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<table>
<thead>
<tr>
<th>PAGE</th>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>107</td>
<td>Editorial: Terry Link, Library Superstar II</td>
</tr>
<tr>
<td>111</td>
<td>The Emergence of the Book. By Glenn A. Anderson</td>
</tr>
<tr>
<td>117</td>
<td>Library Materials: Paper, Microform, Database. By Michael K. Buckland</td>
</tr>
<tr>
<td>123</td>
<td>The Academic Librarian and Information Technology: Ethical Issues. By Lawson Crowe and Susan H. Anthes</td>
</tr>
<tr>
<td>131</td>
<td>Time Management in Academic Libraries. By Helen M. Gothberg and Donald E. Riggs</td>
</tr>
<tr>
<td>141</td>
<td>Professional Staff Turnover in Academic Libraries: A Case Study. By Dee Ann Allison and Eva Sartori</td>
</tr>
<tr>
<td>149</td>
<td>Users' Persistence in Scanning Lists of References. By Stephen E. Wiberley, Jr., and Robert Allen Daugherty</td>
</tr>
<tr>
<td>157</td>
<td>Characteristics of the Monographic Scholarship of Foreign Literary Studies by Native Speakers of English. By John Cullars</td>
</tr>
<tr>
<td>171</td>
<td>Letters</td>
</tr>
<tr>
<td>173</td>
<td>Recent Publications</td>
</tr>
<tr>
<td></td>
<td>Book Reviews</td>
</tr>
<tr>
<td>173</td>
<td>Bok, Derek. Higher Learning. Reviewed by Richard Hume Werking</td>
</tr>
<tr>
<td>174</td>
<td>Newman, Frank. Choosing Quality: Reducing Conflict between the State and the University. Reviewed by Richard M. Johnson</td>
</tr>
<tr>
<td>178</td>
<td>Other Publications</td>
</tr>
</tbody>
</table>
Editorial

Terry Link, Library Superstar II

"In response to your C&RL editorial in November 1987, let me offer Terry Link as the best librarian I have yet to encounter.

"Terry is a reference librarian at Michigan State University (MSU). His knowledge of reference tools, which he readily shares with his less studious peers, is impeccable. His willingness to alter his schedule for the convenience of others is unending. His ability to really listen to the concerns and ideas of his colleagues and amalgamate divergent viewpoints into an agreeable course of action is stunning. His humor and patience during the most trying times are unmatched. Yet all of these qualities, so valued by the staff, seem to pale when compared to his desire to help the user.

"Indiana University's newsworthy basketball coach, Bobby Knight, once suggested that 'the will to win is the most overrated factor in the history of sports, everyone has that. It's the willingness to do what is necessary to prepare to win that separates winners from losers.'

"I think this also holds true for librarians. I have yet to meet a librarian who doesn't want to see users get what they need, but how many of them carry that commitment through every hour of the day and do what is necessary to make this happen? Terry really does. He is conscientious in his review of the reference collection. He is a voracious reader who typically has at least a rudimentary knowledge of the user's area of inquiry. In addition, Terry has conceptualized, planned, and implemented programs to meet user needs. One example is a 'current issues' file that Terry compiles to assist users in finding a variety of sources and perspectives from which to write position papers that would otherwise be drawn from mundane and routine sources.

"In short, Terry is not just 'user oriented' when he is on the desk, but rather his adherence to this philosophy is apparent in all of his activities.

"In conclusion, it is worth noting that beyond his superb efforts for the library, Terry is a devoted husband and father and still finds time to organize and engage in charitable endeavors. For example, he organizes fellow librarians for an annual housecleaning project at a local facility for the homeless.

"As a human being or just in his role as a librarian, Terry Link is as good as they come."

Clifford H. Haka.

After reading Cliff Haka's letter nominating Terry Link I felt the need for more information. For example, what do Terry's other colleagues think about his work and his influence, and what are Terry's thoughts about what drives him to excel? So, I called Cliff and asked him if he could send along more information, information that would give the readers of C&RL a better sense of Terry.

I received a letter from Lori Goetsch and the staff of the MSU Information/Reference Department as well as a letter from Terry. I think you will enjoy them.

From Lori came these words:

"We can always count on Terry to lift our spirits and see the brighter side of life and work, but he has a more serious side as well. Terry lives by a personal code that is evident in
everything he does, both at work and at home. He is our social conscience, reminding us often of our responsibilities not only to our patrons but to our families and to the world at large.

"One only has to look at the pile of newspapers in his office awaiting recycling, the boycotted newsletters he shares with us, or the adjustments he makes in his professional life to care for his children to understand Terry’s high level of commitment to his beliefs. In fact, my first, memorable meeting with Terry was at an ACRL president’s program where he was leafleting against TIAA-CREF’s South African investments. His dedication to work, home, and society makes Terry a role model to us all.

"On the job, Terry projects this same commitment and devotion. He is knowledgeable about a wide range of topics and reference sources and is creative about trying new techniques or approaches to those hackneyed freshman research paper topics that make so many of us yawn and roll our eyes. He’s patient, tolerant, and open-minded, approaching every patron’s question as if it were the first time it was asked of him.

"Terry is truly one of a kind, and we count ourselves fortunate to work with him.’’—Lori Goetsch.

Terry writes:

"As I read your editorial announcing the call for superstar nominations, I noticed that you are looking for answers to what motivates people to excel. I can’t answer that. My guess is that different factors motivate different people and there is no universal factor. I don’t even think money would work for everyone.

"I can try to give you a sense of what motivates me consciously. (I assume there are things going on in my subconscious that I haven’t yet resurrected to conscious levels that also motivate me.)

"My philosophy of living suggests that we only get one chance at this life and I would like to feel that when my time is over the world was a better place because I was here. I realize, or perhaps rationalize, that one doesn’t solve the big problems of the world without equal efforts with the small ones. I believe that means must justify themselves. The justification cannot rely on a hoped-for ending. Furthermore, it seems to me that a cosmic energy surrounds and passes through each of us constantly. And through awareness we can direct that energy (call it spirit, karma, god, vibrations . . . ) and make it a more positive force. Or we can leave it unchanged or give it more negative direction.

"I strive to make every interaction a more positive experience than when it first began. Again, I fail frequently. But failing isn’t bad. Not trying is.

"I remember the hardest thing I had to learn on the job was knowing how to fail—knowing that given a limited amount of time I could not find the answer to every single question that came my way. I think most reference people probably have had the same difficulty. I guess I have chosen to be a librarian for the past ten years because I see libraries as being awareness centers where people can become aware of themselves, ideas, solutions to problems, and bits and pieces of truth. I see myself as one of those birds in Huxley’s utopian Island who screeched ‘Attention! Attention!’ to the villagers to remind them to stop for a moment and see what’s going on immediately around them.

"Finally, what I do is not a solo effort. I have a great family that gives me the love and strength to attend to my life’s work. I have had great colleagues who know how to pitch in when the going gets tough and know how to laugh when I say something ludicrous. Hiram Bakes, a longtime librarian from Aquinas College in Grand Rapids and a colleague of mine for three years, is worthy of such a profile. His humaneness, brilliant mind, and disgusting sense of humor certainly have had a positive effect on my development. Most of all, if I’m any good at anything it’s because Mom and Dad gave me the love and sense of values that have propelled me this far. I thank them all.’’—Terry Link.

And we thank you, Terry Link, for all the ways in which you have excelled, and for all the people that you have helped, and will help.

CHARLES MARTELL

Ed. note: Objective evidence about the excellence of your library superstar nominee will help to strengthen your case.
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The Emergence of the Book

Glenn A. Anderson

Archaeological discoveries during the past century provide documentary evidence for the ratio of rolls to codices during the first four centuries of our era. This ratio differs markedly from Christian to Jewish and pagan writings, suggesting that our book form may initially have been a Christian strategy to distinguish Christian from other writings and that this format, when its physical advantages became evident, was then adopted by the larger culture. Using this evidence, C. H. Roberts has suggested two historical reconstructions of the first use of the codex form.

The role of utility in cultural change is often assumed to be primary: why else would a new technology be adopted but for its increased utility? Scholarship based on this assumption tends to confine the decisions that precede change within the boundaries of utility. Such efforts are supported by, and probably reflect, frequent attempts by scholars to locate the stimulus for historical initiative in economic or social necessity.

This article presents a review of an important but obscure historical event—the adoption of the codex or book form. The victory of the codex over the once prestigious roll has been widely regarded as a triumph of practicality and economic good sense. Recent archaeological discoveries, however, have provided evidence that supports a different understanding of the origin of what we call the book, an understanding that does not banish utility completely as a factor but stresses the role of other factors in this fundamental change.

This account of the emergence of our book form also provides a condensed historical review for librarians and scholars who may overestimate the obscurity of the issues surrounding the adoption of the codex form and regard them as specialist's turf. In comparison to the change to the codex form, the study of the complementary developments of paper and printing and their momentous effects on the history of the book have fed a literature that has spilled over into the popular level. Few librarians or scholars are puzzled by references to Gutenberg or moveable type. One may infer, therefore, that this aspect of Western history is part of our general knowledge. Similarly, contemporary usage of computer technology for information storage and retrieval has also been the subject of an expanding literature—much of it at the popular level. This literature can claim a kind of squatter's rights in the consciousness of even the most bookish scholar. The equally momentous replacement of the roll by the codex form, however, has only the most marginal place in the general knowledge of those who work with books. Perhaps this is as it should be for a development that is almost two thousand years old and obscured by highly technical descriptions and vague, fragmented data. Nonetheless, the centrality of the book form within Western civilization lends a natural interest to speculations about its origins.

The adoption of the codex form exhibited the following pattern:

"The codex owed its existence to the substitution of vellum [parchment] for papyrus as the common writing material for Greek and Latin..."
literature; vellum was a tough material capable of being inscribed on both sides, and the leaves could be stitched and bound in a form similar to books of modern times.¹

Two elements in this description deserve attention:
1. the inference that the change in writing material from papyrus to parchment led to the change from roll to codex form, and
2. the assumption that the physical shortcomings of the roll led to the overthrow of papyrus as the scribes' chosen material (see figure 1).

To claim that the change from papyrus to parchment caused, or was the same as, the change from the roll to the codex form is a misunderstanding. Such a claim does not take into account the substantial evidence provided by extant manuscripts from the first four centuries of our era: these manuscripts are prizes from the stream of archaeological discoveries made in the last one hundred years. Since 1897, large manuscript collections have been discovered at Oxyrhynchus (south of Cairo in Egypt), Antinoë (only one hundred miles from Oxyrhynchus), north of Luxor (also in Egypt), and along the west shore of the Dead Sea. Although the Dead Sea Scrolls and Nag Hammadi codices are more famous, the immense papyrus collection discovered at Oxyrhynchus between 1887 and 1928 is important for its fragments of classical literature, gospels, apocrypha, patristic texts, and commercial and civil items.

The classification and listing of the various manuscripts has left a concrete record of early forms of writing. While these extant records offer only a tiny sampling of ancient writings, similarities between discoveries suggest that these samples are representative. Extant documents indicate that papyrus and parchment were used interchangeably in rolls and codices. Because parchment rolls and papyrus books remained in use for centuries after the adoption of the codex form, there is no reason to attribute that adoption to the material used in the roll or codex.²

The second portion of the explanation quoted above implies that parchment has a toughness, durability, and versatility, because both sides can be written on. This made papyrus second rate. In fact, extant papyruses are sometimes inscribed on

---

Similarities between the early codex and the roll are considerable. The same narrow columns of text were used in the codex—as many as four columns appeared on a single page.

**FIGURE 1**
Roll and Codex
both sides, as the existence of a technical term—opisthograph—for a roll written on both sides indicates. The popular vision of papyrus as a thin, fragile material, dried to brittleness, is a misconception. Papyrus is sturdy, durable, and flexible.2

The existence of storage facilities for rolls in papyrus libraries and the use of papyrus for many forms of writing long after parchment was widely available illustrate that papyrus was regarded as satisfactory for archival purposes. Other factors, e.g., ease of use, ease in marking one's place, safety of storage, and cost, have also been cited as reasons for adopting the codex. However, they describe advantages that are imaginary, inaccurate, or inadequately demonstrated. Another factor, the prestige of the roll, is impossible to weigh. Yet the formidable power of prestige and habit that the roll enjoyed among scribes ensured for the codex a long-time status as poor cousin. The extant documents present a pattern in which the roll was used for most writings while the codex was only occasionally used.

The Greek literary manuscripts that have survived from the first four centuries of our era provide a chart of the number of rolls produced as compared to codices. Assuming that these manuscripts represent the usual proportion between rolls and codices, the following pattern of use emerges:

- in the first century, less than one percent of the extant manuscripts are codices,
- in the second century, only two percent of the extant manuscripts are codices,
- in the third century, seventeen percent are codices, and
- by the beginning of the fifth century, ninety percent of the extant manuscripts are codices.4

This pattern indicates that among Greek literary manuscripts, the codex form gained a dominant position between the fourth and fifth centuries, almost three hundred years after the first use of the codex form (see table 1).

Christian biblical manuscripts from the first four centuries present a remarkably different pattern from that of the Greek literary manuscripts. Among 172 extant papyrus and parchment Christian biblical texts written before A.D. 400, 158 are codices and only 14 are rolls.5 Of the 14 rolls, several have a biblical text written on the other side of an already used roll so that

"... among Greek literary manuscripts, the codex form gained a dominant position between the fourth and fifth centuries, almost three hundred years after the first use of the codex form."

<table>
<thead>
<tr>
<th>TABLE 1</th>
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<tr>
<td>ROLLS AND CODICES AMONG GREEK LITERARY MANUSCRIPTS</td>
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* To nearest 1/2%.

Note: These data are presented using a statistical method offered by William A. Willis in "A Census of the Literary Papyri from Egypt," Greek, Roman, and Byzantine Studies, 9:205–41 (1968). Willis divides manuscripts that have been suggested as spanning two centuries equally between the centuries in question. Parenthetical figures indicate manuscripts that have been firmly dated.
the roll format seems determined by the available material. Several others are probably of Jewish origin, and only one roll, a text of Isaiah, has a Christian biblical text on a roll when the codex form could presumably have been used as easily. Taken as a body, Christian biblical writings before the year 400 are almost invariably in codex form. This represents a marked contrast to the high percentage of Greek literary manuscripts on rolls during the same time.

A similar study of the earliest stratum of Christian biblical writings emphasizes this pronounced difference from Greek literary writings. Of the 172 Christian biblical manuscripts from the first four centuries, 11 can be assigned to the second century. Compared with Greek literary manuscripts, only one and one-half percent of which were in codex form during the second century, all of the earliest existing Christian biblical texts are in codex form. All are also on papyrus. Despite vagaries in dating documents of such age and the uncertainty of definition for key terms, e.g., biblical, the earliest versions of the Christian Bible are always in codex form. That each of these codex manuscripts was discovered in Egypt, where the place of the roll was secure, further magnifies this difference between Greek literary and Christian biblical manuscripts (see figures 2 and 3).

Parallels between the emergence of the codex form and the spread of Christianity have been often noted. Just as the census of extant codex manuscripts shows growth in the third century and dominance over the roll in the fourth century, the spread of Christianity followed a pattern of rapid growth in the third century followed by official acceptance at the beginning of the fourth century. But the extant manuscript evidence clearly indicates a much earlier adoption of the codex for Christian writings. If the fourth century adoption of the book form by a more markedly Christian culture may be explained by a combination of increased Christian influence on the larger culture and a growing awareness of the physical advantages of the codex form, the reason for the much earlier Christian adoption of the book form remains a major puzzle in the history of the codex form.

In what has long been regarded as a standard treatment of the topic, C.H. Roberts suggests that the book form was adopted by Christians in Rome when the

---

**Greek Literary Manuscripts**

- Codices (8.9%)
- Rolls (91.1%)

**Christian Literary Manuscripts**

- Rolls (8.1%)
- Codices (91.9%)

**FIGURE 2**

First through Fourth Century
evangelist Mark, using one of the parchment notebooks common in Rome for legal or official business, wrote the events that the Apostle Peter had recounted to him. According to this thesis, Mark's Gospel, the first to appear in written form, was later recopied in Alexandria, associated with Mark by an ancient tradition, on papyrus. This format then acquired the weight of a precedent as well as symbolic value as a manifestation of Christianity's break with the roll, which had a close association with Jewish law and with pagan literature. First-century Alexandria's place in Christianity is, however, clouded by an almost total lack of evidence, and because the likelihood that either Alexandrian practice or Mark's Gospel, which is very infrequently cited in early Christian literature, carried such weight in primitive Christianity is problematic, Roberts later revised this hypothesis.

The adoption of the codex by Christians probably occurred, not in Rome, but in Jerusalem or Antioch, where Greek manuscripts were needed for the Gentile mission. The large Jewish community, either in Jerusalem or Antioch, used waxed tablets and papyrus tablets. To record the oral law passed on by Jesus, a large school of scribes and scholars developed. The scribes occupied by these tasks developed the first codex no later than A.D. 100. In the case of both theses, the codex form was adopted primarily to differentiate its Christian users from both Jewish and pagan writers.

While Roberts' theses cannot be proved, he presents differing speculations that help to explain much of the available documentary evidence. Part of the attractiveness of these historical reconstructions is their specificity—and this in a subject where questions, gaps, and caution are far

"Like the new publishing forms in our own time, any major change tempts those affected by it to regard it in revolutionary terms—to stress differences and discontinuities rather than to search for the deeper continuities that characterize cultural change."
more common than concrete assertion. If, as Roberts suggests, the adoption of the book form was intimately bound to the rise of Christianity and occurred in the first century, our understanding of the emergence of the codex form merits revision. Of considerable interest in its own right, this revised view also admits speculation about the nature of change and the psychology of those who bring change. In the case of the early Christians, a group that was in many ways inflexible initiated a change that was resisted by the more flexible Greek culture. The Christians, possessing a vision in which change was seen as a necessary bridge between the past and the organic fulfillment of that past, seem never to have regarded the adoption of the codex form as an issue in itself. Rather, the codex played a small part in a larger vision. The supporters of the roll, lacking any larger perspective against which change could be seen as a natural development of their past, found themselves defending stasis and regarding the threat of change in terms of rupture, divorce, or discontinuity. Like the new publishing forms in our own time, any major change tempts those affected by it to regard it in revolutionary terms—to stress differences and discontinuities rather than to search for the deeper continuities that characterize cultural change. Utility was not the strongest factor in the adoption of the codex form. Indeed, it might be suggested that a utilitarian emphasis is likely to mask the more important factors in any cultural change.

REFERENCES AND NOTES

6. The catalog numbers of these fourteen rolls in van Haelst (Catalogue des Papyrus Littéraires Juifs et Crétains) are 14, 44 and 559, 48, 104, 109, 133, 148, 167, 174, 286, 300, 319, 459, and 537.
7. This is the conclusion of Roberts and Skeat, Birth of the Codex, p.40-41. There is substantial agreement among scholars about several of these items (and unanimity about five of them). Some scholars would include other items on the list; others would exclude items from it. Ten of the eleven codices listed by Roberts and Skeat are listed by Turner, Typology of the Early Codex, and in van Haelst, Catalogue des Papyrus Littéraires Juifs et Crétains. Complete agreement among scholars does not exist in this matter.
Library Materials: Paper, Microform, Database

Michael K. Buckland

Electronic publications and machine-readable databases have characteristics that do not "fit" library practice well. For technical and historical reasons, using databases differs from using paper or microform library materials. The characteristics of all three media are examined and compared as a basis for a more unified approach, with special reference to research libraries.

The growth of databases of bibliographical and numerical information is obvious. The need to provide access to these forms of information as part of a research library's mission is clear. Further, we can expect a rapid growth of textual information and of images in machine-readable form that ought also be made available.

Libraries evolved to provide access to information from collections on paper—or in other media resembling paper. Library patrons also need access to information in machine-readable form (databases). Databases' characteristics differ from those of paper and do not fit well into current library practice. For example:

1. Special equipment is required to use databases;
2. A library can provide database service without the user or the database located in the library. Usage need not be restricted to the library's open hours and library staff may not be at hand to offer assistance; and
3. Databases customarily involve costs based on the amount of use, making expenditures difficult to project or to control.

How can these difficulties be addressed in a way that will optimize the users' access to information and increase the libraries' flexibility in adapting to change?

This paper explores the characteristics of library materials and considers some of the assumptions about library provision that have been built on the basis of collections on paper.

CHARACTERISTICS OF LIBRARY MATERIALS ON PAPER

Library materials on paper have characteristics that are familiar to librarians and library users:

1. No special equipment is needed to read them;
2. They are strictly localized. The reader must read a printed book, pamphlet, map, or journal where that item is: the reader must go to the book, or the book must be physically transported to the reader. Possibly another copy can be acquired or made, but each copy would still have to be where its reader is. Any given copy may only be read by one person at a time and in the one place where that copy is located. Obvious though this may seem, it is an important constraint in library planning because the use of information is highly sensitive to location: a book at hand is used more than a book on the other side of campus, let alone on another campus or in an-
other state. As a result, expenditure for the selective duplication of library materials in different libraries on the same campus is generally needed, and there is at least mild contention for unduplicated material of interest to two or three groups at different locations. The size of *locally held* collections is taken to be the measure of the worth of the library.3

3. Information on paper does not lend itself to simultaneous viewing by two or more people. Either another copy must be found (or made) or users must take turns.

4. Library materials on paper are treated as a capital, public good: they are bought and made available without charge. They are bought at a one-time cost as an investment, the cost is not passed on to the reader, and, until the copy becomes worn-out, no additional cost (other than circulation and reshelving work load) is involved in it being read by one more person. If demand exceeds supply, three options exist: rationing use by limiting loan privileges, increasing supply by adding another copy, or lowering the standard of service by letting additional would-be readers wait.4

5. Formulas have been developed to indicate adequacy of provision of paper-based materials according to the number and nature of academic programs.5

Library activities, and especially library budgetary practices, are based on these characteristics.

**CHARACTERISTICS OF MICROFORMS**

The first major programs of microfilming library materials began with newspapers in the 1930s. Use of microforms increased greatly in the 1960s as microfiche were used for the dissemination of technical reports by government agencies.6 Microfilms and other microforms represent a significant departure from paper materials, yet differ on only one of the five characteristics noted above—special equipment is needed to read them. This required libraries to maintain a new sort of equipment: microform readers and printers. Microforms are, therefore, even more localized than paper materials: not only must the would-be reader and the microform be in the same place, but there must also be a machine to read it on. Further, copies are less convenient to make and cannot, like paper, be annotated. Nevertheless, the low cost of acquiring and storing microforms makes them a reasonable choice for some sorts of information (such as old newspapers) in spite of their unappealing form and other attributes.

**CHARACTERISTICS OF DATABASES**

Machine-readable databases, as typically used in library contexts, differ from paper not on just one of the five characteristics of paper-based materials, like microforms, but on all five:

1. As with microforms, special equipment is required to read them—equipment that is substantially more complex, more expensive, more useful, and more obsolescent than microform readers. Not only is the equipment providing access to databases more elaborate than microform equipment, but it has two other novel features. First, a microfilm reader displays an image but does little else, except, perhaps, produce a copy. Computers used in conjunction with databases not only allow retrieval but also a great deal of manipulation: bibliographical data can be reorganized, reformatted, and combined with other machine-readable text; texts can be edited and stored again in revised form; and numerical data, such as census tables, can be retrieved and subjected to statistical manipulation. (A census table on paper or microform would have to be transcribed by hand and/or keyed into machine-readable form.) Secondly, the equipment used to gain access to databases is usable for other purposes. A scholar’s personal computer can be used for word processing, electronic mail, statistical analysis, and manipulation of personal databases as well as accessing external databases. Moreover, a convenient linking of each of these functions allows data to flow conveniently between them.

2. Database usage is not inherently localized. For example, thousands of people all over the world use the databases made available through the Lockheed DIALOG...
service, but few of these people have ever been to Palo Alto where the databases reside. There is a strong trend for at least faculty and graduate students to have workstations, either terminals or microcomputers, enabling them to read databases from their offices, laboratories, and homes as an alternative to using workstations in libraries. Databases can be copied, and scholars will probably tend to have their own copies of parts or all of some databases, even though, given telecommunications, databases can be used and shared from a distance. In this sense, databases lend themselves to cooperative, shared provision much better than do library materials on paper or microform. Just as it does not matter to a library user where an interlibrary loan book has come from, so long as it arrives in a timely and reliable manner, it does not matter to an online searcher where the data on the screen come from, so long as they too arrive in a timely and reliable manner.

3. Given suitable equipment, users of databases can, in effect, make simultaneous use of the same database, whereas it is not practical to make simultaneous use of the same book. Contention for the same book is a major source of frustration for the library user.

4. Databases have, in general, not been budgeted as a capital, public good. Typically, databases have been provided on a pay-as-you-use fee basis, including telecommunications, computer charges, and other elements. These expenses—real, monetary charges—are passed on to the users, except to the extent that libraries feel able to absorb them. These charges had no real precedent in library budgets. This situation is reflected in the common practice of referring to bibliographical databases as "commercial databases," even though it is the final stage of retail marketing, not the data, that has been in commercial pay-as-you-use mode.

5. Bases for determining and justifying budgetary provision are less established for use of databases than for materials on paper. Some databases contain new material and, therefore, add to the library's collection; others duplicate paper materials and so could at least partially substitute for print; distance-independence makes shared provision more practical; changing electronic technology, e.g., the introduction of databases on CD-ROMs, continually increases the options; future levels of demand are unknown; and future pricing practices of database publishers are unclear. Budget projections are difficult to make.

These characteristics of library materials on paper, in microform, and as machine-readable data files are summarized in table 1.

SOME ASSUMPTIONS RECONSIDERED

Because access to information on databases is a desirable part of the mission of a library and yet does not fit existing practices, it may be useful to retreat toward first principles.

TABLE 1

| COMPARISON OF LIBRARY MATERIALS' ATTRIBUTES IN DIFFERENT MEDIA |
| --- | --- | --- |
| **Paper** | **Microform** | **Database** |
| 1. Equipment required | No | Yes | Yes |
| 2. Remotely accessible | No | No | Yes |
| 3. Simultaneous use | No | No | Yes |
| 4. Capital, public good | Yes | Yes | No, but could be |
| 5. Basis for budgeting | Yes | Yes | Not yet developed |
Why are library materials acquired in the first place? They are acquired to provide access to useful information in them. This does not signify that buying and retaining them is the only way to go. Consider three ways to provide access:

1. Buying the material and retaining it so long as it is believed to be potentially useful;
2. Subscribing to it, in the sense of a flat subscription or rental fee for unlimited use for a given period of time; and
3. Pay-as-you-use fee for access.

Is it possible to use subscriptions or fees for paper-based materials? Precedents for rental are few in traditional library provision. Public libraries commonly rent collections of best-sellers to take care of temporary peaks of demand. In a few cases, reference works, e.g., Magazine Index and certain Dun & Bradstreet directories, are available to libraries on a lease basis only, not for purchase. The library makes an annual payment. The publisher supplies and updates the reference work. Yet if the library stopped paying, the reference work would be returnable to the publisher. However, these arrangements, though reasonable in special cases, are not characteristic of research libraries where the difficulty of predicting future needs leads to an emphasis on acquiring many different titles and retaining at least one copy indefinitely.

Fee-based library services for paper library materials are even less evident since the concept of the free library replaced subscription libraries. Arguably there are two exceptions. Users ordinarily pay to make copies of library materials. It would, therefore, seem sensible to budget for databases in the same way as is already done with paper and microform materials—if feasible.

The conclusion that the reasons for preferring to purchase library materials on paper are practical (rather than based on the inherent properties of the material) provides a basis for reconsidering databases:

1. The purpose of making printed books, microforms, and databases available is the same: to provide access to potentially useful information. It would, therefore, seem sensible to budget for databases in the same way as is already done with paper and microform materials—if feasible.
2. There is no obvious reason why databases could not be purchased, unless the publisher chose not to sell them as a matter of marketing policy. It seems reasonable to expect that most databases will become available for purchase. Some, indeed, may be published on CD-ROM disks inexpensively enough for individuals to purchase copies.
3. Similarly, databases may also be available on a rental or subscription basis. This would be a matter of the university renting the database or negotiating access to it for a fixed fee and allowing users to make what use of it they can.
4. Fee-for-use access to databases would still be needed in two cases: when the publisher refuses to allow any other arrangement, and when usage or, more exactly, the cost, is so low that purchase or subscription is not worthwhile. (This is comparable to reliance on interlibrary loan of paper and microform materials in lieu of purchase.) It does not follow that the fee would necessarily have to be passed on to the user. Indeed, some cases of very low usage might well be handled by coordinated acquisitions of databases between universities and reciprocal search access, in the historic tradition of cooperative collection development.
5. The economic trade-off between pur-
chase, lease, and usage-based fees will be largely a matter of technical analysis of the varying costs of computing, telecommunications, administration, and storage. Optimization of this sort would become even more practical if all systems seemed similar to the user, as they would with the general adoption of a "linked systems protocol," based on NISO draft standard Z39.50, for connecting online bibliographical systems.

Although access to databases has been dominated by the commercial, fee-for-use provision such as that of Lockheed DIALOG and other retailers, it should be noted that database publishers are usually not the same as the retailers who provide access. Many useful databases are published by federal agencies (ERIC, Medline) or by scholarly or professional societies (Chemical Abstracts, Mathematical Reviews). Even where the publishers are also the retailers, it may well be in the publishers' interests to sell or rent copies of their databases directly to libraries or users—regardless of how much use will be made of them—in addition to arranging for fee-based usage. For example, the Medline and ERIC databases can both be bought. Libraries are currently paying for the paper edition and also for use-based online searching fees. If a version of the database can be purchased and made available internally for unlimited searching, it might be an acceptable and worthwhile substitution for both paper and fee-based usage.

It is at this point that the distance-independent characteristic of databases becomes important. Depending upon assumptions about telecommunications and levels of demand, one copy anywhere on a campus, multicampus system, or consortium might suffice for all users in a way that would not have the disadvantages that remote storage has for material on paper or on microfilm.

On this approach it is not difficult to imagine a hierarchy of levels of access to databases. Very popular, inexpensive ones might be held at a campus, or even branch library, level; less popular, more expensive ones might be held at a university level; yet other rarely used databases might be held regionally by universities or commercial services and used as needed, rather like interlibrary loans.

For paper materials not held in a library's collection, recourse is made to interlibrary loan. While this is not the same as doing a fee-for-use search of a remote database, the effect is quite similar. A non-trivial cost is incurred by the borrowing library for each interlibrary loan transaction. This is inevitable partly because no library can afford to buy everything. It is, however, a sensible strategy to avoid purchase, processing, and storage costs of some materials not expected to be much used and to plan on recourse to interlibrary loan if demands arise. With either paper materials or databases, as the level of usage increases, other approaches (purchase or lease) deserve consideration.

SOME PRACTICAL IMPLICATIONS

The above discussion would seem to indicate some practical actions:

1. "Library materials" and "Library materials fund" should be viewed as including machine-readable data files, whether for purchase, for rental, or for accessing files neither purchased nor rented. Whether or not the resources are adequate is an important, but separate, issue.

2. Libraries should seek to arrange alternatives to the traditional fee-for-use basis. These options include purchase; rental; access by subscription, i.e., a flat

"... we should expect and plan for the nationwide preoccupation with the retrospective conversion of catalog records to be followed by a second wave of retrospective conversion of the contents of the cataloged objects."

Supplying databases to libraries would probably greatly increase database usage (and database owner's income) compared with provision on a fee-for-use basis only.
fee for the use of databases not held locally; and collaborative mutual resource sharing of databases with other institutions.

3. Although present discussion tends to focus on bibliographical and numerical databases, other text and image databases are being developed. Indeed, we should expect and plan for the nationwide preoccupation with the retrospective conversion of catalog records to be followed by a second wave of retrospective conversion of the contents of the cataloged objects.

4. Many practical arrangements for handling databases need to be developed: storage, compatible computing support (hardware and software), telecommunications, copyright, security, documentation, archiving, preservation, and user support.

5. The adequacy of the budgetary rationale for library materials, including those that are formula-based, needs to be reconsidered so that machine-readable materials can be incorporated.

Databases are an important and growing medium. If libraries do not play a leading role in providing access to them, then a part of the libraries’ role will be abnegated. For libraries not to provide access would be like a fifteenth-century library refusing to acquire the newfangled printed books in addition to manuscripts because they did not fit the library’s practices. Databases do not fit library practices, but that is not the real problem. Databases are part of the evolving world of communication and of scholarship. The real problem is that current library practices have not yet changed sufficiently to fit that world. Machine-readable databases pose a challenge of adaptation for libraries if they are to continue in the mold of Ashurbanipal’s enduring archetype.¹¹

REFERENCES AND NOTES

7. Buckland, Book Availability.
9. See, for example, Gary S. Lawrence and Anne R. Oja, An Economic Criterion for Housing and Disposing of Library Materials, Based on Frequency of Circulation (Berkeley: Univ. of California, Library Studies and Research Division, Sept. 24, 1979), Research Report RR-79-2.
Academic librarians face a new working environment engendered by the rapid growth of information and advances in information technology. New conditions create ethical considerations that go beyond questions of individual behavior. Value conflicts and ethical dilemmas arise from the more active, substantive role required of the academic librarian by technological developments. The librarian's commitment to freedom of access to information is challenged by issues such as fee-based information service and governmental restrictions on information access. Academic librarians must be sensitive to ethical requirements inherent in their role as information mediators.

American librarians have been concerned with the ethical aspects of their profession since at least the middle of the nineteenth century. For the most part, the earliest of these discussions emphasized the responsibilities of the librarian to employer and patrons and raised the issue of the librarian's deportment, frequently offering hortatory instruction as to appropriate dress and demeanor. Ethics and etiquette not being sharply distinguished, these treatises were the equivalent of instructions to physicians on their "bedside manners."2

The library was perceived as a repository of books and documents. The academic library in particular was understood to be the place where recorded knowledge was collected and where the "transcript" of the culture was preserved for transmission to future generations.3 Within this framework of values, the academic librarian was concerned primarily with the technical requirements of collection building and maintenance, with books, serials, and documents, and only secondarily directed toward users who, in turn, tended to regard librarians as caretakers of the collection.4

This early perspective on the academic library and the academic librarian changed drastically after World War II. The new Code of Ethics adopted in 1981 by the American Library Association reflects this expansion. Its emphasis on freedom of access to information, resistance to censorship, protection of the user's right to privacy, and quality of service speaks to the new and radically altered environment in which academic librarians now find themselves.5 Commentators have noted the dual impact of the growth of information and the rise of technology for its management. Indeed, the issue is not merely growth and new technology. Rather, it is the accelerating rate of growth and the accelerating rate of change in information technology that have created the new environment. In this environment, there is a critical need for ethical reflection and sensitivity regarding the li-
brarian’s professional duties and his or her place within the context of the institution served.

The twentieth-century inventory of information is increasing exponentially, requiring significant changes in academic libraries and in the work of academic librarians. These changes have not been explicitly and universally recognized by librarians, administrators, and legislators, and are only beginning to be perceived by some library users. It is, however, abundantly clear that no individual library can acquire all of the information demanded. The “feverish collection building” of the immediate post-World War II decades has given way to selectivity in collection development. The multitude of information sources, not all of which are of equal value, has brought virtually all academic libraries squarely up against the limitations of finite budgets, space, and staff. Whereas the library was once thought of as a collection of books, it now appears that the central purpose of the contemporary academic library must be to provide its users with access to information.

"... the quality and nature of services provided for information access are at least as significant as the size of a particular collection."

This conceptual expansion of the library’s objective has serious implications for academic librarians. First of all, the quality and nature of services provided for information access are at least as significant as the size of a particular collection. Secondly, attention is diverted from traditional information containers, e.g., books and journals, to formats made possible by the new technology. The librarian’s task now includes not only providing access to the library’s own collection, but also achieving fast, reliable access in convenient, readable form to information residing in other, perhaps distant, collections. Academic librarians must manage access to the growing body of knowledge and maximize its usefulness for students and researchers.

The new technology, like other innovations, was feared initially because it could be put to questionable uses. For example, there was concern that the new technology might be employed to compromise user privacy. Some also thought that it might depersonalize the learning process or encourage students to confuse mere accumulation of information with genuine education. In retrospect, it seems fair to say that this latter fear was unfounded.

Advances in information technology have brought about increased efficiency in the acquisition, preservation, and management of library collections. Card catalogs are closing in favor of their online counterparts. Many of the bibliographic and processing procedures of the past are now automated. But most significantly, information technology has created an entirely new working environment. First, we now have the capacity to make fundamental changes in student instruction, thereby enhancing the learning experience. In the course of approaching a specific subject, students can learn to use new electronic-based bibliographic techniques with broad potential applications. Indeed, failure to awaken both students and faculty to this possibility may lead to a generation of educationally disadvantaged students.

Secondly, the emergence of electronic technology clearly serves the primary information access requirements of the academic library. The academic community’s needs have intensified demands on the academic librarian as information access mediator. Without much recognition from administrators and with little or no additional staff support, many academic librarians have had to become information specialists who are not simply links but active participants in the chain of communication. Hence, the librarian now needs to understand better the terms and concepts that are critical to discovering the information sought. The extent of such knowledge of subject fields will, in many cases, determine whether demands for information can be met. The academic librarian is, perhaps as never before, in a position to
offer significant help or significant harm to library users.\textsuperscript{11}

**PROFESSIONAL COMMITMENTS AND THEIR ETHICAL IMPLICATIONS**

The academic librarian's mission entails adherence to certain principles that have ethical implications. While an emphasis on job preparation has infected higher education generally, those institutions stressing liberal learning hold as their major mission the development of the capacity for critical thinking and questioning in their students. American colleges and universities are founded on the belief that the expansion of understanding and the development of individual autonomy are absolutely necessary for a free and democratic society. Although the academic librarian has long played an essential part in this process, the potential for contributing to all levels of instruction has been greatly expanded by the new environment. Teaching research strategies, information acquisition skills, and directly supporting the user's search for information are rapidly growing aspects of the academic librarian's work.

"The professional and ethical duty of the academic librarian is to promote the reasoned inquiry that 'ennobles a human life and contributes to human excellence.'\textsuperscript{12}"  

Participation by librarians in the central mission of the university requires a commitment to the principle of free access to information, to reasoned inquiry, and to the value of public discourse and scrutiny of contending opinions. Unqualified support for research, the advancement of knowledge, and free expression of the results of such study are also implied. The academic librarian must necessarily reject and resist any attempt to censor library materials on the grounds of personal taste or prejudice. Adherence to these principles is an ethical act that has both philosophical and political meaning. It assumes that absolute certainty on most significant societal questions probably cannot be achieved and that truth will be revealed only in open and unfettered discourse, not imposed by dogma or doctrine. Freedom of access to information and impartiality in the administration of that access are fundamental aspects of human freedom and necessary conditions for the fulfillment of human dignity. They promote objectivity and respect for others and are essential for the formulation and expression of informed opinion. The professional and ethical duty of the academic librarian is to promote the reasoned inquiry that 'ennobles a human life and contributes to human excellence.'\textsuperscript{12}

Unfortunately, a belief in free access and free expression, or what Archibald MacLeish called freedom of the mind, is not shared by all. The guarantees of the First Amendment notwithstanding, some people have argued for suppression of a variety of materials on grounds such as community standards and tastes, religious beliefs, and national security. The professional commitment of the academic librarian, however, is inconsistent with such practices. Every library contains books filled with erroneous opinions, outdated information, sophistry, propaganda, and pure silliness. The task is not to prevent the user's encounter with such materials. Rather, the purpose of the librarian is to enlarge the power of inquiry, to stimulate imaginative questioning of conventional thinking and burdensome customs, and to enhance analytic skills in students and their teachers by providing access to a meaningful range of materials dealing with the world and the human condition.

**THE NEW ENVIRONMENT GENERATES ETHICAL PROBLEMS**

Virtually every issue of current interest to librarians has been made complex by the new environment described above. Librarians' professional status has been debated for many years, but demands for new and sophisticated services have made
its reconsideration urgent. Problems associated with information literacy, the automation of various library functions, possible invasions of user privacy, attempts by federal agencies to restrict access to public documents, and commercialization of information are affected by the expansion of information and the technology for its management. Reduced funding and limited physical space in libraries are also features of the information age.

The academic librarian as information mediator must acquire deeper and broader subject expertise, adapt to the built-in obsolescence of available technology, and prepare for new information storage and retrieval capabilities. In respect to both technique and substantive content, the mediator must be more directive in relationship to the user. The modern academic librarian must be client-oriented rather than medium-oriented. At the same time, he or she must recognize the needs of the institution and society generally. In offering bibliographic services, and by discriminating among materials acquired, the academic librarian may stand in the midst of contending interests. It is at this confluence of values that ethical conflicts arise.

"Unquestioned conformity to rules and regulations is neither a necessary nor sufficient condition to make an action ethical."

There are at least four loci of values to consider. First, there are broadly held societal values such as entitlement to life, liberty, and the pursuit of happiness; equal justice before the law; equal opportunity; freedom of expression; the rights to property and due process; and others guaranteed by the Constitution of the United States: national security, respect for persons, and domestic tranquility. These and similar values form the common moral framework for our society. Second, there are the aforementioned values of professional librarianship in association with the values of the academy. Third, academic librarians hold personal values. The force of personal values will be affected to the degree to which the professional values of librarianship have been internalized. Fourth, the values of individual library users will affect their expectations and the relationship they have with librarians.

PROFESSIONAL AND SOCIETAL ETHICAL PROBLEMS

Ethical issues specific to academic librarianship arise in the ordinary course of professional duties when any or all of the values described above conflict. The academic librarian may be tempted to substitute personal values for professional values. For example, impartiality in the administration of access to information may be compromised when information is requested by someone for whom access to the material is judged to be unsuitable. Or the librarian may be faced with a demand by persons outside the library to suppress or remove materials because they are viewed as offensive. Or the librarian's professional values may conflict with societal values when, for example, in the role of information specialist, he or she is invited to aid what appears to be illegal or immoral activity, e.g., when information about bomb-building or toxic substances is requested. Or again, societal values may create ethical conflicts when a legitimate authority demands that the librarian violate a user's privacy, or when an authority demands that library materials containing sensitive information be surrendered and thus made unavailable to users.

These examples illustrate a characteristic feature of value conflict. The conflict is not always between two persons or two groups adhering to different values. Often the conflict is within one person whose professional values may conflict with personal convictions or with societal values. In other words, ethical issues present dilemmas in which at least two mutually exclusive courses of action seem to be required. This is one reason why ethical admonitions sometimes sound like pious platitudes to those who face real problems in the real world.
The academic librarian should not withhold information and ought to respect the user's right to privacy. But what should the librarian do when asked to provide information on bomb-building or, for that matter, to provide assistance in gaining any information when there is strong reason to believe that the purposes of the user are illegal and immoral? As Robert Hauptman points out in his brief but celebrated paper on this subject, it has been traditional in the ethics of librarianship to insist that the librarian be essentially neutral and self-effacing in service to the user.\(^\text{13}\) In particular, personal beliefs are to be subordinated to the needs of the patron. Hauptman's experiment consisted of requesting bomb-building information from a number of reference librarians, none of whom declined to help him on ethical grounds. He suggests that the reference librarians did not distinguish between their professional responsibility as disseminators of information and their duties to society, although the two were clearly in conflict. It is worth noting that Hauptman's experimental subjects were not informed that they were in fact subjects, an ethically unacceptable condition for human research. Nevertheless, the question remains: are academic librarians responsible to society in the situation Hauptman created?

Truly, it is an ethical dilemma. Every member of society has a moral and legal obligation to prevent crime and not to aid wrongdoing. The librarian has the same duty, but also has a professional responsibility to disseminate information and to respect the user's privacy. As a general rule, the librarian's disposition toward the user's intent is expected to be non-judgmental; but in this situation, if the librarian fulfills one duty, he or she will abjure the other. How can such a dilemma be resolved?

The choice of one duty over others may be painful and leave a residue of dissatisfaction. There are times, however, when painful choices must be made, and in most instances, we opt for what we believe represents a higher value. A passionate commitment to impartiality in the administration of access to information and a belief in the freedom of the mind do not require the abandonment of all other values. There is ample precedent for recognizing societal responsibility. Physicians, for example, are required by statute to violate patient confidentiality in order to report various contagious diseases, child abuse, and gunshot wounds. The need of society to be secure from terrorist and other criminal action has a legitimate ethical claim on every citizen, including academic librarians. In short, the ethical and professional requirement to promote freedom of access to information and to respect the user's privacy may be subordinated in an attempt to prevent crime and maintain civil order. One would hope that an academic librarian in the situation Hauptman created would resolve the dilemma in favor of societal responsibility.

But what about the reference librarians who did not object on ethical grounds to assisting Hauptman? Does his experiment show that they were unethical? Probably not. It suggests that they acted in a conventional manner consistent with their usual practice and, perhaps most significantly, that they did not recognize the ethical test to which Hauptman put them. This illustrates why ethics are not simply rules to be learned once and for all. We are inclined to believe that what is done by virtue of habit, custom, or professional training is the right thing, ethically and otherwise. What makes an action right, however, is more than these things and more than intuition or feelings.

At a minimum, an ethical action must take into account the common moral framework of values, and it must be based on a rational assessment of particular circumstances. Unquestioned conformity to rules and regulations is neither a necessary nor sufficient condition to make an action ethical. We must ask why we accept the rules we do, what interests they serve, and what values they protect. In short, only when we make our values explicit are we in a position to make ethical choices. Information provides access to knowledge which in turn shapes and directs the behavior of others.\(^\text{14}\) The contemporary academic librarian's capacity for providing accurate and precise information makes ethical sensitivity to value conflict an es-
Societal ethical problems generated by the advance of information technology go beyond the relationship of the academic librarian to the individual user. The problem is one of information policy for the entire society. Academic librarians, and indeed all professional librarians, must assess the new role of the library in the "information society." There is an urgent need to achieve for the institution "a higher place on the societal agenda." Indeed, several recent, ominous trends argue for active political engagement by librarians.

The federal government's policies for gathering and disseminating information and concerning possible misuse of information technology itself represent two such trends. The number of published government documents has been significantly reduced. The Office of Management and Budget is setting other information access policies. Government Printing Office bookstores have been closed, and the monthly Selected U.S. Government Publications list has been cancelled. While libraries within the depository system may still receive one copy of each depository item, the number of items is being reduced and no provisions currently exist for free access to documents in electronic form.

Our national information policy must be based on the principles and values of our society. Freedom of expression as protected by the First Amendment and due process of law as protected by the Fourteenth Amendment are meaningless in the absence of access to information. Where information about the workings of government can be denied or withheld, development and execution of policy is left solely in the hands of bureaucrats and interest groups hoping to influence them. Recent federal scandals reveal how undesirable this can be.

The present federal administration sells information to private companies for resale at a profit. Access to this information is limited to those who can pay for it. In a sobering article, Anita Schiller and Herbert Schiller describe in detail the transfer of the national stock of information from government custodianship to private ownership and control. This packaging and transmission of information for profit represents a departure from a national commitment to an informed citizenry. Private information vendors argue that whatever can be done privately for profit should not be done by government, but this principle ignores the fact that the information already belongs to the people to whom vendors expect to sell it. While private industry claims that rendering the information usable justifies a fee, the fact remains that the federal government could do the same thing and guarantee equitable access.

The Information Industry Association, a trade group representing 150 companies, has lobbied to dismantle the National Technical Information Service, advocated higher user fees for the information services of the National Library of Medicine, and brought similar pressure to bear on other agencies. The shift of information control from the public sector to the private sector is continuing at a rapid pace, but so far no one has determined how free access to government-produced information, regardless of its format, will be maintained. This must become a central issue for academic librarians and their patrons.

The privatization of government information and the development of electronic databases generally have produced another ethical issue for the information society in the form of the fees now charged for database searching. It is clear that information technology has profound budgetary implications for academic library staff, capital equipment, and space. Fees to the so-called end-user have seemed to many administrators the only option for covering, at least in part, the cost of the...
growing demand for this service. Such fees applied within colleges and universities, however, are inherently discriminatory. They serve to divide the information rich from the information poor. Because our principle ought to be equality of access to information and impartiality in the administration of that access, fees can be expected to thwart a basic objective of the academic library. As of this moment, it appears that the budgetary, administrative, and ethical problems surrounding fee policy have not been addressed in most institutions.

Finally, the Information Industry Association and the American Library Association have been able to make common cause, with apparent success, in opposing the latest federal effort to restrict access to unclassified government information. Admiral Poindexter, former National Security Advisor to President Reagan, announced a National Security Decision Directive in November 1986 to the effect that the head of each federal agency had the right to assign a new security classification, “Sensitive but Unclassified” to any information “the disclosure, loss, misuse, alteration or destruction of which could adversely affect national security or other federal government interests.” In addition, the Department of Defense recommended the establishment of a monitoring system to detect any “unusual” use of the several federal and private databases that hold unclassified, technical information.

The ostensible purpose of this directive was to prevent foreign governments from gaining access to unclassified, technical information, but the effect of the directive would have been far more sweeping. The new category also included “economic, human, financial, industrial, agricultural, technological, and law enforcement information.” Testimony at congressional hearings revealed that files on hazardous material transportation, flight safety, Securities and Exchange Commission records, Social Security Administration records, and Federal Reserve monetary policy might also be included. In short, a government official, accountable only to the president, could deny public access to almost any government information. It was also reported that CIA and FBI agents have already begun visits to private information companies to inquire about who used their services. It appears so far that lobbying efforts against the implementation of the directive have succeeded; but obviously the threat remains.

These three issues—privatization of public information, fees for service to database users, and attempts to restrict information by government agencies—present ethical problems as well as political, technical, and administrative ones. That they are ethical issues is revealed in two ways: (1) as policies they have a direct and deleterious impact on the central mission of the modern academic library, and (2) as political, technological, and administrative matters they represent how things are to be done, but not whether they should be done. How things are done is a purely technical matter, but which things are done and why, among all the possible alternatives, are ethical questions. It is directly related to what we understand our ethical duties to be and the ultimate social consequences of carrying out what has been proposed. This has special significance for academic librarians beset as they are by the impact of information technology.

CONCLUSION

One way to judge the ethical significance of an action is to consider its consequences. In the case of librarianship, the consequences of an action or a policy must be viewed in light of both professional commitments and responsibility to society. A democratic society’s fundamental belief in freedom of expression implies freedom of access to information. Therefore, it is the ethical duty of the academic librarian to guarantee that access and to resist any policy or practice that limits or denies free access.

It is ironic that the extraordinary development of information technology, which has made the academic librarian more effective, more efficient, and able to make new contributions to instruction, also has
the potential for misuse and frustration of the librarian's objectives. Only a heightened ethical awareness and sensitivity on the part of the academic librarian can promote the former and prevent the latter.

REFERENCES AND NOTES


10. Sherra, "What is Librarianship?"


12. Elias Baumgarten, "Ethics in the Academic Profession," *Journal of Higher Education* 53:282-95 (1982). We are indebted to Baumgarten's excellent discussion which, while primarily about teaching faculty, also applies to academic librarians.


16. Ibid.


Time Management in Academic Libraries

Helen M. Gothberg and Donald E. Riggs

The study's purpose was to evaluate time management practices among directors of large academic libraries. The 159 respondents to the survey provided information about their time, indicated to what degree they delegated authority, ranked their top ten time wasters, and responded to a section on leadership style. Data analysis and interpretation provided a basis for evaluating the training of library managers, determining the need for additional research in the field, comparing the responses of directors to one another, and showing prospective directors how existing management allocates time.

Today’s library managers are working under pressures that are unique to this period of time in our institutional and national development. Writers such as Alvin Toffler and John Naisbitt have made us aware of our change from an industrial nation to an information society. The roles of all institutions are in the process of change. Library directors, especially those who direct large institutions, must ask themselves how the library will be managed to move forward with these changes.

New technologies are available to assist in providing better control over information and are rapidly being adapted to library services and operations. The cost is high and it has come at a time when library budgets are considerably leaner than they were. If the challenges of this new information society are to be met head-on, personnel costs must be reduced. Along with the new technological timesaving devices, both staff and management must become more productive. One road to increased productivity is through efficient time management.

A significant body of business literature on the subject of time management is available. This literature agrees considerably as to what methods constitute effective time management and as to what events and activities can be characterized as the greatest “time wasters.”

Experts on the subject of time management such as Alec MacKenzie and Alan Lakein reported that many managers never felt they had enough time to get everything done. Yet everyone has the same amount of time—8,760 hours a year. It’s not that some people have more time than others; it’s that they know how to manage their time better through efficient management practices.

Managers set a standard for other employees in the library to follow. The results of a study conducted by a large consulting firm showed that the average American worker wasted 45 percent of the day. Wasting time was not always done consciously, but according to the authors, when a worker wasted time, it was “time theft,” pure and simple. The cost to American industry was billions of dollars every year. Efficient time management is not only important for managers in get-
ting their own work done, but it also has an effect on those who look to managers as role models.

**UTILITY OF THE RESEARCH RESULTS**

Little has been written on the subject of time management in the library profession. Most articles on the subject have dealt with work flow, or time and motion studies of library operations, and have been more concerned with staff than with management. This lack of interest in library management indicates that, until recently, the largely service oriented and tax supported institutions have felt less urgency about the subject than the profit oriented organizations. Library efficiency and time management practices are interdependent factors, and the need for efficiency in the management of large library collections seems obvious. Are library managers listening, reading, and applying time management techniques? Have library directors learned to work smarter, not harder? These are some of the questions that this study attempted to answer.

**Goals and Objectives of the Study**

Three goals were identified for the study. They were as follows:

**Goal 1:** The primary goal of the study was to collect data related to time management practices and attitudes of library directors in large academic libraries.

**Goal 2:** The second goal was to analyze and interpret the data in order to provide recommendations for future consideration by library directors and to provide a basis for inservice training of personnel.

**Goal 3:** The final goal was to report the results to both the participants in the study and to library and other media professionals.

Four objectives of the study were designed to determine:

1. To what degree library managers were aware of and practice efficient time management methods, including delegation of authority and leadership style.
2. Time management practices as related to leadership style, sex of manager, number of people managed, and years of experience as a library director.

3. Identification of the most serious time wasters in library management.
4. How library directors reportedly spent their time based on twelve specified categories.

**Sampling and the Plan of the Study**

The overall plan of the study involved the development and use of a mailed questionnaire dealing with time management. The population surveyed consisted of the 105 directors who manage libraries that are members of the Association of Research Libraries (ARL) and 89 libraries that are not ARL members but are listed in the University Library Statistics of *Academic, College and Research Libraries* as being the largest non-ARL libraries located in doctorate granting institutions.

The total of academic library directors came to 194. A 60% return was considered desirable for a reliable sample. To ensure an adequate return of the survey instrument, two mailings were planned and carried out. The final number of returned questionnaires was 159, or 82%.

**Data Collection**

Items used to collect the data in the mailed survey were based on the time management literature. They fell into five categories: (1) a profile of the respondents, (2) how a manager’s time is reportedly spent, (3) delegation of authority, (4) time wasters, and (5) leadership style. All items were designed with the assistance of Lawrence M. Aleamoni, the Director of the Office of Instructional Research and Development (IRAD), University of Arizona.

Section I of the survey instrument dealt with a profile of the respondents. Using a four-point interval scale, except for the items that involved gender identification, it collected data about the library directors in the following areas:

A. Size of library staff
B. Number of years in current position
C. Number of years as a library director
D. Number of years as a library administrator (dept. head, etc.)
E. Age
F. Gender
Section II of the survey instrument used a six-point interval scale to determine the number of hours per week the respondents spent doing the following activities:

A. Planning
B. Reporting
C. Supervising
D. Budgeting
E. Personnel work
F. Meetings with university administrators
G. Meetings with library administrators
H. Library committees
I. University committees
J. External fund raising

In addition, a four-point interval scale was used in this section to determine the number of days spent attending off-campus professional meetings or other work-related events.

"The ability to delegate work is frequently mentioned in the literature on leadership as a key element in managing time effectively."

Section III covered the principle of delegation of authority. The ability to delegate work is frequently mentioned in the literature on leadership as a key element in managing time effectively. Merrill Douglass and Donna Douglass observed that, in spite of the obvious benefits and good sense that delegation makes, many managers are ineffective delegators. They devised a self-quiz to help an individual determine the quality of his/her delegation skills. Eleven of their sixteen questionnaire items were used in this section. Rather than the yes/no response that was useful in the Douglass self-evaluation instrument, a four-point Likert type scale was devised using the following descriptors to respond to the statements: Agree Strongly (AS), Agree Moderately (A), Disagree Moderately (D), and Disagree Strongly (DS).

Section IV of the survey instrument was on time wasters. The business literature agrees considerably on what wastes a manager's time. Both the Douglasses and Michael LeBoeuf asked managers to list or rank the worst time wasters. LeBoeuf's fifteen items, based on the work of time expert MacKenzie, were used in this section of the library survey.

In the LeBoeuf study, sales representatives and engineering managers in fourteen countries were asked to rank their top ten time wasters from a list of 15. For purposes of the academic library study under discussion, library managers were asked to do the same. The reason for collecting this data was to determine whether library managers had the same perspective of what wastes time as either sales representatives or engineering managers. Fifty percent of the mailed surveys were constructed such that the order of the items in this section were reversed to avoid respondent proclivity to select those items at the top of the list.

Section V, the last section of the survey, dealt with leadership. One way to discuss an individual's leadership style is to determine whether a person is primarily concerned with getting the work done—a task leader—or primarily concerned with looking after people and their feelings—a process leader. Douglas McGregor is well known for his classic work on leadership style that described these two sets of contrasting leadership behaviors as "Theory X" and "Theory Y." Robert Blake and Jane Mouton integrated the research of McGregor and other industrial psychologists into an easily understood tool for analyzing leadership style along the task-process continuum they called the "Managerial Grid." The four corners of the grid represent four leadership positions:

A. A primary concern for people
B. A primary concern for task
C. A lack of concern for either task or people (the least desirable position on the grid for effective management)
D. A high concern for both task and people (the most productive type of leadership style)

A fifth point on the grid is at the midpoint. This type of leadership has been described as a balancing act between task and people or a country club style of management.
where the leader seems to be task oriented in the morning and people oriented in the afternoon.

Time management concepts that are useful in the business world may seem on the surface to be more task than people oriented, whereas public service organizations may have a greater stake in people or process skills. Recent best-sellers in the management field, such as *The One Minute Manager* and *In Search of Excellence*, have stressed the team approach. Their authors concluded that the most effective manager is the one who can combine both task and people skills for the good of the organization. For this reason, it was important to collect data on library managers' leadership styles. To do this, a short form of the longer, original questionnaire by Blake and Mouton was used. This five-item instrument ranks five statements based on how a manager handles conflict. Respondents to the library survey were placed on the managerial grid according to how the majority rank ordered these statements.

A pretest of the survey instrument was carried out using a sample of twelve (n = 12). The only major change in the survey instrument following this pretest was to explain more clearly how the leadership section of the survey fit in with a study of time management, so that respondents would not be reluctant to answer Section V.

**Data Analysis**

The SPSS statistical package was used to analyze the data collected in the time management survey of academic library directors. Five analyses were calculated for the data. The first, frequency analysis, tabulated how many responses were in any one category. The results, reported later in this chapter, are in terms of percentiles. Second, the Pearson product-moment correlation was calculated across all the variables in the study. Correlation characterizes the relationship between or among variables, i.e., the degree to which any two variables vary together (positive correlation) or vary inversely (negative correlation). A correlation coefficient indexes two properties of a relationship—the magnitude of the relationship and the direction of the relationship. It says nothing, however, about the reasons that determine such relationships.

The third analysis carried out on the data from the survey was crosstabs, using chi-square, a subprogram available in SPSS. Chi-square tests for independence between variables. In this study it was used to determine if respondent characteristics in Section I and the variables in Sections II and III of the survey instrument were associated. Variables in these two sections included the number of hours library directors spent on various management activities and responses to statements about delegating authority. Library director rankings of time wasters were compared to those of sales personnel and engineering managers in the LeBeouf study, using rank correlation.

**Results**

Section I of the survey instrument dealt with a profile of the library directors returning the questionnaire. Some characteristics of the population were as follows: the largest number of respondents, almost 90%, administered staffs of 300 or less, with nearly 58% administering library staffs of 150 or less. The largest percentage of directors (46.5%) had been in their current position five years or less; 38% had been a library director less than five years—but, on the other hand, nearly 28% had 16 years or more experience. A large number (65%) had served as a library administrator, such as a department head or assistant/associate director, prior to becoming head of a large academic library. Only 6% had five years experience or less, which would tend to confirm that the path to top management positions in large academic libraries lies through increasing responsibility in leadership roles. Most of the respondents (48%) fell into the 46–55 age category, with almost none under the age of 35. Twenty-one percent were female, a larger percentage than had been anticipated. Although there are more women in top university library management positions than in the past, their numbers continue to remain small (see table 1).

Section II of the survey (table 2) dealt
### TABLE 1

<table>
<thead>
<tr>
<th>Size of library staff</th>
<th>1-150</th>
<th>151-300</th>
<th>301-450</th>
<th>451+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent:</td>
<td>57.9</td>
<td>31.4</td>
<td>7.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of years in current position</th>
<th>1-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent:</td>
<td>46.5</td>
<td>25.2</td>
<td>15.7</td>
<td>22.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of years as a library director</th>
<th>1-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent:</td>
<td>38</td>
<td>17.7</td>
<td>16.5</td>
<td>27.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of years as a library administrator</th>
<th>1-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent:</td>
<td>6.3</td>
<td>12.6</td>
<td>16.4</td>
<td>64.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>23-35</th>
<th>36-45</th>
<th>46-55</th>
<th>56+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent:</td>
<td>.6</td>
<td>22.6</td>
<td>47.8</td>
<td>28.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent:</td>
<td>78.6</td>
<td>21.4</td>
</tr>
</tbody>
</table>

### TABLE 2

<table>
<thead>
<tr>
<th>Hours per week:</th>
<th>0-3</th>
<th>4-7</th>
<th>8-11</th>
<th>12-15</th>
<th>16-19</th>
<th>20+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>18.2</td>
<td>46.1</td>
<td>22.1</td>
<td>11.7</td>
<td>1.3</td>
<td>.6</td>
</tr>
<tr>
<td>Reporting (internal and external communications)</td>
<td>18.5</td>
<td>48.4</td>
<td>22.9</td>
<td>7.6</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td>Supervising</td>
<td>56.8</td>
<td>30.4</td>
<td>10.1</td>
<td>1.4</td>
<td>.7</td>
<td>.7</td>
</tr>
<tr>
<td>Budgeting</td>
<td>44.8</td>
<td>43.5</td>
<td>9.1</td>
<td>2.6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Personnel work (including collective bargaining, labor relations)</td>
<td>42.2</td>
<td>38.3</td>
<td>14.3</td>
<td>3.9</td>
<td>1.3</td>
<td>0</td>
</tr>
<tr>
<td>Meetings with university administrators</td>
<td>49</td>
<td>13.9</td>
<td>5.1</td>
<td>1.9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Meetings with library administrators (e.g., assistant/associate directors, department heads)</td>
<td>3.9</td>
<td>55.5</td>
<td>30.3</td>
<td>8.4</td>
<td>.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Library committees</td>
<td>63</td>
<td>30.5</td>
<td>3.9</td>
<td>2.6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>University committees</td>
<td>67.5</td>
<td>27.4</td>
<td>3.8</td>
<td>.6</td>
<td>.6</td>
<td>0</td>
</tr>
<tr>
<td>External fund raising</td>
<td>69.1</td>
<td>24.2</td>
<td>4.7</td>
<td>1.3</td>
<td>.7</td>
<td>0</td>
</tr>
<tr>
<td>Number of days per year off campus for professional meetings or work related events</td>
<td>0-10</td>
<td>1-20</td>
<td>21-30</td>
<td>30+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Percent</td>
<td>4.5</td>
<td>41.3</td>
<td>33.5</td>
<td>20.6</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

with the number of hours per week that library directors normally spent in the traditional areas of management. Those areas where the greatest number of respondents spent the least amount of time, i.e., three hours a week or less, were external fund-raising (69%), university committees (67.5%), library committees (63%), and supervising (57%). In the four- to seven-hour category only one area was indicated by 55% of the library directors—meetings with library administrators—followed closely by planning (46%) and reporting (48%). In examining the eight to eleven hours per week category, the largest number of library directors reported in the areas of meeting with other library administrators (30%), reporting (23%), and planning (22%). Twelve percent of those who responded to the survey indicated they spent between twelve and fifteen hours a week doing planning, and 8% spent this amount of time in the areas of reporting and meetings with library administrators.

Other trends in the data in table 2 are that 88.5% of the library directors spent seven hours or less doing budgeting. Because budgeting was one of the major time-consuming activities of academic library directors in the past, the impact of automation and the hiring of specialized
budgeting personnel can be seen in these figures. Meetings and committee work, however, come in for a large share of administrative time. Although 57% of the respondents spent three hours or less per week doing any supervision, 30% indicated they spent from four to seven hours a week. Finally, 41% spent between 11 and 20 days a year off campus attending professional meetings or other work-related events, and 33.5% spent between 21 and 30 days a year. Nearly 21% of them spent over 31 days, or more than a month, away from the library doing other types of professional work. Presumably, much of this additional time involves meetings and other types of committee work.

"Nearly 21%... spent over 31 days, or more than a month, away from the library doing other types of professional work."

In Section III of the survey instrument, library directors indicated their agreement or disagreement with a series of statements regarding their willingness to delegate authority—a significant factor in efficient time management (see table 3). Positively worded statements were numbered 1, 2, 5, 6, 8, 9, and 11. Negatively worded items were numbered 3, 4, 7, and 10. An effective delegator would agree with the positively worded statements and disagree with the negatively worded ones. A large percent of the library directors (84—90%) indicated the appropriate agree/disagree response for effective delegation of authority on all items but two. The two items in question were number one: "I frequently allow my staff to make mistakes," and number three: "I frequently do tasks that my subordinates should be doing." For item number one, involving staff error, 63.5% of the directors indicated that they agreed either strongly or moderately with this statement. For item number three, which was concerned with doing subordinates’ tasks, only 69% indicated disagreement, a somewhat lower percent than the 85—90% desired response to the other statements.

Identifying the top ten time wasters was the purpose of collecting data in Section IV. The results were then compared to rankings made by sales representatives and engineering managers in a prior study by Michael LeBoeuf. The rankings for each occupational group appear in table 4. Number one is ranked as the item that hin-

<table>
<thead>
<tr>
<th>TABLE 3</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>DELEGATION OF AUTHORITY*</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>AS</th>
<th>A</th>
<th>D</th>
<th>DS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I frequently allow my staff to make mistakes.</td>
<td>13.8</td>
<td>49.7</td>
<td>29.6</td>
<td>6.9</td>
</tr>
<tr>
<td>2. My staff make most of the day-to-day decisions about their work without my prior approval.</td>
<td>60.1</td>
<td>38</td>
<td>1.3</td>
<td>.6</td>
</tr>
<tr>
<td>3. I frequently do tasks that my subordinates should be doing.</td>
<td>1.3</td>
<td>29.7</td>
<td>43.7</td>
<td>25.3</td>
</tr>
<tr>
<td>4. The library does NOT function smoothly when I am absent.</td>
<td>.6</td>
<td>2.5</td>
<td>37.1</td>
<td>59.7</td>
</tr>
<tr>
<td>5. I seldom revise decisions made by my staff.</td>
<td>28.9</td>
<td>59.7</td>
<td>10.7</td>
<td>.6</td>
</tr>
<tr>
<td>6. I give my library staff considerable authority over work (e.g., personnel, finances, facilities, and resources).</td>
<td>44</td>
<td>50.9</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>7. I frequently make decisions that are part of my subordinates’ jobs.</td>
<td>0</td>
<td>9.5</td>
<td>55.1</td>
<td>35.4</td>
</tr>
<tr>
<td>8. I delegate most library operations to my staff.</td>
<td>42.1</td>
<td>51.6</td>
<td>5.7</td>
<td>.6</td>
</tr>
<tr>
<td>9. If I were incapacitated for six months, there is someone on my staff who could readily take over my job for that period of time.</td>
<td>44.9</td>
<td>41.8</td>
<td>10.1</td>
<td>3.2</td>
</tr>
<tr>
<td>10. The department heads under my leadership do NOT delegate work well to their own subordinates.</td>
<td>1.3</td>
<td>9.2</td>
<td>64.7</td>
<td>24.8</td>
</tr>
<tr>
<td>11. My key people take the initiative for projects without waiting for me to think of them.</td>
<td>26.1</td>
<td>59.3</td>
<td>14.0</td>
<td>.6</td>
</tr>
</tbody>
</table>

* Percent of academic library directors responding.
TABLE 4
TOP TEN TIME WASTERS RANKED BY THREE OCCUPATIONAL GROUPS

<table>
<thead>
<tr>
<th>Activity</th>
<th>Library Manager</th>
<th>Sales Reps</th>
<th>Engineering Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempting too much at once and estimating time unrealistically</td>
<td>1</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Cluttered desk and personal disorganization</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Confused responsibility and authority</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Crises (personal and/or staff)</td>
<td>5</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Drop-in visitors</td>
<td>6</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Inability to say no</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Inadequate, inaccurate, or delayed information</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Indecision and procrastination</td>
<td>9</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Ineffective delegation and involvement in routine and detail</td>
<td>-</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Lack of objectives, priorities, and deadlines</td>
<td>-</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Lack of, or unclear, communications or instructions</td>
<td>4</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Lack of self-discipline</td>
<td>10</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Leaving tasks unfinished</td>
<td>-</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Meetings (scheduled and unscheduled)</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Telephone interruptions</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

The top ten time wasters are ranked for library managers, sales representatives, and engineering managers. The activities are ranked from highest to lowest priority, with library managers placing them in order 1 to 10, sales representatives in order 1 to 10, and engineering managers in order 1 to 10.

Library managers ranked attempting too much at once and estimating time unrealistically as number one, followed by a cluttered desk and personal disorganization, and third, meetings. All three groups listed meetings in the top half of those activities that wasted their time the most. Engineering managers did not list attempting too much among the top ten time wasters, and sales representatives placed it near the bottom of the list. Neither sales nor engineering personnel listed cluttered desk as a problem. All three groups omitted confused responsibility and authority and inability to say no from their rankings. Library managers had far less problem with inadequate information than engineers, who ranked it as number one. Both groups of managers listed problems with communication as number ten. Both groups of managers found few problems with self-discipline, while sales people ranked it number three. Leaving tasks unfinished was not ranked among library managers and was low for both sales reps and engineering managers. On the other hand, telephone interruptions, which were ranked number eight for library managers, were number one for sales personnel and number three for engineering managers.

There are some differences between the two management groups. For example, library managers have better control over the telephone probably because they have well-trained support staff. Library managers also perceived themselves as having fewer problems with delegation of work and having better access to information. However, there are more similarities than differences, which is borne out statistically by a low positive relationship between the two groups of managers with a correlation of .3045. On the other hand, a very low negative correlation of -.1755 was found between library managers and sales representatives. These results may say something about the nature of the work itself, or they may say something about the skills needed to succeed in management. Certainly library managers need to be concerned with their top three time wasters.

Much has been written about leadership style over the years. In the beginning there was an effort to identify the traits of a leader. Later researchers in the field of industrial psychology believed that leaders were either process, i.e., people oriented, or they were task oriented. Today there is a trend toward team leadership, incorporating both aspects of leadership—task and process.

Section V of the survey provided data about the leadership style of the respondents based on how they dealt with conflict (see table 5). Although a task leader may get more work out of subordinates, eventually revenge psychology sets in and
The creative thinking necessary in today's organization is lost. Yet a manager who is people oriented at the expense of task will have a less productive staff. The library managers were asked to rank five statements from one to five with one being the least typical and five being the most typical. Table 5 shows how these statements were ranked based on a numerical position found on the Managerial Grid—indicated in parentheses.

Blake and Mouton matched the most typical statement with a position on the Managerial Grid, reflecting leadership style as indicated by numbers. Each of the five positions on the grid is explained below:

9,9 Team Management. "Work accomplishment is from committed people; interdependence through a 'common stake' in organization purpose leads to relationships of trust and respect."

5,5 Organization Management. "Adequate organization performance is possible through balancing the necessity to get out work with maintaining morale of people at a satisfactory level."

1,1 Impoverished Management. "Exertion of minimum effort to get required work done is appropriate to sustain organization membership."

1,0 People-Centered Management. "Thoughtful attention to needs of people for satisfying relationships leads to a comfortable, friendly organization atmosphere and work tempo."

9,1 Authority-Obedience. "Efficiency in operation results from arranging conditions of work in such a way that human elements interfere to a minimum degree."

In looking over the results, we find that most of the academic library administrators selected a team management approach. . . ."

In looking over the results, we find that most of the academic library administrators selected a team management approach as their most typical response. This ranking was followed in order by a middle position which, although satisfactory, has also been characterized as a country club style of leadership—task oriented in the morning and process oriented in the afternoon. The third-ranked selection was one in which the manager shows little interest in either people or task, followed by democratic or people oriented management, with an authoritarian style being the lowest ranked among the greatest number of respondents.

Generalizability

Information related to the characteristics of the respondents was collected as part of the survey instrument. The degree to which any other group of individuals fits the description of the population surveyed is the degree to which the results of the survey can be generalized.

Limitations of the Study

The limitations of the study are based on the degree to which respondents were able to report accurately the number of hours they spent on management activities and the degree to which they actually do what they reported when it comes to the delegation of authority and leadership.
Suggestions for Further Research

One of the purposes of the investigation was to generate a body of data that would form the basis for continued study and research. Additional study into the area of time management in academic libraries should involve a more in-depth examination of exactly how academic library directors use their time, the degree to which they delegate authority, and their leadership style based on actual observation. Other research might involve the effects of changing time management practices, delegation patterns, and/or leadership style. The effects of training decision-making groups in group dynamics have been studied under other conditions, but its effectiveness could also be investigated in the academic library. Alternatives to the traditional committee structure, which preserves or encourages a team approach to management, should be explored. Finally, a replication of this study with other groups of library directors such as those in public libraries or community colleges and other smaller academic institutions may also prove useful.

"If you have enough meetings over a long period of time, the meetings become more important than the problems that the meetings were intended to solve."

SUMMARY

The results of data analysis for this study imply that the academic library directors who responded to this questionnaire are experienced and mature individuals. They are knowledgeable about appropriate delegation skills and are, for the most part, team management oriented in their leadership styles. Their top three time wasters helped focus on areas in need of attention. The first concern is the need to examine the amount of time spent on committee work. As organizational structure continues to evolve, new ways of dealing with decision making and work flow, other than by committee, should be considered for greater productivity while not falling back on an outmoded authoritarian leadership style.

Secondly, the problem of taking on too much work should be addressed. This problem could be resolved by more effective delegation; however, given the results of the study, it may have more to do with identifying goals and establishing priorities. For example, utilizing time management techniques could resolve the problem of the cluttered desk. Both of these latter time wasters are perceived as more likely to occur in a bureaucratic organization such as the university and may be the inevitable result of committee proliferation.

Management by committee has fostered many benefits, but it has generated its own set of problems. Millions of dollars are spent annually in library committee meetings that result in time lost from operational tasks. "If you have enough meetings over a long period of time, the meetings become more important than the problems that the meetings were intended to solve," wrote Thomas Martin in *Malice in Blunderland*. Management expert Peter Drucker wrote: "In every human organization there is far too much need for cooperation, coordination, and human relations to have to provide for additional meetings. And the human dynamics of meetings are so complex as to make them very poor tools for getting any work done." Academic library directors are probably not in a position to do much about the number of university committee meetings they attend, because these meetings correlate with the number of hours spent in meetings with university administrators. They can, however, tackle the problem of too many library committees.
REFERENCES

Professional Staff Turnover in Academic Libraries: A Case Study

Dee Ann Allison and Eva Sartori

This pilot study was undertaken at the University of Nebraska to identify factors contributing to the turnover of professional librarians. Librarians who left between 1974 and 1984 and librarians currently on staff were surveyed. The results indicate that relationships with supervisors, career goals, financial support, and pay are most important in deciding to leave. Factors that caused dissatisfaction among those who left are explored, and a model is presented for describing the decision-making process. Areas for additional research are suggested.

Employee turnover has been one of the most widely studied subjects in organizational psychology. Since the turn of the century, hundreds of studies have been conducted to determine the factors that cause individuals to leave an institution. This research has focused overwhelmingly on blue-collar and clerical populations in a manufacturing setting while neglecting professional employees and service institutions. The study of professional turnover in libraries has suffered from this neglect, although there are indications that librarians are becoming interested in the issue. In the past decade James Neal studied clerical turnover in libraries and Richard Rubin conducted a pilot study of librarians (not all of whom held the MLS) in three large Ohio public libraries. Only William Wong and David Zubatsky confined their study to professional librarians in their investigation of the length of service of university library directors. Because no research has been done so far on the turnover of professional academic librarians other than directors, and on the supposition that professionals have their own specific values and career expectations which differentiate them from paraprofessionals, the authors undertook a pilot study to examine turnover in this group at the University of Nebraska-Lincoln (UNL) between the years 1974 and 1984.

Because much of the budget in academic libraries is spent on salaries and fringe benefits, managers have to be concerned with the rate at which staff changes in their libraries. Undoubtedly some turnover is beneficial. Staff members are invigorated by new employees who arrive with fresh ideas and new perspectives and, in some instances, training in the latest technologies. Staff mobility also provides an outlet for dissatisfied personnel who might otherwise become disruptive or unproductive. Nevertheless, turnover is an expensive process. Recruitment involves substantial costs, including the cost of advertising, travel and lodging during the interview process, and the reduced productivity of employees involved in recruitment and training. The remaining employees experience stress as working relationships are disrupted and workload...
is increased while new employees are recruited, hired, and trained. The process bears investigation.

**REVIEW OF THE LITERATURE**

After reviewing data from 120 research studies on turnover in a wide variety of organizations, John L. Cotton and Jeffrey M. Tuttle conducted a meta-analysis to summarize and assess findings on the subject of turnover. A meta-analysis consists of a series of statistical procedures that condense information; determine the direction of findings, i.e., whether the relationship is positive or negative; and assess their magnitude and statistical significance. In addition, Cotton and Tuttle used regression analysis to determine whether certain variables such as subject population or nationality moderated the relationship between turnover and correlates such as pay.

Cotton and Tuttle grouped the possible correlates of turnover into three categories: work related, personal, and external. Of the work-related factors, pay was strongly related to turnover, as were overall job satisfaction, satisfaction with the work itself and with supervision, and organizational commitment. The higher the pay or the greater the satisfaction with work and supervision or the greater the commitment to the organization, the less likely employees are to leave. Employees are more likely to remain in their current jobs if their performance is high and they are satisfied with colleagues and the opportunities for promotion.

Analyzing personal factors, Cotton and Tuttle confirmed the findings of earlier reviews which had concluded that age, tenure, met expectations, and number of dependents were negatively related to turnover. Thus, the turnover rate was lower among those who had been on the job longer, or who had more dependents, or among those employees who felt that their expectations were being met by their work. Research also indicated that the more educated the employee, the less likely s/he is to leave. Women were more likely to leave than men, and married employees somewhat less likely to leave than unmarried ones. Intelligence seemed to have little relation to turnover.

Two external factors, the presence of unions and employee perception of outside job alternatives, were found to be strongly related to turnover. The more employment alternatives were perceived to exist, the higher the turnover rate and vice versa. The presence of a union, on the other hand, seemed to act as a brake on turnover.

Regression analyses indicated that the type of employee population, the type of industry, and nationality moderated the relationship between correlates and turnover rates. Thus, pay was found to be more reliably related to turnover in the case of professionals than in the case of blue-collar and nonmanagerial workers. In service organizations, however, pay in general was less reliably related to turnover than in manufacturing. It is not surprising that satisfaction with the work was a more reliable correlate in service than in manufacturing organizations.

Research on turnover in libraries is still at a preliminary stage and has not yet yielded any significant results. The samples have been either small or lacking in homogeneity, and the conclusions are still very tentative. Wong and Zubatsky speculate that the increasingly longer tenure of library directors may be caused by more stringent economic conditions and by the restricted mobility of two-professional households. In the case of library directors, external and personal rather than job-related factors may affect the turnover rate. In the case of the nonprofessionals studied by Neal, there is also evidence that personal factors ("following graduating spouse" and "returning to school") are the most important causes of turnover. In the case of Rubin's respondents, which included both professionals and nonprofessionals, personal reasons also seem to be critical in deciding whether to stay at or leave an institution.

**METHODOLOGY**

As noted by Cotton and Tuttle, the type of employee population (white-collar or blue-collar) and the nature of the organization (service or manufacturing) moderate the relationship between correlates and
Professional Staff Turnover 143

Of the currently employed librarians, 30 (67%) responded. Addresses were available for 51 of the 60 librarians who left between 1974 and 1984, and 28 (47%) responded. Because the sample was small, in all our analyses significance was accorded only to those 28 items that 25% or more of the respondents considered very important (see table 1).

RESULTS

Two biographical characteristics, length of stay at the institution and intention to leave, proved to be significantly related to turnover. Of the 28 professional librarians who left during the period studied, 20 had been at UNL less than 5 years. It should be noted that less than 25% of those who left considered tenure very important in making a decision to leave or stay. Thus these librarians probably did not leave because they were afraid they would be denied tenure. Intention to leave was also strongly related to turnover in this study. Of the 24 previously employed librarians who responded to this question, 15 (63%) indicated they were actively looking for other employment. Only 3 of the 24 were not actively thinking about leaving prior to applying for another job. Among those currently employed, only 5 were actively considering leaving UNL. Most of the librarians in this group seemed committed to staying at UNL at the time the study was conducted.

In analyzing the work-related causes of dissatisfaction of the librarians who left UNL, we found that money issues were dominant. Thirty-two percent were dissatisfied with their future salary prospects and 29% with the institution’s support for travel, conferences, and research (see table 2, items 21 and 23). The relationship with the dean of libraries and the fulfillment of career goals were also important sources of dissatisfaction, as 29% were unhappy with each of these factors (see table 2, items 6 and 28).

When the responses of both “leavers” and “stayers” are combined, an interesting pattern is revealed. Managers were more dissatisfied with the money categories than nonmanagers (see table 3, items 20, 21, 22, 23), while nonmanagers were

"Of the 28 professional librarians who left during the period studied, 20 had been at UNL less than 5 years."

Space was also provided for respondents to describe their reasons for choosing to leave or for contemplating leaving the institution. The same format was used to explore the relationship between a fourth category, external factors, and turnover. In the fifth category the respondents were asked to provide some personal data about themselves.
TABLE 1
FACTORS CONSIDERED VERY IMPORTANT IN DECISION TO LEAVE OR STAY (N = 58)*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Leavers N = 28</th>
<th>Stayers N = 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Intellectual stimulation among colleagues in the library</td>
<td>29%</td>
<td>13%</td>
</tr>
<tr>
<td>2. Competence of colleagues</td>
<td>29</td>
<td>57</td>
</tr>
<tr>
<td>3. The feeling of collegiality in the library</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>4. Your relationship with co-workers in your immediate section/unit</td>
<td>36</td>
<td>53</td>
</tr>
<tr>
<td>5. Your relationship with your immediate supervisor, if other than the dean, associate or assistant dean</td>
<td>32</td>
<td>57</td>
</tr>
<tr>
<td>6. Your relationship with the dean of libraries</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>7. Your relationship with subordinates</td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td>8. Communication within your section/unit</td>
<td>18</td>
<td>47</td>
</tr>
<tr>
<td>9. Autonomy in executing duties</td>
<td>25</td>
<td>67</td>
</tr>
<tr>
<td>10. Opportunity for creativity</td>
<td>21</td>
<td>47</td>
</tr>
<tr>
<td>11. Stimulating work</td>
<td>36</td>
<td>70</td>
</tr>
<tr>
<td>12. Opportunity to change jobs within the library</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>13. Opportunity to participate in decision making</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td>14. Performance expectations (work load)</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td>15. Lack of age discrimination</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>16. Competence of your supervision</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td>17. Level of encouragement for professional development</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>18. Lack of sexual discrimination</td>
<td>18</td>
<td>33</td>
</tr>
<tr>
<td>19. Adequacy of support staff</td>
<td>7</td>
<td>53</td>
</tr>
<tr>
<td>20. Salary</td>
<td>32</td>
<td>47</td>
</tr>
<tr>
<td>21. Future salary prospects</td>
<td>43</td>
<td>53</td>
</tr>
<tr>
<td>22. Institutional support for existing programs (e.g., collection development, automation)</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>23. Institutional support for travel, conferences, and research</td>
<td>29</td>
<td>43</td>
</tr>
<tr>
<td>24. Size of the town</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>25. Cultural and recreational opportunities</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>26. Family considerations</td>
<td>11</td>
<td>40</td>
</tr>
<tr>
<td>27. Support for the library in the university community</td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td>28. Career goals</td>
<td>43</td>
<td>37</td>
</tr>
</tbody>
</table>

*This table includes only those factors with which at least 25% of either group were dissatisfied.

more dissatisfied with the institution's ability to fulfill their career goals (see table 3, item 28).

Family considerations were considered very important by only 11% of the leavers and few of these expressed any dissatisfaction with this factor. The size of the town and its cultural and recreational opportunities were considered very important by 25% and 36% of the leavers respectively, but few were dissatisfied with the size while 25% were dissatisfied with the cultural and recreational opportunities.

How did the responses of those who left compare with those of the librarians who stayed? On the whole, the librarians who stayed were more dissatisfied than those who left. The leavers were more dissatisfied than the stayers only with the implementation of their career goals and their relationship with the dean (a new dean was appointed in 1985). It is worth noting that the librarians who left were less dissatisfied with money issues than the currently employed (see table 2, items 20, 21, 22, 23). In the case of external factors, those who left were slightly more dissatisfied with the recreational and cultural opportunities than those who stayed (see table 2, item 25). Neither group was very dissatisfied with either the size of the town or their family situations.

At the end of the questionnaire, the former UNL librarians had the opportunity to state their reasons for leaving. If dissatisfaction led to turnover, we would expect the narrative responses to corroborate the results of the questionnaire. In other words, the librarians' departure would have been triggered by an aspect or aspects of their lives at work or in the immediate environment with which they
TABLE 2
FACTORS WITH WHICH LIBRARIANS EXPRESSED DISSATISFACTION (N = 58)*

<table>
<thead>
<tr>
<th>Question</th>
<th>Leavers N = 28</th>
<th>Stayers N = 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Your relationship with the dean of libraries</td>
<td></td>
<td>29%</td>
</tr>
<tr>
<td>19. Adequacy of support staff</td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td>20. Salary</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>21. Future salary prospects</td>
<td></td>
<td>32%</td>
</tr>
<tr>
<td>22. Institutional support for existing programs (e.g., collection development, automation)</td>
<td>21%</td>
<td>37%</td>
</tr>
<tr>
<td>23. Institutional support for travel, conferences, and research</td>
<td></td>
<td>29%</td>
</tr>
<tr>
<td>25. Cultural and recreational opportunities</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>28. Career goals</td>
<td></td>
<td>29%</td>
</tr>
</tbody>
</table>

*This table includes only those factors with which at least 25% of either group were dissatisfied.

TABLE 3
TOTAL DISSATISFIED*

<table>
<thead>
<tr>
<th>Question</th>
<th>Managers N = 18</th>
<th>Nonmanagers N = 32</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Opportunity to participate in decision making</td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>17. Level of encouragement for professional development</td>
<td></td>
<td>33%</td>
</tr>
<tr>
<td>20. Salary</td>
<td></td>
<td>39%</td>
</tr>
<tr>
<td>21. Future salary prospects</td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>22. Institutional support for existing programs (e.g., collection development, automation)</td>
<td>39%</td>
<td>25%</td>
</tr>
<tr>
<td>23. Institutional support for travel, conferences, and research</td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>27. Support for the library in the university community</td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>28. Career goals</td>
<td></td>
<td>17%</td>
</tr>
</tbody>
</table>

*This table includes only those factors with which at least 25% of either group were dissatisfied.

were dissatisfied. In fact, the narrative responses underscored the important role dissatisfaction with managers, career goals, and money issues played in the individual's decision to leave. Fourteen of the 23 respondents to this part of the survey gave dissatisfaction with a supervisor as a reason for leaving, making this the most frequently mentioned cause of turnover for this group. The importance of career goals in the turnover decision was also emphasized by the narrative responses: 5 librarians left because of their interest in professional development, including exposure to automation, and four left for administrative advancement. Pay was the next most frequently given reason for leaving.

The narrative responses stressed the importance of work-related factors in the turnover decision. Of the 23 who described their reasons for leaving, only 4 failed to mention some aspect of the situation at work as a reason for leaving. In all, 43 of the 55 reasons given by 18 of the respondents included, beyond the major reasons listed above (supervisors, career goals, pay), such factors as dissatisfaction with colleagues, with the decision-making process, with communication between sections, and with their particular job description. Almost always, the respondents listed several conditions at work as reasons for leaving.

Few librarians who left felt that family considerations or closeness to relatives or friends were important in their decision to leave. However, 9 listed personal reasons as the cause of their departure. Of these, 3 listed personal reasons as the only reason for leaving. Two left because of a spouse's job, and the third left because of the need for personal growth. Geographical location was mentioned 6 times, but always in combination with other reasons.

DISCUSSION

The results suggest that employees who
intend to leave will usually leave. The greatest mobility seems to occur among those with less than five years at the institution. Administrators can anticipate higher turnover rates among employees with less tenure on the job and among those who state an intention to leave.

Dissatisfaction with the job does not seem to be a potent reason for leaving because, as a group, the librarians who left were less dissatisfied than the current staff. However, strong dissatisfaction with one factor in the workplace, such as dissatisfaction with a supervisor or an administrator, may lead to a decision to leave.

Neither group expressed much interest (less than 25%) in opportunities for administrative or faculty rank promotions or in the opportunity to conduct research. This lack of interest reveals some interesting attitudes on the part of the professional staff. Librarians at UNL have had faculty status since 1974, yet the rewards and obligations of academic status as defined by teaching faculty—the opportunity to conduct research or the higher status associated with a rise in rank—were not important to them and presumably had little effect on turnover at this institution. More important to the two groups studied were factors related to the actual performance of their job, the opportunity to do stimulating work (which did not seem to include research), relationships with their colleagues and their supervisor, and current and future salary prospects. The data at UNL suggest that the rewards of research and promotion are not significant enough in themselves to affect a librarian's decision to stay or leave.

Managers will not be surprised to discover that money issues, including support for travel, research, and library programs, were the greatest sources of dissatisfaction in both groups. However, they may be startled by the suggestion that these issues are a source of greater dissatisfaction to managers than to nonmanagers. Administrators concerned with turnover may need to worry more about raising the salaries of the employees who are better paid, i.e., the managers, than about improving the salaries of their nonmanagerial staff.

Few of the nonmanagers who left UNL took administrative positions. This may be attributable to their lack of managerial experience. But it is also possible that nonmanagers may be less interested in moving up than in pursuing additional specialization in their areas of interest. Staff development programs and autonomy in developing particular job descriptions may keep valued employees at the institution.

"Staff development programs and autonomy in developing particular job descriptions may keep valued employees at the institution."

The findings in this study indicate that the factors with which employees express dissatisfaction cause them to leave. However, the reason(s) most people leave do not necessarily explain why an individual chooses to leave. Thus, while few people in our study thought family reasons were important in making their decision to leave or stay and few were dissatisfied with their personal lives, for some the decision to leave was made solely on the basis of a spouse's employment possibilities.

While some aspect of a job may be more important than others, e.g., the relationship with a supervisor or the opportunity to implement career goals, employees may actually leave because of a factor or factors that are especially significant at a specific time. For example, while a feeling of collegiality may not be important to all employees, it may be vital to some. The causes of turnover and job attachment are so complex that general conclusions cannot be applied to the understanding of a specific case. It is incumbent on the manager to understand employees well enough to create the specific conditions that will keep valuable employees at the institution.

MODEL

The problem for the manager is to determine the effect that library conditions
have on turnover. The potential for turnover can be understood as a balance between factors that keep employees on the job and factors that drive them away. These factors are external, work related, and personal. Figure 1 shows the relationship between these categories and the decision to leave or stay at an institution.

The model emphasizes the importance of satisfaction or dissatisfaction in the decision-making process. The individual at the center of the process assigns positive, negative, or neutral values to situations. A negative value will cause dissatisfaction with the situation, a positive one satisfaction, and a neutral one indicates a lack of importance. The overall balance between satisfaction and dissatisfaction will determine the degree of motivation to leave.

Let us examine the three major categories that affect the decision to leave or stay. The "external environment" includes all the local conditions such as the attractiveness of the community, the quality of its schools, and its civic life, which are beyond the control of the employer. The second category, "work-related factors," encompasses the employee's relationships with co-workers and supervisors, funding, salary, working conditions, quality of management, the goals of the institution, and the characteristics of the individual job. The final category, "personal factors," reflects personal characteristics such as marital status and commitment to the institution.

The importance of these factors is determined by the individual. For example, professional goals, the importance accorded to work as weighed against other responsibilities, the individual's particular position and status, and the attractiveness of the community necessarily affect the strength of attachment to the current job. These individual characteristics also color the perception of job potential at the institution. If employees believe the potential for growth and advancement is high, they are more likely to remain committed than if the potential is perceived to be low. The strength of this commitment determines the overall level of satisfaction with the current situation which in turn controls the degree of motivation to leave. Once the decision is made, the individual may reevaluate the situation and alter the importance of particular values.

**IMPLICATIONS FOR RESEARCH**

This study was conceived as a pilot in the investigation of turnover among professional librarians, and it posits that librarians are a distinct population with specific psychological characteristics, needs, and aspirations. According to this study, librarians consider their relations with their co-workers and the opportunity to do stimulating work to be very important to them. They are also concerned about funding, for themselves and their institutions, and less concerned about the local cultural and recreational climate. However, when tenure standards do not require it, they seem to care little about doing research, rising in rank, or interacting...
with the teaching faculty. Forcing librarians to behave in the manner of teaching faculty may cause dissatisfaction and thereby contribute to turnover. More work needs to be done on the impact of faculty status, privileges, and obligations on turnover rates among librarians.

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Forcing librarians to behave in the manner of teaching faculty may cause dissatisfaction and thereby contribute to turnover.
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Additional work also needs to be done to define the specific characteristics of librarians in comparison with nonprofessionals. Among professionals, distinctions need to be made along demographic and work-classification lines, e.g., managers/nonmanagers, catalogers/reference librarians, librarians/middle managers/deans. Our observations suggest that there are significant differences between managers and nonmanagers and between employees with longer and shorter tenure at an institution. Because our sample was small, these observations need to be replicated by studies at other institutions.

**REFERENCES AND NOTES**

1. The Association of College and Research Libraries is supporting a study of turnover by James Neal, with the assistance of Gordon Fretwell.


4. The ARL statistics compiled thus far do not include any breakdowns between professional and nonprofessional library employees. Total salary and wage expenditures for ACRL libraries listed in ACRL University Library Statistics, 1985-86 & 1986 "100 Libraries" Statistical Survey (Chicago: ACRL, 1987), p. 21, range from 30% to 59% of the total operating expenditures, with a median of 47%.


6. Tenure at UNL is awarded on the basis of superior job performance; promotion depends on research, superior job performance, publication, and professional activities.
Users’ Persistence in Scanning Lists of References

Stephen E. Wiberley, Jr., and Robert Allen Daugherty

One of the basic information-seeking activities where library users might experience information overload is scanning lists of references. Because much information seeking is discretionary—users may abandon a search without fear of penalty—lists that are too long may influence users to stop searching. This article summarizes both librarians’ opinions about the number of references that constitute too many and reports of users’ behavior with lists of various lengths. It covers preferences for maximum numbers of references from online searches, online public access catalog postings, and manual indexes. It concludes with implications for practice and research.

Information overload is a familiar term in the 1980s, but little is known about how it affects the behavior of individual information seekers. As J. Michael Brittain has pointed out:

The belief of most practising librarians has been that information per se is good; the more the better. There has been little or no concern about users’ ability to digest and make use of information, or about the optimum flow of information in terms of work tasks and users’ ability to process information. We should not be too critical of library researchers on this front. These problems are formidable indeed, and social scientists, including computer scientists and psychologists, have themselves not been particularly successful in researching into human information processing.

The effects of information overload become particularly interesting when one considers that much information seeking is discretionary, i.e., the person seeking information may abandon a given search strategy either because the information sought is not vital or because an alternative strategy seems potentially more fruitful. Common experience shows that people do not like to work their way through masses of information. Executive summaries, abstracts, and review essays all stand as evidence that readers are impatient with long presentations. Thus, when confronted with a large number of references, a searcher may use discretion to adopt a new search strategy or to end the search entirely. Designers of information systems need to take this into account.

Is there a maximum number of references beyond which most people will not scan, choosing instead either to abandon entirely a search for information or to adopt an alternate strategy? This is one of the most basic questions a systems designer must ask about information overload. References may include postings on video display terminals and entries in manual indexes. If such a number or limit exists, then designers need to develop systems accordingly. If not, then they should not waste resources offering help that generally is not needed.

A review of the literature indicates that no one has addressed this question sys-

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tematically, but some either assume or offer evidence that most people do have a limit on the number of references they will scan. One investigator who assumes this to be true has given a name to the limit. David C. Blair defines the "anticipated futility point" as the "maximum number of retrieved documents that an inquirer would be willing to begin browsing through." While Blair concentrates on the user's response to documents, his term "anticipated futility point" could be applied to lists of references as well. Others have not given the limit a name, but have offered two kinds of evidence about it: (1) opinion about how many references are too many, and (2) reports of users reactions to particular numbers of references.

This article attempts to summarize and compare these opinions and reports, but makes no claims to cover all the relevant literature. Nevertheless, the summary is extensive enough to bring the question of persistence in discretionary scanning of lists of references to the attention of researchers and practitioners and to provide them with information on which to base further investigations and practice. But first, discussion of discretionary information seeking is helpful.

**COMPULSORY AND DISCRETIONARY INFORMATION SEEKING**

People seek information in a variety of circumstances and from a variety of sources. In many cases a person risks a penalty for not finding information that is known to be in a source. For example, bank personnel will search long and hard to find a cancelled check supporting the bank's position in a lawsuit. Similarly, a student will assiduously seek required readings that an instructor has stressed as crucial to success in a course. Failure to find these readings may diminish the student's success. Such searches may be called compulsory information seeking.

Compulsory information seeking differs from most information seeking done in academic libraries and from much other information seeking that people do. Non-compulsory or discretionary information seeking entails searching for information that is not essential and/or whose source is not known with certainty. For example, a student knows exactly the source of information relevant to his term paper. He decides not to retrieve that information because the paper is already adequately documented. Here information is not essential. Or, an executive must report about her company's salary structure. She knows that needed data are in a computer file, but cannot remember which file. While the overall search for these data is compulsory, the search of individual files is discretionary since the content of each is not fully known. Thus, the executive may use discretion to abandon the search of a given file. Discretionary information seeking also includes cases where both information sought is not essential and the searcher is uncertain about its source.

"... users often have little or no reason to persist in using systems that are 'unfriendly.' "

It is important for those who design and service information systems to realize that much, perhaps most, information seeking is discretionary. Because of this, users often have little or no reason to persist in using systems that are "unfriendly." Numerous factors impinge on the persistence of users. Most of these factors are beyond the influence of those who create information sources. For example, they cannot shape the personality of the user, increase the time available for the search, ensure that the site will be comfortable, or that the searcher's peers and superiors will encourage persistence. Designers and compilers do, however, have some control over how the manual index or computer system will display a given number of references and assist in their manipulation. The review of the literature that follows concentrates on the maximum length of a list of references that people are willing to scan in online databases, online public access catalogs (OPACs), card catalogs, and printed indexes.
PREFERENCES FOR REFERENCES: ONLINE SEARCHING

End-users and search analysts have shown great diversity and range in their preferences for number of references from an online search. (An online search may be defined as an interactive query by an intermediary or an end-user of one or more bibliographic databases compiled and loaded by one or more vendors. For example, an intermediary or an end-user may search ERIC or Psychological Abstracts and access those databases through BRS or Dialog or on CD-ROM.)

In an overview of online searching, Arleen N. Somerville raised the issue of finding too many references. She urged intermediaries to "determine the range of total citations acceptable to the user." She asked, "If a search produces 150 references, is that acceptable?" One hundred-fifty is higher than most other standards. One search service placed the limit per search at 100 references without abstracts, 50 with abstracts. A second service conducted by Lockheed normally supplied between 70 and 90 citations per search. A third service, which searched ERIC, held that "when the results appear to be on target and sufficient in quantity (30? 50? 70?) we generally manipulate no further unless we are preparing for a research paper or for someone whom we know wants total recall rather than precision." Marcia Bates observed that students generally consider 75 or 100 references to be the limit for a search. Finally, an SDI service for chemists and engineers limited the bibliographies it created each week to 35 references. In assessing the relevance of such standards to user persistence, it is important to remember that intermediaries who set standards are concerned with the cost of a search as well as information overload.

The limits and ideal numbers discussed thus far were set by intermediaries. While they probably took into account end-users' preferences, they did not report directly what users prefer. Reports about end-users suggest that the preferred limit lies somewhere under 50 references, but show that the range varies greatly. On the one hand is the account of a search where the end-user apparently wanted all 303 citations retrieved. At the other end of the spectrum, David Raitt states that scientists and engineers with whom he works "are content to find a relatively low number of references (c. 10–15)." Like Raitt, Charles Anderson and Ann Weston have found that patrons in their public library prefer 10 to 20 very relevant citations. Reportedly, one chemist would regularly search online, "narrowing his strategy until he had 50–60 references, then printing these offline." And, in a program that trained end-users on BRS/After Dark, the mean number of references retrieved was 31.5. These are limited data, of course, and none was gathered with the purpose of describing the upper limit of number of references that users prefer to scan. Yet they give some sense of preference and range. Moreover, they remind us that individual circumstances are crucial in determining the number of references a particular person at a particular time is willing to use.

John Edward Evans has compared end-users' reactions to one program where there was no limit to the number of databases searched in response to a query with reactions to a program where searching was limited to one file. Multifile searching typically retrieved 94 citations per search, while single file searching usually yielded 70. End-users seemed to prefer the shorter lists:

Researchers seem to be more interested in a relatively restricted list of subject-specific citations appropriate to their research, not in the accumulation of vast bibliographies of possibly useful sources.

Unfortunately, the value of these data is limited by Evans' admittedly unscientific sampling of end-users' opinions. Despite this, the conclusion that 70 references is optimal falls near the median number recommended by search analysts.

Overall, then, the observed preferences of end-users and the recommendations of search analysts generally fall between 50 to 70 references per search. This implies that search analysts should retrieve no
more than that range, unless the end-user requests more.

PREFERENCES FOR REFERENCES: OPACs

While end-users usually access online bibliographic databases through a search analyst, almost all users of Online Public Access Catalogs (OPACs) interact directly with the systems. End-users' persistence in scanning lists of references—usually called postings in the case of OPACs—could be explored through protocol analysis, transaction log analysis, focused group interviews, or by questionnaires, but thus far no one has completed such a study.

Karen Markey has commented perceptively on user persistence, (she uses the term "perseverance"), but her work has emphasized persistence in entering search statements. Since her work does not address systematically the issue of persistence in scanning postings, its value is limited here. Nevertheless, her findings are well worth reviewing. On the one hand, she reports cases where users displayed all 205 items retrieved and printed 51 of 51, 76 of 76, and 88 of 88 found. On the other hand, she describes instances when the user did not scan or print any postings (0 of 266) or displayed only a fraction of the postings: 32 of more than 999, 20 of 673, 19 of 237, 58 of 205, 34 of 123, and 15 of 35. These data suggest users can be remarkably persistent on occasion but, in general, need to scan roughly 15 to 35 postings to comprehend, to their own satisfaction, what a search tells them.

The literature about the design of OPACs indicates a range of practice and opinion regarding persistence in scanning references. For example, one OPAC prompts the user to enter additional information when author searches exceed 20 retrievals. Nancy John has suggested that 30 is the maximum number most end-users will scan. The Books Are For Use Project attempted to limit the lists of references it retrieved in each search to 25 items. Also, OCLC, which in many ways resembles an OPAC, prompts users to reduce postings when a search retrieves more than 50. Depending on the applica-

tion, Markey has made a number of recommendations regarding the introduction of aids to the user who is confronted with long lists of postings. In general:

Access points that result in 200 or more retrieved items could be accompanied by a "suggestive prompt" which asks the searcher if he would like to refine the retrieved items by entering additional search terminology. Likewise, when the searcher scans through displays of 100 or more items, introduced into the dialog could be a suggestive prompt that asks the searcher what nonrelevant terminology continually appears in the output or what terminology has appeared in the online display that is particularly interesting.

For keyword-in-context displays of subject headings that exceed 50 postings, she recommends the results be categorized by subdivisions. When author searches or title searches or author/title searches exceed 20 postings (or two screens of brief title displays), they should conclude with a message that reminds users of the system's capability to limit the results, e.g., by year, language, or format.

"... users seem to prefer to scan a smaller number of references from an OPAC than from an online search."

Overall, the data reported here about user persistence and the recommendations for design of OPACs suggest the number of postings that users will scan at an OPAC is somewhat less than the number of references they want from an online search, although there are exceptions. Several search analysts or end-users have shown a preference for more than 50 references from an online search. While some OPAC users will look at more than 50, most are satisfied with looking at fewer than 35 OPAC postings. Only two recommendations for OPAC design allowed for more than 50 postings to be displayed at one time. Use of an OPAC differs from an online search, and three factors may influence users to prefer shorter lists of references from OPACs than from online searches.
First, an end-user seldom receives assistance in use of an OPAC, but intermediaries often search online databases for end-users. Second, the end-user almost always takes a printout of the results at the conclusion of an online search, but OPAC users often have to write down results of their searches. Users tend to want to write as little as possible, and they can usually find all they are willing to write by scanning 35 or fewer postings. Third, many users search OPACs simply to find a few relevant call numbers of books, while users of online search services are often looking for a bibliography, usually of journal articles, on a subject. The bibliography will be referred to intermittently over a period of time, so the user can tolerate more references than he or she normally likes to scan at one time. In contrast, the call numbers sought from an OPAC may be for known items that can usually be retrieved without calling up a large number of postings with them. Or call numbers may be the result of a subject search where the user wants to browse the shelves for books on a given topic. In subject searches, scanning 15 to 35 or fewer postings often tells the user if the search has yielded relevant material. These differences between online and OPAC searches may explain why users seem to prefer to scan a smaller number of references from an OPAC than from online searches. At the same time, it is important to realize that past experience and opinion include exceptions to these generalizations, and future research may change these conclusions.

PREFERENCES FOR REFERENCES:
MANUAL INDEXES

Machine-readable systems generate references far faster than manual systems and can provide a copy with virtually no effort on the user's part. Manual systems require the user to do much more work. Consequently, users of manual indexes (including card catalogs) prefer to scan even fewer references than users will scan from online searches and in OPAC use. Preferences for references in printed sources range from 7 to 50, but, for the most part, do not exceed 20. Limits recommended for card catalogs allow for more references than those given for printed indexes.

John Wallace Metcalfe suggested that entries under a given term in a classified or alphabetical catalog be limited to 50. When entries exceed 50, the term should be further specified. 23 In his Rules for a Dictionary Catalog, Charles A. Cutter argued that, wherever possible under subject headings, titles should be "broken up into sections containing from half a dozen to a score." 24 In comparing people's behavior with references displayed in different media, R. S. Marcus found that "the user who scans 50 references on a CRT may limit himself to 20 or less on a typewriter and 5 or less in a traditional library." 25

Designers and critics of printed indexes in books seem to place the outer limit of a reader's patience at fewer than 10 items. While Alec Clifton-Taylor complained that 17 was too many undifferentiated references to appear after a personal name in an index, most do not allow as many. 26 The design of the Modern Language Association's CIFT indexing system allows for no more than 10 bibliographic references to appear under a single descriptor. 27 Likewise, J. H. Hexter has criticized the index to the Proceedings in the Parliaments of Elizabeth I: 1558–1581 for failing to limit undifferentiated strings of page numbers to 10 or fewer. 28 Bonnie Gratch, Barbara Settel, and Pauline Atherton also recommend that "if an index entry is followed by 10 or more locators, some attempt should be made to subdivide the entry for ease of reference to specific aspects of the subject." 29 Finally, G. Norman Knight contended that "about seven references should be the absolute limit" for undifferentiated page numbers under a given entry. 30

The apparently lower tolerance for references in printed, back-of-the-book-style indexes compared to card catalogs is understandable. A card catalog user, like an OPAC user, wants to take from a search selected elements of catalog records, for a few items at most. Transcription of such information from the cards to paper is relatively straightforward. On the other hand, flipping back and forth between an
IMPLICATIONS FOR RESEARCH AND PRACTICE

Traditionally librarians have been concerned with maximizing the amount of information they provide users. This is reasonable because users often do not find enough information. But the concern to maximize retrieval, combined with the common assumption that more is better, can lead to excess. Librarians need to be sensitive to the possibility of overloading users with information. In this regard, one of the most interesting aspects of the "Search Evaluation Questionnaire" developed and recommended by the Machine-Assisted-Reference-Services section of RASD is that it asks users if they found enough from their searches, but does not ask if they found too much. The former question is very important, but, as data gathered in this article show, there are times when the latter question is equally or more significant.

The possibility of exceeding a user's tolerance for a list of references should be recognized because so much information seeking is discretionary and users may well abandon a search if they are presented with more references than they are willing to scan. Coping with this is a challenge for system designers and librarians. Greater understanding of its nature is a challenge of research. Researchers must better describe and analyze this problem, so that system designers and librarians can address more successfully its practical aspects. The possibilities for research, system design, and librarianship are numerous. Only a few can be mentioned here.

"... online systems have particular promise for revealing how users respond to information overload."

In research, online systems have particular promise for revealing how users respond to information overload. A computer-based system can keep a log of each step in the interaction between user and machine. Because this record of interaction is obtained unobtrusively, the data-gathering process does not affect the user's behavior as it might with other methods such as protocol analysis. Analysis of system logs will not tell all, but such analysis combined with questioning of users after they complete a search session may offer great insight into motivation and behavior in coping with information overload.

Some designers of print and computer-based indexes have taken steps to help users cope with too many references or postings. The question, particularly for the designers of machine-driven systems, is whether their aids to users can be made more effective. The studies of OPACs sponsored by CLR have made recommendations in this area. If research determines that a majority of OPAC users do not scan more than 35 postings and online searchers more than 50, designers could take this into account. For example, they could withhold system prompts until these thresholds are exceeded. Limiting the frequency of display, such prompts would presumably make them more noticeable when they did appear and, therefore, more likely to help the user.

Finally, the librarian, whether searching for information or guiding the user in a search, always needs to be sensitive to the possibility of overloading the user. Here, awareness of techniques to deal with the problem is particularly important. Marcia Bates has outlined a number of search tactics that are particularly helpful in coping with information overload.

As databases become larger and larger and as increasing numbers of them are linked, the possibility increases that those who seek information will encounter lists of references longer than they are willing to scan. Because information overload can influence persons to use their discretion and abandon their searches, it is important for researchers, system designers, and librarians to work together to help users cope. Effective effort to assist users who need help with long lists of references is a significant challenge in our age of information overload.
REFERENCES AND NOTES


16. Karen Markey, Subject Searching in Library Catalogs: Before and after the Introduction of Online Catalogs (Dublin, Ohio: OCLC Online Computer Library Center, Inc., 1984) p.67-71. For a case where scanning the first 20 postings apparently was enough for the user to comprehend a list of 323 references, see Mary L. Calkins, "Free Text or Controlled Vocabulary?" Database 3:58 (June 1980).


27. James D. Anderson, "Contextual Indexing and Faceted Classification for Databases in the Hu-


31. Markley, Online Catalog Use, p.74.


IN FORTHCOMING ISSUES OF COLLEGE & RESEARCH LIBRARIES

Foreign Library Materials Prices: A Report
by Frederick C. Lynden

Charting a Career Path for the Information Professions
by Leslie M. Kong and R. A. H. Goodfellow

The Learning Resource Center's Role in the Community College System
by Doris Dale

Evaluating the Smaller Library Collection: The Conspectus Approach
by Larry R. Oberg

Conspæctus: An Aid to Collaborative Collection Development and a Source of Practical Internal Benefits
by Anthony W. Ferguson, Joan Grant, and Joel S. Rutstein

Academic Library-State Library Relationships: The Pennsylvania Needs Assessment
by Charles Townley
This study’s aim was to determine how scholars who are native speakers of English approach writing monographs on foreign literary topics and to compare these findings to those of the author’s earlier study of the monographic literature of English and American literature and of the journal literature of the humanities. All references were tabulated for 30 monographs—15 prizewinners and 15 randomly selected nonprizewinners in the same Dewey classes.

This study’s aim is to determine how scholars compose monographs dealing with foreign literary subjects and to compare these findings to those of studies of both the monographic and the journal literature of the humanities and related social sciences such as history. This project seeks to determine the nature (book, journal article, manuscript, thesis) and the chronological spread of the bibliographical sources cited by native speakers of English in preparing studies of foreign literature in English. Further distinctions are made as to the language of the cited item, whether it is a primary or secondary source, and whether it is a self-citation.

All references, including implicit citations in the text that are not formally cited, are tabulated for 2 samples of monographs, 15 prizewinning books reported in Publishers Weekly’s annual list of literary and publishing awards and 15 nonprize-winning books drawn from the same Dewey classifications and with the same period of publication as the prizewinners. These nonprizewinners are randomly selected from American Book Publishing Record.

The Publishers Weekly list of annual prizes was chosen because it provides a wide spectrum of awards in all areas of scholarly publication with some prizes specific to a genre of scholarly endeavor and others more broadly based in the humanities and social sciences. These prizes include the American Book Awards, the Alice and Edith Hamilton Award, the Modern Languages Association of America Award, the Christian Gauss Award, the Phi Beta Kappa Book Award, the James Russell Lowell Prize, the Morris J. Kaplun Memorial Award, the Pulitzer Prize, the British National Book Award, the National Book Critics Circle Award, and the George Freedly Memorial Book Award. This wide spectrum of awards was preferred to more narrowly academic awards for specialist monographs. While some specialist monographs are chosen for the prizes reported by Publishers Weekly, a monograph examining a broader
or more popular topic is apt to be ignored by the more strictly academic prize committees.

The data thus gathered are compared and contrasted to findings concerning both the monographic and the journal literature of the humanities to determine whether patterns of scholarship shown in the preparation of monographs on foreign literature differ from those shown in the preparation of studies of American or British literature. Books are divided between prizewinners and nonprizewinners to learn what distinctions, if any, obtain between the scholarly practices of authors whose scholarship is acknowledged by their peers through the receipt of prestigious awards and those whose works lack such recognition.

This study seeks to determine if certain traits or patterns of scholarship in the preparation of manuscripts that are found more frequently among prizewinning authors than among nonprizewinners can be isolated. The author's 1985 study of the monographic literature of British and American literary studies found significant differences in scholarly practices between books that won prizes and those that did not. Prizewinners were longer, cited many more sources, and cited manuscripts much more frequently than did nonprizewinning book or journal articles. While both types of monographs and journal articles in the humanities cited books more heavily than any other type of source, more than 37% of prizewinning monographic references were to articles, manuscripts, or theses. Prizewinners also exhibited a more even spread of references chronologically than did nonprizewinners.

Combining the results of this study with those of the author's previous work on the monographic scholarship of English and American literature provides a tentative sketch of the shape of English-language monographic publication dealing with literary criticism of both English-language and foreign literatures by native speakers of English. Collection development officers and bibliographers require more than ever a heightened grasp of the shape of the disciplines entrusted to them in times of fiscal austerity marked by dissatisfaction with library strategies to serve the research needs of scholars. A 1985 survey of 3,825 scholars in the humanities and social sciences revealed that 52% of the researchers surveyed relied upon interlibrary loan and 77% upon the personal acquisition of needed sources, particularly of a serial nature, rather than on local library holdings in meeting their research needs. While many scholars have examined the journal literature of all disciplines, they have paid less attention to monographs, presumably for lack of a convenient methodology allowing the examination of a large enough sample to provide statistical validity for its projections. Workable studies must limit themselves to such small sample populations that only tendencies may be isolated. In these two articles on the monographic literature findings are compared to earlier studies of the journal literature of the humanities, including history, the social science most frequently treated as akin to the humanities.

These monographic literature studies differ in one important respect from the studies of the journal literature of the humanities and history consulted in this project. The latter were citation studies in which any source was tabulated only once regardless of how frequently the author cited it. While such a procedure may be appropriate for the study of journal articles, it would misrepresent the value of frequently cited sources and would skew the weighting of the decades where they appeared in the chronological survey. Standard editions of texts, collected letters, manuscript collections, autobiographies, standard biographies, and memoirs are basic tools for humanistic research, while the sciences or the social sciences draw more heavily on survey or experimental studies. Counting these much cited works as single citations minimizes the important distinctions between the patterns of research in the humanities and other disciplines. Thus, this is a reference study where each reference is tabulated as frequently as it occurs. This practice has the limitation that the comparisons made between these two reference studies of humanities monographs
and citation studies of the journal literature of the humanities may be misleading, even while seeming mutually supportive. While the previous study of monographs did not isolate foreign from English-language references, the author’s admittedly subjective impression is that relatively few of the references were to foreign sources, even though any cursory examination of the annual MLA bibliographies will confirm that there is no dearth of foreign-language scholarship on English and American literary topics. The inference to be drawn is that most English-speaking scholars ignore the bulk of this foreign research, and studies of journal articles show that to be the case for the journal literature.

Studies demonstrate that most scientists and many social scientists dismiss non-English-language research as irrelevant in the face of the quantity and the quality of relevant English-language publications. This study addresses such questions as whether the same types of publishers issue monographs on both American and British literature and on foreign-language literature. This article also examines the attitudes toward the need to master foreign languages and the use of translations, summaries, and abstracts by literary scholars who are native speakers of English.

BACKGROUND

In 1979, Charles B. Osburn documented the ever-growing emphasis on English-language scholarship in the scholarly community throughout the world since the end of World War II. He found that the number of citations in The Annual Bibliography of English Language and Literature had increased from 4,994 in 1937 to 13,044 in 1972 with no comparable explosive growth rate for romance philology in the same period. The most recent (1982) edition of this reference tool shows 14,242 citations. A comparable check of the MLA Bibliography between 1973 and 1984 shows an increase in the number of citations to English and American literature and a decline in the number of citations to the romance language literatures. In 1973, there were 9,272 citations in the MLA Bibliography for English and American literature and 8,911 for that of the Romance languages. In the 1984 volume, one finds 11,302 citations to English and American literature and only 8,042 to that of the Romance languages. Of course, English citations to foreign topics appear with the foreign sections and vice versa, but it still seems clear that English and American literary scholarship outdistances that of the Romance languages. Indeed, English and American literary studies account for 40.5% of all the world’s literary criticism in any language listed in the 1984 MLA Bibliography.

“... English and American literary studies account for 40.5% of all the world's literary criticism in any language listed in the 1984 MLA Bibliography.”

Osburn further suggested that, while the humanities are adopting certain techniques and quantitative methodologies from the sciences and social sciences, literary scholarship is more resistant to such tendencies because of necessarily subjective impressions fostered by the very nature of language:

It is doubtful that a concept of historiographic structure can be properly applied to the study of literature, at least not on a national scale, and a survey of professional writing in the field reveals that there is less attention given the matter in literature than in any other academic area. The study of literature is more closely related to an understanding of language than any other field, since literature is a recorded form of verbal self-expression. A natural consequence of this is the intrusion of ideologies and cultural perspectives along nationalist lines into the study of literature.

Scholarly publishing in the United States rose from under 35% of the total domestic publication in 1950 to over 46% in 1976, and statistics such as those quoted by Osburn continue to reflect the ever-increasing importance of English-languages research worldwide in all disciplines. This American (and other
English-language) scholarship has progressively dominated the research activities of English-speaking academics, since scientists and many social scientists perceive the most significant research as being mainly in English.

In W. T. Hutchin's 1971 British study, when asked if they suspected that they were missing important non-English-language research, 23% of humanities scholars answered "probably"; 28.2%, "possibly"; 27.4%, "unlikely"; and 18.8% answered "no." Fully 64% of the social scientists and 24.8% of the humanists believed that all vital research appeared in English, English translation, or summary within four years of publication. These scholars also ranked research done in non-English-speaking areas as less important than that done in the United States, the United Kingdom, and the Commonwealth. Only 11.1% of the scholars surveyed by Hutchins could read all foreign languages relevant to their research, but 10.2% claimed to have too much English criticism to read to consider foreign scholarship.6

The value of translations is not ranked highly by scholars in any discipline. Scientists and social scientists prefer review articles, abstracts, or summaries as quicker, more economical guides to foreign publication, and even in the humanities, where a researcher's style or the minutiae of the argument might be expected to be more highly valued, translations are not championed. Moreover, countries with a strong nationalist pride in their languages and where few other languages are spoken on a wide scale, such as the United States, Great Britain, or France, tend to be openly suspicious of translations.7 In the United States, even university presses are increasingly wary of publishing translations; they state that books of wide interest should be published by trade presses, while books of special interest are too dubious a prospect commercially for houses that publish only 70 or so titles a year.

According to Kitty Harmon, it is harder now to publish translations than in the 1960s, a time of relative financial stability and prosperity. Even rave reviews led to the sale of no more than one-third of the first printing of translations, while the work of first-rate translators is becoming more expensive.8 Herbert Bailey, Jr., observes that studies of foreign language topics in the humanities are apt to be restricted to the following categories: single works of literature, less well-known or premodern authors, linguistics and philosophy—all areas avoided by commercially minded publishers.9

**METHODOLOGY**

Since the *Art & Humanities Citation Index* does not tabulate citations for monographs, a study of monographic literature reference patterns required the examination of each monograph to check all footnotes or endnotes and to skim each page for implicit references. The labor-intensive nature of the methodology, with its page-by-page examination of each book and the notation of each reference in several categories, led to the decision to restrict the sample to 30 books. While there can be no guarantee that all implicit references were found, every effort was made to locate them. Obviously, however, this was a more subjective process than tabulations of explicit references.

To qualify for this study, a book had to contain footnotes or endnotes, though not necessarily a formal bibliography, and its topic had to be a literary subject either completely or predominantly foreign. Eleven of the prizewinning books and thirteen of the nonprizewinning books dealt exclusively with foreign topics, while the other monographs devoted well over half of their pages to foreign authors, works, or international literary movements.

The language in which a literary work is written logically determines the dominant language of the criticism devoted to it, given the presence of a thriving literary culture in that tongue. This study seeks to determine if English-speaking critics cite a disproportionate percentage of English-language sources rather than those in the language of the original work or other foreign languages. Since a study of comparable citation patterns by foreign critics must await a later study, no definitive comparisons can be offered here.
Caution was the byword in selecting these books. Each author had to be a native speaker of English. Authors’ backgrounds were investigated through biographical information included in the books themselves, biographical directories, and reviews. If the pertinent information could not be found, the author was excluded. Authors with foreign surnames were excluded unless it was possible to establish that they had not grown up in bilingual homes. The purpose of this part of the study is to determine the citation patterns to foreign sources by scholars who had to learn foreign language(s) through formal training or self-directed study, not through the natural home environment. Textbooks were excluded, as were collections of essays.

To select the nonprizewinning monographs, OCLC was used to find the Dewey numbers of all the prizewinners, and the pages where these Dewey categories appeared in *The American Book Publishing Record* were put in numerical sequence. Two random numbers were then chosen separately from a random-number table, the first for the page number and the second for the position of the item on the page. If a book had to be rejected as out-of-scope, the next book on the page that fit the criteria was chosen.

"...this study documented few real distinctions between prizewinning and nonprizewinning books..."

In most respects, this study documented few real distinctions between prizewinning and nonprizewinning books, unlike the situation with American and British literature in the author’s earlier study. Likely explanations concern the nature of scholarly publishing and will be discussed in a later section. In the presentation of data, results will be limited to those drawn from the total sample of 30 books except for those few cases in which noteworthy distinctions do exist between prizewinning and nonprizewinning books.

"The mean number of references per book was 616, of which 362 were foreign."

Each explicit reference was tabulated in terms of (1) its source (monograph, journal article, manuscript, thesis or dissertation), (2) its language, (3) whether it was a primary or secondary source, (4) whether it was a self-citation, and (5) the decade in which the reference was published. The year could not be assigned for implicit references because such references are usually to classic works existing in many editions. Thus the implicit references figure in the total by source, which can usually be inferred from the context, and by language, but not by decade.

RESULTS

The number of pages in the books sampled ranged from 163 to 495 pages (and one book with 1,051 pages). The mean number of pages was 295 pages, or 268 without the atypically long volume. The number of references within the books ranged from 184 to 1,199, including implicit citations that made up 3.5% of the total. While 18 books contained implicit citations, only 4 had as many as 10% implicit citations. The total number of citations was 18,481 of which 11,843 were references to foreign sources. The mean number of references per book was 616, of which 394 were foreign. Sixteen books had fewer than 500 references and 4 had more than 1,000. The total sample had a mean of 2.11 references per page, of which 1.34 were foreign references. Sixteen of the monographs had more than 2 references per page, but only 3 had as many as 2 foreign references per page.

The data are analyzed by (1) the percentage of references to the form of the source and (2) by the chronological period in which the cited work was published, with further subdivisions for the percentages of foreign references, individual foreign languages cited, primary sources, and self-citations. This study treats a reference to
an article cited in a collection of essays as a monographic reference because the author cited it from a book. Newspaper, magazine, and conference proceedings count as journal articles. Unpublished interviews, telephone conversations, lecture notes, and unpublished correspondence are treated as manuscripts, as is any other unpublished source. When an author cites a reprint edition but also lists the date of the original publication, the former date is used for this tabulation rather than that of the first edition. If an author provides bibliographical footnotes listing pertinent additional reading material, these sources are not included in the tabulation. Tallies for percentages of references by chronological period equal less than 100% because implicit citations figure in the total number of references but are not assigned to decades because their dates of publication cannot be determined. In addition to implicit citations, about 1% of the footnoted sources omitted the publication date and thus do not figure in the chronological tables.

Table 1 presents the percentages of references cited by form—monograph, journal article, manuscript, or thesis. The percentage given is based on the number of references to a given type of source divided by the total number of references (18,481). The number of references involved in each tally by source is shown in parentheses following the percentages. Thus, to take 81% for the total sample, all the 15,006 references to books are divided by 18,481, the total number of references to all sources.

Table 1 also treats all the foreign references, 64% of the total references, in the same manner. Table 2 further breaks down the foreign references to the individual foreign languages cited. The languages cited in this study, in addition to English, were French, German, Italian, Latin, Spanish, Russian, and Greek. The "other" category consisted of those languages cited in only a single book. Primary sources were separated from secondary sources. For purposes of this research, any literary text, autobiography, memoirs, diaries, letters, manuscripts, or interviews are treated as primary sources insofar as they are written by an author of literary material as opposed to strictly critical, noncreative writing. The critical writings of famous authors who were also practicing critics, such as T. S. Eliot or Paul Valéry, are treated as primary sources, as are the works of such seminal figures of modern Western civilization as Marx, Freud, or Lenin. The sacred texts of religions are also treated as primary texts. Contemporary critics, even when acknowledged to be the head of literary movements or schools, such as Derrida, Barthes, or Lacan, are considered secondary sources, though they may ultimately achieve canon status. Interviews and memoirs with associates, friends, and families of authors are treated as secondary sources.

Table 3 presents the chronological spread of the topics of these 30 books. Eight of the monographs had subjects confined totally within the twentieth century; 3 within the nineteenth; 3 within the
TABLE 2

PERCENTAGES OF INDIVIDUAL FOREIGN LANGUAGES

<table>
<thead>
<tr>
<th>Languages</th>
<th>% Foreign</th>
<th>% Total</th>
<th>No. of References</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>31%</td>
<td>20%</td>
<td>(3,714 references in 29 books)</td>
</tr>
<tr>
<td>German</td>
<td>15%</td>
<td>10%</td>
<td>(1,777 references in 20 books)</td>
</tr>
<tr>
<td>Russian</td>
<td>23%</td>
<td>15%</td>
<td>(2,781 references in 6 books)</td>
</tr>
<tr>
<td>Italian</td>
<td>13%</td>
<td>8%</td>
<td>(1,514 references in 14 books)</td>
</tr>
<tr>
<td>Latin</td>
<td>5%</td>
<td>3%</td>
<td>(594 references in 16 books)</td>
</tr>
<tr>
<td>Greek</td>
<td>2%</td>
<td>1%</td>
<td>(218 references in 9 books)</td>
</tr>
<tr>
<td>Spanish</td>
<td>2%</td>
<td>1%</td>
<td>(272 references in 4 books)</td>
</tr>
<tr>
<td>Other*</td>
<td>8%</td>
<td>5%</td>
<td>(973 references in 7 books)</td>
</tr>
</tbody>
</table>

*Languages cited in only a single book—Danish, Arabic, Hebrew, Swedish, Eskimo, Navajo, Chinese, Japanese, Mayan, Malay, Old English, Scots.

TABLE 3

CHRONOLOGICAL PERCENTAGES*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>65.5%</td>
<td>18.4%</td>
<td>6.8%</td>
<td>4.4%</td>
</tr>
<tr>
<td>% Foreign</td>
<td>(37.6% foreign)</td>
<td>(14.2% foreign)</td>
<td>(5.7% foreign)</td>
<td>(3.9% foreign)</td>
</tr>
</tbody>
</table>

*These percentages total less than 100% because chronological figures were not available for the implicit citations and certain explicit citations lacking publication dates.

seventeenth; 1 within the sixteenth; 1 within the fourteenth; 2 in antiquity; and 12 that overlapped centuries, sometimes by only a few decades, but sometimes by 2,000 years, as in a study of the poetic lyric mode. Topics stretched chronologically from Demosthenes (active about 300 B.C.) to the contemporary German stage director Peter Stein.

The chronological distribution in table 3 is divided into 4 categories with 1982 the most recent date cited. Three 30-year periods (1982–1950, 1950–1920, and 1920–1890) account for the bulk of the references with a final pre-1890 category for the remainder of the references. For convenience, the 377 references from the 1980s, which account for 2% of all references, were included in the 1980–1950 category.

Discussion

The results shown in table 1 confirm that references to books strongly outnumber those to any other types of source. Indeed, in a survey review of eighteen recent Shakespeare monographs, critic Keith Brown acknowledges that the trend to publish books rather than journal articles may have gone too far, at least in Shakespearean studies, to the point of disqualifying the journal article as a means of disseminating research:

the cult of The Book is by now devaluing even collections of articles between hard covers, that traditional way of giving extra status to a good essay. Though article-references still pack the footnotes, book-length Shakespeare studies show increasing reluctance to engage fully with any previous work that was not itself presented in that form: thus pushing authors into seeking book-format even when some more economical form of publication might have served.¹⁰

This finding agrees with the author's earlier study of English and American monographs as well as with the articles on the journal literature of the humanities by David Baker, Richard Heinzkill, W. C. Simonton, and Madeline Stern.¹ Indeed the proportion of references to books is markedly higher in this research project than in the author's previous work on the English and American monographic literature. It is, however, closer to the book percentages found in the studies of the humanities journal literature. Thus 81% of all references in English and in foreign languages were to monographs, while only 65.7% of the references in the author's earlier study were to books. Additional studies of the humanities journal literature found the following percentages of references to books: 82.7% for authors and 78.8% for literary movements in Stern's article;¹² Heinzkill found 75% and Simonton 71.5% for the fine arts,¹³ and finally, D. L. Vaughan found 69.5 percent in musicology.¹⁴
In the present study, the number of references to journal articles and to manuscripts is very similar for prizewinning books (8.4% for articles and 7.8% for manuscripts), but the notably higher percentages of references to journal articles (14.4%) over those for manuscripts (6.6%) for nonprizewinning books causes a higher total ranking for journal articles (10.9%) than for manuscripts in the total sample (7.3%). In the author’s earlier study, 20.7% of the total had been to manuscript references as opposed to 13.3% to journal articles. Thus, it is apparent that the author of a monographic study is more apt to consult manuscript sources when preparing a journal article. The evidence of a lesser degree of such use of manuscripts for foreign literary topics by native speakers of English, who are in most cases based in the United States or United Kingdom, may reflect the greater expense and time required to go abroad to consult manuscript collections because many such sources are unavailable for loan or even photocopy.

Eight of the monographs had topics confined to the twentieth century, and another 8 considered some twentieth-century topics or authors; some valuable material on some or all of these subjects probably remains unpublished. The lower use of manuscript sources in this study is not attributable to the fact that most worthwhile material on these topics has been published. While this claim might be made for older literary topics, comprehensive publication of all primary and most related secondary sources is unlikely for more contemporary topics, and other reasons must be sought to explain this reduced use of manuscript sources for foreign topics. In the earlier study of English and American literature, 18 books dealt wholly or in part with twentieth-century topics, but the number of manuscript references were three times more than this study.

In both of these studies of the humanities monographic literature, as in all the studies of the humanities journal literature, references to theses are negligible. Only 14 of the 30 books cited theses at all, and these references ranged from 1 to 32 in a single book, the next highest number being 12. In all, there were 90 references to theses, .49% of the total.

The same patterns of citation by type of source hold for both the total sample and the foreign references. Thus 81% of all references and 78.9% of all foreign references are to monographs, with these foreign references accounting for 46.4% of the total book references. Similar data may be observed for the other types of sources in table 1.

There are fewer references to journal articles than in the author’s previous study of the monographic literature: 10.9% as opposed to 13.3% of the earlier study of the English and American literary scholarship. These figures are even lower than those for the citation of journal articles in the humanities literature. Thus Stern found 15.1% citation to author articles and 16.5% citation to articles on literary movements. Simonton documented 28.6%, Vaughan 25.3%, and Heinzkill 19.9% citation to journal articles.

These figures seem to reflect a tendency toward less reliance on the journal literature together with a greater reliance on monographs by scholars researching books on foreign literary topics than is the case with either the monographic or the journal literature of English or American literary criticism.

The findings on the use of manuscripts and theses by scholars preparing books on foreign topics coincide more closely with those of previous studies of the journal literature of the humanities than to the author’s previous study of humanities monographs. Baker’s finding that .83% of the items cited in his study of musicology were to theses is the highest such figure documented in the journal literature. The references to theses in the author’s previous study were .29% of the total.

Though these findings for the citation of manuscript sources are lower than in the previous study, manuscript percentages are nonetheless higher than those for the journal literature of the humanities. The percentages of manuscript references in this study are notably higher than Stern’s
2.2% for manuscripts to authors and 4.6% for manuscripts to literary movements; considering that this figure includes theses and encyclopedia articles as well as manuscript references, Stern's percentages would have been lower still had they applied exclusively to manuscripts. Baker found only 2.09% references to non-score manuscripts and Vaughan only 5.2%.

Table 2 shows the breakdown of references by individual foreign languages. The left half of the figure before the slash shows the named language's percentage of the total foreign tally; that on the right side of the slash contains the percentage that the language is of all references to that language. The foreign languages cited in this project are listed in descending order of mean percents based on the total sample. Thus, the most frequently cited foreign language in this study is French, with 31.2% of the total number of foreign references—3,714 out of a total of 11,843 foreign references. For the total sample, the percentage of French references is 20.1%. French sources were cited in all of the prizewinners and fourteen of the non-prizewinners.

The rest of table 2 provides similar data for the other foreign languages encountered in this study. Two situations should be explained. German is ranked above Russian in table 2 somewhat arbitrarily because German was cited by more than three times the number of books citing Russian and thus had a higher mean percentage of all references. Russian, however, had a higher number of references because of three very heavily documented studies of Russian authors. The "other" category consists of languages cited in only a single book even though they may have been cited more frequently in that one book than other languages that were cited in a number of monographs. Danish with 410 references, Hebrew with 289, and Arabic with 241 make up the bulk of this category with only 33 additional references to other languages, 973 references in all, or 8.2% of the foreign and 5.3% of the total references.

For books that had no thematic concerns with the languages listed, the following percentages of references for three widely cited languages were found, based on the total number of references: 1.3% for French with 239 references, 1.3% for German (236 references), and .15% (28 references) to Italian. Since all of these references were to secondary sources, barring the infrequent literary epigraph, clearly scholars cite only a minimum of secondary sources that are neither in their native languages nor that of the topic.

"Heinzkill, in his study of the journal literature of English literature, found only 9% of his citations were to foreign sources."

Heinzkill, in his study of the journal literature of English literature, found only 9% of his citations were to foreign sources. Baker reported that 54.9% of the literature of musicology was in English, 29.9% in German, 9.9% in French, 5.5% in Italian, 2.2% in Latin, 1.1% in Russian, and .65% in Spanish, with an additional 3.05% translations from foreign languages into English. The Hutchins study found the same ranking of languages in its survey of the language competency of British university professors in all disciplines as did this research. First in importance for humanists was French, with 65% of the scholars interviewed claiming fluency, 20.5% a reasonable reading knowledge, and 11.1% frequent use of a dictionary. For German, 24.8% claimed fluency, 16.2% a reasonable ease in reading, while 19.6% claimed frequent dictionary use. Russian claimed 4.3% were fluent, 2.6% had an adequate reading knowledge, and 3.4% made frequent use of a dictionary. Simonton found that scholars in the fine arts use English, German, and French sources in that order of frequency.

In a study of the historical literature,
Jones found that only 7.7% of the citations were foreign (mainly German, Latin, and French), but that 55.1% of references in the fine arts and 42.7% of the references in music were foreign, whereas 89% of the citations for English history were to English-language sources.

Lois Bebout, Donald Davie, Jr., and Donald Oehlert, in a study of interlibrary loan requests, reported that humanities scholars borrowed German, French, Spanish, and Italian materials, in that order. In a complex study of the citation of exclusively secondary sources in the journal literature of the humanities, M. S. Batts found that 65.8% of the citations were in French for English-language articles dealing with French topics with 31.67% in English and 2.5% in German. If the subject of an English-language study is German, 35.96% of the citations are in English, 5.42% in French, and 58.62% in German.

Concerning translations, 4,745 quotations within the texts or in explanatory footnotes are translated into English in these books. Texts in Russian, Arabic, Hebrew, and Danish are quoted only in translation in this sample of books, though the texts are frequently cited in original-language editions in the notes. One prizewinning study of lyric poetry throughout the world drew on 13 separate literatures, but only 12.8% of its references were to foreign editions with another 18.1% of its references to translations. Fully 30.7% of all references in this study were to translated quotations, though in some cases the authors also included original texts.

Whether a reference was to a primary or a secondary source was considered. Such a breakdown can help determine if the greater emphasis on book sources is due to the heavy citation of primary sources, which are generally books or collected into books regardless of their origin as poems, short stories, essays, letters, or reviews. The reference pattern to primary sources was a very strong one. The total number of primary references was 9,005 out of a total of 18,481 references, 48.7% of the total. Stephen E. Wiberley, Jr., found that 65% of his citations were to primary sources and reports that Edwin Greaves found 60% of the citations in the literature of American literary studies to be primary.

Self-citation has been prominently documented in the journal literature. Baker found that two-thirds of the articles he investigated feature self-citation. In this study, 18 of the 30 scholars cited their previous works. The number of self-citations per book ranged from 1 to 14 with the mean being 3.1. Only 6 authors cited themselves more than 5 times in the course of a monograph. The total number of self-citations was 92, 49% of the total references.

Table 3 shows the chronological breakdown of the topics of these books. The period of the topic obviously to some extent determines the span of time from which one draws on the secondary literature; a writer cannot quote Aristotle’s opinion on Anouilh’s Antigone, but can draw on the Greek philosopher’s dicta on tragedy to support his or her views. On the other hand, as can be seen in table 3 and in the results of earlier studies of the literature of the humanities, the largest number of citations from critical works are drawn from the 20 years previous to publication of the work being written, though some highly regarded humanities criticism continues to be cited for up to 70 years. The period in which the literary subject originated structures the age of the citations to an extent not known in the sciences and social sciences, except for history. Scholars in all disciplines prefer recent critical literature to all but classic earlier criticism, particularly where journal articles are involved.

According to Eugene Garfield, one difference between scientific and humanistic literature is that even classic scientific papers become assimilated directly into the collective consciousness of a discipline and cease to be directly cited within five years. In the study of Shakespeare’s Hamlet, however, Ben Jonson, Samuel Johnson, William Taylor Coleridge, A. C. Bradley, T. S. Eliot, A. L. Rouse, Jan Kott, and Terry Eagleton, spanning the periods from the mid-seventeenth century to the late twentieth century, may all be quoted and footnoted.

The data shown in table 3 are similar to
Characteristics of the Monographic Scholarship

those found in the author’s study of the monographic literature of English and American literature. Both studies found a strong majority of references to be centered in the period since 1950 with a progressive drop in the number of references in each successive time period. The greatest concentration of monographic references fall after 1950, 66.5% of all books. The corresponding figure for the study of English and American literary monographs was 61.7% for the total.

While such a concentration of references might be anticipated for those books with twentieth-century topics, this pattern held for books with older topics as well. In fact, 44.3% of all references of books with nineteenth-century topics in the present study and 42.2% of the previous monographic study fell in the post-1950 period. Books with still older topics had 65.2% of their references in this period. For books with chronologically widespread topics, 69.2% of references fell in the 1950-1980 segment while 64.6% of books on seventeenth- and eighteenth-century topics were from this period; 53.6% of eighteenth-century and 64.9% of fourteenth- to seventeenth-century topics were also from the post-1950 period. Books with still older topics had 65.2% of their references in this period. For books with chronologically widespread topics, 69.2% of references fell in the 1950-1980 period. The highest percentage of references to this most recent period was, not surprisingly, that of the books with exclusively twentieth-century topics; 76.7% of their references were post-1950. The greatest part (68.7%) of all journal articles cited fell into this period, showing that older articles are less likely to be cited than more recent articles.

The percentages for foreign references shown in parentheses next to each figure in table 3 indicate what part of the total percentage of each period consisted of foreign references. Recalling that 64% of all references are foreign, one sees that patterns by decade for foreign references are very similar to those shown for the total sample: 23.8% of all foreign references date from after 1970 while 65.5% of all references occurred since 1950, of which 37.6% were foreign.

In succeeding periods the foreign percentages become ever closer to the total percentages, indicating that references to older foreign literary topics are predominantly to foreign sources at the same time that the number of references is dropping sharply. Thus 78.8% of all references from 1920-1950, 80% of all 1890-1920 references, and 77.1% of all pre-1890 references are to foreign sources. These percentages indicate that native speakers of English preparing studies on foreign literary topics not only use relatively little material more than 30 years old but also that they are unwilling to consult older materials to any great extent except for the primary foreign texts and a few classic secondary pieces. They are not consulting much secondary literature in English published before 1950; few of these earlier references are to English-language sources.

In this study, the most cited decade for the total sample was 1970-1980 with 28.1% of the total references, declining to 23.3% for 1960-1970, and 13.6% for 1950-1960. While there was little difference between the 1970-1980 decade (22.1%) and the 1960-1970 decade (23%) for prizewinning books, nonprizewinning books showed a notably higher percentage of references for 1970-1980 (28.4%) than for 1960-1970 (22%).

These patterns fit those of the journal literature of the various disciplines in the sciences, the social sciences, and the humanities found by Jones. They exhibit a wider spread of percentages of citations to recent publications: 34.9% of musicology, 22.8% of early modern English history, and 21.6% of United States history are 10 years old or less. In the present study, 27.1% of all references were 10 years old or less. For the early modern historical period, the authors found 75% of their journal citations posted 1950. Heinzkill reported that about 40% of interlibrary loan requests for journal articles in English literary studies were for items 10 years old or less, and that 71% of all such journal requests were for materials published since 1945. Stern wrote that about 60% of her citations were less than 20 years old and that 30.3% were 10 years old or less.

A principal difference between this study of foreign monographs and the author’s earlier study of English and American literary scholarship lies in the fact that
nonprizewinning books do not exhibit marked deviations from the patterns of scholarly research from those established by prizewinning books as they had done in the earlier study. While nonprizewinning books still tend to be shorter with fewer references and to show a heavier concentration of their references in the most recent decades than do prizewinning books, these differences are less marked than was the case in the earlier study. In other aspects, the nonprizewinning monographs share the same patterns as prizewinners. The difference in patterns of citation for the individual foreign languages did not vary significantly except in those few cases when a random selection placed a book with an otherwise little-cited language in one group rather than the other.

The difference between these two studies may lie in the nature of scholarly publishing. Whereas in the earlier study there was a clearcut difference between the two groups in terms of publishers, that is not the case here. For the study of English and American literary scholarship, nonprizewinning books were generally published by presses that were neither associated with academic institutions nor the more respected trade presses. These books were often of an introductory nature with little to offer the professional scholar. In this study, however, university and major trade presses figure prominently in both groups of books.

The publishers for the nonprizewinners consist of 7 university presses, 4 specialized academic presses, a publisher specializing in short introductory texts, and a major trade press. For prizewinners in this study, there were 12 university presses and 3 major trade publishers. In the earlier study, the following published the prizewinners: 12 university presses, 2 major trade presses, and 1 specialized academic press. The nonprizewinners were published by the following: 3 by university presses, 4 by a press specializing in introductory texts, 2 by academic presses, 4 by major trade presses, and 2 by minor presses (1 of a semivanity nature).

Thus it seems that scholarship concerning foreign literature has fewer outlets for publication than do studies of American or English literature in terms of variety of presses. Foreign literary studies in English are predominantly published by university or other academic presses, with only the exceptional title being published by major trade presses.

**CONCLUSION**

Collection management officers and bibliographers concerned with the humanities find themselves facing different patterns of research than is the case in the sciences and social sciences. The principal tool of research for the humanities scholar is the recent monograph, not the journal article. Journal literature studies indicate that the book is the principal type of source in philosophy, the fine arts, and music, as well as in literary studies. Manuscripts are more frequently consulted in the humanities than in other disciplines, except for history with its use of archival materials. Theses and dissertations are generally ignored.

These two studies of the monographic literature of literary studies and the many studies of the journal literature of the humanities indicate that selectors for research collections must apply different standards in building collections in the humanities than those used in building social science and science collections. The ever-increasing tendency for major research libraries to allow their serial needs to dominate collection development must be resisted if scholars in the humanities are to be properly served. While the building of core collections of journals identified in the library literature for most disciplines is a necessity, it is impossible to
build journal collections that fulfill all the needs of the researcher. No library can hope to subscribe to that minority of journals that will be wanted by scholars pursuing a seldom consulted byway of their topic. Interlibrary loan exists to supply such minority needs.

"The ever-increasing tendency for major research libraries to allow their serial needs to dominate collection development must be resisted if scholars in the humanities are to be properly served."

Because current materials, particularly those 20 or fewer years old, are most heavily cited by humanities scholars, the most important task facing the selector in the humanities is the ongoing acquisition of the cream of each year's new publications from the academic presses and the identification and purchase of less self-recommending titles from small presses, societies, academic departments, and museums. For many institutions, book budgets are sufficient to allow for, if not a comprehensive, at least a high research-level collection of currently published humanities monographs in English and in those foreign languages and programs most supported by the library.

This study has shown that there are fewer types of American and British publishers for monographic studies of foreign literary topics than for monographic studies of English or American literature. Statements by publishers indicate that foreign topics are not considered commercially viable propositions by most trade presses. This leaves the field to university presses that devote only a small part of their 70 annual publications to foreign topics and to small presses that publish even fewer titles and lack the advertising and distribution mechanisms of larger houses. Translations receive low priority for similar reasons. A reading knowledge of even the classical or modern West European languages is no longer assumed by authors or publishers writing for educated readers. In monographic studies of foreign literary topics by native speakers of English, the scholar will cite the original text and some secondary sources in the language of the text, but the bulk of the remaining references will be to English-language sources. Less than 2% of the references will be to sources in foreign languages other than that of the topic.

REFERENCES AND NOTES

Letters

To the Editor:

I applaud your editorial in the November issue of College and Research Libraries on identifying the best librarians, but an underlying assumption upsets me enough to write about my concerns. Though you refer to the catalog librarian early on, your paragraph on “library superstars” includes the following: “The focus will be on direct patron contact and services.” Do you mean by this that catalogers, acquisitions librarians, systems librarians, and others who serve behind the scenes are not as worthy of consideration as those who deal directly with the public? Are all the trenches only in public services? Does this statement imply that the hard working and innovative technical services or systems librarian is not important in the delivery of library service?

Later on you state that “while recognized by you and campus users this person may be otherwise unknown.” It may be even worse for those who serve behind the scenes because they lack recognition from the campus user who nonetheless depends heavily on their efforts. How much direct recognition does the systems librarian receive for an emergency trip to the library at 3:00 A.M. to make sure that the online catalog is available when the library opens?

I also acknowledge that I am writing this letter in part because this is not the first time I have perceived a bias in ACRL against technical services. Without building a lengthy case, look at the papers presented at the ACRL Seattle Conference, though paper diversity improved immensely at the Baltimore meeting.

I have been a continuous member of ACRL since joining ALA in 1974 and have attended all the national conferences. At times, I have wondered why. ACRL is a type of library division and as such should consider the needs and aspirations of all academic librarians. We have LITA, RASD, and RTSD to address our concerns as a specific type of academic librarian. Even if unintentional, any bias for or against any class of academic librarian can only work against ACRL’s effectiveness and may potentially reduce membership.

Thank you for listening to my concerns.

ROBERT P. HOLLEY
University of Utah

Ed. note: Alice Spitzer, who is cited as a library superstar in the January editorial, is in charge of a serials record unit, and John Edens, who is also mentioned, is director of Central Technical Services at SUNY-Buffalo.

To the Editor:

Over the 15 years The U*N*A*B*A*S*H*E*D Librarian, the How I Run My Library “Good” Letter has been published, it has run a number of articles suggesting ways to a higher “fill rate” than the 54 percent reported in “Material Availability: A Study of Academic Library Performance” by Anne Ciliberti and others (C&RL 11/87).

We published an article in the seventies on the “Always Available Book System.” This described a procedure for checking the shelves and replacing books in frequent demand but not reserved by users.
In another seventies article, an intern at the Orange California Public Library described her job as a "floorwalker." She would look for puzzled patrons and welcome the opportunity to solve their problems (mostly catalog use difficulties, by the way). A college library might use a corp of trained student aids as floorwalkers.

Over the years I have been advocating the "Scilken Supercard." On the "Supercard" many of the elements are identified in English. Very few abbreviations are used [see figure 1]. (U*L published a survey by Sanford Berman which found that many library staff members could not decipher many catalog card abbreviations.)

It's been my observation that the dictionary catalog helps the person looking in the wrong place. I recall studies found that many readers "give up" after only one "look" when they don't find what they are seeking. From this I postulated a law (my second): "the chance of finding a correct catalog entry is inversely proportional to the number of places to look."

MARVIN H. SCILKEN
Editor, The U*N*A *B*A *S*H*E*D Librarian

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Recent Publications

BOOK REVIEWS


Derek Bok, president of Harvard University since 1971, has written a book that should be read by academic librarians and by those aspiring to be. It is for the most part not a memoir, but a series of reflections and suggestions about teaching students.

Bok's first chapter provides an overview of this country's higher education system, which he thinks differs from European institutions in three important respects. The first of these is the relative freedom from government control that our colleges and universities have enjoyed, public as well as private. In West Germany, for instance, the government can and sometimes does reject the university's choice for faculty appointments. The second distinguishing characteristic, and one receiving much emphasis throughout the book, is the extent of competition among American universities and colleges for faculty members, students, and funds, as well as in athletics. Such competition leads to well-publicized rankings of institutions, including "even libraries" (p.15). An interesting point is that, apart from athletics, the rankings of universities and professional schools have changed surprisingly little over the years, because in a large university power is dispersed among many semiautonomous units, and consequently it is not easy for the relative position of the institution as a whole to fall or rise sharply. The third distinguishing characteristic of American universities is their responsiveness to a number of important constituencies—to faculty, alumni, students, prospective students, foundations, corporations, government agencies, and local community groups. In contrast, European constituent groups often ignore university administrators to take their cases to politicians and bureaucrats. Bok finds the advantages of America's decentralized and competitive system outweighing the disadvantages, although he is troubled that one significant result of our system is "the willingness to tolerate institutions of low quality" (p.28).

Most of the author's best observations are directed at undergraduate education. Bok provides an excellent overview of the major positions in the recurring debates over the shape of the liberal arts curriculum during the past century. Even better, he provides the astute and extremely rare critique of the curricular debates as largely irrelevant, because they give far too much attention to what students should learn and no attention to how they should learn. Faculty are among the most autonomous of professionals, and while they are willing to discuss what should be taught, they are much less hospitable to suggestions about how to teach and evaluate their students. "Hence, the fascination with curriculum, so typical of American undergraduate education, protects traditional faculty prerogatives at the cost of diverting attention away from the kinds of in-
quiry and discussion that are most likely to improve the process of learning'' (p.71). Especially troubling to Bok is the fact that colleges and universities presently have no adequate tools to evaluate the effects of undergraduate education or of particular instructional methods. ''The most basic need,'' he writes, ''is to develop serviceable methods for measuring students' progress toward common educational goals'' (p.67).

The book ignores graduate education, but a chapter is devoted to an interesting discussion of professional schools in law, medicine, and business. (Bok was dean at Harvard Law before he ascended to the presidency). Librarians will observe that some of the generalizations apply to library education as well. The subsequent chapter on 'New Developments' focuses on continuing education, education for public service (with both of these themes being tied to professional education), and the ''computer revolution.''' The greatest educational benefit of the new technology, Bok believes, is that as more teachers begin to use it, they are bound to think more carefully about the teaching/learning process. (Certainly in many libraries, the imminent arrival of automation has prompted an examination of basic assumptions about current procedures.)

In ''Prospects for Change,'' his concluding chapter, Bok considers several developments in the social environment that help shape the agenda for higher education. Among these is the vast and rapid growth of knowledge, illustrated by Harvard taking almost 275 years to obtain its first million books and only five years to acquire its last million. As a result of the knowledge explosion, there must be greater emphasis on continuous learning, more active forms of instruction, and more thought-provoking examinations and written assignments. Most important of all, ''universities need to make a sustained effort to investigate the process of teaching and learning and to evaluate its effects on students'' (p.176). The book's last section examines the process of educational reform. Bok contends that reform of higher education is not going to come significantly from competition, from external pressure, or from the faculty, who tend to agree with the proposition that ''nothing should ever be done for the first time'' (p.186). Instead, we need to rely on strong deans, provosts, and presidents, working with ''a willing faculty'' (p.197). Ironically, academics become deans and presidents and then have little time to pursue an intellectual agenda. ''Instead, they must devote almost all their energies to the very administrative tasks for which they are so notably unprepared'' (p.195).

Unfortunately, Higher Learning has few footnotes and no bibliography or ''Suggestions for Further Reading''; it ignores research and graduate education entirely; it is not nearly so well organized as a whole as it is within its smaller units; and it is never clear about why reforms need to be undertaken, other than the obvious point that things could always be better. ''In sum,'' Bok both observes and admits, ''American universities do not face a crisis or a utopia (p.200). Nevertheless, the book is sufficiently insightful in its parts, and particularly so regarding our infatuation with curriculum, to make it an important item on the reading lists of all workers in the higher education industry.—Richard Hume Werking, Elizabeth Coates Maddux Library, Trinity University, San Antonio, Texas.


Longtime leader and observer of higher education, Frank Newman, president of the Education Commission of the States, has in this brief work tackled the big and elusive problem of the pursuit of quality in the university. Rather than focusing solely on the university itself, Newman's thesis is that ultimately the achievement of quality depends upon a constructive relationship between state government and the state university and the intermediary structures such as the multicampus system office, the governing board, and the coordinating board.

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teaching, research, and public service activities. In particular, he is interested in the approximately 100 major state university campuses in the nation. His study involves a number of case studies of state/university relationships examined through a multitude of interviews with key actors in this arena: state governmental personnel from governors to legislators to various staff members; university personnel from presidents to deans and other administrators; members of system offices, board members, and the like; and various contributors to the literature. The product is impressionistic and prescriptive. The evidence upon which his assertions are based is soft; he notes that there are few objective measures available for dealing with the nature of public policies and university/state relationships. Although quality is the focal point for the study, the term remains undefined in an operational sense and is employed only in a most general way.

Newman notes that universities understandably chafe under state involvement in their business and continually appeal for more autonomy. The trend, however, is in the opposite direction. True, the state university is a special breed and does not thrive as just another state agency. But states need what their universities have to offer, and the great growth and importance of higher education since World War II has made it an important focus for public policy initiatives. Thus, state intrusion in the university has been increasingly evident, at least from the perspective of many academicians. The problem is not quite so simple according to Newman. A distinction must be made between appropriate public policy initiatives and inappropriate intrusion. The real question is where and when one draws the line, and this will depend largely on one's perspective. The trick is to get these diverse participants operating in harness in pursuit of quality.

Newman finds that "... the most frequent irritant undermining the state-university relationship is the difficulty of achieving an appropriate division of missions among institutions of higher education. There is broad consensus that institutional ambition has led to unnecessary growth of institutions as well as a wasteful overlap of programs" (p.43). This difficulty over missions is caused by a "single pyramid of institutional prestige" where the greatest rewards and prestige are seen as accruing to the research university. The resources and political support are not available to sustain multiple research universities, and ways must be sought to pursue quality in a more highly differentiated institutional matrix. He offers little in the way of solutions to this difficult issue.

What does matter besides the elimination of improper intrusions by the state? Newman suggests three other factors: aspiration, tradition, and leadership, with aspiration being the prime ingredient. He finds that high aspirations for university excellence characterizes only about half of the states and universities studied. Here again, however, Newman cautions that aspiration levels must be constrained within an appropriate institutional mission.

Although this work is very impressionistic, it does convey the insights of a savvy and experienced university man. He has something to say to all of the key actors involved in the enterprise of higher education from university faculty members and administrators to board members to members of the legislative and executive branches of state government. Newman challenges us all to pursue the quest for quality while alerting us to the fact that there are multiple legitimate actors who must be taken into account if this quest is ultimately to be a successful one.—Richard M. Johnson, Department of Political Science, University of Illinois at Chicago.
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