevant to the issues faced in higher education because our "assumed" practice of noble ideals places us beyond reproach. Clark Kerr disagrees. This former president of the University of California finds no evidence that morality is at a higher level on campus than off campus. He is not alone.

Michael Skolnik reviews a body of literature in his article, "How Academic Program Reviews Can Foster Intellectual Conformity and Stifle Diversity of Thought and Method," which raises serious issues about the openness of the university. The conclusions of four scholars are quoted here:

- Intolerance for new and different ideas, although it has no place in the university, is often found there (I. Winchester in a chapter to a book entitled, The Future of a Mediaeval Institution: The University in the Twenty-first Century).
- A major theme in biographies and autobiographies of scientists is the intolerance with which ideas are met and not infrequently suppressed (B. Barker in a chapter to a book entitled, The Sociology of Science).
• The American university encourages publications largely for the sake of institutional prestige, rewarding mediocrity as often as merit, and exerting enormous pressure on dissident faculty to conform (T. Veblen, *The Higher Learning in America*).

• The critical, the controversial, and the imaginative are not allowed to see the light of day (D. Lindsey, *The Scientific Publication System in Science*).

If accurate, these findings are disturbing. They should lead us to be wary of societal, organizational, or group norms that restrict us from discussing issues openly. They should lead us to wonder about the negative effects of pressures to conform. Indeed, one side effect of the increased participation of employees in organizational decision making may be an increase in the tendency to reinforce the status quo and to coalesce against change. This force or influence may impede an organization’s responsiveness to changing client needs or emerging opportunities.

Personally I am concerned about how pressures to conform may limit personal growth. Potentially strong and dynamic personalities may remain dormant. Affirmative, caring, or other life-giving values may be rejected. The creative force may be repressed.

Less than a week after the Berlin Wall opened in November, I took a very spontaneous trip to West Berlin in order to participate in events. I hammered and chiseled at the Wall. Many others joined together in this effort. While we can remove these obvious barriers, there are more subtle barriers that must be torn down before the ideals of freedom are achieved.

Some of us can cry with joy for what has been gained while reflecting in sadness on how far we have to go before understanding, tolerance, and freedom are achieved in their most profound sense.

CHARLES MARTELL
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The Power of the New Microcomputers: Challenge and Opportunity

Eric Rumsey

In the next few years the power and usability of the microcomputer will increase immensely. Current developments that are contributing to this growth are CD-ROM, the 80386 microprocessor, and the graphic user interface. As the information-handling capability of the computer grows with these new developments, the microcomputer industry will increasingly market information products to end users. As this happens, the library will be challenged to provide users the same ease of access to information that they have on their own computers.

The role of the library is changing rapidly in the kaleidoscopic world of contemporary information access. Computers are altering the flow of information, changing the way old services are performed, and creating totally new services. Commercial vendors are challenging the role of the library on many fronts, including online searching, document delivery, electronic publishing, acquisitions, and user-friendly access to books. And on campus, with the increasing computerization of information, the library will likely take on characteristics of the computer center if it is to survive.

Underlying these rapid changes in the information environment is the astonishing growth in the power of microcomputer hardware and user-friendliness of microcomputer software. In three to five years microcomputers will have the power of today’s minicomputers and even mainframes, without the accompanying difficulties of these larger systems. Allen Veaner has noted the accelerating growth in microcomputer power and usability:

Mysteriousness and inconvenience, once the hallmarks of the computer, have been almost completely eliminated... computers and software are gradually giving users greater and greater power to cut through bureaucracy, formality, and red tape, to extract what they want from data files and information systems.

Veaner also points out the threat to traditional libraries posed by the power of the microcomputer. He contrasts the often-noted user-unfriendliness of traditional libraries with the new user-friendliness of the microcomputer. Young faculty and students who have extensive experience with the new powerful, user-friendly computers will bring pressure on the library to provide information in a form as easy to use as it is on their microcomputer. If we fail to do this, he says, other agencies, on campus and off campus, will take over our role. He notes that just as publishers have learned to bypass the library and market textbooks directly to faculty, information providers will likely also bypass the library in marketing electronic information products to end users.

This paper will show how recent hard-
ware and software developments are rapidly making the bureaucracy-fighting, user-friendly microcomputers described by Veaner into true information workstations that will give users the power to manage huge data files themselves. These microcomputer developments are CD-ROM, the 80386 microprocessor, and the graphic user interface. In the course of discussing these advances, the paper will suggest that the microcomputer-information industry is coming to realize that information handling in the near future will be closely allied to microcomputer use and that the industry will therefore be in the business of selling information products as much as computers.

CD-ROM

CD-ROM is clearly the first giant step in transforming the microcomputer into a bona fide personal information workstation. Jim Wavada, in accord with Veaner, warns us that CD-ROM should be seen as "the harbinger of the personal research library," which will make it possible for end users to manage their information independently of the traditional library. He says that although in its early stages CD-ROM is being marketed to libraries because librarians are already familiar with computer literature search techniques, it will be sold mainly to end-users once it becomes established (a view shared by Harold Shill15). Wavada states clearly the threat posed for the library by CD-ROM:

In [the] coming era, libraries will confront competition from creative entrepreneurs promising personalized research libraries that no longer require the one-to-one contact that has kept the information professional at the center of the informing process.13

Evidence confirms Wavada's prediction that CD-ROM will be aimed at the general information user, and particularly the user of microcomputers. One indication is the pattern of reporting of new developments in CD-ROM. The library literature has published a fair amount on CD-ROM in the last two to three years, but it cannot rival the coverage in the microcomputer literature. With at least three weeklies and numerous monthly journals, which are heavily supported by advertising revenue, the microcomputer literature has now become the place to find the most thorough and timely coverage of new CD-ROM developments.14 Another indication of the growing interest in CD-ROM within the microcomputer industry is the attention given the medium by Microsoft. This software company has sponsored four annual conferences on CD-ROM and has lent its support in several other ways also.15 Finally, it is notable that the user interface of CD-ROM systems frequently borrows heavily from the interface used in other microcomputer applications. Although this may seem insignificant, it is important because it will make it easier for the general microcomputer user to learn to use CD-ROM.

THE 80386 MICROPROCESSOR

In April 1987 IBM announced a new line of microcomputers, the PS-2, some models of which are based on the 80386 (generally shorted to 386) microprocessor. There has been some confusion about the nature of these new machines, in large part because there is not yet an operating system to take advantage of the great power of the 386 processor.16 But once an operating system is developed and adopted as a standard, the power of the 386 machines will far surpass the DOS-based IBM-PC. Indeed, they will come close to the power level of current minicomputers and mainframes and will certainly have profound effects on all aspects of microcomputing.17 Of particular significance for information handling, they will revolutionize database software, making it practical to maintain files approaching the size of CD-ROM databases.18 Software enhancements made possible by the power of the 386 processor will make database systems much easier to use. Artificial intelligence features, for example, will make searching databases easier, and hypertext features will make it easy to customize the database interface to the needs of specific users.19,20 Much more could be said about the 386 processor and the effect it will have on microcomputing. Whole
new categories of software are likely to evolve to take advantage of the great power of the 386 processor. The 386 machines will certainly accelerate the trend that has emerged with CD-ROM for the microcomputer-information industry to market products directly to end users.

THE GRAPHIC USER INTERFACE

As anyone knows who follows the current microcomputer scene, the name of today’s user-friendly microcomputer is Macintosh. With its icon-based graphic user interface, the Mac has garnered the image of “the people’s computer.” Indeed, Veaner’s description of the all-powerful computer that allows users to “cut through bureaucracy, formality, and red tape” almost sounds like it is right out of an advertisement for the Mac. But the user-friendliness of the Macintosh is much more than mere advertising hype. The Mac truly is popular, as anyone can easily see by walking into the public microcomputer cluster in our library and comparing the number of students using Macintoshes and IBM PCs.

“Veaner’s description of the all-powerful computer that allows users to ‘cut through bureaucracy, formality, and red tape’ almost sounds like it is right out of an advertisement for the Mac.”

Despite its popularity, the Macintosh has not affected us much in the library. It has been mainly a graphics machine and has not tried to compete with the IBM PC as a text-based workhorse. In the library, we deal mainly with text, of course, so the IBM has suited us well. But the dichotomy between the graphic Macintosh and the text-based IBM is breaking down. The IBM side of the microcomputer industry has seen what an extraordinary success the Macintosh graphic interface has been, and the new 386 machines will therefore have a similar (though as yet undetermined) graphic interface, thus transferring to microcomputers in general the image earned by the Mac as the user-friendly computer par excellence. Seen from this perspective, a recent ad for the Macintosh appears especially ominous. In a 1987 issue of Newsweek on Campus magazine, hiding in the midst of a verbose sales pitch for the Mac that lists its many virtues for the busy college student is the phrase “There’s also software that can tie you into a wide variety of databases . . . so you can check out of the library for good” (emphasis added). At the time this ad appeared, we may have thought we could dismiss its thinly veiled attack on the library as a sales pitch for one particular computer. But just as the microcomputer industry is borrowing the idea of the graphic interface from the Macintosh, it will undoubtedly also latch on to Apple’s marketing strategy for the Mac, featuring prominently the information independence made possible by the new computers. This is not to suggest that manufacturers will explicitly mention the library in their marketing campaigns; indeed they are probably not thinking much about us at all. However, the selling of the new computers may contribute significantly to the emerging information matrix that is moving users toward managing their information independently of libraries, and this can indeed be thought of as drawing them in the direction of “checking out of the library for good.”

CONCLUSION

Veaner’s prediction of the powerful, user-friendly microcomputer is fast becoming a reality. With CD-ROM, the microcomputer industry has discovered the information market, and it will certainly continue to mine this rich vein when the 386 processor and the graphic interface give users even more information-handling power. Though this paper discussed new microcomputer developments separately, in reality all of them will work together. When fully equipped 386 computers become available, for instance, their powerful features will be used in combination with CD-ROM. The graphic user interface will be an especially potent addition to the mixture. It will bring the masses to information handling just as the
Macintosh has brought the masses to microcomputing. CD-ROM and the 386 processor will give users the power to become information independent, but it is the graphic user interface that will harness the power, making the personal information workstation a reality.

"Instead of perfecting our individual question-answering skills, we need to spend our time and energy designing computer systems to help us interpret the library to users."

Where does all of this leave us in the library? How can we meet the challenge of the new information environment? The answer is apparent. As Veaner and others have said, we need to learn to combine the unique organizational skills we have as librarians with the vast power of the computer to forge a new role.

Evelyn H. Daniel put her finger on our new mission in a recent forum on reference service when she suggested that instead of perfecting our individual question-answering skills, we need to spend our time and energy designing computer systems to help us interpret the library to users.25 There are certainly signs that we are getting the message and using the new power of the microcomputer.26 But we must accelerate our efforts if we are to survive. Particularly with the advent of the graphic interface, we need to learn about the power of computer interfaces.27 Systems such as Hypercard, for instance, offer a gold mine of interface tools; Hypercard is particularly notable for us because its card metaphor is so much like our old friend the card catalog.28

"Summing up, I think we should see the powerful computers of the future not as a threat, but as a great opportunity. As Robert Newhard says, our great challenge is to lead users through the complex new world of information to a higher level, the knowledge level."

REFERENCES AND NOTES


10. Ibid., p.219-20.


14. See, for example, Daniel J. Rosenbaum, "Faster than a Speeding Librarian," Publish! 3 No.4:77 (Apr. 1988); Barbara Robertson, "CD-ROM: A Young Technology with a Bright Future," Lotus 4,


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Ned Irwin

The Bodleian Library of the University of Oxford

Oxford is a city of libraries. One may think of spires in morning mists at mention of its name, but its libraries are less ephemeral and of greater value. There are some 100 libraries associated with the university town, and its greatest bibliographic treasure is the Bodleian Library.

The library recently completed the celebration of its 500th anniversary: Duke Humfrey Library was completed in 1488. The library has grown in proportion to its age since its refounding in 1602 by Sir Thomas Bodley (for whom it is named). Today it has a staff of 370 (with approximately 84 professional librarians) and extends into at least seven buildings from its original space in Duke Humfrey. It houses over 5.1 million volumes, 136,000 manuscript volumes, over 5,000 incunabula, 994,000 maps, 252,000 microforms, and 50,000 current serial titles.

The Bodleian has been a copyright library in Britain since 1610. It thus receives a copy of every book published in the United Kingdom. The collection grows at a rate of 1.5 miles of shelving a year. The annual operating budget is currently £5.5 million ($8.8 million). In the most recent fiscal year figures this included as follows: salaries, £3.5 million ($5.6 million); books and periodicals £1.3 million ($2 million) (excluding those materials received free under copyright privilege); and conservation, £100,000 ($160,000).

In addition to being a copyright library, the Bodleian has two other distinctive features that differ from the typical university library. It is a nonlending library, and it is a 100 percent retention facility. Both aspects have historical examples.

During the English Civil War, Charles I (making Oxford his seat of government) requested to have a book brought from the Bodleian to him. The request was refused by Bodley's librarian. No action was taken against the librarian. Sometime later, showing complete political impartiality and independence, the librarian also refused a request to lend a book to Oliver Cromwell.

The idea that the Bodleian should throw nothing away once it enters the library was learned the hard way. A librarian re-
ceiving the second Shakespeare folio and believing it a revised, improved version of the first threw out the first folio of Shakespeare, which the Bodleian had purchased new.2

ORGANIZATION AND COLLECTIONS

Because the Bodleian serves as the central library of the University of Oxford, the university statutes authorize a twenty-two-member body known as the Curators to serve as the governing board (similar to a library board). The Curators are chosen from among the faculty of the colleges of Oxford. As the size of the body and schedules limit frequent gatherings, a small group of its members serve on a standing committee that meets once a week with the Bodley’s librarian or secretary to discuss current library business. The Curators board establishes the general direction and rules for the library’s operations but is not involved in its daily functioning.

The daily management of the library is in the hands of Bodley’s Librarian and staff (see figure 1).

Bodley’s Librarian

Bodley’s current Librarian, David Vaisey, is the twenty-second Librarian in succession since the appointment by Bodley of the first Librarian, Thomas James, in 1602. This is a remarkably small number in the nearly 400 years the post has existed.4

Vaisey, who became Librarian in 1986, was previously Keeper of Western Manuscripts. His tenure has seen the Bodleian progress in its development of an online catalog system and increase outside fundraising efforts to strengthen all aspects of the library, especially to help fund a major retrospective conversion of its manual catalogs. In another major move to improve library services, a department of reader’s services was created in 1988 with Richard Bell as its head.

Bodley’s Librarian sees several problems to be faced in the near future:5

1. Because the library is housed in several buildings, a large staff (with the attendant expenses) is required at a time of decreasing government funding to the university and library.

2. The large collection, containing many old and fragile materials housed in buildings of unusual antiquity, leads to many conservation problems. Many conservation solutions will be expensive to implement.

3. The 100 percent retention system may be less feasible in terms of increasing expense and lack of space in the electronic age.

None of these problems is likely to be solved easily or quickly.

Secretary of the Bodleian

The secretary at the Bodleian, as in most British institutions, is the chief administrative officer of the organization. The current secretary, Charles Mould, handles the financial operations of the library, deals with personnel matters, and oversees the maintenance and security of the library’s historic buildings.

Finances are a major issue in the wake of government funding cuts during the Thatcher administration. Oxford and its library are currently in the middle of a five-year period, 1986–91, that will see an overall reduction in funding of 11 percent. Since the summer of 1988 the Bodleian has been engaged in a major fund-raising campaign seeking to raise the monies for

Curators
Bodley’s Librarian

| Department of Western Manuscripts | Department of Oriental Manuscripts | Department of Printed Books | Keeper of the Catalogue | Secretary |

FIGURE 1.
Bodleian Library Organizational Chart
maintaining and hopefully expanding the library’s collections and services. Some £1.5 million ($2.5 million) have been contributed to date.¹⁰

Many changes have occurred in recent years regarding personnel matters. At one time Bodleian staff did not have contracts. Today they do. All professional staff are given tenure after completing a probationary period. It is not uncommon to meet staff who have spent their entire careers within Bodley walls. More formal training programs for staff have been instituted. In keeping with the times, the Bodleian now has a "Code of Practice on Sexual Harrassment.'"

Department of Western Manuscripts

Current Keeper of Western Manuscripts Mary Clapinson is the first woman to hold a keepership in the Bodleian. This unit of the library houses a treasure trove of manuscripts, personal papers, and illuminated manuscripts produced over the centuries in most of the western languages. Its materials include an esoteric range from St. Margaret’s Gospel (eleventh century) to the personal papers of J.R.R. Tolkien (twentieth century) and much else both before and since. The earliest item is on papyrus from about the second century B.C.

Much of the department’s collections were gathered during the seventeenth to the nineteenth centuries. It is especially strong in materials related to English history. For example, the Clarendon papers and the Atlee papers are located here. There has been a major effort to acquire the papers of persons eminent in literary and public life.

Mary Clapinson notes that the constraints of space are forcing a more selective attitude to be taken toward what is acquired by the library. The movement now is to build on existing holdings rather than trying to fill gaps in weak or uncollected subject areas.¹¹

Department of Oriental Books and Manuscripts

A Chinese specialist, Adrian Roberts, is current Keeper of Oriental Books and Manuscripts. As the title implies, this department covers a broad range of materials produced in a broader range of languages. The principal languages collected are those of the Middle Eastern (especially Hebrew and Arabic); central Asia, the Caucasus, Mongolia, Tibet, and the Far East (chiefly Chinese, Japanese, and Korean); and southeast Asia.

The many languages and dialects of India, Sri Lanka, and Pakistan are excluded, as these are collected by the Indian Institute Library. However, this material is housed and maintained by the department for the institute’s use.

The department is especially strong in Hebraica (Bodley himself was a Hebrew scholar), while the Wardrop collection of Georgian is the largest in the language outside the Soviet Union. There are over 1,500 Arabic manuscripts and over 2,000 in Persian. Edward Fitzgerald turned to the Bodleian for the manuscript used for his translation of the Rubaiyat of Omar Khayyam.

In whatever area collected, the emphasis is to provide material to support the faculty of Oriental languages in Oxford. For covering such a vast front the Bodleian department is small when compared to a university like Harvard, which has a full-time staff of about twelve, plus clerical workers to maintain its collection. Oxford is stretched to provide services with a staff of six.

Department of Printed Books

Deputy Librarian Julian Roberts is also Keeper of Printed Books. He notes that the first books in Oxford’s library came in the medieval period and were copies from books abroad. The library itself was first formed about 1488 to house a donation of illuminated manuscripts given by Humphrey, Duke of Gloucester.¹²

But the need for a central library for the university soon faded as movable-type printed books became widely available. Unlike unique illuminated manuscripts, which could only exist in one place, Oxford colleges could afford to acquire copies of printed books for their own collections. Thus in time the original central library was dispersed. About 100 years later, Sir Thomas Bodley reestablished a central library. This persists today as the
Once again colleges find they have neither the space nor funds to acquire the growing printed material. With increasing expenses and declining revenues, the department now concentrates on filling the gaps left from periods in the Bodleian’s history when the copyright deposit privilege was not always rigorously applied. Funds are also used to purchase foreign books not falling under the copyright privilege and to acquire important books missed in the pre-1610 period (before copyright privilege). The British government has also provided support funding to buy “heritage” materials. A recent example for Oxford is its purchase of the Opie collection of children’s books.

The Catalog and Reference Services

The Bodleian’s intellectual access system is as unique as the institution that houses it. Not one but four catalogs must be used by a researcher in making a bibliographic search—the (1) pre-1920, (2) post-1920, (3) interim, and (4) online catalogs.

1. Pre-1920 catalog. This catalog lists books published before 1920 by author. Formerly handwritten guard books, the current version consists of bound volumes of computer printout sheets.
2. Post-1920 catalog (1920–1985). This catalog lists books published from 1920 until about 1985, when the catalog was closed. Again it is an author entry listing and consists of large, bound volumes containing pasted entries. This type of catalog is known as a “movable slip” catalog. Such entries can be moved down the page as new entries are published. This is a labor-intensive activity and was an impetus for developing an online system.
3. Interim catalog (1985–1988). The last manual catalog, it lists books published during the years after the closing of the post-1920 catalog. As the name indicates, it was developed to serve as a temporary and less labor-intensive measure while an online catalog system was being created. It is a card index catalog, not unlike those in the United States, except it is an author entry-only system and, like its predecessors, follows the Bodleian’s own in-house cataloging rules of 1939.
4. Online catalog (since September 1988). The Bodleian has developed the OLIS (Oxford University Library System) online catalog using the DOBIS/LIBIS system. At this writing it contains nearly 50,000 entries. All four catalogs will be required for some time to come.

The OLIS system does provide subject entry access for the first time in the Bodleian, as well as access by author, title, publisher, ISBN/ISSN number, shelf number, or copy number. Boolean logic can be used. Cataloging based on AACR2 MARC format with LC subject headings has been adopted as well. Terminals are available in the Lower Reading Room. The system may also be searched by any terminal with access to the university’s data network or to the Joint Academic Network (JANET).

In the past subject access was aided to some extent because the library reading rooms were arranged in broad subject areas. This means that subject bibliographies and other useful reference materials are available to help access the material of the Bodleian, along with assistance from the knowledgeable subject specialists. A massive retrospective conversion of the Bodleian catalog is foreseen. According to Vaisey, converting the last movable slip catalog (1920–1985) to MARC format
and the OLIS system will take some forty people thirteen years and cost an estimated £3.5 million ($5.6 million). Monies for this project is one of the major objectives of the current fund-raising campaign.

Once one has found the item in the catalog there arises the question of obtaining it. Again, certain points must be made about this access.

"Only about 17 percent of the Bodleian's volumes are to be found on open shelves with direct access to the reader."

First, there is closed access to most of the library's material. Only about 17 percent of the Bodleian's volumes are to be found on open shelves with direct access to the reader. This means that an order slip may need to be filled out and given to the reference desk in the Lower Reading Room, which houses the catalogs. The book will be retrieved and returned to the reading room that is requested. Normally, this requires about two hours.

Second, the Bodleian's collections are housed in seven buildings, and thus one needs to know which building is best for the intended research.

The Old Library consists of Duke Humfrey's Library (for western manuscripts and early printed books), the Upper Reading Room (History, English), and Lower Reading Room (classics and catalogs).

The Radcliffe Camera has an upper reading room for undergraduate studies (History) and a lower reading room (for English, Theology, Latin American studies, and government documents).

The New Library has reading rooms for Politics, Philosophy, and Economics (PPE); Slavonic studies; maps; music; Oriental studies and manuscripts; and modern manuscripts; and contains the Indian Institute Library (housed on the top floor of the New Bodleian). Room 132 houses the unique John Johnson Collection of Printed Ephemera.

The Clarendon Building, originally housing university offices, has a reading room and classroom space.

Three of the dependent libraries (to be mentioned later) are housed in separate buildings: the Radcliffe Science Library, Law Library, and Rhodes House Library.

In addition, as storage space in the underground stacks of the Bodleian has filled, space has been acquired in warehouse facilities at Nuneham Courtenay on the outskirts of Oxford.

Conservation

With materials ranging from papyrus to computer tape, preservation maintenance is an important issue at the Bodleian. It involves all aspects of library operations. When appointed in 1978, the head of the conservation department, Michael Turner, faced the problem of the Bodleian's conservation efforts being scattered under other departmental authorities. The paper repair workshop was in the Department of Western Manuscripts, for instance. At present it and a conservation workshop (involved in map mounting, etc.), a general bindery, and a conservation bindery for older manuscripts form the Conservation Department. There are normally two or three staff working in each unit. In addition, book service (the pages who retrieve closed stack materials) comes under Turner's jurisdiction.

In the first years as a department, only £25,000 ($40,000) was left for conservation after salaries were paid. Most of this went for bookbinding. Bodley's central stock was usually bound in-house, while the dependent libraries were given separate grant monies. They sent most of their bindery needs out to commercial firms. By 1980 several important decisions had been made. Bindery work was stopped on all material except for books on open shelves. These were bound more cheaply in-house. The long-range goal is to bind inhouse all materials for the Bodleian and its dependent libraries.

In place of binding or rebinding items, a major boxing program was instituted using archival-quality materials. The department buys the boxes cut and creased inlaid flat to its specifications from a commercial firm. An item can be boxed for
80 to 90 pence ($1.25 to $1.50) compared to binding the item at £12 to £15 ($20 to $25). Phased boxes (developed by former Bodleian staffer Christopher Clarkson when he was at the Library of Congress) are used to house rarer and damaged items. The idea is that these items will remain in these containers until they can either be rebound or have a specially designed box created for their storage. In many cases, due to staff and funding shortages, this temporary phase of storage has become more permanent than planned.

A systematic study of the environmental situation at the Bodleian was undertaken by the University Surveyor’s office in the early 1980s. It issued a report in 1984 with various recommendations for improvement. Over the following three years a new air system plant was installed in the library (New Bodleian) at a cost of one million pounds. This provides better air circulation, heating, and humidity control in the library, especially through the underground storage floors, where most of the libraries’ collections are housed.

Currently, excluding salaries, the department receives approximately £100,000 ($160,000) for conservation needs. Half this sum goes to the central Bodleian libraries and half to the dependent libraries. The Mellon Foundation has recently given a grant for microfilming and renovating the general bindery. Conservation work is to be the other major recipient of the current fund-raising efforts.

As Turner notes, the Bodleian is basically full today. Books are stored in conditions that cannot be good. This space factor is, as previously noted, already causing keepers of various departments to think twice before accepting new collections, especially large ones.

**DEPENDENT LIBRARIES**

Associated with the Bodleian and operated as units of the central library administration are four other important Oxford libraries. They each have a special emphasis, and as such they can be considered types of special libraries.

**Indian Institute Library**

Located on the top floor of the New Bodleian, the library provides books, periodicals, and manuscripts from and related to the countries and history of the Indian subcontinent: India, Pakistan, Sri Lanka, and Burma. Much of the material is open access. Manuscripts (in Sanskrit, among others) must be consulted in the Oriental Reading Room of the New Bodleian.

**Law Library**

This library, located in the St. Cross Building, houses the materials related to the study of law. The library is the largest open-shelf facility of its type outside the United States. It is the library in Oxford nearest in design and operation to United States academic libraries and is housed in a building designed for the purpose, unlike many of the library facilities of Oxford.

**Radcliffe Science Library**

Located in a large building adjacent to the University Museum, it is one of the leading science libraries. It is largely open access, with a major underground reading room of modern design. Portions of the library contain some fine Eric Gill wood carvings. The large, underground stack area (chiefly compacted shelving) is heavily combed by researchers for the latest scientific entries to the Oxford English Dictionary. A card catalog is available for the library’s collection.

**Rhodes House Library**

Located in one half of Rhodes House across the street from the Radcliffe Science Library, this is a beautifully designed facility, a mixture of Cotswold cottage and Cape Dutch style, by Sir Ernest Baker (1928). The library is primarily closed access, and there is a large, underground stack area. It specializes in the history and current affairs of the British Commonwealth countries, the United States, and sub-Saharan Africa. Manuscript collections related to these areas are also maintained here, such as those of Cecil Rhodes, the Anti-Slavery Society papers, and the United Society for the Propagation of the Gospel papers. A card catalog by author, partially by subject, and for manuscript collections is maintained.
CONCLUSION

The Bodleian Library is unique, as has been noted in the description of its history, organizational design, and collections. It shares with other libraries the modern problems of lack of adequate financial support and lack of space, conservation problems, and the dilemma of the rapidly increasing intellectual record. That it and all libraries must attempt, for posterity’s sake, to overcome these problems speaks to the duty that Francis Bacon saw for the Bodleian when he spoke of it serving as “an ark to save learning from deluge.”

REFERENCES AND NOTES

1. The quincentennial was celebrated in 1988 and was used to kick off the current fund-raising campaign for the library.
3. While the Bodleian has had the right to all copyrighted printed matter in the United Kingdom, in practice through the years there were periods where collection in this area was lax. The other copyright libraries of the United Kingdom are the British Library, the University of Cambridge Library, the National Libraries of Scotland and Wales, and the Library of Trinity College, Dublin.
5. The most recent available figures, taken from the Bodleian Library Fact Sheet, are for 1986-87.
7. David Vaisey, anecdote related to the author.
8. Bodley’s twenty-two librarians, with date of appointment, are as follows: Thomas James (1600); John Rous (1620); T. Barlow (1652); T. Lockey (1660); Thomas Hyde (1665); J. Hudson (1701); J. Bowles (1719); R. Fysher (1729); H. Owen (1747); J. Price (1768); B. Bandinel (1813); H.O. Coxe (1860); E. W. B. Nicholson (1882); F. Madan (1912); Sir A. Cowley (1919); Sir Edmund Craster (1931); H. R. Creswick (1945); J. N. L. Myres (1948); Robert Shackleton (1966); E. R. S. Fifoot (1979); J. W. Jolliffe (1982); D. G. Vaisey (1986). Note that from the Battle of Waterloo to World War I the Bodleian was served by only four of these men.
14. From Bodleian Library Fact Sheet and comments by David Vaisey. Despite this small percentage, the figure represents a large number of books readily available on open shelving to readers, something more than 850,000 volumes.
15. The John Johnson Collection must be a pack rat’s heaven. Housed in a variety of sized boxes and folders, material ranging from playbills, menus, and bottles to a George Bush campaign watch make up a small part of this vast collection, which continues to grow daily.
16. In the gardens of a country house outside Oxford the Bodleian and other Oxford University-related libraries have developed off-site repositories. The Nuneham Courtenay facility was designed for twelve single-story modules to be built in phases over a number of years. At present two of these buildings are in use and a third is currently under construction. It should be completed by the end of this year.
18. The recent creation of a department of reader’s services within the Bodleian may result in book service and its pages falling under its jurisdiction rather than under that of the Conservation Department.
19. Figures on the relative costs of boxing versus binding of books are related by Turner.
20. The Mellon grant provides funding of some $1 million each to Oxford and Cambridge and $1.5 million to the British Library to provide for preservation microfilming of material in each collection.
A Practical Methodology for the Study of Job Components and Staffing Needs

Barbara I. Dewey

A methodology was developed to analyze components of all positions in the library system at the University of Iowa in order to identify staffing needs. Current job activities and levels were examined, and staff were asked to indicate how the activities making up their positions might change over the next three to five years—the time period for the full implementation of OASIS, the automated library system of the University of Iowa Libraries.

The University of Iowa Libraries is experiencing significant change. The automated library system, OASIS (a NOTIS-based integrated system), is being implemented, and a shift in leadership has occurred. Under the direction of Sheila D. Creth, the library began a strategic planning process and developed a visionary statement of how the institution should look and respond in ten years. This document enumerated many areas in which development and expansion of services are needed.

It was clear that current staffing levels were not adequate nor would they be sufficient to achieve the goals and objectives identified through the planning process, including implementation of OASIS, greater emphasis on user-education programs, the use of new information technologies such as CD-ROMs, and a more subject-based approach for collection-management activities and technical services. This supported earlier conclusions of serious staffing inadequacies in a 1985 self-study and a 1986 faculty review of the university libraries.

PRIOR RESEARCH

Methods of task analysis, the study of discrete job components, were the focus of the preparatory literature search for the Iowa study. Most relevant studies concentrate on (1) job analysis techniques for examining or developing job classification systems; (2) job evaluation techniques—examining the quality of an individual’s work within promotion and salary-setting systems; and (3) work flow in the current environment. No studies specify methodologies for analyzing how individual job components might change in response to environmental changes.

The business literature recognizes the importance of examining personnel resources as an integral part of an organization’s planning process. In their examination of organizations implementing major change, F. L. Ficks and J. W. Suzansky note that all changes should be derived from long-range goals and should require some framework with which to examine and track all major work activities. The library needed to address staffing requirements at an early stage in its planning process and continue to monitor its staffing situation during and after implementation of OASIS and other new or expanded programs. The staffing study, therefore, was to be a tool for continuous examination of specific personnel needs based on major goals and objectives of the organization.

In 1974 Myrl Ricking and Robert Booth

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completed the broadest library job analysis study to date. Its intent was to determine the nature of the work itself, relating specifically to the skills, aptitude, level of responsibility, and knowledge required to accomplish tasks. This study was undertaken by the Illinois Library Association, the American Library Association, and the Illinois State Library. An extensive standardized task list of over 1,600 items was created. The list enumerated every discrete library task that could be identified. Tasks were listed under eight functional subsystems: (1) collection development, (2) collection organization, (3) collection preparation and maintenance, (4) collection storage and retrieval, (5) circulation, (6) collection interpretation and use, (7) management, and (8) staff development.

In a study examining staffing levels and utilization in U.S. health sciences libraries, Leslie Beth Rothenberg, Judith Lucianovic, David Kronick, and Alan Rees designed an index to measure an employee’s involvement in twenty-seven related job tasks selected to represent the range of library tasks. This study focused on the consistency of task content to professional status. It concluded that library personnel are often employed at job levels inconsistent with their professional status.

Two studies analyzed staffing patterns in academic branch libraries. Charlene Renner and Barton Clark used eight variables to determine optimum staff size in the thirty departmental libraries of the University of Illinois. They examined faculty served, instructional units taught by that faculty, monograph budget, total serial and monograph acquisition budget, hours open per week, circulation, number of volumes, and average number of student hours per week. The amount of specialized reference service was not included. A model of a typical departmental library was developed using a mathematical formula consisting of the median values of the eight variables. The Illinois departmental libraries were then compared proportionally to the model to see if staffing was adequate, high, or low.

Carolyn Snyder and Stella Bentley examined staffing utilization in branch libraries at Indiana University. They compared the perceptions of public services staff to the actual recorded time it took to accomplish broad categories of tasks (public services, technical services, collection development, and administration).

The University of California system has been particularly progressive in the use of task analysis within the context of a total management system by linking library staff activities with objectives and optimum staffing levels. In two works, Betty J. Mitchell demonstrated how a specific task is related to the desired level of service and appropriate staffing level.

The literature did not reveal specific methodologies that would accommodate all of the elements needed for the Iowa study, which were (1) discrete task analysis for each position in the library system; (2) an ability to analyze the effectiveness or efficiency of each activity; (3) a way to determine how each activity might change over a specific length of time under defined environmental conditions; and (4) the opportunity to examine individual activities from both the individual and systemwide perspectives. Therefore, a methodology was developed specifically for the Iowa staffing utilization study.

**STAFFING HISTORY**

The University of Iowa Libraries experienced a drastic reduction in staffing during the period 1981–82. Seventeen positions were cut, or slightly more than 10 percent of the full-time staff. Even before these cuts were initiated Iowa ranked 66th in support and 40th in professional staffing but 29th in collection size, according to the 1980–81 Association for Research Libraries statistics. Some positions were added during the 1980s, and in 1987–88 the university librarian negotiated a commitment to add eight new positions over a three-year period. Still, according to 1987–88 Association for Research Library (ARL) statistics, Iowa ranked 29th in collection size and 56th in total staffing. It ranked 37th in professional and 79th in support staffing. The vice-president for academic affairs requested more specific identification of how and where additional positions would be used in future years before further allocation of person-
nel resources would be considered. The library administration initiated a staffing utilization study to identify additional library staffing needs. It was completed during the 1987–88 academic year.

**METHODOLOGY**

A survey method was used to gather data on current and future staff activities. Three instruments were developed: (1) an individual position survey, (2) a departmental analysis survey, and (3) a standardized activities list. The survey was administered to all staff.

**ACTIVITIES LIST**

With the assistance of department heads and library administrators, a standardized activities list was developed to accompany the two surveys and to serve as a standardized method for describing discrete activities performed throughout the library system. Loosely patterned after the Rickings and Booth task list, it was tailored to operations at Iowa. Activities were generalized whenever possible so that they would apply to similar activities across departmental lines. The activities list aimed for a level of specificity that would allow for both discrete activity identification and ease in collecting and analyzing the data. The list of 475 discrete activities was divided into broad functional sections:

- general (consisting of broad administrative activities including personnel functions)
- technical services and related activities
  - acquisitions
  - bibliographic searching
  - cataloging
  - binding and marking
- collection development, management, preservation
  - selection/collection management
  - preservation and repair
- public service and related activities
  - circulation, reserve, stack
  - patron assistance
  - interlibrary loan
- shipping and receiving
- library automation

**INDIVIDUAL POSITION SURVEY**

The individual position survey consisted of an instruction sheet and a chart containing six questions. Its purpose was to obtain information on current activities and the employee’s best judgment about the same activities in future years. Everyone was instructed to examine the standardized activities list in its entirety and check off activities pertaining to his or her position. Once the activities were listed, staff filled in the rest of the survey form. It consisted of various questions for each activity, including the following:

- percentage of time required to perform the activity: respondents were given four ways to describe the time element for each activity—yearly, monthly, weekly, or daily
- the level of importance of each activity to the position as denoted by three choices: less important, important, of critical importance

The next set of questions concentrated on an analysis of each activity as it might change over the next three to five years. Respondents were asked to answer the following questions:

- how the activity will be affected over the next three to five years, taking into consideration the implementation of OASIS, new programs, or other changes predicted by selecting from the following choices: activity will be eliminated, activity will not change, activity level will increase or alter in some way, or unable to determine
- percentage of time required to perform activity in the future using the same four time period choices as before
- appropriate position level for each activity as it will appear in the future using three choices: librarian, merit (support) staff, or student assistant

The individual position survey was pre-tested during its development by one librarian and one support staff employee prior to general distribution.

**DEPARTMENTAL SURVEY**

In addition to filling out their own individual position survey, department heads (representing thirty discrete units) completed a departmental survey form. Its purpose was to provide an opportunity for department heads to review survey information on individual positions and to
First, department heads were asked to group staff similar in function into job families such as reference librarians or catalogers and to show the full-time equivalency (FTE) for each job family. They were then asked to collect information for each job family using a chart format. Individual or combinations of activity codes were used whenever possible:

- a description of current departmental activities and the level at which they are currently performed described in quantitative or qualitative terms (Examples of ways to describe level included types of public service desk staffing and hours this staffing is available, number of materials ordered per month, levels of acceptable accuracy for activities, circulation rate per month, number of materials to be cataloged per a certain time period, and number of volumes added per time period.)
- a description of departmental activities and the optimum level at which they should exist, taking into consideration the department’s plans for the future, the implementation of OASIS, changes in current practices to achieve greater efficiency and effectiveness, and any other factors that might include altered expectations
- a list of activities that will no longer be needed once automation is in place or can be eliminated due to greater efficiency
- a list of external restraints that might prohibit the department or unit from performing at its optimum capacity, including examples such as space limitations, university-imposed limitations on organizational structures, and technological limitations currently imposed on the university

At this point the department heads were given an opportunity to identify their staffing needs in a narrative manner for both an interim period, defined as the next one to two years when most of the OASIS implementation would take place, and the long-range period of five years. The following sections were completed:

- staffing needs for the interim period based on the premise of no additional staff
- staffing needs for the interim period based on the premise of possible additional staff with justifications
- staffing needs for the long-range period based on the premise of no additional staff
- staffing needs for the long-range period based on the premise of additional staff with justifications

ADMINISTERING THE SURVEYS

The study population included 63.5 FTE librarians, 93 FTE support staff, and 43 FTE student assistants. The method of survey administration was as critical to the success of the project as the creation of the survey instruments. Staff needed to understand both the mechanics of the questionnaires and the subject matter requested so they could provide the requested data accurately. Preparation for study began with a visit by the study project director to each department and departmental library of the system. Preliminary discussions provided staff with an opportunity to make suggestions concerning survey construction and administration. They also allowed the project director an opportunity to emphasize that the study would be activity based rather than individual position based.

It soon became obvious that staff needed more information about the effect of automation on their individual jobs. A symposium was planned and executed entitled “Library Automation and Organizational Change: An Educational Symposium.” Symposium speakers addressed public and technical services issues from their libraries’ experience. Working sessions followed where staff could talk very specifically about how automation might affect activities within their areas and review all aspects of OASIS. Before they completed the surveys, staff were encouraged to review a document entitled “Designing a Library Future: The University of Iowa Libraries in 1987-1997.”

After the symposium the surveys were distributed to each staff member. Detailed instructions were given on how to fill out
the survey. At these meetings all staff were provided an opportunity to ask general and specific questions about the entire study. Of particular importance were discussions about the proposed changes taking place because of the planning process and how these changes might affect individual activities. Staff also received a memo from the university librarian. It detailed goals for the study and emphasized that staffing needs were the most critical component of the ten-year plan. Staff attending a second round of meetings were divided into three groups: (1) public services, (2) technical services, and (3) departmental libraries.

The types of questions raised by staff in each of the meetings were similar. Some wanted to know if they should provide the requested data from their supervisor's point of view or from their own perceptions (the incumbent's viewpoint was sought). In some cases staff observed that an activity was not adequately represented on the standardized activities list. The project director was available to individuals who still had problems or questions after the group meetings. Department heads, who filled out both individual position and departmental surveys, also attended these meetings, and the departmental survey was described to all staff so that they understood all segments of the study.

DATA ANALYSIS

The statistical package SAS, mounted on the university's IBM mainframe computer, was chosen for the analysis portion of the study because of its flexibility and capacity to develop charts. Data from the individual position surveys were entered. Each individual job activity was flagged by the respondent's department, position level, and questionnaire identification number. All time calculations for each activity were standardized to hours per week.

SAS programs produced charts describing the time spent on all job activities across the entire library system, for each department, and for each position level found in the library system. In addition, data were compiled on activities projected for elimination throughout the system, by department, and by position level. The same information was compiled for activities projected to be altered in some way once OASIS is implemented or because of new services or change in procedures. Activity charts in various forms were produced to allow in-depth analysis for sound decision making on staffing needs.

The charts were compared in detail with the narrative description completed by each department head in order to develop initial recommendations concerning staffing needs. In particular, activities projected for elimination were examined in each department and compared to projected alterations as stated by both individual and departmental survey results. These comparisons were also examined by position level, e.g., all activities projected for elimination currently performed by librarians.

In addition to plans for expansion of current services or initiation of new services, the need for increased staff resources in a number of areas was projected. The individual position surveys show at least 362 separate activities that would increase over a three- to five-year period. A list of 63 discrete activities projected to increase more than twenty hours per week was prepared. These activities were in public service areas, particularly user education, and in activities related to retrospective conversion of manual records to complete the automated catalog.

The staff projected that a total of 38 activities would be eliminated in the next three to five years. This totaled 837.55 hours per week. These activities were in filing, typing forms, kardex activities, accounting functions, circulation, and materials labeling activities. The library automation project office also provided a list of activities that would be eliminated because of the capabilities of OASIS. This list further confirmed the validity of the data collected from the individual position surveys.

CONCLUSIONS

The project director made recommendations on appropriate staffing levels for each department and for the overall sys-
tern in a report to the university librarian and the assistant university librarians. Individual position survey charts were reviewed in combination with departmental reports so that the following information could be presented for each department:

- current departmental staff
- projected increases in new and current activities
- activities projected to be eliminated
- external constraints for optimum departmental performance
- staffing recommendations for the following scenarios:
  - no staff increases in the interim and long-range period;
  - possibility of staff increases in the interim and long-range period

Based on the results of the study and subsequent revisions, a request for additional staffing was included in the 1988-89 budget request to the university central administration. The library requested 15 recurring positions and 8.5 nonrecurring positions for 1988-89 and an additional 12 recurring and 8 nonrecurring positions to be spread over the fiscal years 1989-1992. Two positions were granted for 1988-89 but actually these positions were part of a previous commitment to the university librarian. Nonrecurring positions were primarily for automation implementation functions. Recurring position requests were for public services, particularly in departmental libraries where staffing is extremely limited.

The library administration plans to review the additional recurring and nonrecurring staffing requests and put forward another request for the 1989-90 budget. Library administrators continue to stress that the request is conservative in relation to the long-term understaffing. Additionally, the numbers included staffing only for OASIS implementation, preservation, and ongoing needs and not for new programs.

Library administrators continue to use the study to assist in ongoing reorganization of several departments and units of the library. Staffing requests reflect some staff reallocations over the next few years. The study provides a method for in-depth examination of activities performed in various functional areas and by different levels of staff. It is also used when a position opening occurs to provide specific strategies for filling, altering, or reallocating part or all of the position. The methodology can be readministered by the University of Iowa to update the data. It can also be modified by other academic libraries interested in examining their own staffing needs.

REFERENCES

Teaching Effectiveness and Bibliographic Instruction: The Relevance of Learning Styles

Sonia Bodi

Bibliographic instruction librarians frequently wonder how they can improve the effectiveness of their teaching. While several factors identify effective teaching, it can be argued that the most important component is teaching to the learning styles of the students. Therefore, this paper will examine learning styles in general and David A. Kolb's theory of experiential learning in particular. The paper will also show how Kolb's theory is used in the freshman library instruction program at North Park College.

In recent years it has become commonplace to find articles in the professional literature addressing all aspects of bibliographic instruction. Some of these articles report successful ventures in changing the views of skeptical administrators, in persuading apprehensive professors to participate in bibliographic instruction, and in changing students' attitudes of intimidation and reluctance about the library to those of confidence and encouragement. Other articles report on the entire range of successful and not-so-successful bibliographic instruction programs for students, including K-12, undergraduate, graduate, minority, and foreign students. Librarians have access to a wealth of information adaptable to their own libraries, information about political strategies to develop or enhance programs, and information about the content and methodology of bibliographic instruction. Many of us have successfully overcome the institutional hurdles; have one or perhaps many bibliographic instruction programs in place; and have excellent content, appropriate strategies, and useful tools to aid the students. Nevertheless, some students dislike the instruction, see no relevance, and are bored. Sometimes we are not too excited about it either.

What is the missing component? Is it enthusiasm and a pleasant voice? Certainly the library community needs to know more about what makes a librarian an effective teacher of bibliographic methodology. We need to know how to be as effective as possible during the fifty- to seventy-minute session most of us have with students.

This paper will examine briefly the research into effective teaching and will then focus on learning styles and how the understanding of styles is relevant to effective teaching. Finally, the paper will describe how the use of David Kolb's experiential learning style has improved the freshman library instruction program at North Park College.

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TEACHING EFFECTIVENESS

A simple and precise definition of teaching effectiveness is "the degree to which one has facilitated student achievement of educational goals." Assessing teaching effectiveness is not simple because student achievement is affected by many factors outside the teacher's control; e.g., student ability, motivational level, and prior experience. However, student learning is the ultimate criterion of teaching effectiveness. Some research indicates that students rate higher those professors from whom they learn the most. If this is true, the focus of attention should be more on how to help students learn than on how the librarian should perform, although arguably one cannot be separated from the other.

Numerous studies have explored the dynamics of effective teaching. Yet identifying teacher effectiveness and distinguishing between more and less effective teachers remain major research problems. Furthermore, many of the findings contradict one another. There is an elusive quality to assessing teaching effectiveness that makes it more complex and expensive to do well than research in most other areas of education. The findings are also difficult to understand. Although the qualities cited may be somewhat different in each study, there are some qualities of effective teaching that are found in nearly all studies. In his seminal work, The Art of Teaching, Gilbert Highet identifies three essentials of good teaching. First, the teacher must know the subject. For librarians this means knowing many subjects well enough to know the most appropriate and most significant sources to use in each and to present them in a manner relevant to the subject. Teachers must also continue to be learners of new theories, new methods, new sources; teaching and learning are inseparable. The second essential quality is to enjoy what we do. This quality is connected with the first; we cannot continue learning without being interested in the subject. If we enjoy the subject, we will be able to teach even if we are tired; we will never be at a loss for a new illustration or an interesting point of view. Finally, teachers must like and understand their students.

Interestingly, there is little evidence to support the popular view that students value entertainment over substance in teaching. While effective teachers may also be entertaining, they are not necessarily so. Instead, clarity of the teacher's presentation is highly valued. This quality includes the use of examples, illustrations, and summaries, as well as the ability to communicate clearly abstract ideas and theories. A second quality is preparation and organization. Students appreciate teachers who stress the important material and who have a beginning, middle, and end to their lectures. Thirdly, students value teachers who inspire confidence in their knowledge of the subject. Finally, enthusiasm for teaching and a lively and energetic interest in the subject are important for effective teaching. Another related quality is concern and respect for students and availability to help. Very likely none of these qualities comes as a surprise. We do know, however, that when students evaluate bibliographic instruction, they often disagree sharply in their appraisal of the librarian's presentation. If student learning is the ultimate criterion of effective teaching, then we need to examine what the students perceive they have learned. George Domino writes that the interaction between learning style and teaching style affects both the amount of learning and the satisfaction with teaching. Students who are taught in a manner incompatible with the way they learn learn less and express less satisfaction with the effectiveness of the teacher.

LEARNING STYLES

Learning styles is a broad term that includes the cognitive, affective, and psychological. Our cognitive style is how we perceive and process information. Our affective style is how we feel about and value learning experiences. Our psychological style involves the environment for effective learning, as well as the time of day we learn best, the lighting and noise level we require, and the position our bodies need to be in to facilitate learning. The characteristics of style reflect genetic coding, personality development, motiva-
tion, and environmental adaptation.

Learning style tends to be stable throughout life, but it can change as circumstances demand. Sometimes students must adapt their learning styles in order to succeed because they will not always have the ideal learning environment. Learning style does not include ability or intelligence and no one style of learning is superior to another style. There are many theories of learning styles. Each has its strengths and shortcomings.

"Knowledge of learning styles is appropriate for all levels and kinds of bibliographic instruction."

It is important to note that teaching is not a mere dual relationship between teacher and student, but a triadic relationship of teacher, students, and subject matter. Learning style paradigms generally omit consideration of subject matter, but it is essential to relate a learning style theory to the praxis of the subject. In other words, the theory chosen is not as important as choosing a theory and structuring bibliographic instruction around it. Furthermore, knowledge of learning styles is appropriate for all levels and kinds of bibliographic instruction.

Students enter learning situations with established learning styles. Most teaching methods, however, appeal only to a certain learning style and handicap those who would prefer to learn in another way. Kolb suggests a shift from teacher as dispenser of information to coach or manager of the learning process. Knowledge of students' learning styles can equip us with important skills in teaching, but we can also benefit from a knowledge of our own learning styles. We frequently teach in the same manner we have been taught, but our teaching styles may not match our own learning styles. If there is a mismatch, students may view a teacher negatively. H. A. Witkin argues that teachers may do better with students similar to themselves in cognitive style and students may learn more effectively when taught by teachers matched to them in style.

The results of a 1982 study at Purdue University involving 600 economics students and 20 economics faculty suggest two major conclusions about the divergence between learning and teaching styles. First, the larger the divergence between styles, the lower the students' gain in achievement; and the greater the divergence between styles, the less positive the students' attitude toward the subject. However, awareness of learning style does not guarantee effectiveness or excellence in teaching if combined with a weak grasp of the subject.

DAVID KOLB'S THEORY OF EXPERIENTIAL LEARNING

David Kolb is an organizational psychologist at Case Western Reserve. His theories are specifically used in management, but they have significant implications for education. The theory of experiential learning is that ideas are not fixed but are formed and reformed through experience. The emphasis is on process rather than on outcomes. It stresses the role of process in life-long learning, an important goal in bibliographic instruction. Experiential learning is a holistic, integrative perspective on learning that combines experience, perception, cognition, and behavior.

The substance of Kolb's theory is illustrated by the circle in figure 1. While the circle is a practical illustration it is also a metaphor for the never-ending cycle of new learning. Our job as educators is not only to introduce new ideas but to dispose of or modify old ones. Learning by its very nature is a tension and conflict-filled process as new knowledge, skills, or attitudes are assimilated. The learning process is facilitated by bringing out the students' beliefs and theories, examining and testing them, and integrating new, more refined ideas into their belief systems. Kolb defines learning as the process whereby knowledge is created through the transformation of experience. To be effective learners, students need to engage in the four kinds of activities identified in the circle. As librarians our instruction must be
structured to include these activities.

At the top of the circle is concrete experience. Students must be able to involve themselves fully, openly, and without bias in new and immediate experiences. Immediate personal experience is the focal point for learning, giving personal meaning to abstract concepts and at the same time providing a concrete reference point for testing the validity of ideas. In reflective observation students must be able to reflect on and observe their new experiences from different perspectives and to think about and interpret new data. From these reflective observations, students create concepts that integrate their observations into sound theories: abstract conceptualization. Abstract conceptualization also involves analysis and synthesis. Finally, in active experimentation students must be able to use these theories to make decisions and to solve problems that result in another concrete experience. At this stage the circle of learning begins again.

Kolb identifies perception and processing as two major dimensions of learning. Concrete experience and abstract conceptualization are two opposite kinds of perception. We are all stronger at one than the other. Furthermore, active experimentation and reflective observation are two opposite kinds of information processing. Again we are stronger at one of these than the other. We move in varying degrees from actor to observer and from specific involvement to general analytic detachment. We learn in different ways depending on our strengths. Those who learn best through a combination of concrete experience and reflective observation are called divergers. These learners look at alternative ideas and in reaching a decision they seek background information, investigate new patterns, and recognize discrepancies and problems. One thought, idea, or fact stimulates other ideas. Learners who combine abstract conceptualization and reflective observation in their learning styles are assimilators. Their strengths lie in planning and formulating theories but sometimes they have difficulty giving practical application to their ideas. These learners excel at inductive reasoning and can assimilate disparate ideas into an integrated explanation. Convergers are those who learn best through active experimentation and abstract conceptualization. They learn through analysis and are swift to make decisions. Convergers are always looking for connections, ways to tie things together. While divergers enjoy group discussion
and brainstorming, convergers learn best through lectures. Finally, accommodators learn through active experimentation and concrete experience. They are accomplishment and goal-oriented, but they need frequent feedback on their work to keep them focused on the task at hand. They are strong at advocating positions or ideas, at setting objectives, and at implementing decisions, and they tend to solve problems through intuition rather than by analysis.

Kolb calls divergers and accommodators "lumpers," or those who need to see the whole picture before they can learn the details and facts related to the concept. He calls assimilators and convergers, "splitters," or those who need to analyze the parts before they can learn the whole concept. We all fall, more or less, into one category or the other. It should be cautioned, however, that all styles of learning are complex and are not easily described in simple terms.

While we all have a preferred style of learning, those who learn best are those who are able to adapt their learning styles as situations demand a change. By using Kolb's theory in our instruction, we will help students to learn in their own styles and to develop abilities in all four quadrants of the circle, thus increasing their effectiveness as learners.

BIBLIOGRAPHIC INSTRUCTION USING KOLB'S THEORY OF EXPERIENTIAL LEARNING

During the past three years we have used Kolb's theory of experiential learning as the learning style structure for the freshman library instruction program at North Park College. North Park is a private liberal arts college located in Chicago with about 900 full-time-equivalent students. It also has a seminary with an enrollment of about 150 and extension programs in two Chicago neighborhoods. Two fine instructional librarians work individually with our students, particularly in freshman library instruction. All freshmen receive library instruction in their English Composition 101 classes. A search strategy approach emphasizes the use of subject encyclopedias, bibliographies, book reviewing sources, and sources for information about authors.

Until three years ago, about thirty percent of the freshmen thought the instruction was a waste of time. Some wrote strong, dreadful comments on their evaluation forms. We could not understand this negative reaction when everything about the instruction seemed to be good. We looked carefully at the style of teaching and at the content of the instruction but found no answers. It occurred to us that perhaps the answer was in the style of learning rather than in the style of teaching. After studying Kolb's theory it became clear that we were not addressing reflective observation.

Our instruction now uses all four activities in Kolb's theory. We teach to all four styles of learning. This has led to striking results. The concrete experience is the lecture. We give each student a worksheet and a booklet that explains it in detail. Students follow the lecture with the booklet and worksheet in hand. Examples of the books and journals used in the lecture are passed around so each student has an opportunity to handle and look through the sources. There are several opportunities for discussion and questions. This is a lot to accomplish in fifty to seventy minutes, but we do provide students with a reasonably well-rounded concrete experience.

We are teaching to convergers with the lecture and to divergers with the discussion. The assignment is to complete the worksheet and write a partially annotated bibliography on a controversial issue of their choice. This assignment is followed by a five-page research paper on the same topic using the resources in the annotated bibliography. The English Composition instructors supervise the writing of the research paper.

The activity we were not including prior to using Kolb's theory was reflective observation. Including reflective observation accounts for the significant improvement in students' perception of the value of instruction. Halfway through the assignment we meet with students individually. During this conference students ask questions and we provide feedback on their progress. Providing feedback is im-
important for the accommodator's learning style. We also ask students to compare what they knew about using a library before doing the assignment now, and after in order to answer the question, What have you learned? This gives students an opportunity to reflect on what they have been learning. They are usually surprised with their newly gained knowledge. We ask the same question on the post-instruction evaluation form. Since including time for reflective observation we rarely encounter hostile written comments.

''Providing feedback is important for the accommodator's learning style.''

Students engage in abstract conceptualization as they develop their search strategies. They must think about their topics and choose the most appropriate resources. Assimilators learn best at this stage as they plan and formulate strategies.

The actual doing of the assignment involves active experimentation. Accommodators, who are goal-oriented, meet their needs at this stage. Moreover, active experimentation is essential in building the foundation for handling a new concrete experience but at a more advanced level of bibliographic instruction.

Our program of teaching to the four styles of learning has resulted in an 80 to 90 percent favorable response rate for freshman library instruction instead of a 70 percent favorable rate in prior years. Table 1 shows the response to several of the questions asked on the evaluation form during the 1988–89 academic year. It is almost identical to the responses of the previous two years.

**CONCLUSION**

Bibliographic instruction is a multifaceted process involving a complex relationship between librarian, content, and student. Efforts to improve instruction should balance the attention given to each. In trying to understand this very elusive quality called effective teaching, we discovered that meeting the various learning modes of students may be the key to improving teaching effectiveness.\(^{20}\)

Kolb's theory of experiential learning offers a comprehensive design for structur-

### TABLE 1

**STUDENT EVALUATIONS OF FRESHMAN LIBRARY INSTRUCTION (N = 119)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think that learning the basic search strategy (the process of finding information in a logical manner) will be helpful to you in the future when you are required to write a research paper?</td>
<td>91%</td>
<td>9%</td>
</tr>
<tr>
<td>How confident do you feel in your ability to use the library compared to your level of confidence before you took the instruction?</td>
<td>23%</td>
<td>19%</td>
</tr>
<tr>
<td>felt confident before taking the instruction</td>
<td>23%</td>
<td>19%</td>
</tr>
<tr>
<td>Much more confident</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Somewhat more confident</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Still don't feel confident</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Completely confused</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>As you think over what you've learned about using the library, how useful do you think this instruction was for your research paper?</td>
<td>26%</td>
<td>55%</td>
</tr>
<tr>
<td>Very useful</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Somewhat useful</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Not very useful</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Useless</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>As you think over what you've learned about using the library, how useful do you think this instruction will be for your future research and information needs?</td>
<td>39%</td>
<td>50%</td>
</tr>
<tr>
<td>Very useful</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>Somewhat useful</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Not very useful</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Useless</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>
ing learning experiences. Students are provided opportunities in a mode that is personally most effective. They also strengthen their learning skills in other areas. Kolb's theory is significant but there are others yet to be studied and tried in our instructional programs.

Will addressing learning styles directly make our instructional programs perfect? Probably not. But teaching to a diversity of learning styles will probably help us to be more effective instructional librarians.

REFERENCES AND NOTES


4. I will be using the words "teacher" and "librarian" interchangeably.


17. Ibid., p.28-30, 41.


Theft and Mutilation of Library Materials

Terri L. Pedersen

Periodical and book theft and mutilation are problems encountered by most academic libraries. Not only do these problems anger and frustrate library staff and patrons, but also it is expensive to replace damaged and stolen materials.

Through a questionnaire study at Emporia State University, an attempt was made to determine the answers to several questions and concerns. Behind these questions are the underlying assumptions that periodical and book theft and mutilation occur as a result of several circumstances, such as students’ unfamiliarity or dissatisfaction with the library and its services, lack of knowledge about replacement time and costs, lack of concern about the needs of others, and little thought about the act of crime.

According to research, the problem of periodical and book theft and mutilation is laying waste to vital and expensive library collections throughout the country. Too often the damage is done quietly and is not discovered until long after the act has taken place. Damage ranges from a few pages to entire books and journals. Information is scarce on why theft and mutilation occur and on how much they cost libraries. From 1972 to 1987, less than fifteen articles and papers have been written on the subject. Very few studies have been undertaken.

REVIEW OF RELATED RESEARCH

In the early 1970s Ron G. Martin, a librarian at Kearney State College in Nebraska, surveyed libraries. He received responses from ninety-two of them regarding instances of periodical mutilation. Eighty percent reported considerable damage to periodicals. Forty-seven percent said that they replaced mutilated periodicals with microforms.1

Around the same time, another study was conducted by Mary Noel Gouke and Marjorie Murfin. It was undertaken three years after the conclusion of a widespread publicity campaign. Their purpose was to determine the extent and cost of periodical mutilation at the library in which they worked and to locate possible solutions. They discovered that the rate of mutilation of periodicals was 15 percent. This amounted to 1,295 issues annually with $7,700 to $12,950 spent on repair. The authors also estimated that in the previous ten years $13,860 to $23,100 was spent for 2,310 issues. They also found that the public relations campaign was a viable method of reducing periodical mutilation and that the presence of damaged periodicals led to more mutilation. Among the preventive methods used were signs stating that there would be no replacement of lost articles, offers of better copiers, and the beginning of a copy machine loan fund.2

A study was also undertaken at Kent State University in 1973 by Clyde Hendrick and Marjorie Murfin in which 168 students were issued questionnaires assessing their knowledge of and opinions

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about periodical mutilation. The respondents were enrolled in introductory psychology and social psychology classes at the institution. The first portion of the questionnaire dealt with personal information; familiarity with the library; and attitudes toward mutilation, copier use, penalties, and replacement. The closing section asked for opinions about possible solutions. The students were also given the option of signing their questionnaire so that Hendrick and Murfin could identify and interview professed mutilators. In 1978 Dana Weiss attempted to replicate the Murfin-Hendrick study. She surveyed 201 students and found that mutilation involved good students who were motivated by academic pressure. However, no connection was discovered between a student's attitude toward the library and the acts of theft and mutilation. Also, her theory that more photocopy machines might alleviate the problem was not supported.

In 1981 the University of Nebraska at Omaha reported a rise in mutilation and theft. During the year 1,000 magazine pages and 672 complete issues had to be replaced. To combat the problem, the library launched a public relations campaign alerting students to the fact that mutilation is a crime.

Collectively these studies demonstrate that all libraries encounter the problem of mutilation and theft. The damage is especially troublesome for academic libraries and leads to costly damage that causes frustration for both patrons and library staff members. The present study was conducted because a need exists for research into the causes and prevention of mutilation and theft in libraries.

There were four major goals of the study. The desired result of the project was to discover the answers to inquiries related to these stated goals:

1. Through the examination of the attitudes and characteristics of students who mutilate and steal as compared with those who do not, to uncover the reasons why theft and mutilation occur.
2. In discovering the reasons for and circumstances surrounding the theft and mutilation of library materials, to find out how it is accomplished.
3. By looking at the proportion of students involved in theft and mutilation of periodicals or books, to discover who is responsible.
4. Finally, to locate preventive methods that students feel would be good deterrents to the problem of mutilation and theft.

METHODOLOGY OF DATA COLLECTION

The study was conducted during the 1988 spring semester at Emporia State University. At that time the school had an enrollment of 5,134 students. As in the Hendrick-Murfin and Weiss studies, it was determined that an anonymous questionnaire would yield the greatest results. It was in the selection of the sample that this study deviates from the previous two. In those studies, the methods of obtaining students were limited, thus biasing their results. The test group and final data were thrown off by a young population that was mainly female. In this project, an attempt was made to choose a sample that was more representative of the entire student population. Courses were randomly selected from each subject division making up the university structure.

The questionnaires were administered to the students during class time, with the permission of the instructor. This method was chosen to help ensure a high survey return. Sixteen classes were visited with the questionnaire during a two-week period. It was administered to 235 students. Data analysis is based upon the results from those respondents. The questionnaire is located at the end of this article.

RESULTS

The first section describes the makeup of the sample. The next section presents the results of the questionnaire and compares those who admitted to being involved in theft and mutilation (violators) and those not involved (nonviolators).

Characteristics of the Sample

The 235 students surveyed represented approximately 5 percent of the total population of the university. Of the 235 stu-
students 54%, or 122, were female and 46%, or 104, were male. This came fairly close to the university's ratio of 60/40, as shown in the figure 1. The sample population was also very close to the university's totals in regard to student grade classification. The breakdown was as follows: freshmen, 65, or 28%; sophomores, 41, or 17%; juniors, 61, or 26%; seniors, 54, or 23%, and graduate students, 14, or 6%. The university class breakdown was 18%, 13%, 16%, 18%, and 32%, respectively. The obvious downfall in the sampling was the low questioning of graduate students, which could have been avoided by visiting more graduate courses. The students involved in the survey were fairly evenly spread between the ages of 18 and 23, with only 13% of the sample over the age of 25. The students were also from the various colleges, with the highest percentages in either the school of business or the teachers college, which was not overly surprising.

Two of the most significant questions asked if the students had ever stolen books or magazines from the library or if they had ripped out pages. Twenty-four students admitted ripping out pages and 11 confessed to stealing library materials. Only 6 students circled yes to both questions, for a total of 29 violators, 12% of the sample surveyed. Of this group of viola-
tors, most were involved in fewer than five instances.

One goal was to determine whether a violator differed drastically from a nonviolator and to devise a composite sketch of a violator. The belief was that those involved would be younger students with poor to average grades, lacking responsibility and looking for an easy way out. What emerged as the typical violator was a male or female student, aged 20-22, junior or senior, with a G.P.A. in the 2.0-2.9 range.

One important fact was that students do not spend much time in the library. The study indicated that those spending more time in the library were less likely to damage and steal library materials. Most students also admitted to writing very few papers in their college career. Seventy-five percent completed less than ten. Students writing fewer papers were more inclined to damage periodicals, but this was not as true for the theft of books. Another interesting fact is that paying for one's own college education does not seem to make a student more responsible or less likely to mutilate and steal.

Replacement

Several questions asked students what they knew about the replacement time and cost involved when pages, books, and periodicals have been stolen or mutilated. Students believe that things are replaced fairly easily. This usually only holds true for magazine articles and book pages that are missing and not entire books and periodicals. Students made a good guess at the replacement cost and time when only the pages were missing. Most replacement pages at Emporia State are ordered through the interlibrary loan department. These replacement pages may be received in a month, and 66% of the students answered this question accurately. The cost usually involves only staff time in locating and ordering replacement pages. This probably averages $5 to $10, which was the response of 48% of the students. In terms of replacing entire books and whole periodicals, the sample perceived it as being easier than it actually is. Only 16% of the students answered that replacements may never be found and bought. Most students (62%) felt that materials could be replaced within a three-month period. When it comes to changing the perceptions of students regarding periodical and book theft and mutilation, information concerning replacement costs and time should probably be used in a campaign. Perhaps if more patrons realized that items may not be replaced, they might think before acting rashly. In terms of cost, 84% of the students felt that stolen items could be replaced for under ten dollars. Once again, this is an area where the students' beliefs need to be changed (see table 1).

Perceptions of the Problem and Penalties

A major group of questions involved students' perceptions of the problem of mutilation and theft and the penalties assessed. One of the most important conclusions is that students felt that the library would be or is a very easy place from which to steal. This belief could be altered. Most students recognized that the theft and mutilation of library materials are crimes. Eighty-two percent felt that the penalty for getting caught should be a fine. Very few (under 4%) felt that no penalty should exist. When asked what they would do if they saw someone ripping out pages or stealing a magazine or book, 61% said they would do nothing. Thirty percent indicated they would report it, and the remaining 9% would either tell the offender what they were doing was wrong or ask them to stop.

When asked if they had ever considered tearing out articles or pages from a book, most of the students (56%) said that they had never thought about it. Thirty-eight percent admitted to considering the act once or twice, with only 6% thinking about it more than a few times. Twenty-five percent admitted considering stealing a magazine or book, while 75% never considered it. When admitted violators were asked about their concerns for getting caught in the act, 50% were not concerned at all, 34% were mildly to moderately concerned, and only 16% were very worried about someone catching them.
TABLE 1
RESULTS ON LIBRARY USE AND PERCEPTIONS OF THE PROBLEM

<table>
<thead>
<tr>
<th>Question</th>
<th>Non-Ripoffs (%)</th>
<th>Thieves (%)</th>
<th>Page Rippers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Library use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Number of term papers done so far in college</td>
<td>0-9</td>
<td>74</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>10-19</td>
<td>20</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>20+</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>B. Amount of times one goes to the library</td>
<td>Almost never</td>
<td>41</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>1-5 times weekly</td>
<td>55</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Daily</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>C. Hours a week spent in the library</td>
<td>0</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>6-15</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16+</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td><strong>Perceptions on Theft and Mutilation of Library Materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. How easy would it be to tear out an article or to steal library materials?</td>
<td>Very easy</td>
<td>61</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Somewhat difficult</td>
<td>28</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Moderately difficult</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Very difficult</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>B. What is the penalty for theft and mutilation of library items?</td>
<td>None</td>
<td>20</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Misdemeanor</td>
<td>72</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Higher than Misdemeanor</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>C. What should the penalty be?</td>
<td>None</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Fine</td>
<td>83</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>More severe</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>D. If you saw someone violating library materials, what would you do?</td>
<td>Nothing</td>
<td>59</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Tell them it's wrong and ask to stop</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Report it</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>E. Time to replace a torn out article</td>
<td>Less than 1 month</td>
<td>48</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>1-6 months</td>
<td>39</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Over 6 months</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>F. Time to replace a stolen magazine</td>
<td>Less than 1 month</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>1-6 months</td>
<td>43</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Over 6 months</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Never Replaced</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>G. Cost to the library to replace torn pages</td>
<td>$1 and under</td>
<td>27</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>$5-$10</td>
<td>51</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Over $15</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>H. Cost to replace a stolen book or magazine</td>
<td>Under $10</td>
<td>84</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>$15-$20</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Over $20</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>I. Have you ever considered tearing out an article or book pages?</td>
<td>Never</td>
<td>32</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>One in a while</td>
<td>56</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Quite often</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>All the time</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>J. Have you ever considered stealing from a magazine or book?</td>
<td>Never</td>
<td>60</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Once or twice</td>
<td>36</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Occasionally</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>All the time</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>K. Have you ever considered stealing from a magazine or book?</td>
<td>Never</td>
<td>76</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Once or twice</td>
<td>22</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Occasionally</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>All the time</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>L. What percentage of the student body is involved in theft and mutilation?</td>
<td>0-15%</td>
<td>51</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>15-30%</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>30-50%</td>
<td>31</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Over 50%</td>
<td>5</td>
<td>37</td>
</tr>
</tbody>
</table>
Of the 235 students questioned, only 33% said that they had never been inconvenienced by missing or torn-out pages. Fifty-five percent had been bothered once in a while, and 12% were either inconvenienced quite often or all of the time. Of the violators, only 58% had ever been inconvenienced through stolen or damaged periodicals or books.

In the sampling of the student population, only 10% admitted to periodical and book theft or mutilation. When students were asked to estimate what percentage of the student body might rip out articles or steal books or magazines: 18% answered under 5%; 30% responded with 5–15%; 30% also marked 15–30%; and 28% felt that over 30% of the student body might be involved in the theft and damage. Students who admitted to being violators were more inclined to believe that a large percentage of the students were involved in theft and mutilation.

Opinions on the Reasons for Theft and Mutilation

Another section asked students why they thought books and periodicals were mutilated and stolen (see table 2). They were to circle as many responses as they felt correct. Seventy-eight percent of the nonviolators felt that students did not consider the needs of others, as compared with 83% of the violators. Few respondents believed that students were unable to afford the copy machine or the price of the book, with only 36% of the nonviolators and 50% of the violators answering yes to that question. Because more violators felt this was true, it may explain why some were involved in the damage. When asked if students were aware of the cost of the theft and mutilation to the library, 55 percent of both the violators and nonviolators felt that this was a problem. Again, both groups were in agreement when asked if students need the photographs or charts that could not be copied. Only 30% in each group answered yes to this question, indicating a problem. When asked if mutilation and theft were done casually and thoughtlessly, 52% of the nonviolators felt this was true. A big difference was shown in the responses of the violators. Fifty-five percent of the article and page rippers felt that it was done thoughtlessly,

<table>
<thead>
<tr>
<th>TABLE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUESTION: BOOKS AND PERIODICALS ARE STOLEN AND MUTILATED BECAUSE STUDENTS . . .</td>
</tr>
</tbody>
</table>

| A. Do not consider the needs of others | (T) 72 | (F) 28 | (T) 83 | (F) 17 |
| B. Cannot afford the copy machine or the price of the book, but want to own a copy | (T) 45 | (F) 54 | (T) 54 | (F) 45 |
| C. Are not aware of the cost of theft and mutilation to the library | (T) 36 | (F) 64 | (T) 55 | (F) 45 |
| D. Need the photographs or charts and cannot photocopy them | (T) 19 | (F) 81 | (T) 50 | (F) 50 |
| E. Do not think about the act or the library, but steal and mutilate casually and thoughtlessly | (T) 27 | (F) 73 | (T) 45 | (F) 55 |
| F. Steal and mutilate items as an expression of hostility toward the library and university | (T) 18 | (F) 82 | (T) 9 | (F) 91 |
but only 27% of the book or magazine stealers indicated this was true. Very few students viewed theft and mutilation as an expression of hostility towards the library.

**Effective Preventive Methods**

Opinions were asked on which measures would be effective in eliminating the problem (see table 3). The only option that received an overwhelming response was the availability of free copying. Sixty-three percent of both the violators and nonviolators felt that this would help prevent the problem. Other options included the following: (1) periodicals kept on reserve for checkout—30% for and 70% against; (2) periodicals on limited access or not able to be removed from the area—35% for and 65% against; (3) sign warning of the penalty, $500 fine or 30 days in jail—45% felt this would work, while 55% said it would not; (4) signs indicating the cost and time of replacement—32% felt this would be effective, while 68% felt it would not be; (5) a publicity campaign showing the extent of the problem and urging concern for others—23% in favor and 77% opposed; and (6) a copying loan service or copy card bought in advance—25% for and 75% against. Forty-five percent of the nonviolators favored checking out periodicals like books as compared with 54% of the violators.

**General Attitudes Concerning the Library and Its Services**

The final section of the questionnaire dealt with the library, its services, and copy machines (see table 4). Generally, students were positive toward the library (87%). Most usually found what they needed in the library, with only 20% disagreeing. A majority felt they were treated fairly by the library, with only 18% feeling unfairly treated. When asked if the library discriminates against undergraduate students by having more lenient policies for graduate students and faculty, most of the students either disagreed or had no opinion. When asked if the library was a cold and anonymous place, 71% answered either no opinion or disagreed. It was interesting to find that 54 percent of those ad-

### TABLE 3

**RESULTS FOR EFFECTIVE PREVENTIVE MEASURES**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Thieves, Rippers</th>
<th>Effective (%)</th>
<th>Nonviolators</th>
<th>Effective (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Periodicals kept on reserve and have to be checked out</td>
<td>T</td>
<td>36</td>
<td>R</td>
<td>64</td>
</tr>
<tr>
<td>B. Limited access—Periodicals not taken from area</td>
<td>T</td>
<td>36</td>
<td>R</td>
<td>64</td>
</tr>
<tr>
<td>C. Sign warning of penalty: $500 or 30 days in jail</td>
<td>T</td>
<td>46</td>
<td>R</td>
<td>54</td>
</tr>
<tr>
<td>D. Signs indicating cost and time of replacement</td>
<td>T</td>
<td>18</td>
<td>R</td>
<td>82</td>
</tr>
<tr>
<td>E. Periodicals could be checked out like books</td>
<td>T</td>
<td>27</td>
<td>R</td>
<td>73</td>
</tr>
<tr>
<td>F. Publicity campaign showing the extent of problem and urging concern for others</td>
<td>T</td>
<td>25</td>
<td>R</td>
<td>75</td>
</tr>
<tr>
<td>G. Free copying available</td>
<td>T</td>
<td>45</td>
<td>R</td>
<td>55</td>
</tr>
<tr>
<td>H. Copying loan service or copy cards bought in advance</td>
<td>T</td>
<td>27</td>
<td>R</td>
<td>73</td>
</tr>
</tbody>
</table>
mitting to stealing items agreed that the library was cold and anonymous. Most of those students also found the library staff to be friendly and helpful and felt positive toward the library. Basically, these questions helped library employees to know that they are viewed positively but need to work on helping patrons more in finding what they need.

Three questions were asked about the copy machines. As expected, a large majority felt that the copy machines were too expensive and usually out of order. Neither can be changed when the cost of operation and high level of use are considered. When a machine breaks down, the repairmen are contacted immediately. When asked if copy machines take too long to use, most students disagreed, so this does not seem to be a problem.

The final two questions dealt with the perceptions on mutilation and theft. It was surprising to find that 80% of the nonviolators disagreed with the statement that the library could easily replace stolen items and over 30% of the violators felt that stolen and damaged materials could be easily replaced. It was encouraging to note that 85% agreed that theft and mutilation are harmful because someone may need an item.

**SUMMARY**

Based on the data, the violators did not seem to differ greatly from the nonviolators. Basically, it was discovered that stu-
students cannot be identified as potential violators of library materials. It appears that situational circumstances lead a student to mutilation and theft. A number of the nonviolators expressed the temptation to steal pages, articles, books, or journals, thus indicating a potential group for more damage to library materials. Dana Weiss noted in her research:

Because this study was done in an urban university library, it could be said that the "toughness" of city life causes the theft. However, I believe a case could be made for "danger" on a rural college campus.

Because Emporia is in a rural area, the "toughness of city life" is not a cause of mutilation and theft. The fault does not appear to lie with the library being unfriendly, cold, and anonymous. Students did not view the theft and mutilation problem as an expression of hostility toward the institution but instead felt that their fellow students were selfish and did not consider the needs of others. In the 1980s, the emphasis has been on the success of the individual striving for personal gain no matter what cost is involved. With the thought of academic achievement leading to professional success for the individual, there is the pressure to do well and to earn high grades. Thus, as Weiss remarked, "Good grades may serve to reinforce . . . students that it is more important what happens in their individual careers than sensitivity to the needs of fellow students."

The present study points to certain steps that the library can take to reduce instances of theft and mutilation. Staff should watch carefully for and be aware of those students having trouble using the library and possibly looking for help, thus reducing the frustration level that may ultimately lead to desperate measures. As in previous studies, the survey indicates that patrons are not really aware of the difficulty and expense involved in replacing damaged and stolen library materials. A publicity campaign could inform students of the cost associated with lost, stolen, or mutilated books and magazines. Informed students should be less likely to steal and mutilate.

Other measures are the setting of equitable penalties for violation, with signs that cite the law and list penalties. Those surveyed, however, felt that the theft and mutilation of library materials were easy to do with limited consequences and little chance of being apprehended. If students found that the theft and mutilation of library materials were more difficult to accomplish and that the penalties were stiffer and enforced, the problem would decrease. A library's lowering the cost of photocopying should diminish the problem as well.

This study has uncovered possibilities for further work, such as initiating some preventive measures and evaluating their usefulness. If preventive measures are effective, libraries will be able to overcome the costly damage that causes frustration for both patrons and library staff members. Further means to deter possible violators of library materials still need to be developed.

REFERENCES

7. Ibid.
Selected Reference Books of 1988–89

Eileen McIlvaine

This 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 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).

FACT BOOKS AND COMPENDIUMS


Not many interchanges at busy reference desks can be described as typical, but this handy volume could answer many of the straightforward questions—What is the proper way to address a duke? How do the crime rates of New York and San Francisco compare? What is the Morse Code designation for a period?—that readers bring to librarians. While all of these questions could be answered with various individual encyclopedias and almanacs, the editors of this work have attempted to provide in one volume "basic answers to commonly asked questions."

The editors of this volume "informally surveyed" professional researchers, librarians, and reference editors for suggestions on the contents of this sort of ready reference tool, but it is unclear what other contributions were made by librarians from the New York Public or any other library.

Organized in twenty-six subject sections, such as "Time and Dates," "Legal Information," "Sports and Games," and "Words," the Desk Reference contains chronologies, graphs, charts, addresses, lists, formulas, and brief text entries. Emphasis is on the practical, and many subjects discussed herein would not be located in standard ready reference sources, e.g., stain removal, veterinary first aid, consumer information on insurance and real estate terminology and practices, even an explanation of Dewey Decimal and Library of Congress classification. Each section is followed by a brief bibliography of "Additional Sources of Information," but no sources are given for the data or text within the articles. An index follows the main text.

Entries are sometimes too terse. The transliteration tables are helpful, but is the Greek table for ancient or Modern Greek?

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: James L. Coen, Business Library; Mary Cargill, Beth Juhl, Anita Lowry, Robert H. Scott, Sarah Spurgin, Junko Stuveras, Butler Library; Diane K. Goon, Lehman Library.
Are the "Distress Signals" from an international, a military, or a scouting convention? Though readers may often need to pursue specialized or scholarly information elsewhere, this Desk Reference should prove useful to smaller, departmental libraries and offices lacking access to large reference collections.—B.J.

BIOGRAPHY


The author has written short biographical sketches of some 4,500 trappers, traders, cowpokes, marshalls, chiefs, scouts, miners, heroes, and desperados from the American frontier. "Frontier" is here defined in the broadest possible terms, with entries for travellers from the earliest era of western exploration, such as Saint Brendan and Erik the Red, to the explorers of the very last frontiers, such as Peary and Cook. Included here are men and women (and one mule) from all aspects of frontier life—all "who came to attention through the significance of their deeds or simply were of interest in some connection with the evolving drama" (Introd.).

Each entry contains birth and death dates (not always straightforward—George LeRoy Parker, alias Butch Cassidy, has at least three possible death dates), a biographical profile, an assessment of influence or importance, and a few bibliographic notes or sources for further research. An index of personal names, topics ("Ghost Dance," "Gold Rush"), geographical locations, Indian tribes, and occupations ("Gunmen," "Vigilantes") follows the text.

Thrapp has a captivating style and obvious enthusiasm for his subject. Despite some inconsistencies in the indexing (why an entry for historians but not cattlemen or ranchers?) this encyclopedia is an extremely welcome addition to the shelf of biographical dictionaries.—B.J.


This is not Stroynowski's first treatment of this subject: in 1978, he and Borys Lewytzkyj produced Who's Who in the Socialist Countries (Guide AJ56), a guide profiling 10,000 prominent figures in sixteen Communist countries, including the Soviet Union. The narrower scope of this Who's Who, however, permits much more extensive treatment, to say nothing of the fact that the passing of a decade has wrought considerable changes in the elites of Eastern Europe. As a result, this is a very different work from its predecessor, though use is naturally made in many cases of entries that appeared in that compendium.

Compiled from Stroynowski's personal files between January 1986 and October 1988, the work is broad in scope, covering living persons (and a few recently deceased individuals of particular promise) from political parties, government, military, diplomacy, the economy, science, literature, religion, art, and the press. Also included are biographies of some 350 leading political dissidents and émigré figures. The records are arranged in a single alphabetical sequence, but there are country lists as well. Entries include information on nationality, profession, date of birth, family background, career, publications, honors, decorations, and prizes.

Not too surprisingly, coverage of the individual countries is far from even. Comparing share of entries to share of population in the region, Hungary is by far the best represented, followed by East Germany, Czechoslovakia, Bulgaria, and Poland. Much more poorly represented are Albania, Romania, and especially Yugoslavia. In addition, the biographies of Poles are generally much more detailed than the others.

Of course, a work of this sort is always bound to leave something out. One wonders about the omission of such figures as: Aleksandr Paszynski, now Polish minister of the construction industry, but long
prominent in political affairs; Ludmila Zhivkova, powerful and enigmatic daughter of Bulgarian leader Todor Zhivkov, who died just a few years ago under mysterious circumstances; or Paul Goma, perhaps the single best-known Romanian dissident, now living in France. Naturally, too, despite efforts to keep up-to-date with personnel changes, errors occur: this reviewer noted in passing, for example, a failure to note Marian Dobrosielski’s tenure as Polish vice-minister of foreign affairs at the end of the 1970s, an appointment that represented the apex of his career.

Current upheaval in Eastern Europe is of course rendering much of this information out of date, but there is certainly nothing available in English (or perhaps any language) that can match the comprehensive sweep of this impressive encyclopedia. True, three guides to individual countries do come to mind: Who’s Who in Poland (Guide A)335, Wisniewski’s Who’s Who in Poland (Guide A)336, and Prominent Hungarians at Home and Abroad, 4th ed. (New York: Csombor Literary Circle, 1985). Strynowski’s work overlaps to a certain extent with the two Polish handbooks but provides a great deal of new or more up-to-date material. He does appear to have relied fairly heavily on the Hungarian guide, however. Nonetheless, it would be difficult for any library attempting to provide solid coverage of East European affairs not to add this work to its collection.—R.H.S.

**RELIGION**


The editors have now completed their coverage of English Catholic writers. The first volume, *Works in Languages Other than English*, describes religious literature written, edited, or translated by English Catholics in Latin or a modern foreign language published between 1558 and 1640. "Religious Literature" can include politics, law, modern history, or literature "if they have a sufficiently close bearing on the politico-religious situation in England" (Foreword). Also cited are works by "foreign Catholics concerning English affairs or replying to publications by English Catholics."

Most of the entries are cited under the name of the author or, if it is an anonymous work, under the name of an institution or a group of people, or translator or editor; other anonymous works are placed in the second section under the main topic, which is usually a descriptive phrase. There are numerous cross-references. The form of entry is similar to that of the short title catalogs. For each work up to fifteen locations are given; the holdings of some 400 libraries are included. This first volume ends with four indexes: Title, Publishers and Printers, Chronological, and Proper Name.

The second volume is an updating and rearrangement of Allison and Rogers’ *A Catalogue of Catholic Books in English Printed Abroad or Secretly in England, 1558-1640* (Bognor Regis, England: Arundel Pr., 1956) with tables converting the old numbers to the new ones. The first volume of the set uses the old A&R numbers since the second volume was later published. The set takes its starting point, 1558, from the date Elizabeth ascended the throne and 1640 as a closing point. The next few years are covered by Thomas H. Clancy, *English Catholic Books 1641-1700* (Chicago: Loyola Univ. Pr., 1974).—E.M.


What is ashe? As Prof. Gray quotes in the Introduction: it is "an elemental force that is neither good nor bad, but has the potential to make things happen..."
mans possess ashe, and through education, initiation and experience learn to manipulate it in order to enhance their own lives and the lives of those around them.'"

In this bibliography, Gray has focused on two major themes: traditional religion, whose roots cannot be traced to Islam, Christianity, or contemporary religious movements found in Africa today, and traditional medicine and healing rooted in African and black New World cultures.

Materials included in the 5,953 entries are books, dissertations, periodical and newspaper articles, unpublished papers, films, and videotapes in about seven languages. Appendix I lists reference works; Appendix II is an international directory of archives and research centers on the black world (published guides are noted). Citations are organized as: general and background material; general works on African traditional religion; regional, country, and ethnic group studies; and special subject categories, such as if a divination, individual orisha, voodoo and politics, zombies, and black preaching and sermonizing. Larger countries such as Brazil and the United States have regional studies sections on states or cities (Rio de Janeiro, District of Columbia). There are three indexes: ethnic group, subject, and author. The author has also supplied a list of mail-order services and bookstores.

Librarians will wish to add this bibliography to existing works in the field, such as Patrick Ofori's *Black African Traditional Religions and Philosophy* (Guide BB25), Irving Zaretsky and Cynthia Shambaugh's *Spirit Possession and Spirit Mediumship in Africa and Afro-America* (Guide CE95), and John F. Szwed and Roger D. Abrahams' *Afro-American Folk Culture* (Guide CF87). It is a fine and useful work (in progress).—D.K.G.


This newest addition to Academic International Press' series of useful encyclopedias on Russian and Soviet topics ventures into the relatively uncharted waters of religious affairs. The subject has not received a comprehensive modern treatment thus far, in large part because of official Soviet hostility to religion, and most of those sources that have attempted to do so (notably, a group of early twentieth-century dictionaries and encyclopedias) are inaccessible to English-language readers.

Expected to comprise some twenty-five volumes at the time of its completion ten to fifteen years from now, the encyclopedia aims to cover all the religions practiced on the territory of the Soviet Union, but its primary emphasis, not too surprisingly, is on Orthodox Christianity, with a secondary emphasis on other Christian groups and Judaism. Only 9 of the 104 entries in volume one deal with non-Judeo-Christian subjects. Only three of those are devoted to the ever more crucial area of Islam, and another, on "Ancient Slavic Religion," is disappointingly brief, even if one takes into account the fragmentary and confusing character of the sources.

Although MERSU touches upon theological and doctrinal matters, its real focus is on the historical. Biographies predominate, with extensive summaries of ecclesiastical affairs and church-state relations included under the names of individual Russian rulers. Considerable attention is also given to organizations and institutions, and there are short surveys of religious questions under the heading of individual ethnic groups. Citations to the major literature follow each entry.

As in the other encyclopedias produced by this press, extensive use is made (in a little less than half of the entries) of translations or adaptations from Russian-language reference sources, here notably *Russkii biograficheskii slovar'* (Guide AJ381), *Evreiskii slovar'*, which appears to be the primary source for MERSU's entries on Judaism, and *Polnyi russkii bogoslovskii slovar'*, along with a handful of borrowings from Academic International's own *Modern Encyclopedia of Russian and Soviet History* (Guide DC571) and *Modern Encyclopedia of Russian and Soviet Literature* (Guide BD1358). However, assembling these scattered references in one place and making them accessible to an English-
language readership is in itself no small accomplishment.

Overall, this is an impressive and ambitious undertaking that should make a whole new area of information available to specialist and nonspecialist alike. One can only regret that it is likely to be so long in the completion.—R.H.S.

LITERATURE


Librarians and readers seeking literature by and about black American women writers will be grateful to Ronda Glikin for this excellent and comprehensive bibliography. The arrangement is straightforward: 298 black women writers of creative literature are listed in alphabetical order. Under each author’s name her works published between 1976 and 1987 are listed in categories that include autobiography, bibliography, essays, drama, poetry, short fiction, and children’s stories. Works about her are listed under the heading “Textual Criticism and Interviews,” with brief descriptive notes. A section of general criticism, a list of authors by genre, and an author/title index are appended.

This bibliography is recommended for libraries of all sizes. Many of the works listed here would be difficult, if not impossible, to locate in other reference tools. Included are books published by small literary and feminist presses, works published in anthologies and other collections, and works published in more than eighty periodicals.—S.S.


The Congressional Reading Room, part of the Congressional Research Service of the Library of Congress, has over the past fifty years compiled a large file of frequently requested, difficult, spurious, and unverified quotations in response to Congressional requests. The editor has arranged this file by subject, and indexed it by author and keyword.

The emphasis, naturally, is on political quotations and quotations by political figures, but the subjects range from dogs and cats through love to politics. The quotations themselves are elegantly documented, with pages and dates for every source, and frequent explanations of the context and background. It is obvious that the information has been compiled by front-line reference librarians who have been frustrated by poorly documented quotations books.

The only weakness I can see is with the keyword index (which confusingly is labeled the subject index, but called the keyword index in the introduction). I had remembered a quotation about Americans’ voting themselves money that included the word “largesse.” This word did not turn up in the keyword index, and I finally located the quotation under the subject heading “Democracy.” The only keyword under which this quotation is indexed is also “democracy.” But this is a minor drawback in a book that will give everyone fifty years’ worth of work for $29.—M.C.


The awe-inspiring Bloomsbury Iconography almost defies description but may prove extremely useful to more than its guaranteed audience of Bloomsburyphiles. This cataloged “index to reproductions of pictures relating to the Bloomsbury Group—i.e., portraits, sketches, and photographs of people, places, and things—lists roughly four thousand different pictures from about seven hundred sources” (Pref.). These sources include books, periodicals, and exhibition catalogs published through 1985, and the people listed include family members, friends, and servants of the Bloomsbury Group.
Entries are arranged in alphabetical order by name, beginning with Elise Angilanti, the cook at La Bergere, Cassis, and ending with Virginia Woolf. Most of the entries are further subdivided into categories. The entry for Vita Sackville-West, for instance, lists seven categories: (A) pictures before marriage, (B) pictures after marriage, (C) posthumous pictures, (D) autographs, (E) Hogarth Press books, (F) miscellaneous (a reproduction of her first published article), and (G) places. Within each category, pictures are listed in chronological order, with descriptive notes and citations to sources of the reproductions. In addition to entries under people's names, there are entries under the names of places, e.g., Brunswick Square; things, e.g., Conversation Piece at Garsington Manor; and groups of people. Seven appendices and an extensive index listing artists, photographers, locations, and subjects complete the volume.

Although the primary audience will be scholars, collectors, and others interested in the Bloomsbury Group, this carefully described iconography should also be of interest to art historians, social historians, and others who may be more interested in the pictorial documents than in the lives of the members of the Bloomsbury Group.—S.S.


This guide, originally published in England as the Longman Companion to Victorian Fiction, contains brief, alphabetically arranged entries for nearly 900 novelists, over 500 individual novels, and nearly 50 periodicals, as well as entries on important institutions in the Victorian book world such as Mudie's Circulating Library. The author has also included entries on various genres, such as the "sensation novel" and "children's fiction."

Unfortunately, there is no list of special topics covered, so the reader must be fairly imaginative to find entries such as "bigamy novels" or "hill-top novels." Although there are no bibliographies, the author does cite listings in such standard reference sources as the Dictionary of National Biography.

The number of authors covered makes this guide a far more complete reference to Victorian fiction than any other one-volume source. The recent Victorian Britain: an Encyclopedia (New York: Garland, 1988) covers fewer novelists, though the bibliographies in this work make it more useful to the general reader. The major Victorian authors are certainly well covered in many other reference works, but this book will delight the inveterate reader of secondary Victorian fiction.—M.C.

MOVING PICTURES


According to the publisher's preface, "Footage 89 is designed to facilitate access to moving image materials (film, videotape and computer graphics) for all potential users, whether their interests are academic, artistic, commercial, documentary, educational, historical, newsworthy or scientific. The many research leads contained in this book offer a wealth of entry points to the rich visual record held by North American repositories" (p.A-7). In scope and usefulness, Footage 89 lives up to these ambitious claims.

Footage 89 is a directory of institutions (including libraries, museums, and archives), organizations and associations of all types, and corporations (including studios, distribution companies, and stock shot libraries) located in the United States, Canada, Mexico, and the Caribbean. Major library collections of commercially available films or videotapes, like the Donnell Media Center of the New York Public Library, are listed, but for the most part the directory focuses on collections that hold "unique moving image material (or material not easily accessed through other sources)" (p.A-8). And what a glorious range of materials is represented in these collections, running the gamut from fea-
ture films to cartoons to documentaries and newsreels to television programs and news to commercials to thousands of miles of raw footage from multifarious sources.

In addition to the usual names and addresses, each entry includes information about the nature and extent of materials in the collection, available viewing and research services and facilities, access policies, and "bibliographic control" of the collection. A considerable amount of detail regarding reproduction rights and licensing policies is provided for those users who are looking for footage that can be incorporated into a work that they are producing. While the content of most collections is described in fairly general terms with, perhaps, examples of representative titles, listings for several collections (for example, the U.S. National Archives Motion Picture, Sound, and Video Branch) provide much more detailed descriptions of their holdings.

The directory is arranged by state and city, with an index of sources and collections, an index of television series titles, and an excellent subject index. This list is an exceedingly useful guide for anyone, including film scholars and historians, looking for film or video footage by or about a person, place, event, or thing (though it inconveniently refers the user to the names of the relevant collections without the page numbers on which they are found).

There is also a section listing individuals and organizations that do research and consulting on all aspects of locating, acquiring, using, and managing moving images. The volume begins with several short articles giving concise, informative overviews of such topics as copyright and licensing, preservation, and stock shot libraries and ends with a glossary of terms. Layout is clear and attractive in a slightly oversized format, and Footage 89 is also available on floppy disk for $225. Footage 89 is the most comprehensive and up-to-date source available for information about moving-image collections in North America—fortunately, Prelinger Associates anticipates publishing future editions to make sure that it stays that way—A.L.

**EDUCATION**


The Harvard Graduate School of Education began systematically to submit its dissertations to University Microfilms only in 1974, so this bibliography will make life much easier for anyone looking for education dissertations. The entries are arranged alphabetically by author and include the UMI order number, when available, as well as the Harvard University call number. The subject index uses Library of Congress subject headings, which will please anyone who has had to use the keyword index in the *Comprehensive Dissertation Index.*

The introduction also includes detailed instructions about using or borrowing these dissertations. This welcome guide will, I hope, be the first in a series of similar guides.—M.C.

**BUSINESS**


The acquisition and merger of corporations is a hot topic that is generating a great deal of literature. Levine's book is aimed at those business planners and strategists who wish to establish an acquisition program in their organizations. As with his *Financial Analyst's Handbook* (Guide CH577) he has produced a work that is a valuable addition to any business library's reference collection. Including Sumner Levine, there are twelve contributors to this volume, representing academia, law, consulting, investment banking, and accounting.

An overview of the acquisition process is provided in the first chapter, where reasons for failure and the importance of
long-term planning are also discussed. Typical of Levine's practical approach is the inclusion of a chapter on appropriate information sources, with three appendices on computerized data sources. Of the remaining eleven chapters each one focuses on a specific aspect of the process and is treated at some length. These include candidate identification, the acquisition campaign, financial statement analysis, valuation and pricing, tax aspects, turnaround acquisition, formulas and calculations, and the acquisition contract.

Many of the chapters have appended materials that amplify the practical aspects of the topic under discussion. Sources of information, including bibliographic references and online databases, are cited throughout so that the most relevant ones are emphasized in context.—J.L.C.

WOMEN'S STUDIES


Latinas of the Americas lists works on women in Spanish-, Portuguese-, and French-speaking Latin America, as well as Hispanic American women in the United States. Most of the references were published between 1977 and 1986. Although this is intended to update, but not replace, Meri Knaster's Women in Spanish America (Guide CC562), the arrangement is quite different. Instead of annotations, Latinas of the Americas provides signed bibliographic essays on fifteen topics, followed by bibliographies of approximately 350 items arranged in alphabetical order by author. The topics covered include Anthologies, Bibliographies, Biography, Demography, Education, Feminist Studies, Health, History, Household and Family Studies, Literature, Political Science, Religion, Rural Development, Urban Development, and Law. The bibliographies include 3,000 references to published and unpublished research, although fewer works are cited because many of the citations are listed under more than one topic. This duplication will serve readers well because the subject index is one of those all-too-familiar indexes that lists a term followed by hundreds of item numbers. The weak subject index and the broad subject arrangement make it difficult to find citations by place. To find references related to women in Mexico, the reader must either browse through all the chapters or go through the 450 entries listed after Mexico in the index. In spite of its failings, this is still an extremely valuable reference work, especially for libraries supporting graduate work in women's studies, Latin American studies, and the social sciences.—S.S.


The Women's Studies Encyclopedia will comprise three volumes when it is finished. In this first volume, science has been broadly defined to include natural, behavioral, and social sciences; health and medicine; economics; linguistics; and political and legal sciences.

Signed articles are listed in alphabetical order, and range in length from 200 to 1,500 words. Many of the longer entries are followed by brief bibliographies that list important, and recent, works to consult for more information. Cross-references and a good subject index provide additional subject access.

The encyclopedia focuses on the American experience, and many of the entries deal specifically with the United States. A great variety of topics are covered; entries under the letter D, for example, include Deconstruction, Dependency, Depression, Differential Socialization, Discrimination, Displaced Homemaker, Divorce, Domestic Service, Domestic Sphere, Domestic Violence, Double Bind, Double Jeopardy, Double Standard, Dower, Dowry, Dual-Career Couples, and Dual Role. The entries reflect the feminist approach of the contributor, and range from strict definition to provocative discussion.

The Women's Studies Encyclopedia succeeds very well in its goal to "convey information to an educated audience without expertise in the subject area of the
individual entry’’ (Introd.) and is recommended to libraries of all sizes.—S.S.

HISTORY

Yet another monument to the era of glasnost, this guide is the first comprehensive handbook on Soviet state archives to be produced since 1956 (Guide DC557) and as such represents an essential addition to any collection attempting to provide support for advanced-level Russian or Soviet studies. (It should be noted that the state archival system is but one, albeit the largest, component of the Soviet archival universe. It does not, for example, include such important repositories as the Party and Komsomol archives, Academy of Sciences archives, manuscript divisions of museums and libraries, ministerial archives, or the State Film Archive.)

The entries are arranged by union republic, and within each of those sections description of central archives precedes those of provincial or local ones. An index of proper names provides some limited additional access to contents.

Each entry begins with the address and telephone number of the institution, followed by the number of collections and archival units (with special notice, where appropriate, of photographic and some other special types of material) and by an indication of the chronological range of the holdings. This is followed by a concise and useful summary of each institution’s history and previous names, if any, as well as by an overview of the archive’s holdings and some of its most important collections. At the end of each entry, bibliographical citations are provided to the official guide or guides (generally not more than two) to the holdings of each institution. A short bibliography of published surveys of particular groups of archives is also included at the end of the work.

Naturally, this brief guide falls short of providing the depth of coverage, bibliography, and even access to finding aids available in the volumes of Patricia Ken-
ent perspectives on each subject area. Many of the articles are written by authorities in the field (e.g., Alan Brinkley on Huey P. Long, Eugene Genovese on George Fitzhugh). An index of contributors and a general index complete the volume.

As with any work to which so many scholars from so many different disciplines have contributed, coverage is sometimes uneven. Log homes are treated in the "Art and Architecture," "Geography," and "Folklife" sections, but there is no article on Mount Vernon or Monticello. "Grits" are covered in "History and Manners," but "Okra" is considered "Folklife," so that the index must be used to locate every item concerned with food and foodways. Some essays seem at first glance to be marginal or unnecessary until one turns to them, e.g., "Pets" (southerners keep more dogs and wild critters) or "Thomas Merton" (he was cloistered in Kentucky). Taken as a whole, though, The Encyclopedia of Southern Culture is an impressive resource for both the reference desk and researchers. Where else could one find a concise article and bibliographic information on Goo Goo Clusters or Moon Pies?—B.J.


The field of demographic history has blossomed since the early 1980s, but the compilers feel that much publishing prior to this period is still of great interest. Thus this first volume covers books and journal articles published prior to 1983, while the second volume is promised to cover more recent research.

Demographic history has been broadly defined and "includes not only the basic patterns of population, but also the study of such things as family patterns and the social, economic, and political consequences of demographic trends, and further the hard quantitative data of population which cannot be fully understood without reference to the values people attach to their behavior (Pref.). This concern is evident in chapter 5, "Interaction of the Family and Demographic Events."

Each section begins with a commentary on the topic under consideration, which is a kind of selection aid. Then follows the bibliography of books and articles drawn from a wide range of journals, especially state and local history ones. The volume ends with indexes for author, geographic area, and major subject groupings not included in the table of contents, e.g., ethnic, nationality, or religious groups; occupation; gender, or age.

There is a wealth of information here both from the bibliographies and from the overviews. All levels of researchers will find this a useful tool. One hopes the second volume is not far behind.—E.M.

FRENCH HISTORY

The bicentennial celebration of the French Revolution has brought us such a number of books that it now seems as popular a topic as the Spanish Civil War or the Second World War. The following notes describe one bibliography and four dictionaries, two of them biographical, published in 1988 and 1989 on the French Revolution.


Originally published as a special number of Préfaces, the book trade journal, this bibliography lists more than 1,000 French imprints, available as of January 1989, relating to the French Revolution. The arrangement is by subject with author and title indexes. A brief note explains the theme of a book when it is not apparent from the title.


Caratini's Dictionnaire des personnages is
one of the most informative biographical dictionaries of recent vintage. It covers 3,000 people involved in the French Revolution, 1789-1795. Most entries are short and concise, ten to thirty lines in length. Adding to its usefulness are a thirty-page chronological table and a four-page bibliography.

Manceron is the author of several well-known books on the French Revolution and brings his personal insights into this interpretation of the activities of some 500 major and minor figures of the revolution. No bibliography.


In general, reference works by a team of historians have more successfully presented the multifaceted revolution, which had such a far-reaching effect on world history. One excellent example is the Dictionnaire critique de la Révolution française, ed. by Furet and Ozouf (Paris: Flammarion, 1988) and translated as A Critical Dictionary of the French Revolution. This is a collection of essays rather than a dictionary. Twenty-five specialists treat key events, ideas, institutions and participants, in addition to historiography of the revolution, from Edmund Burke to Karl Marx. Each essay is accompanied by a short bibliography and cross-references to other relevant sections in the book. Indexes by proper name and theme further enhance the ease of use, as does the alphabetical list of articles in all chapters. Informative illustrations in color are grouped by chapter—events, figures, institutions, ideas. The dictionary is a very good starting point for anyone interested in the revolution. In the future, when another group of scholars looks back on the coverage of the French Revolution, this book will represent what scholarship has attained in the late twentieth century.

As for the Paxton, it is a rather unsatisfactory piece of work, as all the entries are very short. This fact in itself should not mean that information is skimpy, but in this case, many articles are not informative or well written. For example, "Bibliothèque, national" has no reference to monastic and aristocratic collections that entered the library via confiscation during the revolution, nor does the ten-line history of the library refer to the depository system initiated by Francis I. The only reference in the article to the revolution is the fact that the institution changed its name from the royal library to the national library. Among English-language reference books on the French Revolution, the translation of Furet (above) or the earlier Historical Dictionary of the French Revolution, 1789-1799, edited by Samuel F. Scott and Barry Rothaus (Westport: Greenwood, 1985. 2v.) would be much more useful for a library collection.—J.S.
seems to be the same work but published in England.

An index to volumes 1-5 and to the supplements 1-6 of the new edition of *The Encyclopedia of Islam* (Guide BB524) has been compiled by Hilda and J. D. Pearson (Leiden: Brill, 1989, 295p.). "Not designed to be complete and all-embracing...rather the Index is an attempt to assist the researcher into the Muslim world in finding information which might be of use to him..." (Pref.). The earlier index covering volumes 1-3 is incorporated into this one.

The late Victorian and Edwardian periods are covered in volume 10 of *New Moulton's Library of Literary Criticism* (New York: Chelsea House, 1989. p.5569-6215. $70). The authors are presented in order by death date beginning with Richard William Church and ending with Lafcadio Hearn. A note is appended to the table of contents stating the index will appear in volume 11.

*Kuntz' Poetry Explication* (Guide BD653) has been partially superseded by *Guide to American Poetry Explication* (Boston: Hall, 1989). In two volumes, "Colonial and Nineteenth-century," compiled by James Ruppert (239p. $40) and "Modern and Contemporary," compiled by John R. Leo (546p. $60), the bibliography covers poetry explication from 1925 to 1988. Unfortunately one will still need Kuntz for British poetry explication.

The bibliographies have been much expanded in the second edition of James Jerome Murphy's *Medieval Rhetoric* (Toronto: Toronto Univ. Pr., 1989. 198p. Toronto Medieval Bibliographies, no.3; 1st ed., 1971) reflecting the growth of the field. Also for researchers in medieval English, volume 8, *Chronicles and Other Historical Writing* by Edward Donald Kennedy has appeared in the series *A Manual of the Writings in Middle English* 1050-1500 (New York: Modern Language Assoc., 1989. p.2597-2956. $32.50. For earlier volumes see Guide BD517). This volume includes discussion of the Anglo Saxon Chronicles, the Brut, Chronicles of Scottish History, etc., and cites scholarship published through 1987. The *Oxford Companion to Classical Literature* (Guide BD1394) has been revised by M. C. Howatson (Oxford Univ. Pr., 1989. 615p. £43) with the aim of broadening the scope to pay "more attention to the philosophy and political institutions" (Pref.) of the ancient world, e.g., "women, position of." The cut-off date for coverage is AD 519, with the closing of the philosophy schools in Athens. Cross-references, some pronunciation information, maps.


The Bibliothek für Zeitgeschichte has been issuing a number of interesting bibliographies since World War II, e.g., on the Vietnam War (Guide DE317). The newest is *Terrorismus* by Burkhard von Schassen and Christof Kalden (Frankfurt: Bernard und Graefe, 1989. 144p. Schriften n. F.27). About half of the bibliography treats terrorism generally, while the rest concentrates on the Bundesrepublik.

*America: History and Life* (Guide DB47) has modified its arrangement again. With volume 26 (1989) each quarterly issue will include article abstracts and citations to reviews and dissertations, i.e., there will not be separate issues for books reviews or an annual bibliography including dissertations cited in *Dissertations Abstracts*. Also, beginning with volume 26 citations to reviews of films, videos, microfilm and microfiche are included. A cumulative index is promised.


The newest volume in the series *Guide to Sources for British History Based on the National Register of Archives* (Guides DC294)
treats *Papers of British Politicians 1782–1900* (London: HMSO, [1989]. 125p.). It focuses on locating papers for members of Parliament but excludes those already covered in volume 1, *Papers of British Cabinet Members*. The volume also registers papers of private secretaries of senior politicians, political hostesses, party managers, national political agents, political journalists and local politicians.

Wainwright and Matthews issued a *Guide to Western Manuscripts and Documents in the British Isles Relating to South and South East Asia* in 1965 (Guide DE17). J. D. Pearson has issued the first volume of a supplement, *A Guide to Manuscripts and Documents in the British Isles...* (London: Mansell, [1989]. 319p.), which covers London libraries and archives. Based on visits and published and unpublished lists and articles, the volume describes changes in location and additions to collections and gives details of the India Office holdings (now in the British Library). Also listed are finding aids and references to publications where blocks of manuscripts have been printed.

Fascicles 2 and 3 of Volume 4 of *Encyclopedia Iranica* (London: Routledge and Kegan Paul, 1989. Guide DE232) have a very interesting survey on “Bibliographies and Catalogues in the West and in Iran” that focuses on “catalogues of manuscripts and bibliographies of printed works on Iran compiled by scholars in Europe (including Russia) and North America” (p.214) and “Persian-language catalogues of manuscripts preserved in libraries in Iran and elsewhere” (p.219).
Reported Relative Value of Journals versus Use: A Comparison

Marifran Bustion and Jane Treadwell

In the fall of 1987 the Sterling C. Evans Library cancelled subscriptions to approximately 1,000 serials that faculty reported as being marginal or irrelevant to instruction and research at Texas A&M University. During the spring semester 1988 a use study of journals received in the Current Periodical department was conducted to determine if patterns of use coincided with reports of relative importance. All cancelled titles received in Current Periodicals were included in the study.

In combination with other collection management reviews, libraries conduct use studies of serials to determine the extent serials are used, the age at which they are no longer useful, which subjects are used more heavily than others, and which titles should be considered core journals in each subject. Results of use studies aid in collection management, development and update of circulation policies, and budget control justification.

In response to the rising costs of serials and a materials budget that was increasingly devoted to serials, the Sterling C. Evans Library at Texas A&M University conducted a serials review process during the spring of 1987 to determine which serials subscriptions could be cancelled. Before the serials review project, serials had not been tracked by subject or department. As a preliminary step to the review process, collection development librarians assigned departments (up to four) to each title. For instance, the title Advances in Electronics and Electron Physics was assigned to the Electrical Engineering, Biochemistry and Biophysics, and Range Science departments. Faculty were then asked to score those titles believed to be of interest to their department. The faculty were also asked to indicate which titles could be cancelled. After scores were returned and reviewed, librarians initiated cancellation proceedings.

Because the cancellations were to be effective with the next calendar year, there was insufficient time to conduct a use study prior to cancellation to determine the relevance of faculty scores to journal use. Public institutions often must make budget reduction decisions quickly and without time to gather all the data that might be desirable to support the decision. The Evans Library's serials review process, conducted without usage data as an element of the cancellation decision, is a case in point.

Although use studies are often conducted as a means of identifying titles to be cancelled or transferred to storage, they are seldom employed to justify budget

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Methods often used to determine the value of specific journals to researchers and students include examination of (1) interlibrary loan requests, (2) circulation statistics, (3) photocopying frequency, (4) citation analyses, (5) user surveys, and (6) use studies.5-8 The Evans Library employed the user survey method due to the need for rapid decisions.

After subscription cancellation decisions were made, based on faculty scores, the user survey was conducted to ascertain if current use coincided with faculty reports of relative value. The decision not to use other methods was made based on economic factors and appropriateness to questions considered in this study:

1. Interlibrary loan data can assist in identifying journals to be added to a collection and should be a factor in determining if subscriptions should be ordered. At the time cancellation decisions were made, the Evans Library was not ordering new subscriptions.

2. The library's circulation policy stipulates that periodicals do not circulate. The only exception is a short-term loan of four hours for photocopying. Because of the implementation of this policy, all periodicals that circulate are reshelved upon return with those items used in-house.

3. Users of the Evans Library do their own photocopying. After use, this material is also reshelved with all periodicals used in-house.

4. Citation analysis is useful as an aid in identifying those titles considered core journals in each subject, but was considered prohibitive for this study in terms of cost and time.

**PROBLEM STATEMENT**

When academic libraries undertake a serials cancellation project, faculty opinion of the relative importance of journal subscriptions is frequently solicited and considered in the final decision to cancel or retain subscriptions.9 This was the case at Texas A&M, where a major factor in the decision-making process was the determination by the faculty that a journal was either "essential" or "not related" to instruction and research. Those journals rated by the faculty as being not related to research were cancelled; those rated essential, or at least important, were retained.

After decisions were made and subscriptions cancelled, effective January 1988, the head of Resource Development and the Serials Librarian initiated a study to determine if patterns of use coincided with ratings of relative importance.

**METHODOLOGY**

During the review, faculty were asked to score titles in their subjects from one (considered essential to research and instruction) to five (not relevant to the department's needs). Figure 1 defines the five scores the faculty used and the two scores collection development librarians used in rating titles not scored by the faculty. (Some faculty refused to participate in the review process. Titles assigned to those departments were later appraised and scored by librarians.)

Journal subscriptions to be cancelled were identified only partly from the ratings of the faculty. Duplicate subscriptions of titles received at the Medical Science Library at Texas A&M University and most of the titles rated "not related to the department's instruction and research program" were automatically cancelled. Some departments scored only those titles considered essential; others scored only those titles considered essential and those not related to the department's needs; others refused to participate in the review process. A score of six was given to those titles not ranked by appropriate departments and judged, by resource development librarians, to be marginal or not related to the department's needs. Those titles not scored by the faculty but deemed by librarians to be relatively essential were given a score of seven (not ranked) and were retained.

The use study initiated by the Serials Librarian and head of Resource Development was conducted during the spring semester 1988. Reshelving counts of all cancelled periodicals and of a random sample of current periodical titles rated essential (score = one) were compared. The faculty rated 3,000 titles as essential; ap-
1. *Essential* for instruction and basic for research in broad areas of the discipline. Students and faculty consult this title regularly.

2. *Important* for the discipline though less closely related to existing instruction. May be of considerable importance for advanced research but not as broadly applicable to the instruction and research program as item 1 above.

3. *Useful* but not basic or central to instruction and research programs of the university. May fill individual research needs; these are likely to be highly specialized. (Interlibrary loan access would be satisfactory.)

4. *Marginal* to the department’s instruction and research program and infrequently consulted. May serve occasional research needs; rarely used for instruction. (Interlibrary loan access would be satisfactory.)

5. *Not related* to the department’s instruction and research program; never consulted.

6. Same as 4 or 5 but assigned by the library if a department did not meet its 10 percent goal.

7. Not ranked by either faculty or the library.

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**FIGURE 1**

Rankings for Spring 1987 Serials Review Process

proximately 10 percent (315) were selected to be part of the study. The random sample was chosen from an alphabetic list of the 3,000 titles using a random-number generator. The library cancelled 998 serials subscriptions. Of those, 540 (54 percent) were periodicals. Of the more than 15,000 serials subscriptions, approximately 8,000 are periodicals. Current periodicals, for the purposes of this study, were considered those serials with a publication schedule of more than once a year, with regular numbering, and that were no more than eighteen months old. Monographic series, newspapers, annuals, and other nonperiodical serials were excluded from both groups. The study was not intended to identify further titles for cancellation.

"The library cancelled 998 serial subscriptions. Of those, 540 (54 percent) were periodicals."

Answers to the following questions were sought:

1. Was the use of cancelled journals low enough to warrant cancellation?
2. Did those journals scored essential indicate, by use, their necessity to researchers?
3. Were there variations in use patterns by subject area?
4. Could more use be expected of essential journals prior to indexing than of non-essential titles? That is, if a journal is considered essential, would it be browsed more during the first year of receipt than less-essential journals?

A use study that would have included bound periodicals was beyond the resources of the library in the spring of 1988, since the Shelving Unit of the Circulation Division was involved in a storage project. The investigators were limited to the questions, Are journals that are considered essential consulted during their first year in the library? and Which disciplines engage in browsing of current periodicals?

A file of all serials titles was created using dBase III+ as a management tool for the review process. This file was manipulated to allow easy identification of the two groups of titles and to sort in alphabetic and call number order. One list of all titles was in alphabetic order for serials check-in staff to use to mark their paper records with bright orange dots. As issues were received, checkers attached an orange dot to the issue.

Another list was in call number order for staff in the Current Periodicals Depart-
ment (CPD) to use as they reshelved issues. A log sheet that listed the journal titles in call number order, double-spaced, was forty pages long. Student assistants in the CPD indicated use of each item with tick marks as it was reshelved.

At the end of the semester, all pages were collected and totaled. Data were entered into the dBase III+ file and exported to Lotus 1-2-3. Data were then manipulated to provide information indicating the number of times each journal title was reshelved.

Prior to the use study, acquisitions staff cancelled the appropriate subscriptions with vendors and publishers. However, internal notification of cancellations was not initiated until after the use study was completed so that patrons and staff were not immediately aware of which subscriptions had been cancelled. There was no announcement, except to those staff directly involved, that a use study was in progress. As one study indicated, signs posted reminding patrons not to reshelve material resulted in a higher patron use rate, therefore, no signs were posted asking users not to reshelve.

Binding Department staff were instructed not to bind any of the titles in the study until the end of the spring semester. This made available to users at least twelve months of each title.

RESULTS

The authors had no preconception of what number of uses should constitute low, medium, or high use. A study of the literature revealed that some consider only whether a title received use and set no standard for low, medium, or high use, although Charles Wenger and Judith Childress indicated that 100 uses per title in a six-month period was high use. This figure did not seem comparable to the Evans Library's study for two major reasons:

1. The Evans Library study was limited to current issues, while the Wenger/Childress study addressed use of back volumes as well as current issues.

2. The number of uses for a given title can be related to the number of persons, whether faculty or student, in that discipline. Use of a library collection in a large university may be different than that in a

![FIGURE 2] Cancelled Titles: Percentage of Use
small or medium-sized college or university.

For the purposes of this study, low use was arbitrarily defined by the authors as 1 to 15 uses per periodical, medium use as 16 to 75 uses, and high use as more than 75 uses during the fifteen weeks.

Figure 2 shows that 89 percent (482) of the cancelled periodicals received either no or low use, that 10 percent (54) of the cancelled periodicals received medium use, and that less than 1 percent (4) received high use.

"Of the four cancelled periodicals receiving high use, one, *Chain Store Age Executive with Shopping Center Age*, received 174 uses; the other, *Car Craft*, received 120 uses."

Of the four cancelled periodicals receiving high use, one, *Chain Store Age Executive with Shopping Center Age*, received 174 uses; the other, *Car Craft*, received 120 uses. *Chain Store Age* was reinstated as it was heavily used and faculty in the Business School requested it not be cancelled after the study began. *Car Craft* was not reinstated because it was used neither for instruction nor research.

Although the use of essential periodicals was slightly higher, as figure 3 indicates, most of the essential periodicals also received low use. Of the 315 periodicals in the essential sample, 80 percent (252) received zero or low use; approximately 15 percent (47) received medium use, and only 5 percent (15) received high use.

As the graph in figure 4 indicates, very few periodicals in either category, essential or cancelled, received high use. Although this was expected of the cancelled titles, higher use of a larger percentage of essential titles was predicted. Studies discussing this seeming inconsistency suggest the following as possible reasons:

1. Research or instruction in some areas was not active during the time period covered.
2. Reshelving statistics are not an accurate indication of use or importance.

The average number of uses for essential periodicals was 15; for cancelled periodicals, 6. The median use for essential periodicals was 3; for cancelled periodicals, one. Figure 5 lists the titles receiving high use.

Figure 6 compares the average use of titles within each Library of Congress classification. Because of the variable sample size, a comparison between classification is not statistically justified. Although the small sample size studied in a relatively short time span may have biased the results, a few classifications, especially D (History) and G (Geography) suggest heavier use among some cancelled titles than those rated essential. As can be seen in the graph, three of the classifications, A (General), L (Education), and U (Military Science), appear to have had heavier use than the small sample size would suggest. This can be partly explained by class assignments in Education and Military Science and by the popularity of general periodicals.

**PROBLEMS: WORK FLOW**

Because the study involved coordinating activities among the Circulation, Resource Development, and Acquisitions Divisions, it was helpful that the heads of the three divisions had formed a good working relationship. A major concern of the Current Periodicals staff was the time necessary for separating, counting, and reshelving periodicals during the study. The supervisor, who was involved in decision making from the beginning of the project, made a concerted effort to train the CPD staff in the necessary procedures, thus ensuring efficient counting and reshelving.

Some minor problems encountered by the CPD staff are discussed below.

**Incomplete Call Numbers**

Data entered during the original serials review (cancellation) process listed only the first six characters of each call number.
FIGURE 3
Essential Titles: Percentage of Use

FIGURE 4
Number of Uses: Essential versus Cancelled Titles
### Essential Titles

<table>
<thead>
<tr>
<th>Number of Reshelvings</th>
<th>Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>Ebony</td>
</tr>
<tr>
<td>87</td>
<td>Angewandte Chemie</td>
</tr>
<tr>
<td>94</td>
<td>Data Base</td>
</tr>
<tr>
<td>101</td>
<td>International Defense Review</td>
</tr>
<tr>
<td>129</td>
<td>Commonweal</td>
</tr>
<tr>
<td>132</td>
<td>Educational Technology</td>
</tr>
<tr>
<td>142</td>
<td>Audio</td>
</tr>
<tr>
<td>145</td>
<td>EOS Transactions. American Geophysical Union</td>
</tr>
<tr>
<td>162</td>
<td>Exceptional Children</td>
</tr>
<tr>
<td>210</td>
<td>Billboard</td>
</tr>
<tr>
<td>214</td>
<td>Learning</td>
</tr>
<tr>
<td>248</td>
<td>Life</td>
</tr>
<tr>
<td>274</td>
<td>Adweek</td>
</tr>
<tr>
<td>303</td>
<td>MacLean's</td>
</tr>
<tr>
<td>349</td>
<td>Phi Delta Kappan</td>
</tr>
</tbody>
</table>

### FIGURE 5
**Titles Receiving More Than Seventy-five Uses**

Neither cutter numbers nor numbers after the first decimal of the LC call number were entered. These truncated call numbers caused some confusion among the staff initially because current periodicals are shelved in call number order and some of them have similar titles. Although the problem was not resolved in time for this study, complete call numbers have been added to the file.

**Human Error**

Orange dots mistakenly attached to issues of approximately ten titles caused some confusion among the staff initially because current periodicals are shelved in call number order and some of them have similar titles. Although the problem was not resolved in time for this study, complete call numbers have been added to the file.

**Patron Curiosity**

Users questioned the purpose of the orange dots. The CPD staff, concerned about giving too much information, developed a general statement that indicated the dots were part of another department’s project (true) and did not affect the CPD. Users were not advised that some titles had been cancelled, although a list of cancelled titles was distributed to each department.

**Staff Involvement**

Before the work became routine, counting the use of these periodicals was a task that required constant attention and interrupted daily routines of the CPD. With about one-third of the library’s daily population using the CPD, it is one of the busiest departments in the library. The staff considered the additional task of counting excessive and burdensome. To alleviate these concerns, additional student assistance was offered and utilized.

**PROBLEMS: METHODOLOGY**

When the decision was made to conduct
FIGURE 6
Average Number of Uses per Title within Each LC Classification
a serials review process, there were only a few weeks to compile a list of more than 15,000 serials titles and assign them to appropriate academic departments. Because of this short time, it was impractical to conduct a use study before titles were cancelled.

Recognizing that use studies should be conducted before cancellation proceedings begin, it was decided to test the theory that titles identified as being of little or great interest to the faculty received use consistent with the faculty-assigned scores.

Below are some problems encountered with conducting a use study after cancellation decisions have been made.

Issues Received After Subscriptions Cancelled

Although most publishers cancelled subscriptions as directed, effective January 1988, some continued to send issues after the stop date. The library continued to receive issues of approximately 42 percent of the cancelled subscriptions for at least one month after the effective cancellation date. These titles were therefore more accessible to patrons than those for which no issues were received after the cancellation date.

Discouragement Factor

The library received no issues for most of the cancelled subscriptions after January 1988. About 17 percent of the cancelled subscriptions were not filled through the end of 1987 because the titles ceased publication, publishers stopped sending issues as soon as they received notification of the cancellation, or there were other problems with subscription agreements. Users first recognized that some issues were unavailable and inquired for them at the service desk. Without easy access to these issues, it was difficult to identify a normal use pattern of these titles.

Use of Older Issues

Informal observation suggested that some patrons, particularly those not in the sciences, tend to use older volumes of serials rather than current issues. Since only the use of current issues was examined in this study, speculation as to why some titles were not used would be conjecture.

Use versus Reshelving

There is much discussion in the literature concerning whether a reshelving count should be used as an indicator of the use of specific titles. According to Colin Taylor, even with "no reshelving" signs spread throughout the area, reshelving figures accounted for only 40 percent of the total number of consultations. For reasons of economy in funding and available time, each reshelving of an issue was considered a use of a title. Although observation of use in a confined area such as the CPD was possible, it was neither economically feasible nor an efficient use of staff to do so. Therefore, use of titles that were reshelved by the patron was not counted.

Reshelving is a continuous operation in the CPD, and the number of patrons actively using the collection is very high. Informal observation suggests more than one user may read an issue before it is reshelved. Only the number of times each issue was reshelved was considered in the study.

CONCLUSIONS

In general, the cancellation decisions were reaffirmed, as nearly 40 percent of subscriptions cancelled received no use during the study. Moreover, nearly 50 percent of those cancelled received very low use. Conversely, a high ranking by the faculty did not prove to be a predictor of high use. There appeared to be a very weak relationship between the perceived value of those periodicals scored as essential and the amount of use during the first year of receipt.

The use study conducted at the Sterling C. Evans Library raised additional questions. The lack of use of titles considered essential by the faculty to research and instruction suggests there are other areas to be considered before final conclusions can be reached regarding cancellation of low-use periodicals. Those with immediate implications to the Evans Library are:

1. If one-third of the user population goes to the CPD but the level of use among
periodicals is seemingly low, why are the users there?

2. If users do not browse "essential" journals in the library within the first year of receipt, do they browse them at all? Do they have access to these journals elsewhere, e.g., departmental or personal subscriptions? When in the course of a title's life do patrons use it?

3. What bearing do subscription costs have on the use or relevance of titles?

4. Why do some subject areas receive more use among current journals than others?

A recent survey by the Faxon Company found that 80 percent of academic libraries planned to cancel low-use journals during fiscal year 1988-89. However, the term low-use is not formally defined.

Despite the seemingly inconclusive results of the initial use study conducted at Texas A&M, the investigators recommend that a more elaborate use study be undertaken before the next cancellation project. To meet these needs, an additional study is in the planning stage to determine the use of current and back issues of titles in all subjects, price ranges, and scores.

REFERENCES


11. Ibid., p.37.

12. Rice, "Science Periodicals Use Study."


16. Ross, "Research Notes: Observations of Browsing Behavior."


19. Ross, "Research Notes: Observations of Browsing Behavior."

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This study investigated some of the factors associated with frequency of use of ERIC CD-ROM, including gender, age, level of familiarity with computers, and level of study. During the winter semester of 1988, 231 education students from Concordia University were surveyed. The instrument used was a mailed questionnaire, which elicited a 63.6% rate of return. The analyses carried out included frequencies of variables and cross-tabulations, using chi-square to test for independence between variables. All factors were found to be statistically significant with the exception of level of study. Since the results obtained for gender were strong, further analysis was carried out controlling for gender.

INTRODUCTION

With the emergence of new information technology, library users are increasingly involved in the use of computers. Although computers were originally used primarily in technical services, online circulation systems, online catalogs, and CD-ROMs are now increasingly available for use by the public.

Among the first CD-ROM products was the ERIC database, an index of educational resources published in paper as Current Index to Journals in Education and Resources in Education. ERIC CD-ROM was introduced by SilverPlatter in 1986, and Concordia University Libraries acquired it in February 1987. Through our work at the reference desk and through the response of education students to the "library experience," a library exercise many education teachers require students to complete as part of their course, we became aware that students required various levels of training. Since this instruction would be added to the work load of existing reference staff, it seemed important to determine if there were identifiable groups for whom instruction could be designed. To begin our research, we decided to investigate some of the factors that might be correlated to frequency of use of CD-ROM. This paper describes a pilot project conducted with education students at Concordia University and reports the results of our preliminary analysis.

REVIEW OF THE LITERATURE

Studies on user reaction to CD-ROM products are beginning to appear in the lit-
erature; however, none has addressed specifically frequency of use of CD-ROM. Studies of online catalogs are numerous, however, and since online catalogs are a related technology, some of these findings were of interest to us.

A landmark study by Matthews and Lawrence surveyed sixteen different online systems in twenty-nine libraries and more than 8,000 users and 4,000 nonusers. A combination of research methods consisting of surveys, online monitoring, focus group interviews, and feature analysis were used. This study found that "age, sex, education level, academic discipline and academic affiliation appear to be associated with frequency of library, online and other catalog use." Prior experience with computers was not found to be a significant variable for users of online catalogs. However, Matthews also found that "non-users have had much less experience with other computer systems when compared to users of the online catalog." In Lolley's study of university students' use of automated and card catalogs, he concluded that perhaps "a significant factor in the acceptance and use of the on-line catalog is previous experience with computers either in the work or home environment. Almost 60% of the students responding to the survey indicated such previous experience." Because opinion is divided and available research is on another technology (online catalogs), it seemed appropriate to investigate the influence of previous computer experience or computer-related skills on frequency of use of CD-ROM.

Among other factors, student status, age, and sex were studied. Student status, identified by Matthews as a significant factor affecting online catalog use, had also been examined in an academic setting by Pease and Gouke. Although neither study compared frequency of use of online catalogs by graduates and undergraduates, this was identified as an important factor for the purposes of our study.

Age was a variable looked at by both Lolley and Matthews. Lolley found that students under thirty preferred the online catalog over the card catalog, and Matthews noted that "non-users are slightly older than users of the online catalog." Collis examined sex differences in attitudes toward computers of 3,000 young adults and found that "males are consistently more positive about using computers than are females, and more likely to express interest and pleasure in using a computer." Therefore, females may be less frequent users of ERIC CD-ROM than males.

PROBLEM TO BE STUDIED

The purpose of the investigation was to determine if the frequency of student use of ERIC CD-ROM could be correlated to: (1) gender, (2) age, (3) range (extent) of experience with computers, and (4) student status. Since ERIC is an index of educational resources, our investigation was limited to use by education students.

In order to determine if the above factors were related to the use of ERIC CD-ROM, the following hypotheses were tested:

1. There is a statistically significant relationship between frequency of use of ERIC CD-ROM and gender.
2. There is a statistically significant relationship between frequency of use of ERIC CD-ROM and age.
3. There is a statistically significant relationship between frequency of use of ERIC CD-ROM and level of familiarity with computers.
4. There is a statistically significant relationship between frequency of use of ERIC CD-ROM and level of study.

DEFINITIONS

Some of the variables identified are described in further detail. The level of familiarity with computers was defined in terms of the following nine factors: (a) use of a computer at home; (b) use of a computer at work; (c) use of a computer in a place other than home or work, e.g., a friend's place, the university, a public library, etc.; (d) use of a computer for programming; (e) use of a computer for word processing; (f) use of educational software; (g) use of computer games; (h) having taken a computer course; (i) familiarity (level of ease/unease) with the computer keyboard. The level of familiarity with
computers was measured in terms of an aggregate score.

Student status was defined as undergraduate, master's, and doctoral. Within the undergraduate level were included all students registered in a program leading to a B.A. in Education and all students enrolled in the program leading to the Concordia University Certificate in Education. The graduate level was broken down into two groups, master's and doctoral candidates. The master's category included diploma students.

SIGNIFICANCE OF THE PROBLEM TO BE STUDIED

To date, few research studies have been published analyzing use of CD-ROM technology. End-user training is often mentioned as an area of concern because it is so time-consuming. Since most libraries have limited human and material resources, the results of this study may enable libraries to design workshops that target groups of students (e.g., older, female, undergraduate). If groups can be identified, it would be possible to tailor content and level of instruction to their needs. For example, if undergraduate students constitute a significant group of infrequent users, it may be advisable to include instruction in core undergraduate education courses. If females or mature students are infrequent users, workshops limited to these sex/age groups may be tailored to their needs. If familiarity with computers is an important factor in frequency of use, workshops may need to be designed and advertised as including a basic introduction to computers.

SAMPLING AND METHODOLOGY

The methodology used was a survey consisting of a mailed questionnaire dealing with frequency of use of ERIC CD-ROM. The population studied was students from the Education Department of Concordia University. For purposes of this study, students were grouped into three categories as outlined in table 1.

The size of each of our populations was determined by adding the number of part-time and full-time students within each group. Our sample size was determined by using the table published by Krejcie and Morgan. When we selected our random sample, we chose an equal number of part-time and full-time students at the undergraduate level, given that numbers of part-time and full-time students were almost equal at this level of study. All doctoral-level students were included in the sample.

To ensure an adequate return of the questionnaire, two mailings were planned and carried out. Of the 361 questionnaires mailed, 231, or 63.6%, were returned. As an incentive for the students to return the questionnaire, we offered to those willing to include their names, addresses and telephone numbers an opportunity to participate in a drawing for two gift certificates to be used at a local bookstore.

A pretest of the survey instrument was carried out using a sample of twenty-five students. The wording of several questions was changed to clarify the meaning, based on the suggestions of two experienced researchers. The revised questionnaire was pretested again using a sample of fourteen staff members.

DATA ANALYSIS

The SPSS/PC+ statistical package was used to analyze the data collected in our study. Missing cases were accounted for in all the statistical procedures. Frequen-

<table>
<thead>
<tr>
<th>TABLE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT ENROLLMENT, SAMPLE SIZE, AND QUESTIONNAIRES RETURNED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of Study</th>
<th>Student Enrollment Number</th>
<th>%</th>
<th>Sample Size Number</th>
<th>%</th>
<th>Questionnaires Returned Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. and Certificate</td>
<td>264</td>
<td>47</td>
<td>160</td>
<td>44</td>
<td>88</td>
</tr>
<tr>
<td>Diploma and Masters</td>
<td>277</td>
<td>50</td>
<td>184</td>
<td>51</td>
<td>128</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>17</td>
<td>3</td>
<td>17</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>No status given</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>558</td>
<td>100</td>
<td>361</td>
<td>100</td>
<td>231</td>
</tr>
</tbody>
</table>

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cies, the first analysis carried out on the data, tabulated the number of responses in any one category. These were reported in percentages.

The second analysis carried out on the data was cross-tabulation, using chi-square to test for independence between variables. The variable frequency of use of ERIC CD-ROM was tested for possible association with the following variables: age, gender, level of familiarity with computers, and level of study. The level of significance chosen for this study was .05.

In addition to the chi-square analysis, the strength of the relationships was tested in the following manners: hypothesis 3 was tested using Somers' D; hypotheses 1 and 4 were tested using Cramer's V; and hypothesis 2 was testing using Kendall's Taub.13

RESULTS

When frequency of ERIC CD-ROM use was cross-tabulated with gender, age, and, level of familiarity with computers respectively, the results of the chi-square tests were all significant at a level of at least .05. The hypotheses were accepted at this level of significance.

When frequency of ERIC CD-ROM use was cross-tabulated with level of study, the result of the chi-square test was significant at a level of .0565. Consequently, the hypothesis was rejected; i.e., no significant relationship was found between level of study and frequency of ERIC CD-ROM use (see table 7).

<table>
<thead>
<tr>
<th>CD-ROM Use</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>94</td>
<td>54.0%</td>
</tr>
<tr>
<td>Once</td>
<td>19</td>
<td>10.9%</td>
</tr>
<tr>
<td>2-5 times</td>
<td>42</td>
<td>24.1%</td>
</tr>
<tr>
<td>6 or more times</td>
<td>19</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>F</th>
<th>M</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td>20</td>
<td>114</td>
</tr>
<tr>
<td>Once</td>
<td></td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>2-5 times</td>
<td></td>
<td>15</td>
<td>57</td>
</tr>
<tr>
<td>6 or more times</td>
<td></td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td>Column Total</td>
<td></td>
<td>57</td>
<td>231</td>
</tr>
</tbody>
</table>

Number of Missing Observations = 0  Chi-Square = 15.29926  df = 3  Significance = .0016  Cramer's V = .25735

TABLE 2
CROSS-TABULATIONS FREQUENCY OF CD-ROM USE BY GENDER

DISCUSSION

The value of Cramers' V for the frequency of CD-ROM use by gender in table 2 is .25735. This value, in conjunction with a chi-square significance level of .0016, suggests that a fairly strong relationship exists between a student's gender and frequency of CD-ROM use. The correlation between gender and frequency of use is evident at all levels (see table 2), but is most marked at the level of greatest use. As expected from the literature, men were more likely to use and continue to use ERIC CD-ROM. Matthews found that "the typical user of the online catalog is male."14 Given the strong correlation between gender and frequency of use, when analyzing the relationship between frequency of use and other factors (e.g., age, status, etc.), we analyzed males and females independently as well, in order to see whether apparent correlations with other factors might actually be indirect gender effects. The data for these analyses are reported in tables 4, 6 and 8.

From table 3 we see that there is a statistically significant relationship between age and frequency of CD-ROM use in the total population. However, when age and frequency of use are analyzed controlling for gender, results are statistically significant only for females (table 4). That is, when age and frequency of use are tabulated separately for males and females, only the relationship between females and frequency of use is significant at the .05 level. Although the results for males were
### TABLE 3
CROSS-TABULATIONS FREQUENCY OF CD-ROM USE BY AGE

<table>
<thead>
<tr>
<th>CD-ROM Use</th>
<th>Count Column %</th>
<th>to 24</th>
<th>25-34</th>
<th>35-44</th>
<th>45 and older</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>34</td>
<td>43</td>
<td>14</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td></td>
<td>43.1%</td>
<td>41.5%</td>
<td>66.2%</td>
<td>43.8%</td>
<td>49.1%</td>
<td></td>
</tr>
<tr>
<td>Once</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.8%</td>
<td>7.3%</td>
<td>7.7%</td>
<td>18.8%</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>2-5 times</td>
<td>17</td>
<td>24</td>
<td>9</td>
<td>7</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33.3%</td>
<td>29.3%</td>
<td>13.8%</td>
<td>21.9%</td>
<td>24.8%</td>
<td></td>
</tr>
<tr>
<td>6 or more times</td>
<td>6</td>
<td>18</td>
<td>8</td>
<td>5</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.8%</td>
<td>22.0%</td>
<td>12.3%</td>
<td>15.6%</td>
<td>16.1%</td>
<td></td>
</tr>
<tr>
<td>Column total</td>
<td>51</td>
<td>82</td>
<td>65</td>
<td>32</td>
<td>230</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22.2%</td>
<td>35.7%</td>
<td>28.3%</td>
<td>13.9%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Number of Missing Observations = 1  Chi-Square = 17.26492  df = 9  Significance = .0447  Kendall’s Tau B = -.08783

### TABLE 4
CROSS-TABULATIONS FREQUENCY OF CD-ROM USE BY AGE CONTROLLING FOR GENDER

<table>
<thead>
<tr>
<th>CD-ROM Use</th>
<th>Count Column %</th>
<th>to 24</th>
<th>25-34</th>
<th>35-44</th>
<th>45 and older</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>21</td>
<td>29</td>
<td>31</td>
<td>12</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td></td>
<td>44.7%</td>
<td>48.3%</td>
<td>77.5%</td>
<td>46.2%</td>
<td>53.8%</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>5</td>
<td>12</td>
<td>2</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.9%</td>
<td>22.7%</td>
<td>14.8%</td>
<td>33.3%</td>
<td>35.1%</td>
<td></td>
</tr>
<tr>
<td>Once</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.6%</td>
<td>6.7%</td>
<td>12.5%</td>
<td>19.2%</td>
<td>11.0%</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.9%</td>
<td>9.1%</td>
<td>0.0%</td>
<td>16.7%</td>
<td>7.0%</td>
<td></td>
</tr>
<tr>
<td>2-5 times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>18</td>
<td>3</td>
<td>5</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>34.0%</td>
<td>30.0%</td>
<td>7.5%</td>
<td>19.2%</td>
<td>24.3%</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.0%</td>
<td>27.3%</td>
<td>24.0%</td>
<td>33.3%</td>
<td>26.3%</td>
<td></td>
</tr>
<tr>
<td>6 or more times</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>18</td>
<td>3</td>
<td>5</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>34.0%</td>
<td>30.0%</td>
<td>7.5%</td>
<td>19.2%</td>
<td>24.3%</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.0%</td>
<td>27.3%</td>
<td>24.0%</td>
<td>33.3%</td>
<td>26.3%</td>
<td></td>
</tr>
<tr>
<td>Column total</td>
<td>Female</td>
<td>47</td>
<td>60</td>
<td>40</td>
<td>26</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>27.2%</td>
<td>34.7%</td>
<td>23.1%</td>
<td>15.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.0%</td>
<td>38.6%</td>
<td>43.9%</td>
<td>10.5%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Female: Chi-Square = 19.77204  Male: Chi-Square = 8.15426  Significance = .0194  Significance = .5187  Kendall’s Tau B = -.12299  Kendall’s Tau B = -.14104

NOTE: Column percentages are calculated separately for female and male respondents.

not statistically significant, we examined the data to identify trends.

The strength of the relationship between frequency of use and age of females is a fairly weak, negative association, as indicated by the value of Kendall’s Tau B of -.12299. That is, frequency of use is inversely associated with age in females.

For men, if we combine the frequency-of-use categories of 2–5 times and 6 or more times across the age groupings, we see that use of CD-ROM two or more times holds fairly constant at approximately 50% across the table, with the exception of the 25-to-34 age grouping. Here the percentage increases to 68.2%. The men in this age group may be full-time students who have more discretionary
time than working students who study part-time, or they may be enrolled in computer-related programs (e.g., educational technology or computer-assisted learning). In future surveys it would be desirable to ask students to identify their program of study or specialization.

If we combine the same frequency-of-use categories for women as we did for men (i.e., 2–5 times and 6 or more times), we see that the percentage of women using CD-ROM two or more times holds at approximately 45% up to age 34, drops to 10% in the 35-to-44 age group, and rises again to 34.6% in the 45+ age group. This lower use by females in the 35-to-44 age group may be attributed to a period in life occupied with child rearing and career advancement, when family and/or work commitments may allow little time for experimenting with new technology. Further investigation is needed to determine if lower use in this age group is typical for all women and if so, why. It is also interesting to note that 48% of the males in this age group have never used CD-ROM. Perhaps the same factors are at work for both men and women in this age group.

In the age category up to 24 years, it is difficult to draw conclusions concerning the effects of gender. Although the females are fairly evenly divided between never/once (55.3%) and two or more times (44.6%), there are too few males (four) to report trends.

Again, in students over 45, it is not possible to see trends for male users, as the group includes only six men. The women in this age group are concentrated in the never category of use (46.2%).

In summary, patterns of frequency of use differ for men and women in the 25-to-34 and 35-to-45 age groups. For men, an increase in use was noted in the 25-to-34 age group, with more or less consistent levels of use in the remaining age groups. For women, there was a noticeable decrease in the frequency of use in the 35-to-44 age group. These preliminary findings seem to indicate that patterns of use vary for males and females in different age groups, but further investigation is needed.

Table 5 shows that there is a statistically significant relationship between level of familiarity with computers and frequency of CD-ROM use in the total population, as evidenced by a significance level of .0171. However, a Somers’ D value of .17321 indicates that the strength of the association is relatively weak. When familiarity with computers and frequency of use are analyzed controlling for gender, there is no statistically significant relationship (table 6). That is, when familiarity and frequency of use are tabulated separately for males and females, neither relationship is statistically significant at the .05 level. However, we analyzed the results to identify trends.

In Table 6, the column totals show the distribution of females and males across

### TABLE 5

<table>
<thead>
<tr>
<th>CD-ROM Use</th>
<th>Count Column %</th>
<th>Score 9-13</th>
<th>Score 14-18</th>
<th>Score 19-24</th>
<th>Score 25-30</th>
<th>Score 31-36</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>21</td>
<td>58.3%</td>
<td>56.0%</td>
<td>50.0%</td>
<td>40.7%</td>
<td>34.5%</td>
<td>48.4%</td>
</tr>
<tr>
<td>Once</td>
<td>21</td>
<td>58.3%</td>
<td>56.0%</td>
<td>50.0%</td>
<td>40.7%</td>
<td>34.5%</td>
<td>48.4%</td>
</tr>
<tr>
<td>2-5 times</td>
<td>18</td>
<td>16.7%</td>
<td>6.0%</td>
<td>14.0%</td>
<td>9.3%</td>
<td>3.4%</td>
<td>10.0%</td>
</tr>
<tr>
<td>6 or more times</td>
<td>12</td>
<td>16.7%</td>
<td>28.0%</td>
<td>22.0%</td>
<td>33.3%</td>
<td>20.7%</td>
<td>25.1%</td>
</tr>
<tr>
<td>Column total</td>
<td>36</td>
<td>16.4%</td>
<td>22.8%</td>
<td>22.8%</td>
<td>24.7%</td>
<td>13.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Number of Missing Observations = 12  
Chi-Square = 24.54212  
df = 12  
Significance = .0171  
Somers’ D = .17321
TABLE 6
CROSS-TABULATIONS FREQUENCY OF CD-ROM USE BY LEVEL OF FAMILIARITY WITH COMPUTERS CONTROLLING FOR GENDER

<table>
<thead>
<tr>
<th>CD-ROM Use</th>
<th>Count</th>
<th>Score 9-13</th>
<th>Score 14-18</th>
<th>Aggregate Score Score 19-24</th>
<th>Score 25-30</th>
<th>Score 31-36</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Female</td>
<td>21</td>
<td>26</td>
<td>17</td>
<td>18</td>
<td>4</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Once</td>
<td>Female</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>15.2%</td>
<td>6.8%</td>
<td>13.9%</td>
<td>10.3%</td>
<td>9.1%</td>
<td>11.0%</td>
</tr>
<tr>
<td>2-5 times</td>
<td>Female</td>
<td>33.3%</td>
<td>0.0%</td>
<td>14.3%</td>
<td>6.7%</td>
<td>0.0%</td>
<td>7.1%</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>15.2%</td>
<td>25.0%</td>
<td>25.0%</td>
<td>33.3%</td>
<td>27.3%</td>
<td>25.2%</td>
</tr>
<tr>
<td>6 or more times</td>
<td>Female</td>
<td>33.3%</td>
<td>50.0%</td>
<td>14.3%</td>
<td>33.3%</td>
<td>16.7%</td>
<td>25.0%</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>6.1%</td>
<td>9.1%</td>
<td>13.9%</td>
<td>10.3%</td>
<td>27.3%</td>
<td>11.0%</td>
</tr>
<tr>
<td>Column total</td>
<td>Female</td>
<td>20.2%</td>
<td>27.0%</td>
<td>22.1%</td>
<td>23.9%</td>
<td>6.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>5.4%</td>
<td>10.7%</td>
<td>25.0%</td>
<td>26.8%</td>
<td>32.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Female: Chi-Square = 9.87957  Male: Chi-Square = 15.62582
Significance = .2625  Significance = .2090
Somers’ D = .13947  Somers’ D = .15838

NOTE: Column percentages are calculated separately for female and male respondents.

the scores. Women are fairly evenly distributed across the scores from 9 to 30, varying from a low of 20.2% to a high of 27.0%. At the highest score level, there are only 6.7% of the women. On the other hand, the percentage of men increases as the score levels increase. In fact, only 16.1% of the men have scores lower than 19. When we look at levels of frequency of use, the numbers of men are so low in score categories 9-13 and 14-18 that no trends can be seen. For men, their computer experience does not appear to be associated with their frequency of CD-ROM use except at the level of 6 or more times in the score categories of 19-24 and higher.

In the never category of use, the percentage of females decreases across the scores from a high of 63.6% in the 9-13 category to a low of 36.4% in the 31-36 score category. Conversely, at the level of use of 6 or more times, the percentage of women increases as the scores increase, with a slight decrease in percentage in the 25-30 score category. That is, the percentage ranges from a low of 6.1% in the lowest score category to a high of 27.3% in the highest score category. These trends indicate an association between frequency of CD-ROM use and familiarity with computers for women. This agrees in part with Matthews’ study, which found a correlation between nonuse of online public access catalogs and less experience with computers. We found a corresponding correlation in nonuse of ERIC CD-ROM for women.

The correlation between level of study and frequency of use was not found to be statistically significant at the .05 level (table 7). However, at the level of use of 6 or more times, there was a correlation in that there were 7.9% of the undergraduates and 21.1% of the graduates. When level of study and frequency of use are analyzed controlling for gender, neither relationship is statistically significant at the .05 level (table 8), but the trend found in the
### TABLE 7
CROSS-TABULATIONS FREQUENCY OF CD-ROM USE BY LEVEL OF STUDY

| CD-ROM Use | Count | Level of Study | 
|------------|-------|----------------|---|
|            | Column% | Undergraduates | Graduates | Row Total |
| Never      | 48     | 66             | 114        | 53.9% 46.5% 49.4% |
| Once       | 11     | 12             | 23         | 12.4% 8.5% 10.0% |
| 2-5 times  | 23     | 34             | 57         | 25.8% 23.9% 24.7% |
| 6 or more times | 7   | 30             | 37         | 7.9% 21.1% 16.0% |
| Column total | 89   | 142           | 231        | 38.5% 61.5% 100.0% |

Number of Missing Observations = 0  
Chi-Square = 7.54257  df = 3  Significance = .0565  Cramer’s V = .18070

### TABLE 8
CROSS-TABULATIONS FREQUENCY OF CD-ROM USE BY LEVEL OF STUDY CONTROLLING FOR GENDER

| CD-ROM Use | Count | Level of Study | 
|------------|-------|----------------|---|
|            | Column% | Undergraduates | Graduates | Row Total |
| Never      | Female  | 45             | 49         | 57.0% 51.6% 54.0% |
|            | Male    | 3              | 17         | 30.0% 36.2% 35.1% |
| Once       | Female  | 9              | 10         | 11.4% 10.5% 10.9% |
|            | Male    | 2              | 2          | 20.0% 4.3% 7.0% |
| 2-5 times  | Female  | 20             | 22         | 25.3% 23.2% 24.1% |
|            | Male    | 3              | 12         | 30.0% 25.5% 26.3% |
| 6 or more times | Female  | 5   | 14         | 6.3% 14.7% 10.9% |
|            | Male    | 2              | 16         | 20.0% 34.0% 31.6% |
| Column total | Female  | 79             | 95         | 45.4% 54.6% 100.0% |
|            | Male    | 10             | 47         | 17.5% 82.5% 100.0% |

Female: Chi-Square = 3.13650  Significance = .3711  Cramer’s V = .13426  
Male: Chi-Square = 3.57968  Significance = .3106  Cramer’s V = .25060

NOTE: Column percentages are calculated separately for female and male respondents.

The part of graduate students is not unexpected, given that at this level of study more research is required.

In addition to the questions testing the hypotheses, several questions were asked for administrative purposes. In order to determine if further publicity was needed, we asked students when they first learned the library had acquired ERIC CD-ROM.
Although 43.5% of our respondents reported learning of ERIC CD-ROM between February and September 1987, there were still 24.3% who learned of it only through our questionnaire.

We asked students who had used ERIC CD-ROM if they planned to use it again in order to determine if this was an area requiring further study. Only 7% of the students who had tried ERIC CD-ROM reported that they would not use it again. Of those who had not used it, 82% planned to do so. It would appear that students are receptive to this new technology and, having tried it, are planning to use it again.

Respondents were asked if they would be interested in instruction classes, if available, and 76.9% replied affirmatively. Since the time of our survey, SilverPlatter has added a tutorial to the ERIC software that may partially meet this need. Further investigation will be required to ascertain its effectiveness.

**SUMMARY AND CONCLUSIONS**

The results of this study may enable libraries to concentrate limited resources and personnel in areas where the greatest need has been identified. Some of these areas are discussed below.

Since a correlation was found between frequency of use of ERIC CD-ROM and level of familiarity with computers for women, training sessions for people with little or no previous computer experience might include a very basic introduction to computers and the computer keyboard, as well as instruction in elementary searching techniques. Ideally, hands-on experience would be an invaluable part of these workshops.

Since the results of our study indicate that frequency of use is not significantly related to level of study, it may not be essential to hold separate workshops for undergraduate and graduate students. Results associated with age may indicate the advisability of holding workshops for mature students so that presentations can be geared to their needs. Furthermore, it may be advisable to publicize to mature students the advantages of learning to use CD-ROM, e.g., eventual time savings and the ability to combine concepts.

As noted earlier, many education students have had an extensive introduction to the library because they must complete as part of a course requirement a very detailed library experience which requires them to use education indexes. In fact, 78.8% use the library at least once a month, and only 4.3% never use the library. Therefore, increased general library instruction and increased library publicity would have minimal impact on this population.

A surprising finding was the fact that 24.3% of our respondents learned that the library had acquired ERIC CD-ROM through our survey, although it was extensively publicized when acquired. This finding may indicate the need for continuing and/or specialized publicity, perhaps through such channels as the registration process.

Of our respondents, almost half had never used ERIC CD-ROM. This can partially be accounted for by the fact that half of the nonusers were unaware of its existence prior to our survey. However, further investigation may determine other factors that may be influencing nonuse. For example, do students not have a need to use indexes within certain programs of study? Do some working students have access to library materials through their school board library?

Since ERIC is an index of educational resources, it seemed appropriate to limit our study to education students. Future studies might incorporate more academic disciplines and appropriate CD-ROM products. It would also be useful to compare the response of students in several universities. It is interesting to note that our population is 75% female and 25% male. When we look at level of study, the women are almost evenly divided between undergraduates (45.5%) and graduates (54.6%), while the men are primarily graduate students (82.5% graduates as compared with 17.5% undergraduates). This profile may be typical of most education departments, but further investigation would be necessary to verify this.

In conclusion, this preliminary research has identified some factors associated
with frequency of use of ERIC CD-ROM in education students at Concordia University. However, further studies are needed to determine whether these findings are valid for students in other universities and in other disciplines.

REFERENCES


12. Diane Mittermeyer, Assistant Professor, McGill University, Graduate School of Library and Information Science, and John Leide, Associate Professor, McGill University, Graduate School of Library and Information Science.


To the Editor:

The authors of "Library Collection Deterioration: A Study at the University of Illinois at Urbana-Champaign" (C&RL, Sept. 1989) wish to acknowledge the contributions of their colleagues on the Preservation Committee in the early stages of their research. They were unintentionally not cited: Madhavarao Balachandran, Martha Landis, Ruth McBride, Dedrick Ward, and our graduate assistant Patricia Palmer.

DAVID A. COBB
Map and Geography Librarian, University of Illinois at Urbana

To the Editor:

I read with renewed interest "The Bottomless Pit, or the Academic Library as Viewed from the Administration Building," by Robert F. Munn, who as cited in the footnote "is Acting Provost and Dean of the Graduate School at West Virginia University" (College & Research Libraries, November 1989).

Dr. Munn was Dean at WVU at the time of his death in 1986. He was an articulate and keen-minded visionary with a superb analytical ability. His twenty-two-year-old article attests to that and still provides us with food for thought. I and others who knew him well have lost a great colleague.

Though the article is a reprint, I believe that a simple note indicating the author's departure would be appropriate.

WILLIAM Z. NASRI
Associate Professor of Library Science, University of Pittsburgh

To the Editor:

In 1984, Public Affairs Information Service, Inc., published PAIS Subject Headings, a copyrighted listing of the subject headings used in the PAIS online database and print publications. In 1989, without permission from PAIS, R.R. Bowker combined a subset of this list with subsets of the headings in seven other major thesauri and produced a book called Cross-Reference Index.

I am writing to inform you, and I hope you will in turn inform your readers, that the listing of terms from PAIS Subject Headings in the Cross-Reference Index has many omissions, incorrect spellings, and inaccuracies and is five years out of date. PAIS was not consulted when this list was compiled. Following our protest, Bowker decided to stop distributing the book.

The subsets of the other thesauri that appear in the Cross-Reference Index are even more out of date, having been published between 1980 and 1983, and in at least some instances, also have inaccurate terminology.

We hope that those of your readers who have purchased the Cross-Reference Index will not use it to search PAIS publications. In many instances, it will be misleading. An accurate and up-to-date version of our thesaurus can be found on Dialog and on PAIS on CD-ROM. A second print edition of PAIS Subject Headings will be published by PAIS in 1990. It will also be copyrighted.

BARBARA M. PRESCHEL
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**BOOK REVIEWS**


OPACs and Beyond is a collection of thirteen papers prepared for presentation at the second annual invitational conference held at OCLC Online Computer Library Center in Dublin, Ohio. The conference, a joint meeting of the British Library, DBMIST (Direction des Bibliothèques, des Musées et de l'Information Scientifique et Technique), and OCLC, centered around the OPAC (online public access catalog) and interrelated automated systems and projects.

The first of four sessions was chaired by Martin Dillon, Director, Office of Research, OCLC, and began with a review by Derek Greenwood of the British Library on OPAC installations and the current state of library automation in the United Kingdom. Subject retrieval, enhancing of bibliographic records (such as enhanced records from publishers' or booksellers' records), and linking systems and databases were areas covered. Even though users have become more sophisticated in their demands, the aim remains to provide users ready and simple access to information through OPACs.

The MLR (Managing Large Retrievals) Project, sponsored by the OCLC Office of Research, was highlighted as research undertaken to focus on providing the end user an overview of retrieval and how to navigate through long lists of references. Of continued attention was the MARC record, suggested as a source of information.

Session two, chaired by Brian Perry, Director of Research and Development for the British Library, concentrated on the OPAC through information retrieval, subject authority control, and problems encountered with large databases and multiple databases.

Stephen E. Robertson, professor in the Department of Information Science at the City University of London, discussed the relation of information retrieval to interactive library catalogs.

The next paper reviewed "Subject Authority Control in Online Catalog Design," a four-phased project from September 1987 to December 1988 supported by the OCLC Office of Research and the University of Michigan. The study of machine-readable Library of Congress Subject Headings was considered a very important step toward effectively designing systems for the incorporation of Library of Congress Subject Headings-machine readable in online bibliographic systems.

The session ended with Clifford A. Lynch, Director of Library Automation at the University of California, Berkeley, who viewed as top priority for library automation in the next decade the elimination of the distinction between books and journal articles.

Serge Chambaud of DBMIST chaired the third session, which began with a pa-
per on the future of academic library OPACs. Lynn J. Brindly from Aston University in Birmingham, England, reviewed major findings of past studies largely undertaken by OCLC. Users want more services, such as more terminals in and out of the library, subject searching improvements, and greater database access to more materials. For progressing toward the future, an emphasis was suggested on expert systems, graphics, multimedia tools, and electronic publishing. Subject searching and its enhancements were considered as key stepping stones into the future.

Another representative from the OCLC Office of Research gave a paper on "Union Catalogs on Personal Supercomputers," with the observation that searching features are restricted by slow access to centralized systems. A prediction was made that changes will occur in database storage, availability of name matching, better color and graphics display, demand of instant results, and increased speed.

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THE HISTORIC NEW ORLEANS COLLECTION

Foremost in the designer's mind must be designing systems to make the user's life more pleasant and productive.

The Université de Technologie de Compiègne, France, had representatives at the conference presenting a paper on "Communicating in Natural Language with a Library Database." A database system, VORAS, based on semantics for knowledge representation, enables designers to flexibly represent and manipulate data and knowledge.

"Videotex for Open Access to Multiple Catalogues on Multiple Media" was presented by Cabinet Norbert Paquel, Consultant and Director, Laser Media, Paris. Because of the thousands of services offered on the network, standardization was emphasized as mandatory. Online databases produced by universities and institutes plus the use of scientific and technical databases have been promoted by DBMIST. DBMIST is working toward developing CD-ROM use in libraries for access to "a worldwide catalog of bibliographic information and primary documents." A description of the project completes the paper.

In "Human-Computer Interaction and Online Catalogues," Nathalie N. Mitev from City University, London, issued a call for an investigation of searching rules and their effects, since methods of retrieval information are not separate any longer (such as catalogs, cataloging, libraries, and retrieval systems). Users do not wish to be bogged down with complicated guide tools and as a result many will remain novice users.

Videotext was explored next by Jean-Bernard Marino, Director of the Service Commun de la Documentation, of the Université de Metz, France. The videotext program was launched in 1978 with the Minitel terminal, electronic directory, Transpac network, and Kiosque invoicing. Because videotext requires special rules and imposes changes, a caution was issued: "Make it simple."

Miriam A. Drake of the Georgia Institute of Technology ended the conference with a paper for the plenary session on online systems from a managerial perspective, "Electronic Library of the Future, or
ACRL and ALA Publishing present—

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*Measuring Academic Library Performance: A Practical Guide*
By Dr. Nancy Van House, Beth Weil, and Charles R. McClure
Prepared for the Association of College and Research Libraries, under the auspices of the Committee on Performance Measures, Ad Hoc

Available in June 1990.

**ALA BOOKS**

American Library Association
50 East Huron Street
Chicago, Illinois 60611
Visions for the Twenty-First Century Are Okay but What Will We Do for the Rest of the Century?" The library staff developed Library 2000 goals, described as: increased amount of information available through the campus network; all forms of information delivered to the workstation or PC; faculty productivity increased; information resources productivity increased; personalized information systems created; human/information system interaction studied; rich learning environment for students created; every Tech graduate information literate. Her finishing touch was appropriately pointed: "While we look forward we will look backward to increase and intensify our efforts to preserve our knowledge, history, and culture."

The proceedings offer a wealth of information on the status of online public access catalogs and other related automation issues, including projections into the future. With representatives from France, the United Kingdom, and the United States, a larger perspective of the current state of library automation, chiefly that of the OPAC, is in store for the reader. A minor irritation is the continual use throughout of acronyms. However, the authors do not fall into highly technical jargon as one might expect, but instead present a clear picture of the international scene. As stated in the preface: "The papers... reveal diversity of technological applications, a spectrum of private, academic, and governmental enterprises, and a variety of access methods and systems for use with library materials and other information resources."—Kathleen Sparkman, Baylor University Libraries, Waco, Texas.

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