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### CONTENTS

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<table>
<thead>
<tr>
<th>PAGE</th>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>461</td>
<td>Editorial: Say Hello</td>
</tr>
</tbody>
</table>
| 462  | Defining the Academic Librarian  
by Edward G. Holley |
| 469  | Reactions to "Defining the Academic Librarian"  
by Irene B. Hoadley, Sheila Creth, and Herbert S. White |
| 478  | Managing the Coexistence of Hierarchical and Collegial Governance Structures  
by Nancy A. Brown |
| 483  | Factors Affecting the Use of Information for Academic Library Decision Making  
by Charles R. McClure and Alan R. Samuels |
| 499  | A Profile of Academic Libraries in China  
by Thomas Y. Yeh |
| 504  | The Effectiveness of Book Selection Agents in a Small Academic Library  
by Christopher Millson-Martula |
| 511  | Characteristics of the Monographic Literature of British and American Literary Studies  
by John Cullars |
| 525  | Letters |
| 529  | Recent Publications |
| 529  | Book Reviews |
| 535  | Abstracts |
| 536  | Other Publications |
EDITOR: Charles R. Martell, California State University, Sacramento, CA 95819
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Writing editorials is easy. Writing articles that point to a better future while being critical of aspects of traditional librarianship is easy. The hard work is done daily as you and I perform our normal responsibilities. As we select material, process material, help users, and manage the interconnections, we give academic librarianship its heart. Oh yes, and let me add, as we teach as library educators.

Forgetting those who contributed to our own development as people and as professionals is also easy. During the time in which I was working on the September editorial I was preparing a paper for the ACRL National Conference in Baltimore next year. The theme “Hard Facts, Hard Work: Librarians and A Nation at Risk” led me to read several reports about our educational system from the elementary through the higher education levels. Weaknesses in our current educational system were cited in report after report. The whole system seemed suspect. How did we let ourselves arrive at such a state?

Suddenly, at one point, for some strange reason, my eyes filled with tears. I thought, “My Lord, all we have forgotten about is the people who have given their lives to us as teachers.” They have given their best and we seem to have turned aside to build a pie-in-the-sky reality that has little to do with what teachers experience daily. Suddenly, I felt that all these reports were abstractions. Suddenly I remembered my teachers who had given me so much. I remembered them in the classroom, in the hallway, and in their homes. I had forgotten about the strength of our educational system, the heart of that system.

Sometimes as humans we seem to assume an enlightenment and ability that is far above what we can do in the reality of daily life. We construct models. We forget what we really know about life.

I went to library school at Syracuse from 1970 to 1972. Marta Dosa taught me about acquisitions. She is the godmother of my son. Pauline Atherton Cochrane taught me about cataloging with a vision that is more true today than it was yesterday. We played tennis together. In her class I wrote what turned into my first published article. It just happened to appear in C&RL. Another faculty member, Richard Dougherty, then editor of C&RL, published that paper and has been a close friend for over fifteen years. I remember my wife, Pam, hovering over Dick at a table in the Westcott Inn, lambasting him with the merits of heartfelt women’s issues.

The dean, Roger Greer, carried forth his dream of library education. He built a faculty that included young people with doctorates in behavioral science, communications studies and information science—Jeff Katzer, Brenda Dervin, Ken Cook, Dave Sherrill. He blended the traditional and the innovative into a creative, dynamic faculty with strong and caring links to their students. The dream did not last: the tensions were substantial. But, as students, my classmates and I benefited greatly.

Time passes and we forget. But most of us carry around in the recesses of our mind similar memories about what has been given to us by former teachers. Perhaps this week we should pick up a telephone and call an old teacher.

Say hello.

CHARLES MARTELL
Defining the Academic Librarian

Edward G. Holley

From his perspectives as a former director of libraries and as a dean of the School of Library Science at the University of North Carolina at Chapel Hill, the author discusses the types of knowledge that should define the academic librarian. Four types are mentioned: (1) a background in the history and development of higher education, (2) an appreciation for the history of scholarship and learning, (3) an understanding of how knowledge is obtained in various disciplines, and (4) an ability to evaluate research findings. Widespread ignorance about the nature of colleges and universities—their history, mission, and politics, often leads to counterproductive action.

Fifteen years ago, when I was still director of libraries at the University of Houston, I addressed the Southeastern Library Association on "What the Modern Library Expects of the New Graduate." This was before I became a dean and therefore was very certain about what a library director ought to expect from our professional schools. Like those directors of academic and public libraries whom Herbert White surveyed recently, my expectations didn't always square with what other directors wanted. I particularly remember one distinguished librarian taking me to task for stating that a modern foreign language wasn't high on my list for most beginning librarians. Other participants found different points of view with which to disagree. Included was one vigorous faculty member from the institution where I subsequently became dean. I was cheered by Lester Asheim, later to join me at Carolina, who had just completed the "Library Education and Professional Utilization Statement," now more familiarly known as the "Asheim Statement." Asheim had also addressed the Southeastern librarians. In our friendly chat afterwards, he remarked, "We don't really disagree, do we?" We really did not. As I look back on that conference, I am amazed at how brash I was—brash and independent. I'm a little less brash today, but no less independent. I am also amazed, as I re-read my remarks, at how relevant they sound today.

Enough, though, of this southern chronicle. One of my strongest points then, as it is today, was that academic librarians need to know far more than the technical skills they learn in library school. They need to know especially the social, economic, and political context in which the library operates. That seemed such a simple view, coming as it did three decades after the Louis Round Wilson years at the Graduate Library School of the University of Chicago, but it is one which seems so difficult to convey to librarians—actual and potential. Here are some of my actual statements on the kind of orientation I thought the academic librarian needed:

Some background in the history and development of higher education... an appreciation for the history of scholarship and learning and the way knowledge is obtained in various disciplines... and the ability to evaluate research findings.

Edward G. Holley is professor and former dean of the School of Library Science at the University of North Carolina, Chapel Hill, North Carolina 27514. This paper was presented at the ACRL University Libraries Section program, ALA Annual Conference (Chicago, 1985).
After more than thirty-five years in academia, I believe even more strongly today that these characteristics should define the academic librarian. For one of the truly appalling facts about faculty in colleges and universities (not just librarians) is the widespread ignorance of how our colleges and universities became what they are today, what constitutes their general mission, and how the political milieu, on and off campus, affects all of us. That general ignorance often leads to counterproductive efforts both by librarians and teaching faculty. Let me cite an example.

After a recent University of North Carolina (UNC) Faculty Council meeting, in which our faculty legislative body passed a number of pious resolutions with no chance of implementation, I discussed the faculty’s irresponsibility with a senior historian colleague. My friend, who had been secretary of the Faculty Council for fifteen years, shook his head sadly and remarked, ‘‘Yes, you’re right. I’ve noticed the faculty increasingly evade their responsibility in this area. The net result is that they have no credibility with the administration or the trustees. The trustees dismiss such resolutions out of hand. Ultimately such behavior is very harmful to the university.’’

Of one thing you can always be sure, though. In any list of priorities, faculty salaries and fringe benefits always rank first, sabbatical leaves second, libraries third or fourth, and educational policies far down the list. Many of you will recognize that these views are not very different from those Louis Round Wilson enunciated in an article, ‘‘What Type Research Librarian?’’ thirty-five years ago at a University of Pennsylvania symposium on ‘‘Changing Patterns of Scholarship and the Future of Research Libraries.’’ In part, they have been repeated recently by Patricia Battin and by David Weber during an interview with Russell Fischer.

As a historian I could even go back fifty-five years to Charles Harvey Brown’s chapter in the U.S. Office of Education’s Survey of Land Grant Colleges and Universities. Brown held an exalted vision of the academic librarian’s role in the college and university, one from which he did not waver during his long and productive life, though he recognized that many individuals fell below the ideal.

Let me now address each in turn, and try to assess why the academic librarian needs each.

1. Background in the history and development of higher education.
   Having just finished a six-month stint as chairperson of the search committee for UNC’s dean of the general college and the college of arts and sciences, I assure you that views of faculty about what they want in a dean are as diverse as the qualifications librarians want to find in library directors and those qualities library directors want to find in beginning librarians. There are some common threads, however, and it is those common threads I will discuss.

   Let me start by renewing my faith in the need for academic librarians to possess four kinds of knowledge in addition to his or her professional library skills:
   1. A background in the history and development of higher education
   2. An appreciation for the history of scholarship and learning
   3. An understanding of how knowledge is obtained in various disciplines
   4. An ability to evaluate research findings

   Many of you will recognize that these views are not very different from those Louis Round Wilson enunciated in an article, ‘‘What Type Research Librarian?’’ thirty-five years ago at a University of Pennsylvania symposium on ‘‘Changing Patterns of Scholarship and the Future of Research Libraries.’’ In part, they have been repeated recently by Patricia Battin and by David Weber during an interview with Russell Fischer.

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   Let me now address each in turn, and try to assess why the academic librarian needs each.

   1. Background in the history and development of higher education. Colleges and universities intrigue me, just as their libraries intrigue me: not necessarily because I am a library historian, although that may help. My intellectual curiosity is aroused by such diverse questions as ‘‘How did the
American university come to adopt the pattern of an English undergraduate college as its base and place the Germanic professional and graduate schools on the top?"", "Why did the University of Illinois develop, in the middle of the corn fields, one of the greatest Milton collections in the world?", and "Why did Iowa State University, where Charlie Brown served so well, develop as a research institution long before other separate land grant colleges emerged as significant research institutions?" These are not questions just for the historian. Answers to such questions will provide new insight into the nature of the institutions where we work.

The politics of higher education also interests me. Externally, these questions seem pertinent. "What impact has the development of state boards of higher education had upon the development of libraries and the research function of universities?" "What long-range impact will result from the fact that 85 percent of the North Carolina legislators serve on one or more trustee boards of private colleges and universities?" (The answer may well be self-evident as North Carolina approaches a budget of $25 million annually in state subsidies for private institutions.) "How can the librarian influence decisions made by board staff at the Coordinating Board, Texas College and University System, or the Illinois Board of Higher Education?" Answers to these questions affect libraries in very important ways. An understanding of the broader picture of higher education would help us formulate strategies for achieving our goals.

On a campus the following questions are relevant. "What is the organizational structure through which decisions are made?", "Why is it that over the past twenty-five years the head librarian no longer reports to the president but reports to a vice-president, sometimes for academic affairs, sometimes for support services?", "Does it make any difference?", "What is the path for appointment, promotion, and tenure recommendations at this particular college or university?" "Do librarians have the same review path and are decisions partially governed by a campuswide advisory body as are other faculty appointments?"

I fear that we often graduate from library schools students who have not wrestled with these questions. Yet I know that we are not alone on campus. I once knew a dean who never understood the basis upon which his worst cases were regularly rejected by a personnel committee over a period of years. His political naivete served him and his school poorly. Librarians can ill afford the luxury of such ignorance. Anyone who believes that multimillion-dollar operations can function without involvement in the political process or an understanding of fairly well-defined structures that reflect basic academic values is surely living in a dream world. Ultimately, the campus political situation is dominated by the arts and sciences faculty, the largest and most influential group on campus, whose power is enormous when they choose to use it. We ignore the fact at our peril.

2. An appreciation for the history of scholarship and learning. I assume that the reason most of us are academic librarians as opposed to being public, school, or special librarians is that (1) we enjoy the academic life, (2) we want to be a part of the learning process, (3) we have some modest or active interest in research, and (4) we value the place of the library in learning and scholarship. The life of the mind, especially in our information-based society, excites us, and we want to be a part of institutions critical to the functioning of our democratic society. To participate fully in these intellectual endeavors we need to know something about the history of scholarship, how learning takes place, what role our institutions play in higher education, and how both scholarship and learning are changing. While we do not necessarily have to be scholars ourselves (many faculty are not, whatever the pretense), we have to be scholarly persons, with keen intellectual curiosity and have something to contribute to the enterprise beyond what we learned in liberal arts colleges or graduate professional schools ten, twenty, or thirty years ago.

3. The way knowledge is obtained in various disciplines. In an earlier period, or maybe I should say in the period when I entered
higher education, the way knowledge was obtained in various disciplines was fairly well established. In the humanities we researched in libraries and archival repositories. In the social sciences we used both libraries and field work, especially number-crunching through calculators but also through survey instruments of a rather primitive kind. In the sciences we depended upon the laboratory, with strong back-up services such as Chemical Abstracts, Chemisches Zentralblatt, or the Bibliography of North American Geology.

But as Charles Osburn has pointed out in his excellent book, Academic Research and Library Resources: Changing Patterns in America, the ways in which knowledge is obtained, at least for research purposes, has changed markedly in the years since World War II. "In an increasing number of disciplines, the library is no longer the most important repository." Agencies and avenues other than the library have become involved in the exchange of information on an increasingly large scale. Chief among these ... is the computer center." These new agencies, with the help of federal grants, support research that emphasizes social relevance, service to contemporary society, quantification (even in literary study), a cross-disciplinary approach and team-project research, extensive use of the invisible college, and an intensification of laboratory and field work. Such research puts a high premium on current literature and rapid access to it. Experimental research is often narrowly focused with little need for the historical approach that resulted in massive collection building in an earlier period. Access to a hard core of literature and to a more carefully targeted search of that literature seems more important to some faculty than large collections. Manipulation of enormous quantities of statistical data is essential for an increasing number of disciplines. The question of coordinating these information agencies and libraries is certainly a major issue for many institutions in addition to my own. I am not sure that many librarians, directors included, are as sensitive to these changes as they need to be.

Librarians, if they are to serve their faculties and students well, must be attuned to the new ways in which researchers handle data. We take the use of the computer for granted. It helps us in numerous ways besides number-crunching or administrative chores. In the future, the computer will assist the researcher in ways not yet imaginable. Fortunately, we are developing our own research skills to investigate the uses of research literature, published and unpublished, through citation analysis, bibliometrics, sophisticated statistics, and other means. Search strategies for use of computerized data are the equipment of all new reference librarians. Improved subject access to databases is a constant plea. The aim of all this activity is to understand the way knowledge is obtained in various disciplines so that the academic librarian can help users do their research work better.

4. An ability to evaluate research. These three kinds of knowledge cumulate in the need of the librarian to evaluate research. Citation analysis is a wonderful tool, but it must be used with care. Bibliometric techniques tell us a lot, but they don’t tell us everything. Statistics are important, despite Disraeli’s admonition about the three kinds of lies: “Lies, damned lies, and statistics.” Even as a person with a modest knowledge of statistics and computers, I discover that I know when the numbers don’t tell us what they purport to tell us. Yes, even multiple regression analysis is not the whole answer. Just because some of our literature represents the worst of research techniques (e.g., the Houser-Shrader volume or Ralph Conant’s book on library education) doesn’t mean that there hasn’t been remarkable progress in adding to our store of knowledge about our profession and its activities in the last forty years. If we believe that knowledge is cumulative (and as a historian I could hardly argue with that!), then we have to rejoice that the knowledge base of our profession has expanded at a gratifying pace in recent years.

I pause here to note two important pieces of good advice Hugh Atkinson gave twelve library educators at our Research Libraries Institute in Chapel Hill last summer: “Don’t put the profession...
down” and “Don’t put the professional literature down.” To those who tell me how pedestrian and dull library literature is, I invite you to examine the major journals in the disciplines of English, history, sociology, and even, God help us, theology that line the periodical shelves in your libraries. Yet these are journals that report basic findings upon which further knowledge can be built. As an editorial board member of several journals, I am often amazed at how many manuscripts reveal that the author has not searched the relevant literature. Our students need to be taught that an important part of their professional obligation is to search the research record. We can hardly ignore the need for doing what we encourage in others.

These four kinds of knowledge seem to me basic in any definition of the academic librarian. Now I want to turn to the question of academic credentials which the academic librarian ought to have. Now I want to turn to the question of academic credentials which the academic librarian ought to have. You will not be surprised to learn that I am strongly committed to a basic liberal arts education and an M.L.S. degree as the foundation for professional practice.

In the last couple of years I have attained some sort of reputation (notoriety, some would say) for defending the M.L.S. degree as an entirely reasonable standard for the beginning professional librarian. I stress that “beginning” because I certainly don’t regard the M.L.S. as the “ending” point either for formal or informal study. While my mother didn’t raise her son to be an expert witness, I felt a strong professional obligation to defend the M.L.S. degree in the case of Glenda Merwine v. Mississipi State University. Needless to say, I was elated when the U.S. Fifth Circuit Court of Appeals affirmed Judge Charles Powers’s decision, in every particular, in the Merwine case. What pleased me most, aside from the ignoble feeling of personal triumph, was a belief that the court had ruled in favor of “logic and common sense,” to use Judge Powers’s happy phrase. For if the library profession, and if academia generally, cannot defend its M.L.S. degree on the basis both of logic and common sense as the principal credential for entry into our profession, then our claim to professional status and social usefulness is indeed called into serious question. Let me quote from some of the Fifth Circuit’s key phrases:

The evidence presented by Merwine, with all reasonable inferences drawn in her favor, does not persuade this Court that Lewis’ adherence to the ALA-MLS degree requirement was pretextual. All the evidence, viewed favorably to Merwine, points without hesitation to the opposite conclusion. The uncontradicted evidence establishes that the ALA-MLS degree is a legitimate nondiscriminatory standard for hiring academic librarians. It is a standard widely recognized and utilized by academic and professional employers, including the United States Supreme Court. In addition, as the parties stipulated, at the time Merwine’s application was under consideration, six applications were before the hiring committee. Three of the applicants, two females and one male, possessed the required degree and only these three were interviewed for the position. None of the applicants without the degree was even considered. Lewis’ uniform application of the degree requirement is indicative that his denial of Merwine’s application for the same reason was not pretextual in nature*.

We agree with the magistrate’s finding that no reasonable jury could find that the preference for such a degree was a pretext in view of the total lack of any credible evidence indicating the preference for such a degree was not a legitimate, nondiscriminatory factor uniformly applied to all applicants. Accordingly, we hold that the magistrate did not err in granting judgment for Lewis notwithstanding the jury’s verdict.

*Note: On October 7, 1985, the U.S. Supreme Court denied Merwine’s petition for a writ of certiorari, therefore affirming the ruling of the lower courts.
fest relationship to the position Merwine sought.\textsuperscript{10}

The Merwine case was surely one of the significant attacks upon academic credentials in recent years. If one agrees with the courts, then it is clear that both the courts and professional practice in academic libraries have sustained the M.L.S. degree as a basic requirement for academic librarians. Yet the court case does not answer all the questions, nor does it provide comfort for those who also contend that the M.L.S., by itself, is the only credential an academic librarian needs. In a college or university where the doctorate in most disciplines is regarded as the "terminal degree," and lack of it constitutes grounds for dismissal from the teaching faculty, the librarian who aspires to faculty recognition still has a problem. In political terms, the problem is how one navigates among the minefields laid by promotion and tenure committees in the absence of the common understanding of the phrase, "terminal degree." (Surely "terminal degree" is an inappropriate term in these days of rapid changes, though one can agree that there are some faculty in academia for whom it has been terminal in a very real sense.) We should note here that our insistence, through the ACRL guidelines, that the M.L.S. is the "terminal degree" for librarians has not achieved wide acceptance on most campuses and, in my opinion, is likely to be even less persuasive in the future.\textsuperscript{11}

In overtenured universities, personnel committees have tightened standards for tenure and look with jaundiced eyes at the record of teaching, research, and service of all faculty appointments. As librarians, we do better on teaching (broadly defined) and service than we do on research. In the absence of the doctorate, one's record has to be extraordinarily strong to convince our other university colleagues that our records are indeed equivalent to theirs and our contributions as significant.

Recent research indicates that more and more academic librarians either possess, or are working on, subject master's or doctoral degrees. John Olsgaard's study of success among academic librarians indicated that more than one-third of the persons in this study possessed a second master's degree and an additional 10 percent held doctorates.\textsuperscript{12} Terrence Mech's study of directors of small college libraries in the Midwest indicated a similar pattern.\textsuperscript{13} Mech added, "Holding graduate degrees in addition to the M.L.S. is almost a universal requirement to obtain a director's position in any size college."\textsuperscript{14} A study by Robert Swisher, Peggy Smith, and Calvin Boyer in 1978 found that 29 percent of academic librarians held a second master's degree and another 7 percent were pursuing that degree; 8 percent held the doctorate and another 6 percent were pursuing it.\textsuperscript{15} Dorothy Anderson's recent study of Council on Library Resources (CLR) Senior Fellows provides additional confirmation of the importance of additional graduate work for leadership success.\textsuperscript{16} The evidence that educational qualifications for the academic librarian are rising seems clear. I would predict that they will continue to rise in the future. The data in these four studies, incidentally, indicate that the courts were right about the M.L.S. being held by most academic librarians. Olsgaard's study showed 92 percent holding the M.L.S. plus 5 percent with the old B.L.S.\textsuperscript{17} Mech and Swisher, et al., indicated that the fifth year professional degree was held by more than 90 percent of academic librarians.\textsuperscript{18,19}

What does all this say about defining the academic librarian? Realistically, the academic librarian today must have an M.L.S. degree. That degree is assumed to provide a student with the professional and technical skills he or she needs to begin the practice of academic librarianship. Included in formal study for the M.L.S. should certainly be those core elements Dean White discovered in his survey: basic reference, collection development, academic libraries, personnel and human relations, introduction to information science, and organization of materials.\textsuperscript{20} Hopefully, either in these courses or elsewhere in the curriculum, the student will be introduced to the four types of knowledge I have discussed. The broader the training, the more likely the individual will have these understandings, as well as
the professional skills so necessary in today's libraries.

Is there life beyond the M.L.S.? Yes, but in the words of the old business school slogan, "The future belongs to those who prepare for it." We must take into account the political context of higher education, not only as it exists today but as it will probably exist tomorrow. In academia, courses and degrees are the coin of the realm. In that context the M.L.S. is crucial for most positions, but it is only the beginning point. The trends are clear. To plan one's career so that one can compete successfully in an academic world with fewer but more sophisticated librarians, academic librarians will need all the education they can obtain. One may view such additional preparation either pragmatically (as the union card for status among one's colleagues), or nobly (as a means of participating in the intellectual challenge of teaching and research). For me, after equally long years both in the practice and the teaching of librarianship in colleges and universities, I prefer to stress the latter. I still view the academic library as a place of intellectual excitement, basic and continued learning, and professional growth and development. The best libraries, in my opinion, can continue to be such places. To do so, however, they will need politically astute librarians with strong professional credentials and solid research interests. Such librarians will not only benefit personally from such preparation; they will also make even greater contributions to learning and scholarship—which is, after all, what our colleges and universities are about.

REFERENCES

8. Ibid., p. 91.
17. Olsgaard, p. 5-14.
Reactions to
"Defining the Academic Librarian"
Irene B. Hoadley, Sheila Creth, and Herbert S. White

REACTION FROM
IRENE B. HOADLEY

There are many specific points on which I could agree or disagree as far as Dean Holley's comments are concerned. However, there are many pitfalls to that avenue. Rather than get into a "my opinion" or "your opinion" situation, a somewhat different tact seems in order. Therefore what I want to do is

1. Counter Dean Holley's basic assumption;
2. Present my concept of what an academic librarian is (primarily in terms of a large university situation).

Dean Holley's basic assumption is that a general background is utmost in the needs of an academic librarian. He states that it is important "to know the social, economic, and political context in which the library operates" and I agree that knowledge of these contexts does make a more effective librarian. But this knowledge is not as high a priority as knowledge of one's discipline. These contexts are not as important as leadership in being effective. And in my opinion, there is no way they can be a significant part of a one-year curriculum.

Let me, then, suggest what academic librarians should be—not necessarily what they are. My definition will be in terms of the aggregate, not in specifics.

My definition begins with the environment in which the library exists. It is characterized by three factors:

1. Change
   - In my career, change has come almost full circle. It has moved from fully independent to somewhat centralized and now back toward independent. I feel I will be around long enough to see us go back to centralized. This might be termed the "Ring around the rosy" concept of library organization.
   - There has also been change in terms of new services—i.e., bibliographic instruction. And there are new roles for the library. In some instances libraries are information creators and not just information keepers. The security of a stabilized environment has disappeared as libraries are caught up in making things happen rather than letting them happen.

2. Technology
   - All librarians are aware of what technology has done to libraries. Machines are almost as much a part of li-
Libraries as are books. Technology issues such as
• access versus ownership
• database searching
• online catalogs
• OCLC/RLIN debate
• laser disks
are a part of our everyday lives.
These are all an integral part of library operations today. Heaven forbid that someone would take away our automated circulation systems or word processors. It would be like removing the books from the shelves.

3. Tradition. On the other side, tradition is as prevalent as is technology and innovation. Libraries continue to provide all of the time honored services (even if some are provided in distinctly different ways). These include
• reference service
• reserve operations
• acquisitions
• cataloging
Academic libraries are also part of one of the most conservative institutions around—higher education. This is where what Dean Holley says is accurate, but not in the degree he claims. If you cannot manage change and technology, and if you do not know libraries, knowing the environment will not be enough to carry the day.

There is one more piece of background that is needed before defining the academic librarian, and that is a definition of the academic library. My definition is fairly specific. It is defined as having the following characteristics:
• availability of traditional library functions centered around print materials;
• provision of most functions in an automated format with both local and national online access to data;
• the assumption of an information transfer role within the university;
• an emphasis of information service and aggressive outreach functions;
• networks and cooperative arrangements serving as backup support; and
• completion of retrospective conversion and closing of the card catalog.
Basically, the library maintains traditional service but in an highly automated environment.

This is what the library should be today. Knowing the environment and what the library is like, it is now time to define what it is that the academic librarian does. But since this is readily apparent to everyone, the type of person who is needed to fulfill a role in the library that has been described will be provided instead. That person is one who
• can think and reason;
• has the ability to communicate—both in writing and orally;
• has good interpersonal skills;
• has the ability to function in an automated environment;
• has research capabilities;
• has basic knowledge of library operations and principles.
And what is it this person is doing? This person is
• dealing with automated systems;
• involved in information planning and management;
• utilizing database systems;
• dealing in organizational change;
• involved in human resource planning, recruitment, training, and development;
• involved in legal relationships and issues;
• managing library resources;
• doing research;
• organizing collections;
• using reference sources.
This is basically what an academic librarian is. It is someone (on many different levels) who molds and manages organizations or parts of organizations to respond to the gradual obsolescence of existing technologies.

What has been said is not really in conflict with Dean Holley’s basic assumptions, but it goes beyond it. It is a matter of priorities and perspectives. His perspectives might be likened to the person who still only listens to the “oldies but goodies” and who has failed to realize that “rock” in all its variations is here to stay.

His definition of the academic librarian is a limited one. It is relevant but not significant. His definition ignores the fact that academic librarians are basically managers
• of people
Reactions to “Defining the Academic Librarian” 471

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• of materials
• of facilities
• of users
And to a lesser degree that they are
• politicians
• lawyers
• arbitrators
• financiers
• counselors
and much more

And where does this leave us? It leaves us where librarians have always been—in a quandary. Librarians have spent considerable time over the years trying to determine who we are and what we are. Why else would the four of us be addressing this topic today and why would all of you be listening to what we have to say? Issues such as the composition of the library school curriculum continue to be debated because it has to do with who we are. It is difficult to educate people for a profession which is still in search of itself.

Dean Holley concludes by saying
• that a M.L.S. makes a librarian;
• that additional education beyond the M.L.S. is critical;
• that librarians must make contributions to learning and scholarship.

If three of three are required, I have personally failed as a professional. I have met the first two criteria, but I do not feel I have made a contribution to learning and scholarship and probably never will although I have made other types of contributions. On the other hand, I imagine many have not met those three criteria, nor do many people in any discipline.

Since an ending should not be negative, my suggestion to all of us is to forget about the definition and to go forward with what we are doing. Then Dean Holley, when he writes the definitive history of librarianship, can, with the help of hindsight and our record of accomplishments, tell us what we are. In the meantime we will continue to do what has to be done to provide the information needs of our clientele.

REACTION FROM SHEILA CRETH

I would like to take an approach that complements what Ed Holley has already touched on and also raises some additional issues. In identifying the character-istics or requirements for defining the academic librarian—for today and the future—I think there are three components that need to be considered: knowledge, skill and ability. Let me define these terms before going any further. Knowledge refers to the information that academic librarians should possess, such as knowledge of reference tools, cataloging practices, collection development policies and issues, the publishing industry, management concepts, a subject field, and many, many more topics. Skill represents the techniques, the approaches, and the style for translating knowledge into action or practice. For instance, this might be the skill to conduct a reference interview, to interpret cataloging rules in relation to the intellectual content of the material, to evaluate staff performance. Ability represents the intangible qualities or characteristics that we bring to the profession; qualities affected by our motivation, integrity, and attitudes. Abilities that academic librarians should possess include flexibility, decisiveness, cooperation, and leadership. In defining the academic librarian, we should assess the requirements and strengths in all three areas in order to determine what is needed to set the pace, provide direction, and mold the future for ourselves and the academic library.

Librarians must be able to establish and maintain a proactive rather than a reactive position within our library organizations and within the academic community. Pressures are building on campuses, particularly on the university campus with which I am most familiar, thereby requiring librarians to redefine the role that they should play in order to best serve the information needs of students and faculty. Specifically, librarians face competition with computing facilities not only for dollars but for a central role in shaping the way research and instruction will be served by computers as they become primary links in providing access to information. Questions we might ask when assessing the strengths of academic librarians in relation to these new needs might include

• Will librarians be sufficiently knowledgeable about automation to contribute not only to library planning but also
to campuswide planning?
- Will they be skilled in communicating the needs of the library and the central role it should play to the academic community?
- Will they have the ability to operate in the political environment, cultivating relationships, avoiding land mines, and developing strategies for garnering support among campus groups for library programs and goals?

Few would deny that the role of librarians and libraries in delivering information services is changing and will continue to do so over the next few decades. Knowledge, skill, and ability traditionally associated with academic librarians will not cease to be important but these areas will need to be redefined, refined, and supplemented if we are to maintain our vitality.

I would like to turn to some specific attributes that currently are needed by academic librarians and will continue to be important in the future. Patricia Battin identified four qualifications as critical for research librarians:

2. A solid undergraduate education (the rigor of the undergraduate education and training is critical, not the subject matter.)
3. Concrete evidence of managerial abilities (even the beginning librarian will have to supervise.)
4. An intellectual commitment to research librarianship.

In a recent article, Allen Veaner, referring to these qualifications, said "No academic librarian anywhere can afford to lack these requirements."1

I recently conducted a research study (to appear in a forthcoming issue of C&RL) with Ronald Powell, University of Michigan School of Library Science, in which we sought to identify knowledge needed and possessed by university librarians during the first ten years of their careers. Three hundred and fifty librarians from twenty libraries (randomly selected from members of the Association of Research Libraries) participated in the study. Results of this study indicated that management knowledge needed—specifically planning, personnel, and training—ranked very high in importance among the 350 respondents, but these areas were ranked very low as knowledge possessed. The same results occurred for automation—high in importance but low in knowledge possessed. In addition, the results indicated that certain knowledge was perceived by these university librarians to be relevant only when associated with certain positions. These knowledge areas included writing skills, systems analysis, program evaluation techniques, and inferential statistics. This result is particularly troubling, because how can any librarian be effective without the ability to think analytically or to write well? How can professionals be effective if they are unable to evaluate services and activities using program evaluation techniques, or to conduct operational studies using statistics? This is a brief summary of the study that we undertook, but it suggests that deficiencies may exist among academic librarians in aspects of knowledge that are important for effective performance and professional leadership.

How do we move forward, remove barriers, and prepare ourselves to create a future that will be dynamic in meeting the needs of the academic community and that will be challenging to us as professionals? I suggest that changes are needed in three areas: library education, library organization, and individual librarians. I would like to discuss briefly each of these areas.

Graduate library schools must be rigorous in selecting students for their programs and will continue to be important in the future. Patricia Battin identified four qualifications as critical for research librarians:

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Reactions to "Defining the Academic Librarian"

vited to contribute to particular courses through team teaching or by making presentations. It is equally important for the library school faculty to return to libraries to work on projects or activities as a way to strengthen their knowledge of academic libraries.

It is not accurate to place the responsibility for the perceived ills and inadequacies of the profession on the shoulders of the library schools. Library organizations also have a responsibility to contribute to the preparation and development of academic librarians. Library administrators and managers should periodically review how professionals are used in the library—their assignments, roles, and responsibilities. We should ask if we provide opportunities for beginning librarians to use the education that they have received. Do we encourage them to express ideas, to question, to make mistakes? Or do we smother them in bureaucracy and insist on molding them to the traditions with which we are comfortable? Do those of us who are not managers welcome assertive beginning librarians to our departments? Are we open to the ideas and opinions that beginning librarians express? Or do we believe in a "rite of passage" for the new librarian—that the beginning librarians should be seen and not heard?

We must also reexamine the organizational structure within our academic libraries in order to assess communication patterns, access to information, participation in decision making, and the attitudes and behaviors that are encouraged and rewarded. As individuals and collectively, we should welcome new ideas, encourage disagreement over issues, and learn to trust and respect one another. Equally important is our commitment to the continued learning and development of library professionals. The M.L.S. degree cannot be expected to offer all of the knowledge, skill, and ability that academic librarians will need as they begin their careers, much less over a career that may span twenty, thirty, or forty years. This places a considerable responsibility on library administrators and managers to move beyond "lip service" to staff development and put resources into organized programs that support the growth of the academic librarian. Ignoring this responsibility is a luxury that can no longer be afforded. If we want the academic library to be a resilient and central player in the future of the campus community, we must consider these issues within the library organization.

Finally, I would like to focus on what I think librarians as individuals should address. We tend to focus on what we think library educators should do for us and what we think administrators or the organization should do for us. But we must take responsibility for our own future. We need to throw off the mantle of passivity wherever it exists. We need to cease seeing ourselves as victims, victims of the public's ignorance; victims of stereotypes. Instead we need to develop a strong professional identity in which we take pride.

At an ACRL New England Chapter conference in 1976, Eric Moon outlined what he thought were issues that academic librarians should address over the 1980s—a decade that is quickly coming to a close. One issue that I remember clearly is the need for us to establish our own professional identity and to stop "hooking ourselves to the coattails of faculty." I am not sure that we have achieved an identity with which we are comfortable and proud, in which we do not have to apologize or compare ourselves with another group to achieve recognition. In an article entitled "Why People Really Hate Library Schools," Samuel Rothstein presented the results of research on how librarians feel about themselves, their self-perceptions. According to Rothstein, there seems to be little doubt that librarians are strongly affected by the image that they have of themselves or think non-librarians have of them. He goes on to say that our views are mixed. We like libraries, but we have serious doubts about librarianship and librarians. Indeed, we have serious doubts about ourselves, their institutions and our colleagues. He suggests that our very first lesson in management should be self-management and he exhorts us to give up being so critical of our fellow librarians and of ourselves. He suggests that librarians cultivate a sense of
pride and confidence in themselves and their profession.

Clearly, librarians need to develop new areas of knowledge and skill and enhance those they already possess. We need to achieve a pride and confidence in our profession and ourselves. We need to acquire new abilities and we need to relinquish some old outlooks, attitudes, and behaviors. Without this personal change, organizational change will be severely hampered.

I have tried to present in rather broad brushstrokes a definition of the academic librarian. It may be dangerous to articulate a specific definition for the academic librarian in this rapidly changing profession; it could become a straitjacket for the future. I believe that the best definition of an academic librarian is the individual who meets the needs of today while actively planning for and shaping the future.

REFERENCES


REACTION FROM HERBERT S. WHITE

I find little with which to disagree in the comments by Dean Holley or the two other respondents. Both Irene Hoadley and Sheila Creth stressed that one important quality of academic library administrators was leadership, and I cannot disagree with that. However, I would add another critical requirement; that of courage. Given the blurred and undefined responsibilities that not only exist in academia, but on which the process thrives, a willingness to stake out an area of expertise and then be willing to fight for that area is essential for academic library administrators who seek to avoid benign indifference for themselves and for the library as an organization. That, of course, is the staking and defending of "turf," and I will have more to say about this later.

I would also seek to add one factor to those described by Ed Holley as important to academic faculty in determining the quality of the institution. I would add to his list of critical issues that of adequate parking, and librarians are fortunate in not having to deal with that difficult and perhaps in-soluble problem. My comment is, of course, facetious, but the implication is serious. Many of the concerns that surround the negotiation between librarians and their faculty colleagues have nothing to do with academic quality or research issues. They are disguised with these labels, but largely they center on the egos of a group of desperately insecure people who see slights and enemies everywhere.

I am the only one of the three panelists who does not come out of academic library administration, and I therefore assume I carry some responsibility to react to Ed Holley's thoughtful and sobering comments from outside the academic library establishment. It is a responsibility I accept gladly, because many of you already know that my reactions tend to come from somewhere beyond left field in any case. However, I nevertheless have a very close relationship to academic librarianship beyond the educational preparation that our school provides. I sit in the middle of an academic library, and I use academic libraries largely with the same unreasonable preconceptions and biases of my other academician colleagues. However, I can also see some of the problems because I am a librarian. What makes it worse for me, is that I am also a victim by extension of some of the problems that academic librarians face. In their simplistic ignorance about the nuances of libraries and librarianship, my faculty colleagues also dismiss any distinction between library administration and library education, if indeed they accept any need for graduate library education at all.

In any case, your problems become very much my problems on the academic campus when the peer evaluation system, which governs academia, minimizes our research problems and denigrates our discipline, or when our doctoral students are
asked by fellow doctoral students what there could possibly be in this field to warrant a master's degree, let alone a doctorate.

I think it is something of a mistake for us to try so hard to look like people we are not. I have no particular quarrel with the need for a second master's degree or a Ph.D if we decide this is what we need for the tasks to be performed, but not because we think it might impress somebody. It won't in any case. I see some evidence of this attempt in the stockpiling of overqualified individuals, a concern in academia in general, and in the practice of some major academic libraries with professional staffs of sixty or more of hiring only individuals with experience, and then even bragging about this monstrous misuse of people and resources. Larger libraries in particular have mundane little professional jobs; if anyone can argue for the need for prior experience for all professionals, it is perhaps the small college library and not the major research library.

It is difficult to establish our own area of expertise in a community of snobs who are at the same time desperately insecure snobs, but the computer and systems people have succeeded in doing it. More importantly, we are also captives of a value system which operates increasingly on the basis of self-validation, and without much relevance. The Ladd and Lipset studies have told us that the image of serious academic research to find facts is largely a mirage even in major institutions, and the search for large bodies of information is confined to a very small part of the faculty. The others are looking for proofs for decisions already reached, and most definitely not for information that contradicts their conclusions. There appears to be an inconsistency in our belief that faculty care deeply about students learning how to use libraries, when at least a good many of them still send them in after assignments for which they have made no prior arrangements. Finally, the development of computer-based information access and document delivery systems not only broadens our ability to obtain both bibliographic and document delivery but also decentralizes this process. As I am sure you already know, faculty don’t have to wait for us to finish cataloging a book to learn it exists.

All of these issues cause a number of problems for you, and therefore also for me.

1. We and the faculty still look at an emphasis on the size of collection as the value of the library. I know that the ranking formula now encompasses other factors such as size of staff, but it still doesn’t include fill rates and response times, and certainly not anticipation of need. The emphasis on collection becomes, as I need not tell you, an overriding priority which tends to destroy all other priorities in its path. Robert Munn described the perception of the academic library materials budget as a bottomless pit, and I have not thought of a better term. As Allen Veaner noted in the May 1985 College & Research Libraries, we haven’t done very well in improving the speed of interlibrary loan, but we have done well in convincing our users that they ought to wait patiently. This doesn’t help.

2. The use of the library carries with it a considerable amount of accountability for students but virtually none for faculty. For a fair number, the perception is that of a free bookstore to help offset the rotten salaries. One of the valid criticisms (there were many emotional and invalid ones) of the materials utilization studies carried out by Kent at the University of Pittsburgh was that some of the most significant material in the library collection (at least in the library catalog) never make it to the shelves at all, and therefore their use can’t be measured. A book is ordered at the request of a specific faculty member, it goes to the office of the faculty member immediately after cataloging, and there it remains. Yes, it has to be renewed annually, but that is more of a nuisance than a control. Like all other faculty members, I have such books in my office, and you aren’t going to get them back. I have even adopted the standard excuse: “Nobody else could possibly be interested in these.” All of this may be relatively harmless if the state legislature can afford it, but it doesn’t do anything for our image. Bookstore clerks, or even bookstore man-
agers, are not considered fellow academicians.

3. University administrators have been allowed to abrogate almost entirely their own responsibility for the governance of the library. I once posed this question to a group of theological seminary presidents in a workshop on the role of the academic library: "If the library director is somehow able to stay within budget and to keep the faculty from complaining to you, will you settle for that, or do you have other expectations?" Theologians are perhaps more honest people who hope to get to heaven, and they agreed they would gladly settle for this, although they also agreed, a little more reluctantly, that this also constituted a total abdication of their own role and responsibility as chief executive officers of their institutions.

It should seem clear that academic libraries and library schools share a very battered and leaky boat. We share a professional identity, we share a building, and many faculty can't tell us apart. At Indiana we are a large library school, but a tiny part of the university. My concern is visibility. Your institution is certainly visible, your concern is professional relevance—not for the library, but for the librarians. We fight for our unique identity on the campus and for our unique expertise as you must fight for yours. Ours is a professional degree program—like the schools of business, public administration, and music. Nobody really understands what these programs do, but they accept that. They must also understand and accept their own ignorance of what we are and do and not be allowed to operate on the basis of their preconceptions, particularly since many of these are inaccurate.

Some of this requires a greater involvement in the collegium of the university, and I know that Ed Holley has been active and visible on his campus. I was a little amused at one section of our recent Committee on Accreditation site visit report that stated that university administrators saw me taking an active role in university-wide issues. That roughly translates to mean that I stick my nose into everybody else's business—in part because that is my nature, in part because it is my business to help decide university priorities, and in part because library education needs academic campus visibility. So do libraries, and it disturbs me when I find that librarians with faculty status have no opinions to express except on issues which affect the library. Why not also on student health fees, or concerns about misuse of the pass-fail system, or the relationship between academics and athletics? Your opinions on these issues are as important and certainly as informed.

Virtually everything I now deal with in my classroom work, in my continuing education seminars, in my writing, and in my talks, concerns assertiveness training. It is fairly clear to me that the issue of professional respect must begin with self-respect. I see a huge problem with that issue—and in part it is something that Ed Holley has already alluded to.

I mean no disrespect to my academic colleagues. After all, I am a professor just like them. However, I understand something about their strengths and weaknesses. My two next-door neighbors, on a cul-de-sac that is populated entirely with Indiana University academicians, are one professor of Ethno-musicography and one of Uralic and Altaic Studies. Both are world renowned experts in their own discipline, about which they know a great deal. They know very little about other disciplines, because the rigor and specialization of academic preparation demands such narrowness. I am happy to grant that I know nothing about their fields, and indeed they would not take kindly to my claiming such a knowledge. At the same time, I also have an area of expertise, and they know as little about my area as I know about theirs. I have managed to make that point successfully to my neighbors, but our campus and your campus still teem with academicians who erroneously believe they know something about our profession, and who sit on library committees that think they are managerial instead of advisory. Until we correct that impression, until we establish our expertise and our turf as successfully as computer professionals have most recently done (they give the faculty the option of
either trusting them or studying under them), we will earn little respect. Our research proposals will continue to be regarded as insignificant by individuals who don’t understand and don’t know that they don’t understand. Our doctoral students will still be embarrassed by other doctoral students, who don’t comprehend what they could possibly be studying. It is difficult to understand how faculty balance their insistence that librarians hold a doctorate with the lack of appreciation of the substance of our doctorate. That is, of course, illogical and inconsistent, and you have to tell them that. I can’t visit every campus.

It is not an easy battle, but it is an absolutely essential one. Perhaps it can’t be won at all, and there will in any case be casualties, as there are in any war. And yet, just occasionally, there are victories. Gail Peck, one of our own Indiana SLIS doctoral students, was this year’s top winner of the campuswide Jonathan Edwards competition, the most prestigious doctoral student award. To put it most simply, she is the top doctoral student at Indiana University and in the field of library science. That takes a while to sink in. But that is how we must start, and you can be sure I mention that honor every chance I get. Perhaps my colleagues still don’t understand or call it an aberration, but they remember. I don’t really disagree with any of Ed Holley’s injunctions, but I would suggest that the primary responsibility for academic library administrators is the proper administration of academic libraries, because faculty certainly don’t have that capability. The environment for libraries is changing, as the environment for research is changing. Academicians will occasionally admit that in conferences, but they will resist the specific changes they admit in principle are necessary, and they will most specifically resist them with regard to academic libraries if that impacts what they find comfortable.

I know I angered some of my colleagues who were kind enough to invite me to participate in an Association of Research Libraries meeting discussion, but as I looked at academic libraries and compared them with the special libraries I know well and the public libraries I know far less well, I concluded that in academic libraries there have been technological changes, but virtually no philosophical ones. We now use technology to do what we used to do manually, and that is an improvement. However, we haven’t examined any of the premises of the information gathering, analysis, and dissemination process. Until that happens, the changes continue to be cosmetic. Irene Hoadley and I may differ in our assessment not of what needs to happen, but of how much of it has happened and is happening. I am not content at the rate of change, but patience has never been my long suit. Impatience is not generally considered a virtue, but perhaps in this instance our profession may be a little too virtuous. I think it is high time we dragged our academic faculty colleagues into what for some libraries are the 1970s. After a while, we might even dare to introduce them to the 1980s.

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Managing the Coexistence of Hierarchical and Collegial Governance Structures

Nancy A. Brown

Dual structures of governance, that is, the collegial and the hierarchical, are in place in many university libraries today. The problems from a managerial perspective of managing the coexistence of these governance structures may include accountability, lack of organizational flexibility, time requirements, communication between the structures, some lessening of librarians' interest in the function of line management, the potential for goal conflict, and a lack of appreciation for librarians' position in their bargaining group. While there is no one solution to these problems, it is imperative that university libraries operate in such a manner as to be judged effective or the mandate of the library stands in some danger of being at least partially distributed.

The need to recognize and to manage the coexistence of hierarchical and collegial governance structures in academic libraries is a phenomenon of the last fifteen years. During this period, faculty members, including librarians, have commonly formed associations or unions to bargain for terms and conditions of work. It should be acknowledged without reservation that where these associations or unions are legally recognized to bargain by provincial or state or federal jurisdictions, they have all attendant rights and responsibilities including the duty of fair representation. Faculty associations or unions are distinct, however, from other unions because the traditional collegial processes form an integral part of the agreements and these processes are enforceable by law under labor relations boards.

Librarians have sought and frequently achieved comparability with faculty with respect to collegial processes and peer review. But libraries, unlike academic colleges and departments, have more formal hierarchical structures. These hierarchies can be illustrated by the organization chart of any university library. Anything fewer than four organizational levels is unusual. A collegial structure somehow linked or paralleled with a hierarchical structure, that is, two governance structures, results in a complex formal organizational structure. Where authority and responsibility diverge significantly the structure may be unstable. The outcome for the library may be an ineffectual response to a university environment which itself may be in a state of retrenchment, rapid change and technological innovation.

Library governance must be equal to the demands placed upon it because the library is essential to the teaching and re-
search function of the university. Research libraries are among the major cost centers on campus. Given the need and the cost, libraries will be asked by users and by university officials to operate effectively. Otherwise, their functions may be at least partially distributed. This would be exceedingly unfortunate because libraries that are well positioned with respect to computer and communication technologies, that have strong political profiles in the universities, and that have experienced managers and expert systems staff could make a significant contribution to the information and technological revolution that is underway on the campuses.

**DIMENSIONS OF COLLEGIAL INFLUENCE OR CONTROL**

In academic libraries collegial models have three dimensions of influence or control. These are:

1. *The degree of control*. This may refer to the amount of influence a collegial committee has on any decision. The amount of influence, or the degree of control, depends on whether the recommendations of the committee are advisory or are binding by virtue of tradition or agreement. For example, a committee of peers exercises control when it decides who will receive merit increases.

2. *The issues subject to control*. Here, for example, search, promotion and tenure committees, with the majority of members elected, may determine who will join the staff, who will be promoted, who will be rewarded, and who will receive tenure.

3. *The level at which control is exercised*. A collegial governance structure in coexistence with a hierarchy can exercise control or influence at any level from individual library department to the senior university administration.

In unionized organizations, representatives of the collegial processes as well as individuals can expect to influence their union. In turn, the union has legitimate power in dealing with senior university administration.

These three dimensions, the degree, the issues, and the level at which control or influence are exercised can range from perfunctory through advisory to full decision-making power. In a unionized university all three dimensions are matters for negotiation.

**STRUCTURE**

The structure of an organization is the vehicle by which choices are made on how the work of the organization will be divided and how coordination and integration are effected. The structure of a hierarchy is well known; traditionally, in a library the division of work has been between public service, technical service, and perhaps systems, with coordination achieved through line and staff positions and through standing management committees. This traditional structure is changing in response to technological developments. Other formal structures are replacing it. For example, a matrix structure is sometimes employed during extended or ongoing development or implementation projects.

In considering the organizational structure of a library, it is important to remember the composition of the staff. In Canada, the ratio of support staff to librarians is about three to one. The number of non-librarian professionals or specialists is small but is believed to be growing. Since non-librarian professional and support staff members (70 to 80 percent of the total staff) are excluded from the collegial process, a research library cannot operate with only a collegial structure in place. There must be a hierarchical or matrix structure for the library to achieve the goals for which it exists.

**CONCERNS FROM A MANAGERIAL PERSPECTIVE**

Given the continued coexistence of hierarchical and collegial structures, what are the problems of management?

The most serious problem may well be accountability. The chief librarian is held accountable by the university administration and the faculty at large for the efficiency and effectiveness with which the library meets its mandate. Collegial committees come together, make decisions, and disperse. The decisions are typically related to functions such as hiring,
promotion, tenure, and assignment of duties. Collegial committees may or may not have direct policy making power, but decisions on hiring, promotion, tenure, and assignment of duties will clearly affect policy making and policy implementation. With respect to accountability, individual committee members may or may not personally accept responsibility for decisions. Even if individuals do accept responsibility, their options to demonstrate accountability are limited. There may be the power to make decisions without responsibility for the outcome.

Accountability follows the hierarchical structure. The collegium with advisory or decision-making power answers to itself. The views of the collegium may coincide as frequently with the views of library administration as the views of the teaching faculty coincide with the views of the university administration.

Another problem may well be a lack of organizational flexibility. It may be difficult to reorganize to respond to the changing environment, particularly with respect to technology, retrenchment, and user needs. In unionized organizations, it may be virtually impossible to shift the positions between bargaining groups.

A third problem is that the management of a collegial structure demands large amounts of time for committee deliberations and agreement administration. The governance of the librarian collegium can be very costly.

The fourth concern relates to communication between the structures. The transfer of information, particularly personnel information, between the hierarchical and collegial structures is a matter deserving respect. Documentation may or may not flow from the hierarchy to collegial committees; normally it does not flow from collegial committees back to the hierarchy. This may limit a department head in efforts to counsel and develop a staff member.

A fifth problem is that there is some evidence to suggest a growing ambiguity in the commitment of research librarians to the function of management. Librarians are advancing very strong arguments for the implementation of career ladders for librarians without managerial responsibilities that would enable such librarians, in a normal career progression, to reach a salary and position level equivalent to full professor. Librarians have, for many reasons, sought to increase their community of interest with teaching and research faculty members. Line and staff management are generally not part of a faculty member’s professional responsibilities and this may account for some ambiguity. Some librarians consider nonmanagerial positions intellectually superior.

If there is widespread ambiguity with respect to the function of management, and if collegial committees allocate rewards such as merit increases, then librarian managers may not be rewarded for their management skills. This, may lead to a nonmanagement orientation. It may encourage the best librarian managers to seek other employment, and it can divide the librarian collegium.

If librarians increasingly choose alternate career routes and nonmanagerial senior positions, then who will manage the library? Whether or not librarians wish to manage, many of them find it completely and unalterably unacceptable to take direction from nonlibrarian professionals or support staff. In my judgement, librarians cannot adopt the view of some faculty that they will neither manage nor be managed. Overall, if a significant number of the best and brightest librarians do not accept managerial duties, then the strain and friction in the library will increase substantially.

A sixth problem is the potential for department heads and other senior librarians with management responsibilities who are members of legally recognized faculty associations or unions to experience goal conflict. These individuals may be required to take a position on such issues as job action, withdrawal of certain services or budget cuts involving collegium members. Simultaneously, these individuals have line management responsibilities that include advising the chief librarian on a course of action designed for the greater good of the library. This is typically a retrenchment problem.

The difficulties of managing can be con-
siderably exacerbated by senior university officials who, for whatever reason, do not understand or appreciate the position of librarians with respect to status, affiliation, and bargaining group.

Libraries, like other organizations, can be assessed by four criteria: by how they meet their goals, by the resources they attract, by the absence of internal strain, and by the degree to which all constituents are minimally satisfied. The problems inherent in managing the coexistence of the collegial structure and hierarchical structure can potentially lead to negative assessments on all four criteria. This may occur in association, union, and nonunion organizations, because the collegial structure has to have power and legitimacy to enforce its rights as it sees them, or it is not a viable governance structure.

While there is no simple resolution of the aforementioned concerns, it should be clearly understood that the two structures will continue to coexist. Good management practices are essential if the system is to work. One might hypothesize that the development of a climate of excellence and a culture of innovation and progress are to be desired. If the situation becomes totally unworkable, the only structural response is to redesign the delivery of library service.

COLLECTIVE AGREEMENTS OR FORMAL TERMS AND CONDITIONS OF EMPLOYMENT DOCUMENTS FROM A MANAGERIAL PERSPECTIVE

With respect to collective agreements or formal terms and conditions of employment documents and dual structures, the following points bear some consideration:

1. The negotiators should clearly understand the particular circumstances of the university library, including (a) the importance of the library to the academic process and a recognition of the fact that although the number of librarians is small compared to the number of faculty, librarians are essential to the operation of the library; (b) the need for flexibility to respond to technological developments and changing user needs; (c) the need for flexibility to respond to retrenchment; for example, libraries cannot take all major personnel reductions from the support staff establishment and still operate; and (d) a hierarchical structure is in place because it is the only way to divide and coordinate the work of several hundred people and to provide some accountability.

2. It is only prudent to seek the best possible advice when first agreements are being negotiated.

3. Communication between library directors and chief management negotiators should be full and open.

4. There should be a senior library administrator on management negotiating teams.

5. Senior university officials should be readily available during the term of the agreement to provide quick, authoritative, consistent management interpretations as they are required and where there are campuswide implications.

6. Assignment of duties should be appropriate to bargaining groups.

7. Management rights should not be given away unilaterally by poor management practices.

8. Finally, all parties should accept terms and conditions of employment documents or collective agreement documents when they are in place, and further, respect them. It is only after accepting the legitimacy of the existence of the two structures that the organization will function as it should.

IMPACT OF TECHNOLOGY

Technology has only been mentioned briefly, but it is the driving force of the decade. It is changing the world, and the question of whether libraries can move with the online environment of the information age and retain their relative position of importance in universities is, in my judgement, still open. Over the next ten years, technological development will both permit and dictate fundamental changes in information handling. As Russell Shank pointed out, "Because more people and groups on campuses, other than librarians, now have strong vested interests in the installation, management, and use of information handling facilities,
the process of dealing with the issues is much more sophisticated, difficult, and time consuming than it ever has been.\(^2\) Unless a library goes into this environment with an overriding commitment, supported by demonstrated local library systems expertise, to use technology to achieve excellence in information access, collections, and services, the chances of the library remaining a major constituent of the information-handling campus consortium are reduced. The costs of technology and the need to integrate computing, communications, and all other information resources on campus will forge new university organization structures.\(^3\) The place of the library, as it now generally constituted, is not guaranteed in that new structure.

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by Joan C. Durrance

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by Catherine Pasterczyk

*Academic Library Regional Accreditation*
by Mary F. Casserly

*Knowledge Bases and Library Education*
by Ronald R. Powell and Sheila D. Creth

*Copyright and Fee-Based Library Copying Services*
by James S. Heller

*The Reliability Factor in Subject Access*
by Constance McCarthy

*Selected Reference Books*
by Eugene P. Sheehy
Factors Affecting the Use of Information for Academic Library Decision Making

Charles R. McClure and Alan R. Samuels

This paper reports on a study of academic librarians' perceptions of information processing and organizational climate. After providing a brief review of related research and literature on the topic, the paper discusses findings that include a significant relationship between the climate dimension of democratic governance and information dissemination; a high dependency of academic librarians on internal oral sources as input for decision making; and the minimal selection of information resources based on clientele information or empirical research as input for decision making. The paper concludes by suggesting that decision making is likely to be "short-circuited" in the academic libraries investigated and offers some recommendations for how information can be better exploited for increased decision-making effectiveness.

Library management has been studied primarily within the context of academic libraries. In addition to the contextual limitation of library management studies, there appears to be a substantial self-imposed restriction on what is studied. The more concrete manifestations of library management, such as resource allocation, receive more attention than the psychological and less easily measured aspects—a logical and consistent development of scientific management that has so pervaded library administrative history. Factors related to how members affect, and are affected by, the function and activities of their particular library have not received adequate research attention.

Probably the single most important cause of perceptual differences between groups of workers within a library as well as between librarians and clients is the use of information for decision making. This is essentially a communication problem. If communication cannot be carried out in an effective way, then information transmission is likely to be distorted. Porter and Roberts emphasize this problem by suggesting that little is known about (1) how information comes into an organization, (2) how it is used, and (3) what differentiates between internally and externally generated information.

Many other scholars from a variety of disciplines have stressed the vital importance of information in affecting peoples' behavior, particularly cognitive studies and interpersonal communication; information for decision making and the role of the information rich in decision making; the influence and "power" of information in organizations; and the management of information resources in organizations. These authors, and others, have directly or indirectly pointed out that the effective organization is one that places emphasis on acquiring, processing, and distributing information in the most utilitarian way possible.

However, there is likely to be no consistent pattern in the processing and use of information across organizations because
of differences in organizational characteristics and the resistance between various groups in society caused by conflicting cultures unique to specific organizations. As a result, methods of organizational information acquisition, dissemination, and evaluation take on particular importance in such communication and information dependent agencies as libraries.

One measure that is particularly helpful in analyzing organizations is organizational climate. A review of research dealing with organizational climate has been given by Samuels, Samuels and McClure, and Soudek, and will not be repeated here. In general, organizational climate is a relatively enduring quality of the internal environment of an organization that (a) is experienced by its members, (b) influences their behavior, and (c) can be described in terms of values held by organizational members of a particular set of characteristics (or attributes) of the organization.

Although in recent years the concept has undergone some revision, notably by Guion, its basic conceptual underpinnings have remained unchanged: organizational climate is a psychologically based method of describing how peoples' value systems coexist with those of the organization. Climate measures have been used to study "open" and "closed" organizations, leadership styles and motivation, managerial styles, and occasionally, though very rarely, libraries.

Change requires climates that are receptive to innovation, allow the accurate diagnosis of problems and development of strategies to deal with these problems. However, before such climates can be created it is necessary to take a "snapshot" of what the organization looks like before, not after, change activity takes place. This process can greatly assist in the organizational development of libraries by providing baseline data that describe the current climate conditions.

For example, "open" climates tend to be receptive to growth, change, and innovation adoption. Such climates encourage individual self-actualization and emphasize integration and accomplishment of organizational and individual goals. "Closed" climates tend to be strongly committed to maintaining the status quo, limit the ability of individuals to develop new skills, and minimize the necessity of developing short- and middle-range strategies to respond to changing environmental conditions. The study of organizational information processing, decision making, and climate is important to librarians seeking to adequately plan for what appear to be substantial changes in assessing the library's role in society.

For example, information management has become an increasingly important administrative strategy. Unfortunately, libraries have failed to develop systems for information management such as management information systems (MIS) or Decision Support Systems (DSS). Reasons for this are not hard to find. First, librarians' focus on information itself typically is user oriented rather than decision oriented. Secondly, the scientific management basis of most library administration precludes broad participation in the decision-making process. Yet, how, why, and to what purpose information is used in libraries is rightly the concern of all librarians as a means of improving overall organizational effectiveness.

As used in this paper, decision making refers to any act of conscious choice in which the decision maker's value system serves to assign meaning to certain data. These data then become stimuli that impel the decision maker to pursue various courses of action. These actions are assumed likely to lead to the accomplishment of certain desired objectives. Thus, "information" broadly describes anything that aids the cognitive ability of a decision maker to select among a number of competing alternatives. As resources dwindle and programs multiply, decision making takes on increasing importance.

**STUDY OBJECTIVES**

Bundy remains a primary source for describing how decisions are made in libraries. Her groundbreaking discussion emphasized the need to analyze decision-making processes in order to manage libraries successfully. The literature which supports Bundy's view, most of it from nonlibrary contexts, is substantial and
Factors Affecting the Use of Information

easily available elsewhere. An excellent account of this literature base, especially from a cognitive viewpoint, is given by Janis & Mann.22

Although attempts have been made to study library decision-making processes,23 we still have little understanding of the complex forces that cause academic librarians to use information for decision making. This seems in direct conflict with the interest among administrators in formalized planning processes.

The study of information use in library decision making takes on great importance when the isolation of library decision making from information research is considered. In spite of enormous efforts to implement complex mechanisms and provide services requiring very rich information environments, suggestions on how to use information in the decision making and planning processes are rarely considered.

Thus, a purpose of this study is to investigate factors that affect the use of information for academic library decision making, more specifically:

• Why are specific types of information sources selected for specific types of library decisions?

• Are library organizational information acquisition and dissemination related to organizational climates?

• What organizational factors tend to prevent optimal uses of information for library decision making?

Exploratory investigation of these and related research questions may assist both researchers and library administrators to design library organizations that can better exploit information as input for library decision making and planning.

RESEARCH DESIGN

Results reported in this paper deal with the academic library portion of a larger study that investigated information processing, decision making, and organizational climate in both academic and public libraries. Data collection began in late fall 1979, and was completed during 1980.24

A random sample of medium-sized to moderately large academic libraries was selected using the 32d (1979) edition of the American Library Directory as a source. A pool of potential academic library participants was selected by the researchers; each library met minimum criteria of 150,000 volumes, ten professional FTE librarians, and represented the four geographic areas of the United States as defined by the U.S. Bureau of Census (West, South, Midwest, and Northeast). The directors of these libraries were contacted by letter and asked if their professional staff would participate in the project by completing questionnaires. For purposes of data analysis, the investigators determined that a minimum of sixteen academic libraries (four per geographic region) would be acceptable.

Interest in participating in the study was received from twenty-four academic libraries. A packet of questionnaires was sent to each director (or library liaison) who then distributed them to the professional staff.* Librarians then completed the questionnaires and returned them directly to the investigators. After one reminder notice was distributed to all study participants, it was determined that two of the twenty-four libraries had changed their mind about participating in the study and four of the libraries failed to produce a minimum response rate of 60 percent. Therefore, these six libraries were dropped from further participation in the study. Overall, the eighteen academic libraries that participated in the study had a response rate of 76 percent and no individual library had less than a 60 percent response rate.

Study Participants

Table 1 summarizes selected institutional characteristics of the academic libraries in the sample, and table 2 provides an overview of respondents' characteristics across these libraries.

In general, participating academic libraries gravitated toward the higher end of the scale in terms of budget, but re-

*The length of the questionnaire precludes its reprinting. Additional information about the questionnaire may be obtained from the authors.
**TABLE 1**

ACADEMIC LIBRARY SUMMARY CHARACTERISTICS (N = 18)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Professional staff size</td>
<td>26</td>
<td>10-56</td>
</tr>
<tr>
<td>2. Total staff size (FTE)</td>
<td>92</td>
<td>23-260</td>
</tr>
<tr>
<td>3. Number of volumes</td>
<td>676,028</td>
<td>181,000-2,083,329</td>
</tr>
<tr>
<td>4. Annual budget</td>
<td>$1,818,914</td>
<td>$669,319-$5,400,000</td>
</tr>
</tbody>
</table>

*Based on statistics as reported in *American Library Directory*, 32d. ed. (New York: R. R. Bowker, 1980) and data supplied by participating libraries.

**TABLE 2**

ACADEMIC LIBRARY RESPONDENT CHARACTERISTICS

**A. Experience in participating library and total professional experience.**

<table>
<thead>
<tr>
<th>Length of Employment Time as Professional in Respondent's Library (in Years)</th>
<th>Number of Years</th>
<th>% of Respondents*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>11-15</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>16-20</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>02</td>
<td></td>
</tr>
<tr>
<td>26-30</td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>31-35</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Over 41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Professional Experience (in Years)</th>
<th>Number of Years</th>
<th>% of Respondents*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>11-15</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>16-20</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>26-30</td>
<td>06</td>
<td></td>
</tr>
<tr>
<td>36-40</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Over 41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**B. Administrative responsibility and primary responsibility ("jobtype") of academic library respondents.**

<table>
<thead>
<tr>
<th>Administrative responsibility</th>
<th>% of Respondents in This Category*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top administrators (director, associated director, etc.)</td>
<td>14</td>
</tr>
<tr>
<td>Department head</td>
<td>24</td>
</tr>
<tr>
<td>Area head</td>
<td>32</td>
</tr>
<tr>
<td>No administrative responsibility</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary responsibility (&quot;jobtype&quot;)</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>12</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>07</td>
</tr>
<tr>
<td>Cataloging</td>
<td>18</td>
</tr>
<tr>
<td>Serials</td>
<td>04</td>
</tr>
<tr>
<td>Outreach</td>
<td>01</td>
</tr>
<tr>
<td>Automation services</td>
<td>01</td>
</tr>
<tr>
<td>Reference/information services</td>
<td>01</td>
</tr>
<tr>
<td>Collection development</td>
<td>04</td>
</tr>
<tr>
<td>Other (special collections, etc.)</td>
<td>11</td>
</tr>
<tr>
<td>No response</td>
<td>10</td>
</tr>
</tbody>
</table>

*Does not equal 100% due to rounding.
†Less than 1%.

Maintained widely dispersed in collection size. The average nonprofessional staff to professional staff ratio was five to one. Professional staff tended to have spent limited time in their present positions (nearly 50 percent had less than five years experience) and relatively few years as professionals (nearly 50 percent less than ten years). Most academic library respondents did not hold top administrative positions, but did have some clearly defined administrative responsibility. The largest group of respondents were public service librarians. The job type of respondents
showed considerable variety.

**Measurement**

The studies within this project were concerned with analyzing possible relationships among these four key variables:

1. *information acquisition*: the degree of contact a decision maker has with different institutional, oral, and written sources of information.

2. *information dissemination*: the extent to which a decision maker outputs information in the form of written and oral communications to people, both in and outside of the library.

3. *information evaluation*: the extent to which certain types of information sources (e.g., books, reports, etc.) are used by a decision maker to make library decisions.

4. *library climate*: the decision maker’s perception of how the library functions in the community.

Instruments used to measure each of these variables were developed by the authors and detailed information about their development and operation can be obtained elsewhere.25

**Information Processing Variables.** The total use of information for decision making was termed *information processing* and measured through the administration of three scales labeled information acquisition, information dissemination, and information evaluation. In general, information acquisition measured the decision maker’s contact with different information sources. Respondents were asked to estimate the number of times they came into contact with the sources in figure 1. Scale variables were analyzed by adding together contact times to form an overall information acquisition score that reflected the type and diversity of contacted sources.

Information dissemination gauged the extent to which respondents originated oral or written contact with other library and nonlibrary personnel. Further, it should be noted that both information dissemination and information acquisition were measured only for information sources broadly related to the organization, the job-related activities of the individual, or professional interests of the respondents.

Finally, decision makers’ preferences for particular information sources were measured in the following manner. A list of ten decision situations common to libraries was constructed by the researchers in consultation with practitioners (see figure 2). These were matched with a list of potential information sources from which information could be gathered to aid in making the decision. The list was further detailed to reflect interpersonal contact, written documents, group contact, or personal investigation. Respondents were asked to indicate their first choice of an information source for resolving each decision situation by matching the source with the situation (see figure 3). Since this part of the instrument reflected categorical responses (i.e., “yes/no” type of responses), no attempt was made to construct an ordinal or interval level scale.

**Climate Variables.** Organizational climate can be a powerful conceptual tool for library administrators and staff to view library organization in a nontraditional way. The term refers to perceptual views held by organizational members of organizational functioning.26 Although climate as an area of organizational research has proved popular with those outside of librarianship, library researchers remain indifferent. They adhere to the traditional view of organizations as collections of hierarchical levels of authority and job-related roles that workers and administrators occupy, and rarely consider the “psychological” organization.27 From a psychological point of view, organizations are collections of transitory coalitions, perceptions, and values. These values lead to behavior.

Organizational climate was operationalized by constructing a library climate profile consisting of five scales, each of which had been previously tested for reliability and validity,28 and were retested to insure continued reliability and validity in this study (see below). These scales were:

- *innovation*: the degree to which a library is ready to pursue innovative practices,
A. Contact with Information
1. Membership on state, regional, or national professional organizations
2. Service on professional organization committees
3. Professional meetings, workshops, colloquia attended
4. Papers, speeches, discussion panels served on at professional meetings
5. Number of elected offices held in professional organizations
6. Service on library committees or advisory groups
7. In-library contact with
   a. Library director of assistant/associate director
   b. Professional librarian
   c. Paraprofessional librarian
   d. Patrons
   e. Vendors
   f. Others
8. Outside-library contact with
   a. Professional librarians
   b. Community or other nonlibrary officials
   c. Vendors
   d. Patrons
   e. Others
9. Personal subscription to professional journals
10. Regular scanning of professional journals
11. Number of professional articles read
12. Number of professional articles published
13. Book reviews published
14. Active participation in writing of library reports

B. Dissemination of Information
1. Number of memos written on an average day to people inside library
2. Number of letters or telephone calls to people outside library
3. Initiation of job-related oral information to
   a. Library director of assistant/associate director
   b. Professional librarian (within organization)
   c. Paraprofessionals (within organization)
   d. Community or other non-library officials/administrators

FIGURE 1
List of Information Sources Contacted by, or Disseminated by, Librarians

It is important to remember that those scales measured the participants' perception of their library climate.

After the instruments were constructed, they were pretested and edited to remove references unique to specific library type in order to use them unmodified in different library contexts. The final instrument consisted of a continuously paged document divided into three sections:

- section one asked for information about the respondent;
- section two asked for information about how the individual processed information;
- section three was the library climate profile.

• support: the degree to which a library maintains mutually supporting relationships between different work groups within that library;
• freedom: the degree to which library staff feel co-opted by the organization in terms of that organization's rules, regulations, and "official" point of view;
• democratic governance: the extent to which library staff feel that they have the opportunity to participate in library decision making (not the degree to which they actually participate—an important distinction);
• esprit: the level of morale and shared purpose among library staff.
The information processing portions required numerical answers (i.e., "how many"), while the library profile was scored 0-1 depending upon whether or not the respondent replied in a predetermined keyed direction.

**Quality of Data**

Reliability and validity analysis showed that the instruments used in this research were equal to results found in previous studies by the authors. Coefficient alphas were calculated for each interval level scale using the SPSS program RELIABILITY. This measure indicates the degree to which individual items in a scale "tie together" and are therefore taken from the same domain of all possible items that could be selected. In other words, coefficient alpha measures the internal consistency of a scale.

Alpha coefficients were calculated over the total of 669 public and academic librarian responses in the study to achieve the maximum power of the tests involved by including the largest number of individual respondents. Reliability coefficients were moderate, ranging from a low of .52 (information dissemination) to a high of .72 (democratic governance). The average coefficient alpha was .65, with the more sensitive psychologically oriented climate scales exhibiting the higher alphas and the more robust scales (i.e., those more easily quantifiable information-processing scales) the lower.

In order to assess validity beyond these methods used in previous work by the authors, scores obtained from each group of library respondents (public and academic) were subjected to factor analysis using the SPSS program FACTOR. If the instruments did indeed measure both information processing and organizational climate variables, then factor analysis should result in extraction of two factors; one containing high loadings on the information processing scales and the other on the climate scales. This is precisely what occurred, and table 3 shows the factor break-
downs for the academic library data.

RESULTS

Pearson product moment correlations were the primary method of analysis used. Table 4 is a summary matrix of the relationships among the two information scales (information acquisition and information dissemination) and the five climate scales (democratic governance, support, esprit, freedom, innovation). As expected, information acquisition correlated highly with information dissemination. However, among the climate scales, only democratic governance correlated significantly with information dissemination. This finding differed from the public library findings where correlations between climate scales and information scales were generally significant and positive. However, as expected, the climate scales showed strong positive correlations among themselves. Democratic governance appears to be the link between the two groups of variables in contrast to the public library group where support was more significant.

Evaluation of Information Sources

The section of the instrument measuring evaluation of information sources was analyzed item by item in order to discover predominate types of information sources preferred in individual decision situations. Since the data were categorical in nature, frequency counts were used. To provide a framework for a broader review of this data's implications, each of the possible information sources was grouped into four main categories according to

| TABLE 3 |
| FACTOR ANALYSIS OF SCALES FOR ALL LIBRARIANS USING VARIMAX ROTATION (N = 669) |

<table>
<thead>
<tr>
<th>Scale</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information acquisition</td>
<td>*</td>
<td>.87</td>
</tr>
<tr>
<td>Information dissemination</td>
<td>*</td>
<td>.68</td>
</tr>
<tr>
<td>Democratic governance</td>
<td>.81</td>
<td>*</td>
</tr>
<tr>
<td>Support</td>
<td>.75</td>
<td>*</td>
</tr>
<tr>
<td>Innovation</td>
<td>.60</td>
<td>*</td>
</tr>
<tr>
<td>Freedom</td>
<td>.72</td>
<td>*</td>
</tr>
<tr>
<td>Esprit</td>
<td>.83</td>
<td>*</td>
</tr>
</tbody>
</table>

*The eigenvalues (not shown) indicate that the information processing variables (information acquisition and information dissemination) account for a total of 60% of the total variance among all scales. Note that the highest loading among the information processing scales is that of "information acquisition," and among the climate scales "democratic governance" and "esprit." An asterisk ("*") indicates a loading of less than .50.

| TABLE 4 |
| INFORMATION PROCESSING AND CLIMATE SCALE INTERCORRELATION MATRIX (N = 356) |

<table>
<thead>
<tr>
<th>Information Acquisition</th>
<th>Information Dissemination</th>
<th>Democratic Governance</th>
<th>Support</th>
<th>Innovation</th>
<th>Freedom</th>
<th>Esprit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Acquisition</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Dissemination</td>
<td>.20*</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democratic Governance</td>
<td>.06</td>
<td>.12*</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>.07</td>
<td>.03</td>
<td>.58</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>.03</td>
<td>.07</td>
<td>.47*</td>
<td>.37*</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Freedom</td>
<td>.07</td>
<td>.06</td>
<td>.67*</td>
<td>.48*</td>
<td>.51*</td>
<td>x</td>
</tr>
<tr>
<td>Esprit</td>
<td>.04</td>
<td>.02</td>
<td>.67*</td>
<td>.66*</td>
<td>.47*</td>
<td>.57*</td>
</tr>
</tbody>
</table>

*Significant at .01 level.
+Significant at .05 level.
Factors Affecting the Use of Information

whether the source in question was likely to be found
• inside the library (internal information sources),
• outside the library (external information sources),
• in written form (written documents produced by nonlibrary sources), or
• by the information seeker’s preference for independently finding sources without consultation, either through personal research or some other means (personal-noninterpersonal sources).

Information sources were grouped into subcategories and placed within each of the major four categories (see figure 3).

Table 5 shows results obtained from the rearrangement of the data and the frequency counts for each group of information sources. Academic library respondents in the study show an overwhelming preference for internal information sources in decision making, a finding similar to that for the public librarian group but considerably more pronounced here. It should be noted that there was a fair amount of variation in potential information sources listed under a category “other,” thus accounting for some discrepancies in the table. However, the degree of variability was insufficient to negate the general pattern that emerges from examining table 5.

Table 5 indicates that academic librarians rarely consult nonorganizational members for information on any decision-making situation. The category “hours of operation” (i.e. how long should we be open) is particularly striking. Interpersonal communication with library staff seems to be the predominant means by which librarians determine when to operate; users account for an insignificant percentage. In addition, librarians seem to prefer the committee structure in numerous situations (e.g. candidate evaluation). However, committees are rarely used alone and are usually listed as having nearly as much influence on the decision maker as interpersonal communication outside of a structured environment.

Communication Variables

Table 6 exhibits frequency counts of information sources selected by respondents analyzed in terms of who or what group is preferred for acquiring information and is particularly revealing. To analyze the data from this point of view, information source preferences were examined in terms of four communication-based variables compared to one written document-based variable. The communication variables were
• users, those who sought some service from the library;
• professional staff, those who were so designated as such by the library in which they worked;
• nonprofessional staff, those not desig-

TABLE 5
FREQUENCY OF PROFESSIONAL STAFF SELECTIONS OF SPECIFIC INTERPERSONAL INFORMATION SOURCES FOR SELECTED DECISION SITUATIONS (IN PERCENTAGES)

<table>
<thead>
<tr>
<th>Decision Situation</th>
<th>Users</th>
<th>Other Professional Staff (in the Same Library)</th>
<th>Nonprofessional Staff</th>
<th>Professional Committees</th>
<th>Internal Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation of circulation</td>
<td>*</td>
<td>21</td>
<td>*</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Candidate evaluation</td>
<td>*</td>
<td>23</td>
<td>1</td>
<td>39</td>
<td>*</td>
</tr>
<tr>
<td>Purchase of materials</td>
<td>5</td>
<td>18</td>
<td>*</td>
<td>5</td>
<td>*</td>
</tr>
<tr>
<td>Allocating the acquisitions budget</td>
<td>2</td>
<td>24</td>
<td>*</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>Allocating floor space</td>
<td>*</td>
<td>21</td>
<td>4</td>
<td>37</td>
<td>5</td>
</tr>
<tr>
<td>Hours of operation</td>
<td>*</td>
<td>52</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Whether to begin online reference service</td>
<td>4</td>
<td>25</td>
<td>*</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Library security</td>
<td>*</td>
<td>13</td>
<td>*</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Whether to join a union</td>
<td>*</td>
<td>19</td>
<td>*</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>Whether to join network</td>
<td>*</td>
<td>17</td>
<td>*</td>
<td>22</td>
<td>2</td>
</tr>
</tbody>
</table>

*Less than 1%.

NOTE: Percentages represent only those respondents selecting a specific interpersonal information source for a particular decision situation, thus columns do not total 100%.
TABLE 6
FREQUENCY OF PROFESSIONAL STAFF SELECTION
OF SPECIFIC TYPES OF INFORMATION SOURCES
IN SELECTED DECISION SITUATIONS (IN PERCENT)

<table>
<thead>
<tr>
<th>Decision situation</th>
<th>Internal</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Written</th>
<th>F</th>
<th>Personal</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation of circulation</td>
<td>22</td>
<td>06</td>
<td>09</td>
<td>10</td>
<td>01</td>
<td></td>
<td>36</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candidate evaluation</td>
<td>24</td>
<td>*</td>
<td>39</td>
<td>09</td>
<td>01</td>
<td></td>
<td>03</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of materials</td>
<td>18</td>
<td>01</td>
<td>06</td>
<td>09</td>
<td>01</td>
<td></td>
<td>52</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allocating the acquisitions budget</td>
<td>25</td>
<td>17</td>
<td>32</td>
<td>03</td>
<td>01</td>
<td></td>
<td>08</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allocating floor space</td>
<td>25</td>
<td>05</td>
<td>37</td>
<td>*</td>
<td></td>
<td></td>
<td>09</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours of operation</td>
<td>52</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether to begin online reference</td>
<td>25</td>
<td>05</td>
<td>16</td>
<td>13</td>
<td>08</td>
<td></td>
<td>20</td>
<td>07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library security</td>
<td>14</td>
<td>07</td>
<td>21</td>
<td>16</td>
<td>01</td>
<td></td>
<td>25</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether to join a union</td>
<td>19</td>
<td>01</td>
<td>20</td>
<td>09</td>
<td>06</td>
<td></td>
<td>11</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether to join a network</td>
<td>18</td>
<td>02</td>
<td>22</td>
<td>20</td>
<td>06</td>
<td></td>
<td>17</td>
<td>09</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Less than 1%.

Notes: Percentages represent only those respondents selecting a specific source for a specific decision situation, thus columns do not total 100%. The types of information sources are described in figure 3.

As suggested in table 6, academic librarians in this study have little interest in user input to library decision making. In only three instances, purchase of materials, allocating the acquisitions budget, and whether to begin online reference service, was the user to be consulted at all. As was expected, librarians preferred interpersonal contact with their peers either separately or within a committee structure. Further, nonprofessional staff do not form a part of the professional librarian’s decision-making environment.

Potential information sources as input for decision making such as continuing education, past experience, personal opinion, and conducting research were not identified as important to decision making. Thus, findings would suggest that democratic governance appears to be the climate dimension most closely associated with information dissemination, that academic librarians tend to select internal oral information sources as input for decision making, and that there is little dependence on user information or information based on organizational research as input for decision making.

Information Processing Variables

In addition to examining the relationships between climate and information processing variables, the individual items that made up the scales information acquisition and information dissemination were closely examined. The information acquisition and dissemination scales were composed of a list of potential information sources. Librarians were asked to indicate the frequency with which they came into contact with, or initiated output of, these information sources (see figure 1).

Table 7(a) demonstrates the types of information contact patterns that are likely to emerge in academic libraries and represents a “map” of which information sources are seen as important. For example, note the significant correlation between librarian professional meetings attended and library administration. Such a relationship may indicate the relative isolation of many academic librarians from their administration who may have such exposure to professional organization information sources.

Table 7(b) shows correlations among information dissemination methods. These suggest that written communication is a popular means of distributing information across hierarchical lines and that while many verbal communications links exist,
TABLE 7
CORRELATION MATRICES

A. Correlation Matrix Showing Academic Librarian Information Acquisition Related to Professional Activity

<table>
<thead>
<tr>
<th></th>
<th>Membership in Prof. Organizations</th>
<th>Membership in Prof. Committees</th>
<th>Librarian Professional Activity</th>
<th>Prof. Projects Undertaken</th>
<th>Prof. Offices Held</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarians' Contact with . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library administration</td>
<td>.03</td>
<td>.27*</td>
<td>.22*</td>
<td>.27*</td>
<td>.01</td>
</tr>
<tr>
<td>Professionals</td>
<td>.05</td>
<td>.03</td>
<td>-.04</td>
<td>.05</td>
<td>.22*</td>
</tr>
<tr>
<td>Paraprofessionals</td>
<td>-.03</td>
<td>-.06</td>
<td>.09</td>
<td>.04</td>
<td>-.01</td>
</tr>
<tr>
<td>Patrons</td>
<td>.00</td>
<td>.00</td>
<td>.03</td>
<td>-.03</td>
<td>.06</td>
</tr>
<tr>
<td>Vendors</td>
<td>.09</td>
<td>.08</td>
<td>.17*</td>
<td>.23*</td>
<td>.01</td>
</tr>
<tr>
<td>Others</td>
<td>-.03</td>
<td>-.02</td>
<td>-.04</td>
<td>.03</td>
<td>-.01</td>
</tr>
<tr>
<td>Librarians outside library</td>
<td>.09</td>
<td>.01</td>
<td>.13*</td>
<td>.18*</td>
<td>.01</td>
</tr>
<tr>
<td>Community officials outside library</td>
<td>.15*</td>
<td>.16*</td>
<td>.07</td>
<td>.17*</td>
<td>.06</td>
</tr>
<tr>
<td>Vendors outside library</td>
<td>.06</td>
<td>.14*</td>
<td>.03</td>
<td>.16*</td>
<td>.07</td>
</tr>
<tr>
<td>Users outside library</td>
<td>.09</td>
<td>.11*</td>
<td>-.03</td>
<td>.10</td>
<td>.07</td>
</tr>
<tr>
<td>Others outside library</td>
<td>.01</td>
<td>-.03</td>
<td>.00</td>
<td>-.04</td>
<td>.01</td>
</tr>
</tbody>
</table>

B. Correlation Matrix of Information Dissemination Methods

<table>
<thead>
<tr>
<th></th>
<th>Memos</th>
<th>Letters</th>
<th>Verbal Communication with the Administrators</th>
<th>Verbal Communication with Professionals</th>
<th>Verbal Comm. with Para-Profs</th>
<th>Verbal Comm. with Community Officials</th>
<th>Verbal Comm. with Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memos</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letters</td>
<td>.32*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal communication with top administration</td>
<td>.14*</td>
<td>.32*</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal communication with professionals</td>
<td>.17*</td>
<td>.09</td>
<td>.19*</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal communication with paraprofessionals</td>
<td>.11*</td>
<td>.20*</td>
<td>.13*</td>
<td>.42*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal communication with community officials</td>
<td>.18*</td>
<td>.30*</td>
<td>.19*</td>
<td>.37*</td>
<td>.30</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Verbal communication with others</td>
<td>.03</td>
<td>.02</td>
<td>-.01</td>
<td>.03</td>
<td>-.01</td>
<td>.07</td>
<td>x</td>
</tr>
</tbody>
</table>

*Significant at .01 level.
+Significant at .05 level.
they may be used for transmitting relatively insignificant information. Although it is possible that written documents simplify information flow, they may also reduce the amount of decision-making information transmitted, increase the perceived distance between administration and staff, and strengthen the bureaucratic nature and class structure of academic libraries.

Finally, Table 8 is a “snapshot” of all 669 academic and public librarians in the study. It shows connections between ways in which librarians initiate contact, and acquire information. The correlations between such variables as “initiating contact with administrators” and “contact with administrators” may suggest that there are forces at work which impede information flow and quality decision making, such as coalition formation and between-group isolation. It is surprising to note that regardless of the communication preferences, there is little contact with patrons.

Two conclusions can be reached from the data in Table 8. First, although communication links are strong, professional librarians report little contact, and in no case statistically significant contact, with paraprofessional staff. Paraprofessionals seem to be ignored as meaningful sources of “professional” decision-making information. Second, it is possible that in many librarians’ minds the well-informed librarian (information rich) is one who is in contact with documents and other written sources, in communication with other groups in the library, and professional organizations but not with patrons. Those who have worked in an academic library for any length of time will recognize this phenomenon. It is a very common situation wherein the various groups on a campus will tend to gravitate to particular librarians for information whether or not the librarian may be qualified to provide such information.

**DISCUSSION**

The findings presented in this paper suggest that the decision-making process in academic libraries may be short-circuited and that in terms of exploiting a

<table>
<thead>
<tr>
<th>TABLE 8</th>
<th>CORRELATION MATRIX OF ACADEMIC AND PUBLIC LIBRARIAN INFORMATION INITIATION AND CONTACT (N = 669)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Librarian Contact with Professionals in Library</td>
</tr>
<tr>
<td></td>
<td>Paraprofessionals in Library</td>
</tr>
<tr>
<td>Information Output</td>
<td>Letters Initiation of contact with administration</td>
</tr>
<tr>
<td></td>
<td>.18*</td>
</tr>
<tr>
<td></td>
<td>.10*</td>
</tr>
<tr>
<td></td>
<td>.07*</td>
</tr>
<tr>
<td></td>
<td>.12*</td>
</tr>
</tbody>
</table>

**NOTE:** Nearly all of the correlation coefficients are “statistically significant.” However, the strength of the relationships are of particular importance.
Factors Affecting the Use of Information

broad array of information resources for decision making, the information that is used tends to be "opinion-based" rather than empirically based. Proximity also plays an extremely important part in information source selection: the closer and more familiar a source is, the more it is likely to be used. The findings from this study suggest the following propositions for further investigation:

- management styles that stress democratic governance are related to information dissemination activities;
- existing academic library management styles tend to restrict contact with and dissemination of information for decision making;
- existing academic library organizational structures retard effective information acquisition and dissemination;
- academic librarians ignore many types of information sources that have the potential to improve the quality of decision making;
- academic libraries can best be characterized as "closed" administration systems that provide for limited information input from the environment;
- academic libraries have developed a class conscious information environment in which status and familiarity determine what information sources will be used for decision making.

Support for such propositions implies that overall, there is little emphasis on information resources management (IRM) and limited understanding on how access to and exploitation of information is related to the decision-making process.

Selection of Information Sources for Decision Making

The effectiveness of the decision-making process is highly dependent on the acquisition and dissemination of information. While numerous other variables will affect the degree to which decision making is effective, e.g., politics, individual competencies, and management styles—to name a few, the importance of obtaining a relevant, accurate, and current information base cannot be underestimated.

The lack of emphasis on user-based or
and research library directors rated "research skills" as highly desirable for beginning academic librarians, few academic librarians have had adequate training in how to conduct research and how research can be integrated into library operations. Moreover, those younger librarians most likely to have had some exposure to the research process appear to be least likely to be involved in decision making.

In addition, the vast majority of academic libraries have no formal mechanisms or systems by which information is collected, organized, and analyzed specifically for a management information system or a decision support system. Clearly, the development of systems for the management of information are sorely needed in all libraries. But by and large, (as the findings from this study suggest) decision making continues to be based on "informed opinion" and usually that opinion is from someone already in the organization. Until academic libraries construct such decision support systems, there will continue to be an implied encouragement to rely on oral internal sources since little else is immediately available.

A conscious attempt to develop in-house decision support systems for library decision making is essential and strategies have been suggested by which this can be accomplished. However, a significant change is necessary in the attitude of most academic librarians to recognize the importance of information, the need for a broad base of information input, and the desire to utilize such information for decision making before adequate resources are likely to be committed to the development and operation of such systems.

Information Acquisition and Organizational Climate

The effectiveness with which decisions are made in organizations and how information is used in such decision making is particularly prone to psychological perceptions as measured by the various climate scales. An "information rich" organization can only be created by setting conditions that enhance information acquisition and dissemination, that train library staff (all library staff—not just the professionals) on techniques for effectively using information for decision making, and regularly assessing the effectiveness with which information is, in fact, integrated into traditional administrative activities such as decision making, planning, budgeting, etc. Apparently, it is the information rich organization that encourages change from "closed" inflexible environments to "open" innovative organizations.

The problem of attitudes is related to the various psychological perceptions of the organization by staff members, many of which can be measured by the climate dimensions suggested earlier in this paper. Knowledge of existing climate conditions and the degree to which those climates are desirable for a particular library setting are essential if strategies are to be developed by library administrators to move the organization from one management style to another.

If a conscious decision has been made that the library should modify a specific dimension of either information processing or organizational climate, the findings from this study suggest that dimensions of each of these can, in fact, be measured and monitored over time. However, such actions assume that library administrators consciously consider the management style that they currently employ and can specify the elements of either information processing or organizational climate that they wish to increase or decrease. In short, significant opportunities are present for those library administrators who wish to analyze their existing information processing and climate conditions.

Information Management Strategies

A number of intervention strategies can be taken to improve the quality of decision making. First, organizational assessment of what information sources are currently used for decision making is needed. Second, academic librarians can obtain training in information resources management, evaluation of information sources for decision making and broadening their sources as input for decision making. Third, mechanisms can be established to
encourage input from clientele and empirical research for decision making. Fourth, academic library administrators should consider the development of various types of management styles to encourage increased access to and utilization of information for decision making. And finally, greater attention is needed for the development of management information systems and decision support systems in academic libraries.

The next step for research in this area is relating information processing and organizational climates to measures of productivity and effectiveness. For example, under what organizational conditions can information processing skills contribute to increased productivity or under what organizational conditions can organizational climates contribute to increased productivity? An underlying assumption for most models of decision making is a relationship between information processing skills and increased organizational effectiveness. But the specific nature of this relationship and the effect of various types of organizational climates on overall library effectiveness or productivity are not clear.

What is clear, however, is the need for academic library administrators to carefully assess existing skills related to information processing; to assess the degree to which individuals have relevant, accurate, and up-to-date information as a basis for daily decision making and long-range planning; and the ability of the organization to provide formal mechanisms by which information can be managed for increased overall organizational effectiveness. Such assessment is essential if academic libraries are to be able to respond to a rapidly changing environment, meet and resolve clientele information needs, and obtain full productivity from library staff members.

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12. R. Tagiuri and G. H. Litwin, Organizational Climate: Explorations of a Concept (Boston: Div. of Research, Graduate School of Business Administration, Harvard Univ., 1968).


28. Ibid., p. 427.


33. Ibid., p. 280-292.


A Profile of Academic Libraries in China

Thomas Y. Yeh

Operating under rules issued from the central government in Beijing, academic libraries in China share common characteristics and problems. These libraries lag behind the United States in budget, personnel management, building design, and public services. On the other hand, the use of academic libraries is very high. China has placed a high priority on academic library services and should greatly improve its library systems within a decade.

Here were 675 colleges and universities in the People's Republic of China (PRC) in 1980 and 1,143,700 college students. In 1982 the number of colleges and universities had increased to 715 and there were 1,540,000 college students. College students are a small and elite group among China's population of over one billion. Almost all colleges and universities are public institutions, i.e., either supported by the central government in Beijing, or supported by provincial and city government. Private colleges and universities are rare. Each college and university has a library. Though academic libraries vary in size and their services differ, all share some common characteristics and problems.

In China everything is regulated by the central government in Beijing. For example, there is only one time zone. If it is one o'clock in Beijing, it is also the same time in Urumqi, Xinjiang Province located fifteen hundred miles away. So, regardless of the position of the sun, everyone in China wakes up, does exercises, and begins work at the same time. The college and university libraries are no exception; they too are all operated under the rules and regulations issued from Beijing. Among these regulations is the People's Republic of China Higher Education Institutions' Library Working Regulation. Composed of thirty articles, this regulation was issued by the Ministry of Education on October 15, 1981.

Article one of this document states that in an institution of higher education the library is the center for its books and resources. As an academic unit its function is a vital component of teaching and the research process. This is quite a departure from the past. In the 1950s, following the establishment of the PRC, China's libraries were open to workers, peasants, and soldiers as well as the college community. In the disastrous Cultural Revolution years (1966-1976), many universities were closed. Librarians and other scholars were sent to the country to do manual labor, while factory workers ran the colleges and universities. Libraries were reopened after the Cultural Revolution, and the current mission of Chinese college and university libraries is in line with library philosophy in the United States.

Article fifteen of the PRC regulation also states that each academic library should establish a branch Communist party that reports directly to the College Party Committee. The branch party is responsible for the party's membership and political thought indoctrination. The branch party conducts a political study session every Saturday afternoon for all library staff. Usually the staff studies current political
documents such as the premier's address to the People's Congress. Sometimes the library staff joins the rest of the college in a Saturday afternoon rally sponsored by the College Party Committee. A patriotic speech is often delivered by an invited guest speaker.

The Library Branch Party Committee also protects and oversees the library's functions. Any staff member not in conformity with the official ideology or guidelines would be criticized and reported to the College Party Committee. The same applies if work performance does not meet the standards imposed by the official guidelines.

A typical academic library building is made of concrete and is less than five stories high. The priorities of building design are functionality and minimal cost. There are few frills. Since electricity is expensive, library buildings are designed to use natural light as much as possible. As a result, many university libraries are U-shaped with inner courts.

Library furniture and equipment are generally old and in need of repair or replacement. Central air conditioning is almost nonexistent and carpeting is a luxury few libraries can afford. By order of the central government only libraries north of the Huaihe River can have heat. Libraries in the warmer south and all other university buildings have no heat. This somewhat arbitrary division of north and south produces some hardship. For example, temperatures in the southern city of Shanghai often fall below freezing in the winter. During the cold season, patrons of academic libraries generally keep their warmest clothing on inside library buildings.

Academic libraries are very crowded. In 1980 there were only 1,323,300 square meters of space in these libraries. On the other hand, 79 colleges and universities were adding a total of 421,600 square meters of library space and 188 colleges and universities were planning to add another 871,200 square meters of library space. There was a total of 193,621,300 volumes in China's academic libraries in 1980. Of this total, 8,818,700 volumes were waiting to be cataloged. Also, 22,229,900 volumes of cataloged materials were not shelved because there was no space for them.

In the United States, 60 percent to 80 percent of the academic library budget is for salaries and 20 percent to 40 percent for books and operating costs. In contrast, 60 percent to 80 percent of the Chinese academic library budget is spent on books and only about 20 percent to 40 percent on salaries and operating costs.

Staff salaries are regulated by the central government. A salary scale with twenty-six grades has been established. This scale is applied to all civil service employees: teachers, librarians, and others. An entry-level college graduate's salary is 50 yuan. This is equivalent to $25 a month. High school graduates receive less. Very few Chinese academic librarians make over 150 yuan a month. Low salaries are not limited to librarians. College professors receive the same salary.

While the salaries for Chinese librarians are very low, the cost of living is far lower in China than in the United States. The monthly rent for a one room apartment is 5 yuan. This is equivalent to $2.50 a month.

The budgets of China's academic libraries are limited compared to the United States. In 1980 the total budget for 670 libraries was about $28.8 million or $40,000 per library. Forty-seven percent of all academic libraries had budgets under $25,000; 30 percent had budgets between $30,000 and $50,000 and only 1 percent had budgets over $250,000. Only 13 percent had more than 5 percent of the total instructional budget of the college or university. Fifteen percent had between 4 and 5 percent of the total instructional budget and the rest were under 4 percent.

Because college students and professors have limited incomes, few can afford to buy books. Students and faculty depend entirely on libraries to provide instructional support. Therefore, academic libraries usually purchase multiple copies of books: five, ten and even thirty copies of a book are common. Because the price of foreign books is high and the demand for them is low, usually only one copy is purchased by the library.

Collection development is closely tied to various political campaigns. When a political campaign begins, many books relating
to the campaign are purchased. When another political campaign begins, the old literature is considered incorrect and is removed from the library. It may even be destroyed. During the Cultural Revolution, the Red Guards removed and destroyed many foreign language books since they were considered decadent, capitalistic, and imperialistic dogma.

A recent campaign was the Anti-Spiritual Contamination Movement from 1983 to early 1984. This campaign was a mild one compared to the Cultural Revolution. Some books, especially those considered pornographic, were removed. One library transferred the Chinese translation of Sir Winston Churchill's memoirs of World War II from the general collection to the Internal Book Room, the equivalent of our special collections. Only students in a World War II history class or students with special permission were able to check out this title.

There are many rare books in Chinese libraries. However, their condition is unknown and they may be in jeopardy. There is no air conditioning. Only library buildings in the north may have heat and there are no special temperature or humidity-controlled rooms. Many old and rare volumes are deteriorating. Some date back over eight hundred years. The pages of these volumes are fragile from long exposure to the elements. Since most libraries do not have effective fire protection systems, any fire would be a major disaster.

The use rate of academic libraries is extremely high. Reading rooms are crowded. Virtually every seat is occupied within minutes after a library opens. Some large classrooms are opened in the evening and designated as study areas. Circulation statistics are also high since most academic libraries have closed stacks and browsing is limited. There are usually limitations to the number of volumes a student or faculty member can borrow at one time. Occasionally borrowing is restricted to one's major field of study or research.

During the Cultural Revolution, China went through a period of dramatic experimentation. All colleges and universities were closed from 1966–1971. Students and faculty were sent to farms to do manual labor. The colleges and universities were reopened in 1972, but regardless of their intellectual and educational background, students were enrolled only on the recommendation of workers, peasants, and soldiers. Usually only children of the proletarian class were nominated. Children of the intelligentsia were held on the farms. China reinstated the competitive college entrance examination system in 1977 and the possibility of college admission was opened to all.

The Cultural Revolution was disastrous. Libraries were cut off from the outside world for ten years. They were closed, acquisitions ceased, and some collections destroyed. Academic librarians were usually sent to work on the farms. Today, there is still a ten-year gap in book and periodical collections, especially in western science and technology.

The retrieval of science and technology information is relatively inefficient. Scientists and engineers spend almost half of their research time doing literature searches. It is estimated that because of the inefficient systems of information retrieval 50 percent of science and technology research programs duplicate work already done in the West.

China's academic libraries are well staffed, but few staff members have formal training in library science. In 1981 only 5 percent had a library science education. Nineteen colleges and universities offered two and four years undergraduate education programs in library science. The library science faculty numbered 177—1 professor, 17 associate professors, 63 assistant professors and 96 instructors.

Five years ago 17,297 staff members were employed in 670 academic libraries. 62 percent were female and 38 percent were male. Eighteen percent of the library staff were on full time or part-time leaves of absence because of illness or old age. Forty-two percent were senior high school graduates, 39 percent were college graduates, and 20 percent had only a junior high school education. The majority of the library staff was relatively inexperienced since many were hired after the Cultural Revolution. Fifty-six percent had less than five years of library experience. Twenty-
five percent had more than fifteen years experience. The Cultural Revolution also created an age gap among academic librarians. Some are middle-aged, but the majority are either old or young.

Among the 1,085 academic library directors and deputy directors, only 8 percent had library science training. The others were primarily former college professors. The library directors and deputy directors tended to be older persons: 50 percent were between fifty-one and sixty, 28 percent were over sixty, 20 percent were between forty-one and fifty, and 1 percent were under forty. The Cultural Revolution also caused a disparity in the years of experience among directors and deputy directors. Forty-nine percent had less than five years of experience in the library; 22 percent had more than twenty years of experience, 17 percent had six to ten years of experience, and 13 percent had eleven to twenty years of experience. Twenty-one percent held faculty rank. Surprisingly, among 670 college and university libraries, 55 percent had a deputy director but no library director. 24 percent had neither a library director nor a deputy director. Someone else was in charge.

All employees in China are appointed by the central or provincial government. In the past, libraries were not a high priority so the government sometimes assigned people who were unable to find or hold other positions. College graduates with low demand majors were put to work in the library. Old college professors who could no longer teach were assigned to the academic libraries. It was not uncommon for a significant percentage of library staff not to show up for work due to old age or poor health.

Like any other job in China, once a librarian is assigned a job, it is guaranteed for life. Rarely is anyone laid off or fired. A change of profession or a move to another library in another city is rare, if not impossible. There is no established, systematic, annual evaluation of performance. Salary raises are mainly based on seniority, with no merit pay or other incentives.

Public services need improvement. Libraries are open fewer hours than in the United States. It is not unusual for a library to be closed for lunch and supper breaks. Wednesday afternoons are reserved for staff meetings and Saturday afternoons are reserved for political meetings. The number of missing books is high. Most libraries do not have a centralized reference department. Library users are almost entirely on their own in the library. In the entrance to the library there is always an employee who checks, and sometimes keeps, employee cards or student ID cards. On leaving, the card is returned after a book inspection. The academic library is not as accessible as in the United States.

Libraries are not automated. All processing is done manually. There is no standard machine-readable cataloging format. There are no bibliographic databases. A few academic libraries are, however, experimenting with automated circulation systems. The central government is now planning to build a national automated database and bibliographic network.

Academic libraries in China may seem out-of-date and may provide only limited services compared with the United States. Amazingly though, Chinese academic librarians can provide "adequate" library services with limited funding and under poor physical conditions. The spirit and dedication of Chinese academic librarians should be admired.

The most urgent need in the modernization of China's academic libraries is to upgrade the library staff, especially at the top administrative levels. Better qualified librarians and dynamic professional leadership are badly needed. China has placed a high priority on improving its library services. New library buildings are under construction. Younger and better qualified librarians are taking over the directorships. More money is being allocated. China's academic libraries are going through an expansion similar to American libraries in the 1960s. With proper planning and guidance, they should greatly improve during the next decade.
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2. Ibid., p. 319.

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4. Mingzhao Wang, "‘Jian Shao Da Hai Lao Zhen Zhi Ku, Shi Ke Ji Gong Zuo Zhe Di Gong Tong Yuan Wang’ (Reduce the Labor of Retrieving a Needle in the Ocean is the Common Wish of Scientists and Engineers), Anhui Gao Xiao Tu Shu Guan 2:74 (1983).


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The Effectiveness of Book Selection Agents in a Small Academic Library

Christopher Millson-Martula

Small academic libraries typically rely more heavily upon classroom faculty as book selectors than do large academic libraries in which librarians and book jobbers are the principals involved. Given the various constraints that small academic libraries face, it is important for them to rationalize the entire collection development process and also to employ the most effective agents as book selectors. This article describes a study of the relative effectiveness of classroom faculty and librarians as book selection agents in a small academic library.

Inflation, declining or stable enrollments, revised institutional priorities, curricula, and other factors have resulted in a rethinking of collection management for many academic libraries. In some institutions a specific staff member has been identified as the chief collection development officer with at least coordinating responsibility for all aspects of collection management. In many other institutions approval plans and other methods have been adopted to stretch as far as possible every dollar expended, and greater attention has been given to collection evaluation, especially with regard to periodical subscriptions. The overall result for many academic libraries has been a greater, more intense focus on collection development and an elevation of collection management as a specialty area to a level approaching that of public services and technical services. If library literature is an accurate indicator, the majority of significant collection management activity is occurring in a large academic and research libraries. However, as the study described in this article indicates, significant collection management activity is also occurring in small academic libraries—collections with fewer than 200,000 volumes and annual materials budgets of less than $150,000.

Regardless of the size of an academic library, relatively little attention has been given to the question of who can most effectively select materials for the collection. This lack of attention to the effectiveness of selection is especially surprising since a collection constitutes a large investment in dollars, time, and space, and any practical administrator should determine not only the rate of return on that investment but also should investigate the quality of the investment decisions that are made. In small academic libraries, the two groups most often responsible for selection are classroom faculty and librarians. Does one group of selectors, either classroom faculty or their librarian colleagues, generally make more effective collection decisions than the other?

THE SETTING

The library described in this study serves an urban commuter college located in Chicago. Approximately two thousand students are enrolled in both traditional liberal arts courses and career-related programs in areas such as business, criminal...
justice, education, and nursing. In addition to offering courses at the undergraduate level, the college also offers some career-related programs at the master’s level.

The library collection consists of approximately seventy-five thousand volumes and four thousand volumes are added annually. Membership in two consortia, in addition to OCLC, provides direct access to almost ten million volumes. The materials budget for both books and periodical subscriptions is about $100,000, with allocations for book purchases in various subject areas based on a mathematical formula in which use (both external and internal) and average cost per book are the principal elements. Although funds for library acquisitions are allocated to the library budget, the individual allocations for subject areas are jointly administered by the library and the appropriate academic departments until April 1 of each year, after which time all funds not yet spent or encumbered are administered solely by the library.

Responsibility for selection of materials is shared by the classroom faculty and the three reader services librarians. Each reader services librarian has two master’s degrees and has liaison, library instruction, and collection development responsibilities in one of three broad areas (humanities, natural sciences, and social sciences). Both librarians and classroom faculty initiate requests. When a librarian makes a selection before April 1, the librarian forwards the order card to the appropriate academic department head, who, in turn, may authorize the request and forward it to the library for purchase. Although the extent of librarian involvement in the selection process varies from one subject area to another, the number of requests initiated by a librarian rarely drops below 40 percent of the total requests in a given subject area.

THE STUDY

This was a conventional study of the use of the history section of the collection, including all countries and all time periods. Only the history section of the collection was chosen because it was one of but three subject areas in which a librarian held a second master’s degree. Consequently, selection by the librarian should have been done at a relatively high level of competence. The investigation was limited to books, including both monographs and serials, but not periodicals. Unlike a conventional use study, however, this investigation did not assess the use of materials added to the collection but rather investigated the relationship between use and selection responsibility.

Hypotheses

The study was designed to test two hypotheses:

1. History books selected by classroom faculty show greater circulation activity (a greater number of circulations per book) than those selected by their librarian colleagues.

2. History books showing circulation activity (at least one circulation per book) have a higher level of activity during the first three years of inclusion in the collection than in later years.

For many years, the history section of the collection has constituted a relatively little-used part of the collection, contributing an average of no more than 4 percent of the total circulation activity. History faculty members frequently recommend specific book titles to students for research papers and other library-related classroom assignments; therefore, it was assumed that history books selected by history faculty would have a greater amount of circulation activity than those selected by librarians.

The Kent study at the University of Pittsburgh and other studies in academic libraries revealed that books are most likely to show circulation activity within the first three years of their addition to the library collection. After this period, use drops off considerably or ceases. Items showing no circulation activity during the first three years following acquisition are not likely to have any activity in following years. Based upon the investigator’s experience, there were no factors likely to make the local situation different from other academic situations. A review of the
literature follows the discussion of the study.

**Data Collection and Analysis**

The study focused on those 691 history books that were added to the collection during the period July 1, 1977, through June 30, 1980. Evaluation of their use covered the period between July 1, 1977, and June 30, 1983. For each book, two types of data were collected: status of selector (classroom faculty or librarian) and amount of external use (as measured by recorded circulation transactions).

The selector's status was easily determined by noting the name of the requestor on the order card for each item ordered during the data collection period. The amount of external use was determined by two methods, one for uses before October 1980 and one for uses after that date. Until October 1980, the library used a manual circulation system. To determine uses that occurred before October 1980, the date due slip in each of the books involved in the study was checked for circulation activity. When a book was not on the shelf at the time of the data collection, the stacks were rechecked two months later. If, at that time, the book was still unavailable for examination, it was dropped from the study. In October 1980, when the library joined the Library Computer System (LCS), an automated circulation system and resource-sharing network, the library discontinued its use of date due slips, relying instead upon a date due card that was valid for one circulation only. To determine uses that occurred after October 1980, the circulation activity for each item involved in the study was generated from LCS circulation records. The transition from a manual to an automated circulation system served a useful purpose in that it provided a clear line of demarcation that could be used in easily determining what effect, if any, the length of time an item had been in the collection had upon its circulation activity.

The data were analyzed in order to determine the relationship between use and selector, especially the relative effectiveness of the two selector groups, and that between use and the length of time an item had been in the collection. It was determined that the chi square test applied to a 2 x 2 contingency table at the .01 level of significance could be used effectively to test the study's first hypothesis.

**Results**

During the three-year acquisition period covered by the study, 691 books were added to the collection and charged to the history fund. Librarians selected the great majority of books, a total of 523 books or 75.69 percent, that were added to the collection during the study; classroom faculty selected 168 books or 24.31 percent of the total. Although the total number of books selected in each of the three years ranges from a high of 420 to a low of 87, the low can be considered typical for a year during which 4,000 books are added to the collection. The number of books added during the first two years of the study was significantly higher due to retrospective collection development based in large part upon the second edition of *Books for College Libraries*.

It is not unreasonable to assume that in many academic libraries history materials receive high use due to the nature of the information transfer process in history and the widespread prevalence of course assignments requiring library use. According to the data collected in this study, however, history materials constituted no more than 4 percent of total circulation activity in each of the years covered by the study. Of the 691 books added to the collection, only 420 books or 60.78 percent showed any circulation activity. The total number of circulation transactions was 1,176 or 1.70 circulations per book for all books added and 2.80 circulations per book for all books having at least one circulation transaction. Tables 1 and 2 provide more detailed information about circulation activity for books selected by each group of selectors. The data seem to indicate that in terms of circulation per book classroom faculty make more effective book selectors than their librarian colleagues. In table 3 the results are presented in a slightly different way. This table indicates equal effectiveness in selection activity on the part of classroom
The Effectiveness of Book Selection

### TABLE 1
CIRCULATION ACTIVITY FOR BOOKS SELECTED BY CLASSROOM FACULTY

<table>
<thead>
<tr>
<th>Year</th>
<th>Books Circulated</th>
<th>Circulations per Book for All Books Added</th>
<th>Circulations per Book for Books Circulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-78</td>
<td>54</td>
<td>183</td>
<td>2.23</td>
</tr>
<tr>
<td>1978-79</td>
<td>36</td>
<td>121</td>
<td>1.95</td>
</tr>
<tr>
<td>1979-80</td>
<td>14</td>
<td>29</td>
<td>1.21</td>
</tr>
<tr>
<td>Composite</td>
<td>104</td>
<td>333</td>
<td>1.98</td>
</tr>
</tbody>
</table>

### TABLE 2
CIRCULATION ACTIVITY FOR BOOKS SELECTED BY LIBRARIANS

<table>
<thead>
<tr>
<th>Year</th>
<th>Books Circulated</th>
<th>Circulations per Book for All Books Added</th>
<th>Circulations per Book for Books Circulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-78</td>
<td>203</td>
<td>557</td>
<td>1.65</td>
</tr>
<tr>
<td>1978-79</td>
<td>75</td>
<td>217</td>
<td>1.78</td>
</tr>
<tr>
<td>1979-80</td>
<td>38</td>
<td>69</td>
<td>1.10</td>
</tr>
<tr>
<td>Composite</td>
<td>316</td>
<td>843</td>
<td>1.61</td>
</tr>
</tbody>
</table>

### TABLE 3
BOOKS CIRCULATED AS A PERCENTAGE OF BOOKS SELECTED

<table>
<thead>
<tr>
<th>Selector</th>
<th>Books Selected</th>
<th>Books Circulated</th>
<th>Books Circulated as a Percentage of Books Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom faculty</td>
<td>168</td>
<td>104</td>
<td>61.90</td>
</tr>
<tr>
<td>Librarians</td>
<td>523</td>
<td>316</td>
<td>60.42</td>
</tr>
</tbody>
</table>

faculty and librarians. Whether or not this would still be the case if retrospective acquisitions (those books selected from *Books for College Libraries*) were removed from the study remains to be seen. However, the Pittsburgh study shows that current publications receive greater use than those purchased on a retrospective basis. Unfortunately, retrospective acquisitions were not singled out during the study.

Two other analyses were deemed appropriate for the study: (1) the percentage relationship between selectors and books selected, number of titles circulated, and total number of circulations; and (2) the relationship between selector and single versus multiple circulation transactions. Table 4 indicates that while both groups of selectors may be equally effective in terms of circulation activity, classroom faculty make a greater contribution in terms of selecting books that have multiple circulation transactions. This is confirmed by table 5. These data also indicate that librarians may be selecting those books more likely to be used by either nonhistory students or history students who do not consult with their instructors for relevant sources. Although there are no relevant data available, perhaps one can assume that the selections of librarians added breadth to the collection while the selections of classroom faculty tended to provide the collection with a greater degree of depth in relatively few subject areas.

While these analyses of the data provide valuable insights into the relationships among categories of selectors, books selected, and books circulated, other analyses were needed to test the research hypotheses. To test the first hypothesis, a 2 x 2 contingency table was created, and the chi square test was used. With one degree of freedom, a chi square value beyond 6.635 is statistically significant at the .01 level. Since the resultant chi square value was .0000085, the first hypothesis was rejected.

The second part of the study involved
an analysis of circulation activity before and after the library's transition from a manual to an automated circulation system. While analyzing circulation before and after October 1980 may be considered primitive because it did not allow for a uniform time period under each circulation system, the change in systems nonetheless provides a demarcation line for determining use in the recent and distant pasts.

Under both circulation systems it is expected that items not used in the first three years after their addition to the collection are not likely to be used in succeeding years. Approximately 38.8 percent of the books were not used at all. When one combines the books not used at all with those books with a decrease in use under the automated circulation system (71 percent for 1977-78 books, 68.5 percent for 1978-79 books, and 52.9 percent for 1979-80 books), it seems that for this particular collection the majority of books have little or no value to users after a relatively short period of time. Table 6 provides more detailed information.

While about 30 percent of the books showed decreased circulation activity under the automated system, about 25 percent of the books experienced increased use; the 41.5 percent increase for 1979-80 books is probably artificially high since most of these books did not have the opportunity for significant circulation activity under the manual circulation system. While the number of total book circulations and of titles circulated decreased under the automated circulation system compared to the manual system, this was not consistently true for the first two years of the study (see tables 7 and 8 which contain data for books circulated under both circulation systems). Although the increase for 1979-80 books under the automated circulation system is quite expected due to the brief period of time those books were available for circulation under the manual system, the same cannot be said for the increase demonstrated by the 1978-79 books. Thus, since the data indicate inconclusive results, the second hypothesis cannot be supported.

**COMPARATIVE DATA**

How do the results of this study compare to data gathered at similar institu-

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**TABLE 4**

RELATIONSHIP BETWEEN SELECTOR AND ACQUISITIONS AND CIRCULATION ACTIVITY IN PERCENTAGES

<table>
<thead>
<tr>
<th>Selector</th>
<th>Books Selected</th>
<th>Books Circulated</th>
<th>Book Circulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom faculty</td>
<td>24.31</td>
<td>24.76</td>
<td>28.32</td>
</tr>
<tr>
<td>Librarians</td>
<td>75.69</td>
<td>75.24</td>
<td>71.68</td>
</tr>
</tbody>
</table>

**TABLE 5**

SINGLE VERSUS MULTIPLE CIRCULATIONS BY SELECTOR

<table>
<thead>
<tr>
<th>Selector</th>
<th>Books Circulated Once Number of Books</th>
<th>Percentage of Books Circulated</th>
<th>Books Circulated More Than Once Number of Books</th>
<th>Percentage of Books Circulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom faculty</td>
<td>30</td>
<td>28.85</td>
<td>74</td>
<td>71.15</td>
</tr>
<tr>
<td>Librarians</td>
<td>125</td>
<td>39.56</td>
<td>191</td>
<td>60.44</td>
</tr>
</tbody>
</table>

**TABLE 6**

CHANGE IN CIRCULATION ACTIVITY FROM FIRST TO SECOND CIRCULATION SYSTEM AS A PERCENTAGE

<table>
<thead>
<tr>
<th>Year of Acquisition</th>
<th>Increase</th>
<th>Decrease</th>
<th>Some Use</th>
<th>No Change</th>
<th>No Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-78</td>
<td>23.56</td>
<td>32.86</td>
<td>5.48</td>
<td>38.10</td>
<td></td>
</tr>
<tr>
<td>1978-79</td>
<td>27.17</td>
<td>29.35</td>
<td>4.35</td>
<td>39.13</td>
<td></td>
</tr>
<tr>
<td>1979-80</td>
<td>41.35</td>
<td>13.80</td>
<td>5.75</td>
<td>39.10</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 7
CIRCULATION ACTIVITY UNDER MANUAL SYSTEM
FOR BOOKS CIRCULATED UNDER BOTH CIRCULATION SYSTEMS

<table>
<thead>
<tr>
<th>Year</th>
<th>Book Circulations</th>
<th>Books Circulated</th>
<th>Circulations per Book for Books Circulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-78</td>
<td>427</td>
<td>192</td>
<td>2.22</td>
</tr>
<tr>
<td>1978-79</td>
<td>157</td>
<td>75</td>
<td>2.09</td>
</tr>
<tr>
<td>1979-80</td>
<td>25</td>
<td>18</td>
<td>1.39</td>
</tr>
</tbody>
</table>

TABLE 8
CIRCULATION ACTIVITY UNDER AUTOMATED SYSTEM
FOR BOOKS CIRCULATED UNDER BOTH CIRCULATION SYSTEMS

<table>
<thead>
<tr>
<th>Year</th>
<th>Book Circulations</th>
<th>Books Circulated</th>
<th>Circulations per Book for Books Circulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-78</td>
<td>315</td>
<td>157</td>
<td>2.01</td>
</tr>
<tr>
<td>1978-79</td>
<td>180</td>
<td>80</td>
<td>2.25</td>
</tr>
<tr>
<td>1979-80</td>
<td>72</td>
<td>42</td>
<td>1.71</td>
</tr>
</tbody>
</table>

A review of the literature indicates that smaller academic libraries are not undertaking studies of the relationship of book use and book selector responsibility, or, if they are, the results are not being broadly disseminated to the profession.

The author located only one similar study, and it was but one portion of a broader DePauw University study that partially replicated the 1978 University of Pittsburgh library materials study. Larry Hardesty studied the circulation activity of slightly more than 1,700 books selected by both librarians and classroom faculty. Librarian selections constituted only 173 of the total. The results led Hardesty to conclude that "librarians can play a useful role in the selection of books for the academic library." He found that 31.2 percent of librarian-selected books were not used at all, while the comparable figure for books selected by classroom faculty was 34.2 percent. In addition, his results indicated that librarian-selected books constituted a higher than expected portion of books with moderate or heavy use (more than six circulations). Hardesty concludes that "the main difference between the classroom instructor-selected books and librarian-selected books is that the librarians selected fewer graduate level books in narrow specialties."

Although the Hardesty study seems to be the only reported study of book use and selection responsibility in a small academic library, several such studies have been conducted in university libraries. A landmark study was conducted by Gayle Edward Evans at four public and private university libraries located in the Midwest and the Rocky Mountain region during the 1960s. His study involved an examination of circulation activity in relation to selection agent: librarian, classroom faculty, or book jobber. Evans hypothesized that selection agents having the greatest number of contacts with the greatest number of library users would select the highest percentage of titles showing circulation activity. To test this hypothesis Evans studied the circulation of 6,891 titles (English-language current imprint monographs) based on a random sample of at least 500 titles per type of agent per institution. Analysis of circulation activity covered the first twelve months of availability in the collection. The study results confirmed part of Evans' hypothesis, namely, that librarians tended to select the greatest number of materials that were used; faculty and jobbers followed. However, Evans apparently did not feel sufficiently confident to attribute the librarians' performance to their extensive contact with library users. At first, he thought that the differences between librarians and faculty arose from different selection philosophies. Later he stated that both types of agents appeared to be selecting from the same philosophical point of view. Unable
to make any definitive statement, Evans concluded with an expression of need to determine the cost-benefit factors for each type of selection agent. Robbie Bingham carried out a similar study approximately ten years later at four university libraries in the South. While Bingham also investigated the relationship between categories of selectors and use of selected items, she added two categories of selection agents to Evans' three: faculty/jobber and librarian/jobber. Sampling 7,224 titles (450-500 items for each single category of selection agent and at least 100 items for each of the two combination categories), Bingham hypothesized the following descending order of use by selection agent: (1) faculty/jobber; (2) librarian/jobber; (3) faculty; (4) librarian; and (5) jobber. Bingham found that the single categories of selection agents were more effective than the combination categories, with faculty selecting the greatest number of materials used. However, for materials dealing with the humanities, librarians replaced faculty as the most effective selection agent.

CONCLUSION

It is not surprising that the results of the studies cited above are not uniform. Perhaps the factors exercising the greatest influence are key institutional characteristics—curricula, library, faculty, and students—that are unique to each institution.

It is also not surprising that a great deal of work remains to be done before academic libraries, especially smaller academic libraries, can establish collection development processes that are appropriate for meeting users' demonstrated needs. In order to do so, considerable analysis needs to be done concerning selection agents. Factors such as educational background, relevant experience, philosophy of selection, and sources or methods used for selection (together with the related costs involved) have a direct bearing on the effectiveness of collection development. Likewise, selections should be analyzed in terms of those pre-acquisition indicators that Weeks claims predict book use: type of publisher, language of publication, date of publication, and type of publication (single or multiple author, conference proceedings, serial reviews, and bibliographies). What can be said with a reasonable degree of certainty is that librarians play a significant role in book selection. The goal remains, however, to enhance that role in a way that will make collections more relevant to curricular or research needs.

REFERENCES

2. Ibid.
4. Ibid., p.275.
5. Ibid.
8. Kenneth Weeks, Determination of Pre-acquisition Predictors of Book Use (Berkeley, Calif.: Institute of Library Research, Univ. of California, 1973).
Characteristics of the Monographic Literature of British and American Literary Studies

John Cullars

The aim of this study was to determine how scholars use the monographic literature in British and American literary studies and to compare these findings to those of studies involving the journal literature of the humanities. All references were counted from thirty monographs, including implicit references not formally cited. The findings of this study were in agreement with most similar studies of the journal literature of the humanities with one important exception. While book references constitute the most important source of scholarship and most references were more than ten years old but published since the Second World War, as with the journal literature, manuscript references play a much greater role, sometimes exceeding that of journal references.

A review of the library literature shows an increasing recent interest in the patterns of citation and reference for the humanities literature. Though most of these studies follow the lead of earlier work in the sciences and social sciences, there were isolated studies of humanities citation patterns in the literature as early as 1959 and 1960. Librarians have sought to understand which sources are most used by researchers so as to be able to supply those items in times of budgetary crisis when cuts in acquisitions have been inevitable; scholars over the past fifteen years have adopted or adapted such techniques from the sciences and social sciences as citation studies to gain a clearer, less subjective view of what materials function as core collections for the various disciplines.

These studies, while using the methodology developed in the sciences and social sciences, have found significant differences between the use of the journal literature in the sciences and social sciences and that of the humanities. The collection and evaluation of data determining which books, journal articles, manuscripts, and dissertations have been cited by scholars in their work and the currency of these materials have been used for both theoretical and more controversially practical ends. As well as providing a means to augment the researcher's knowledge of the shape of a discipline's literature, administrators have used this data in promotion and tenure decisions, and librarians have used it in the development of collection development guidelines.

Citation studies can be performed by a single individual in a relatively short time without disrupting any library or faculty activities, but the greatest advantage has been thus described by Stephen Wiberley:

"Probably most important for an academic librarian is the fact that a citation is a component of the most important product of the academic enterprise, a scholarly publication. In their best..."
form scholarly publications are those which appear as sources edited and refereed by experts in a field, but they may also include any publication written with the aim of becoming part of the literature on a subject. As such they normally contain citations to other publications that have helped to shape an author’s writing, whether by summarizing previous work on a subject, offering references to supportive or opposing conclusions, providing evidence, suggesting methodology or explaining analogous topics. Citations show where an author’s work fits into the literature on a subject. 

Though such scholars as M. B. Line accept the value of citation studies in determining the shape of the literature but are highly skeptical of their validity and precision as evaluative tools for collection building and weeding in individual libraries, many researchers continue to find them satisfactory guides to the evaluation of use patterns, particularly when taken in conjunction with such other quantitative tools as user surveys, circulation studies, and surveys of in-house use, as well as such qualitative guides as lists compiled by recognized experts in the field.

Humanities scholars had long warned that the subjective evaluation of the nature of humanistic research and publication suggested major differences between their use of the literature and that of their colleagues in the sciences and social sciences. Various studies have borne out these assumptions to a great extent so far as the journal literature in the humanities is concerned. Less has thus far been attempted toward evaluating the uses of sources in the monographic literature of the humanities; this study makes a necessarily limited step in that direction, seeking to verify or cast doubt upon the applicability of findings concerning the humanities journal literature to that of the monographic literature.

Humanities scholars claim that (1) the book is paramount in their research rather than the journal article that serves as the basis for scientific and social scientific research; (2) older sources, both primary and secondary, continue to be cited to a vastly greater degree than in the sciences and social sciences; and (3) foreign language sources in the humanities are far from negligible. All these assumptions have been substantiated by recent studies of the journal literature in the humanities and in the library literature. Although there is no claim to statistical validity due to a limited sample size, this study seeks to isolate tendencies in the monographic literature of English and American literary studies published between 1976 and 1983; tendencies as to the proportion of references in monographs to books, to journal articles, to manuscripts and to dissertations, as well as to the chronological spread of these references. Comparisons will be made to similar studies of the journal literature in the humanities for purposes of comparison and contrast. Since this study limits itself to English language materials dealing with English-language literary topics, the question of the citation of foreign-language material must await another study.

LITERATURE REVIEW

The genesis of this study was Madeleine Stern’s article “Characteristics of the Literature of Literary Scholarship,” which explored citation patterns in the journal literature of English and American literary scholarship between 1976 and 1980. Basing her findings on data provided by the Arts and Humanities Citation Index (AHCI), Stern found that citations to monographs far exceed those to journal articles, as opposed to citation practice in the sciences and social sciences where references to the journal literature significantly predominate. She also found that a number of citations in English and American studies are to older publications than is the case with the sciences and social sciences, although the greatest number of citations is published within twenty years of the citing article. For important pre-twentieth century writers, more than 40 percent of all citations were to material published before 1900. Finally, she reported that references to manuscripts and dissertations were negligible.

Given the emphasis that humanities scholars place on books, it is useful to investigate reference patterns in this monographic literature using Stern’s findings on the journal literature for comparison.
and contrast as well as data drawn from the citation studies in other humanistic fields: Baker in musicology, Heinzkill in English, Longyear in musicology, Simon­ton in the fine arts, and Vaughan in musicology. This study seeks to discover to what extent citation patterns in the mono­graphic literature coincide with or deviate from the patterns discovered in these studies of the journal literature. Do books play a comparably major role? Are manu­scripts and dissertations equally ignored? Do patterns of use across time hold and in the same proportions for the monographic literature as for the journal literature?

**METHODOLOGY**

While this study duplicates the principal aims of Stern’s study of the journal litera­ature of English and American literary scholarship, the methodology differs and the scope of the findings is more modest. Stern drew all her data from the AHCI, in­cluding even implicit citations from the text that were not officially footnoted but were located and tabulated by the staff of ISI. This tool allowed her to examine a suf­ficiently large sample to yield statistically valid projections. AHCI analyzes only journal articles and collections of essays, not monographs.

To do a comparable study of the refer­ence patterns in the monographic litera­ture, the researcher had to examine per­sonally all of the books surveyed, tabulating the entries from footnotes and endnotes as well as skimming each page for implicit citations. Since the currency of references is a point to be investigated, and scholars frequently quote or refer to well-known passages from the Bible or classic authors without formally citing them, such a search for implicit citations was necessary to arrive at any accurate tabulation of the total number of references involved. In some cases, such un­footnoted references did seem ornamental rather than substantive, but in many more cases, a citation from a classic author or a well-known older critic was used to cor­roborate a point or as a springboard for further discussion. While the opinion of a currently active critic or scholar was al­most invariably cited formally, compara­ble passages from classic works or famous pre-twentieth century critics, while identi­fied in the text, often were not felt to re­quire formal citation. It cannot be claimed that all such implicit citations have been identified in this study since the books were skimmed rather than read, but all pages were examined. For this study, evoking an author’s name did not qualify as a reference unless an idea, theory, or quotation was connected with that name in the text.

Technically this is a reference study rather than a citation study; each appear­ance of a given text is noted rather than the single citation of a given title regardless of how frequently the author refers to it. The researcher decided to tabulate all refer­ences to a given work rather than just the first citation to it because he considered that methodology more apt to document fully the scholarly practice in humanities monographs. In a journal article, individ­ual sources are less likely to yield multiple references than in full-length mono­graphic studies in which different aspects of a source may be drawn upon repeat­edly. Standard editions of literary texts, collections of letters, manuscript collec­tions, and authorized or otherwise stan­dard biographies, which are basic to most humanities scholarship, are less impor­tant in scientific and some social scientific research in which the scholars concentrate primarily upon experimental or survey data. Thus counting a repeatedly used source as a single citation rather than counting each use would underestimate the value of certain sources. It would also tend to minimize differences between the patterns of humanities and scientific/social scientific use patterns that might oth­erwise emerge. In tabulating the chrono­logical spread of references, those sources that are repeatedly cited obviously weight the decade in which they appear in terms of percentages of references by decade or other chronological spans. These different emphases between reference studies and citation studies cause the limitation that the comparison of this study’s findings to a lesser or greater extent may not be strictly comparable to those of citation studies. Thus similarities and dissimilari­
ties found and discussed could be misleading.

While this study did not consistently and systematically differentiate between primary and secondary sources in the tabulation of references, single sources that were repeatedly cited were counted separately. Six of the non-prizewinners and four of the prizewinners required such separate treatment though only two monographs from each group contained notably large numbers of such primary source citations. The largest number of such references was 522 out of a total of 1,712. Collected letters as well as literary texts made up these primary sources. In this study, non-prizewinning studies of twentieth century authors made the strongest use of primary sources. Older topics depended less heavily upon them in both groups of books. A truly systematic study of the citation patterns regarding primary and secondary sources in the humanities could show whether secondary sources in the humanities continue to be cited for a significantly longer period than in the social sciences. It is possible that the continued citation of primary literary texts amounts for the bulk of such older references, but this study does not suggest that to be true.

Two samples of monographs were examined: (1) fifteen prizewinning books published between 1976 and 1983 located in the yearly lists of prizewinning books in Publishers Weekly; and (2) fifteen books drawn from the Dewey categories represented by the prizewinning books randomly selected from the pertinent yearly volumes of American Book Publishing Record. While it is not possible to be certain that none of the latter won any prizes whatsoever none won any of those prizes covered by Publishers Weekly. To qualify for inclusion a book had to contain footnotes or endnotes, but a formal bibliography was not required. Textbooks or collections of essays were also excluded. While these stipulations did not eliminate any of the prizewinning items, approximately every third randomly selected non-prize book was eliminated for lack of scholarly apparatus.

To select the non-prizewinners, the Dewey cases of all the prizewinners were ascertained and, within each yearly volume, the pertinent pages were renumbered to include all relevant categories in a consecutive numerical sequence. Two random numbers were chosen separately from a random-numbers table, one for page number and the second for the position of the item on the page. If a chosen book had to be rejected as out of scope, the next book on the list that fit the criteria was chosen. The labor-intensive nature of this methodology and the individual examination of each book has limited the number of monographs selected to thirty in all.

The study sought to discover if there would be any significantly different reference patterns between prizewinning and non-prizewinning monographs in the same areas of research published at the same time.

Since it was clearly impossible to consult enough books to produce statistically significant data, this study only seeks to isolate tendencies in the reference patterns of the monographic literature of English and American literary scholarship of the period from 1976 to 1983 that may be the basis for further investigation. This discipline and span of years has been chosen so that the findings of this study may be most comparable to Stern's for the journal literature of the same field and period. References were also tabulated by the decade in which they appeared so that their chronological distribution could be compared to the findings concerning the journal literature of the humanities and social sciences. Table 1 lists the number of references, explicit and implicit, divided into prize and non-prizewinning books.

The length of monographs ranged from 132 to 561 pages with a median length of 236 pages for non-prizewinning books and from 170 to 874 pages with a median length of 454 pages for prizewinners. References per page ranged from .8 per page to 2.9 per page with the median 1.8 references per page for non-prizewinners and from .8 per page to 4.9 per page with the median 2.4 references per page for prizewinners. Nine of fifteen prizewinners had two or more references per page whereas only six non-prizewinners did. The total
TABLE 1

NUMBER OF REFERENCES PER BOOK

<table>
<thead>
<tr>
<th>Prize Books</th>
<th>Non-Prize Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 239</td>
<td>94 (52; 55.3%)*</td>
</tr>
<tr>
<td>2. 255 (3; 1.2%)*</td>
<td>163</td>
</tr>
<tr>
<td>3. 528</td>
<td>175 (3; 1.7%)*</td>
</tr>
<tr>
<td>4. 674</td>
<td>204 (1; .5%)*</td>
</tr>
<tr>
<td>5. 707</td>
<td>276</td>
</tr>
<tr>
<td>6. 728 (136; 18.7%)*</td>
<td>281</td>
</tr>
<tr>
<td>7. 848</td>
<td>415 (15; 3.6%)*</td>
</tr>
<tr>
<td>8. 899 (472; 52.5%)*</td>
<td>444</td>
</tr>
<tr>
<td>9. 1,000</td>
<td>445 (297; 66.7%)*</td>
</tr>
<tr>
<td>10. 1,148 (29; 2.5%)*</td>
<td>474</td>
</tr>
<tr>
<td>11. 1,168 (66; 5.7%)*</td>
<td>479</td>
</tr>
<tr>
<td>12. 1,712</td>
<td>501</td>
</tr>
<tr>
<td>13. 1,854</td>
<td>606</td>
</tr>
<tr>
<td>14. 2,005</td>
<td>862</td>
</tr>
<tr>
<td>15. 2,070</td>
<td>883 (45; 5.1%)*</td>
</tr>
<tr>
<td></td>
<td>6,302</td>
</tr>
</tbody>
</table>

* Asterisk indicates that the figures in parenthesis show implicit references, first the number of such implicit references and then their percentage of the whole for that book.

A number of references for prize books was more than 2.5 times greater than that for the non-prizewinning books. As can be seen, no prizewinning book had fewer than 239, but seven had fewer than 1,000 references, while no non-prize book had over 883. One non-prize book had as few as 42 explicit references with, however, another 52 implicit references. Seven of the prize books had more references than the highest number held by a non-prize book. Both groups were about equally prone to implicit citations.

Only two of the prizewinning books approached the non-prize books in terms of brevity of text and paucity of references whereas only one of the non-prize books approximated the length of most prize books but had fewer references than a prize book of comparable size would have had. Roughly one-third of the non-prize monographs were clearly intended as introductory studies of famous writers, though not as textbooks per se, whereas none of the prize books were of an introductory character.

RESULTS

These results present the data collected in this project by two different approaches: (1) the percentage of references to the form of source (book, article, manuscript, dissertation) and (2) by the chronological period in which the citation appeared. Where a further breakdown seemed informative, data will be subdivided into prize, non-prize, and the total number of books. In this tally, a reference to an article within a collection of essays is treated as a book citation since the scholar cited it in that form even though it may have appeared previously as a journal article. Newspapers, magazines, and conference proceedings are considered as articles. If an author cites a reprint edition, the reprint date is taken. When an author gave extensive bibliographical information in footnotes rather than simple bibliographical citations, if the additional references seemed supplementary, they were included; if the author demonstrably had made substantive use of them, they were included. While a subjective element of judgment enters into such decisions, only three of thirty books studied presented such problems. Explanatory or interpretive footnotes were not considered unless they also contained bibliographical references germane to the text. Printed interviews are treated as articles; typescript or taped interviews or notes based on direct or telephone conversations are classed as manuscripts.

In providing tallies of percentages of references by chronological periods, these percentages equal less than 100 percent because most implicit citations could not be assigned to a given decade since they were usually references to material that by its classic nature exists in a wide variety of editions. In two cases, both non-prize books, implicit citations exceed 50 percent of the total. One was a discussion of Shakespearean staging that quoted copiously from the poet's works but never indicated the edition. Indeed, if this author was quoting directly from the numerous different productions discussed, many different editions were surely represented.

Table 2 presents two different approaches to reference patterns in the monographic literature. In the left half of each rectangle, the percentage is based on the portion of references to a given type of source (book, article, manuscript, dissertation) divided by the total number of ref-
TABLE 2
PERCENTAGE OF REFERENCES*

<table>
<thead>
<tr>
<th></th>
<th>Prize Books (15,838 References)</th>
<th>Non-Prize Books (6,302 References)</th>
<th>Total Books (22,140 References)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>62.2%/65.6%</td>
<td>74.5%/78.8%</td>
<td>65.7%/72.2%</td>
</tr>
<tr>
<td>Articles</td>
<td>12.7%/13.8%</td>
<td>14.8%/15.3%</td>
<td>13.3%/14.5%</td>
</tr>
<tr>
<td>Manuscripts</td>
<td>24.8%/20.3%</td>
<td>10.4%+/5.6%</td>
<td>20.7%+/12.9%+</td>
</tr>
<tr>
<td>Dissertations</td>
<td>.26%/.25%</td>
<td>.36%/.6%</td>
<td>.29%/.29%</td>
</tr>
</tbody>
</table>

*The figure on the left of the slash gives the percentage of references based on the total number of references; the figure on the right gives those percentages based on the averages of the individual percentages of each type of source divided by 15 for each sample group and by 30 for the total.

†One non-prize book uncharacteristically had manuscript references far outweighing all other categories (63.5%). It was the only non-prize book with as many as 12.5% manuscript references. Omitting this book from the tabulation gives figures in columns 2 and 3 of 1.8%/1.4% and 18.9%/10.8% respectively.

References for the prize books (15,838), non-prize books (6,302) and the total combined sample group (22,140). Thus, to take 62.2 percent for prize books, all the references (9,851) to books in the sample of fifteen prize books was divided by 15,838, the total number of references to all forms in the prize book sample.

In the right half of each rectangle of table 2, on the other hand, the percentage of references to each type of source is based on the addition of the individual averages for each book in a given type of source (book, article, manuscript, dissertation) divided by fifteen, the total number of books in each separate group, or by thirty for the percentage for the total group of thirty books. Thus, the 65.6 percent figure for prize books was arrived at by taking the percentage of references to books for each prize book, adding them up, and dividing by fifteen since there were fifteen prize books. This technique gives equal weight to each book as a representative of scholarly practice.

Since these figures do differ to a notable degree on occasion, both percentages have been provided in the table. It should also be noted that the presence of one non-prize book with an atypically high number of manuscript references (561 out of a total of 883, 63.5 percent) has perhaps misleadingly elevated the manuscript percentage for both non-prize and the total percentages. The figures given in the notes to table 2 give these manuscript percentages minus this book, and these adjusted percentages are perhaps more reliable.

Figure 1 and table 3 reflect the chronological spread of the topics of these thirty monographs. Of the thirty books, fourteen dealt exclusively with the twentieth century, two exclusively with the nineteenth, two exclusively with the eighteenth, and six fell between the fifteenth and seventeenth centuries with much overlap. In addition, seven books dealing with more recent topics also showed a broad overlap between centuries, as with a book on Shakespearean staging between the seventeenth and twentieth centuries. Discrepancies between the figures cited above and those in the totals of figure 1 are explained by the arbitrary assigning of books that overlap to a given century for the tally. Though no book's topic predated Chaucer (c. 1340-1400), there were numerous references to much earlier literature, particularly the Bible and classical antiquity. Thus the references ran the gamut from Heraclitus (c. 500 B.C.) to 1980. The chronological distribution is indicated in four categories with 1980 the terminal date since no later references appeared in these books. Three thirty-year periods (1950-80, 1920-50, and 1890-1920) accounted for the bulk of the references with a final "pre-1890" category to account for the remainder.

DISCUSSION

In observing the results of table 2, one sees that, as in previous research into the citation of journal articles in the humanities by Baker, Heinzkill, Simonton, Stern, and Stone, references to monographs strongly predominate over any other type of source material as opposed to the stronger reliance on the journal literature.
Note: Tallies by century include books that overlap centuries.

FIGURE 1
Distribution of Topics by Century

TABLE 3
TEMPORAL PERCENTAGES

<table>
<thead>
<tr>
<th></th>
<th>Prize Books</th>
<th>Non-Prize Books</th>
<th>Total Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-80</td>
<td>54.1%</td>
<td>67.7%</td>
<td>61.7%</td>
</tr>
<tr>
<td></td>
<td>(17.1%-91.4%)</td>
<td>(16.7%-99.4%)</td>
<td>(17.1%-99.4%)</td>
</tr>
<tr>
<td>1920-50</td>
<td>24.1%</td>
<td>15.2%</td>
<td>20.5%</td>
</tr>
<tr>
<td></td>
<td>(5.3%-51.8%)</td>
<td>(.2%-62.4%)</td>
<td>(.2%-62.4%)</td>
</tr>
<tr>
<td>1890-1920</td>
<td>8.9%</td>
<td>6.9%</td>
<td>8.4%</td>
</tr>
<tr>
<td></td>
<td>(.1%-24.6%)</td>
<td>(.2%-17%)</td>
<td>(.1%-19.4%)</td>
</tr>
<tr>
<td>Pre-1890</td>
<td>12.1%</td>
<td>5.5%</td>
<td>9.1%</td>
</tr>
<tr>
<td></td>
<td>(.1%-46%)</td>
<td>(.2%-37.5%)</td>
<td>(.1%-46%)</td>
</tr>
</tbody>
</table>

The percentages in parentheses under each figure show the range in each category of book for which the average is shown.

typical of the sciences and social sciences. Whether considering the total (72.2/65.7 percent), prize books (65.6/62.2 percent) or non-prize books (78.8/74.5 percent) percentages, well over 50 percent of all references are to books, with the non-prize book percentages notably higher than prize books. This may be compared to 82.7 percent for authors and 78.8 percent for literary movements in Stern’s study; 3 75 percent in Heinzkill’s study of English literature; Simonton’s 71.5 percent for fine arts; and Vaughan’s 69.5 percent for musicology. Scholarly attitudes implied in the evaluative literature of the humanities indicate that these scholars still regard their magna opera as the definitive monographs in the field, and in numerous universities, promotion to full professor requires the publication of highly regarded monographs as well as articles. Stern found that book reviews play a very prominent role in the journal literature of the humanities as examined by AHCI, a further reflection of the importance of monographs in the scholarly enterprise of the
humanities. She also found that pre-twentieth century authors and topics are more often approached through books than through articles, a finding seconded by this study. The use of the journal literature in the humanities is concentrated in the period since World War II but more than ten years prior to the study citing it. Stern further points out that even reprints of older primary sources, new editions of great authors, and book-length secondary studies by prominent critics take priority over articles, findings confirmed by this study as well.

This study's findings on references to journal articles also corresponded to those of earlier studies of the journal literature, 13.8/12.7 percent for prize, 15.3/14.8 percent for non-prize, and 14.4/13.3 percent for the total number of references with, once again, the non-prize items having a slightly higher percentage to article references. Stern found 15.1 percent citations to articles in the journal literature dealing with authors and 16.5 percent for that dealing with movements. Simonton, on the other hand, found 28.6 percent references to articles; Heinzkill, 19.9 percent references to articles in English, and Vaughan 25.3 percent to articles in musicology. This study's findings tally closely with Stern's in the same discipline, while other disciplines within the humanities such as fine arts and musicology, while equally strong on book citations, contain twice as many references to the journal literature, documenting considerable variation in the use of the journal literature in the humanities.

As in the literature of the sciences and social sciences, more recent figures and topics are apt to be covered in the journal literature before extensive monographic coverage accumulates. Until recently, for instance, it was difficult to find monographic or reference-book treatment of Derrida's 'deconstruction' theory, leaving the researcher no recourse other than journals. Now that monographs are appearing on this topic, it will be interesting to see if the proportion of journal citations to articles on deconstructionism decrease relative to those to monographs.

The most significant difference in the findings of this study of the monographic literature and those dealing with the journal literature concerns manuscript sources. Received wisdom has it that manuscripts (unpublished drafts, letters, typescripts, sketches) are the delight and daily bread of the humanities scholar. Typical of many commentators, Karl J. Weintraub writes that the humanist's "most fundamental work depends on the availability of original texts; many humanists have a special reverence for manuscripts, and they need the real thing rather than a copy..." Yet citation studies of the journal literature uniformly find that manuscripts represent only a very small fraction of the citations. Indeed, even those studies that combine manuscript and dissertation citations in the same category still offer minimal evidence of the use of such sources by humanities scholars. Thus textual scholarship appears to occupy a less exalted position in the humanities scholarship than is commonly supposed.

Stern found only 2.2 percent citations to manuscripts and theses for authors and 4.6 percent for literary movements, and her "other" category included encyclopedias as well as manuscripts and theses. Jones, et. al., on the other hand, found 12.6 percent citations to unpublished materials in their study of history, a social science held by some scholars to be more closely related to the humanities than any other. In musicology, Baker found 12.6 percent citations to unpublished materials, but most of these were to otherwise unavailable musical manuscripts written before 1800. Of this 12.6 percent, only 2.09 percent applied to manuscript letters and other non-score items. Vaughan found only 5.2 percent of his citations to non-published sources in his study. Given such low percentages of citation to manuscripts, researchers such as Stone have questioned the validity of the widespread assumption that manuscript sources are as vital to humanities research as most scholars claim. Stern, however,
suggested that it might be the case that "research into the topic of an article is done in a less in-depth manner than if the published study were a full-length book. I suspect that analysis of citations in source monographs dealing with the same subject would yield a higher percentage of unpublished primary source citations." This study has indeed found Stern's assumption to be accurate. The figures concerning references to manuscripts were 24.8/20.3 percent for prize books, 10.4/5.6 percent for non-prize books, and 20.7/12.9 percent for the total, significantly higher figures than in any of the studies of the humanities journal literature. Even the subtraction from the tally of the one non-prize book whose manuscript references were uncharacteristically high left the total figure at 18.9/10.8 percent.

While manuscript sources were more fully used by prize books than by non-prize books, there were significant manuscript references in both groups. Seven of the non-prize books but only two of the prize books omitted references to manuscripts altogether. As can be seen from table 2, manuscript references exceeded journal article references for prize books and for the combined sample as reckoned by the total number of references, though not by the average of the individual books. One of the non-prize books had 63.5 percent of all its references to manuscripts, and three of the prize books had manuscript percentages in excess of 50 percent to 53.6 percent, 58.9 percent, and 72.4 percent, as well as one just under, with 47.1 percent. Another had 33.1 percent manuscript references as opposed to 48.7 percent book and 18.2 percent articles references. Except for the one 63.5 percent manuscript percentage already mentioned, no non-prize book had more than 12.5 percent references to manuscripts while six prize books exceeded this. This study includes all references to manuscripts that are enumerated by the authors in their notes. In one case, however, an author merely listed twenty-two manuscript collections without any further breakdown of the manuscript sources consulted. Since this is a reference rather than a citation study, and thus all references are included insofar as they can be ascertained, this one book's failure to enumerate all its manuscript references suggests that the total use of manuscripts in this study was actually higher than shown by the findings.

This study does, however, corroborate all the studies of the journal literature in finding references to dissertations and theses to be negligible. There were no references to M.A. theses at all, and only .26/.25 percent references to dissertations in prize books, .36/.6 percent in non-prize books, and .29/.29 percent in the total. The total number of references to dissertations was only 64 out of 22,140 total references, 41 in the prize books and 23 in the non-prize. Only a single author cited as many as three dissertations in his work. Eleven of the non-prize books and seven of the prize books contained no citations to dissertations at all. Only 1 percent of the materials cited in Baker's study were theses. Most of the studies of the journal literature of the humanities group dissertation citations with manuscript citations, so that it is impossible to offer figures for comparison in these cases. In areas in which published scholarship may be minimal or felt by the researcher to be inadequate, scholars may turn to dissertations for lack of other sources. Thus Brian Harrison in a review of a recent book on feminist theory states that the author Jane Lewis made "good use of recently completed doctoral theses" among a wide range of sources, but such would seem the exception, and no such exceptions were encountered in this study. Many libraries have a policy (or at least a strong disinclination) against purchasing dissertations, considering that the more worthy will be reworked into monographs in these "publish or perish" days. Dissertations are not always available through interlibrary loan and are relatively expensive to buy.

Figure 1 and table 3 display the chronological range of the references. Figure 1 shows that half the topics of these studies are centered in, if not confined to, the twentieth century while one-third of the books overlap centuries, having such broad topics as the English ode. Of course,
strictly twentieth-century topics can and do contain references to earlier authors for a wide variety of reasons. Over 50 percent of the books (10 non-prize and 8 prize, including overlap) cover twentieth-century topics; the chronological distribution suggests no pattern of differences between prize and non-prize books. The importance of older sources is also much greater for the journal literature of the humanities than for that of the sciences or social sciences. This study also supports that finding for the monographic literature of the humanities. Whereas Garfield found that less than 40 percent was cited in the sciences more than five years old, he found that 62 percent of the citations in the journal History were older. Heinzkill found over 70 percent of his book citations for English literature were over ten years old, though 54 percent of these were published since 1945, thus dating between 1945 and 1970. Garfield found that, of the one hundred most cited scientists between 1961 and 1976, the oldest was born in 1899, whereas in a survey of one hundred humanists in 1977-78, 60 percent were born prior to 1900 and 10 percent prior to 1400.

Stern found that the work of earlier humanists is not superseded nearly so rapidly as in the sciences and social sciences; Garfield stated that in the sciences even a classic paper frequently ceased to be directly cited after five years, that knowledge having been assimilated into the collective consciousness of the discipline, is "packed down" or "squeezed out," in Derek DeSolla Price's formulations. Longyear points out, on the other hand, that in musicology some articles continue to be cited more than seventy years after initial publication. As with the various findings for the journal literature of the humanities, the greatest concentration of references in this study of the monographic literature falls within the period 1950 to 1980, 54.1 percent for prize books, 67.7 percent for non-prize books, and 61.7 percent for the combined total. As can be seen, percentages ranged from 16.7 percent up to 99.4 percent of all references in this period. There were fourteen books on exclusively twentieth-century topics, one of them on the poetry of the 1960s, so that a concentration of references in the latter half of the century was to be expected, but, less predictably, all books on pre-twentieth-century topics also illustrated this pattern of citing recent scholarship. Thus 42.2 percent of the references in the books on nineteenth-century subjects, 53.6 percent of the eighteenth-century topics, and 64.9 percent of the books dealing with the fourteenth- to seventeenth-century topics occurred in this recent period. Perhaps one reason for this is the lesser use of journal articles and the greater dependence on books for the investigation of older topics, with recent books and articles being preferred over all but classic older scholarship in most cases. The percentages of references decline progressively in the periods between 1920 and 1950 and between 1890 and 1920. In the pre-1890 period, however, the exhaustive scholarship of three of the prize books with older topics gives a higher percentage of references to this category than to the 1890-1920 period except for the non-prize books, which, however, have a total only 1.4 percent lower. Some of these prize books had references from every single decade between 1690 and 1980! Significantly these works of exhaustive scholarship also cite manuscripts most fully and even make some limited use of dissertations.

In these studies, the most cited recent decade is 1960-70 or 1950-60 rather than 1970-80. This might bear out the findings in the journal literature of the humanities that most citation is to material over a decade old, but it might only reflect the fact that those books published in 1976-78 would not have the same opportunity to examine later scholarship as those published between 1979 and 1981. Of this sample of thirty books, nineteen were published between 1976 and 1979. 25.2 percent of the references of the prize books, 19.4 percent of the references of the non-prize books, and 22.3 percent of the references of the total number of books fall between 1970 and 1980 as opposed to 31.7 percent for non-prize, 19.1 percent for prize books, and 25.4 percent for the total between 1960-70. Thus the findings for the studies of the humanities journal liter-
Characteristics of the Monographic Literature 521

ature that material ten or more years old is more heavily cited than materials more recently published hold true for the monographic literature as well, though the publication dates of many of these books made it impossible for them to have access to materials published throughout the latter part of the 1970s. This may exaggerate the preponderance of studies in the next most recent decade, 1960-70.

Major factors in the explosion of humanistic scholarship since 1945 have been discussed by Charles Osburn. Federal funding from such agencies as the Fulbright-Hays Program, the National Endowment for the Humanities, and the American Council of Learned Societies has further promoted the "publish or perish" atmosphere of contemporary American universities with competition for the funds and prestige associated with grants. Humanistic scholarship has also experienced important changes in both aims and methodology in the past four decades. The influence of social science disciplines, particularly psychology, anthropology, economics, and sociology, has greatly widened the scope of humanistic research and publication both theoretically and practically in terms of quantitative methods. The traditional reliance of humanities scholars on the received wisdom of past generations of scholars, the veneration of erudition for its own sake, and the almost exclusive use of conventional bibliographic and critical methods have been gradually replaced or supplemented by greater emphasis on creativity, originality, and the more objective investigation of man as a social animal or metaphysical being. Computer technology, particularly concerning linguistics and semiotics, has also played a role of increasing impact since the 1960s.

SUMMARY
A study of thirty books can do no more than compare itself to earlier work and suggest tendencies that may be corroborated or challenged by further work. The findings of this study do coincide in most respects with those of previous studies of the journal literature of the humanities with one significant exception. As in those studies, books represent the predominant tool for humanities scholarship as opposed to journals that dominate the sciences and, to a lesser extent, the social sciences. Books are the major source for research about both the most recent literary trends and about pre-twentieth-century works. The most significant use of journal articles is found principally in the period after World War II, though some seminal articles continue to be cited for seventy years or more in some disciplines of the humanities. For the older topics, however, the monographic literature is more apt to be supplemented by manuscript sources than by journal articles. The main difference between the citation patterns in the journal literature and the reference patterns of the monographic literature of the humanities is the much greater use of manuscript sources in the latter. Indeed, for prize books and the combined total of books, though not for non-prize books, manuscript references exceed those to journal articles. The use of dissertations and theses is negligible in both the monographic and periodical literature. In chronological terms, the largest concentration of references falls between 1950 and 1970. This study's results coincide with those of the journal studies in that the greater number of citations in the humanities were over ten years old. Despite the strong citation pattern to the 1960-80 period, 52.3 percent of the references were older, and the pre-twentieth-century subjects regularly referred to books and/or manuscripts as well as to occasional journal articles from earlier centuries.

REFERENCES

2. Maurice B. Line, "On the Irrelevance of Citation Analysis to Practical Librarianship," in EURIM II:

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To the Editor:

I would like to commend Allen Veaner for his excellent "1985-1995: The Next Decade in Academic Librarianship, Part I." Clear, concise, and entertaining, the article is a model of what a working paper can be—something which stimulates thinking and provides a variety of ideas for further discussion, but is never dull or jargon-ridden. Working papers are useless if not read.

I am especially pleased with the way Veaner has approached the thorny issue of the librarian's current and future relationship with technology. Significantly, Veaner concentrates on the key issue in the debate—what is the true nature of the library profession? If we indeed define ourselves as humanists, professionals who facilitate and transfer knowledge to others, our role is much clearer than the nebulous "information broker." I am reminded of one famous definition of literature as "a human activity," echoed by Veaner's phrase, "information and knowledge are spiritual relationships among humans, mental constructs that exist in the mind. . . ."

I agree with most of Veaner's chapter, "The End of Libraries." I would suggest, however, an easy cure for the problem Veaner sees of academic librarians' alleged lack of knowledge of the issue of "user friendliness." When traveling, librarians should visit academic or public libraries and thrusting caution to the winds, pretend they are patrons. It's amazing how lost one is able to feel, for example, in a five-story academic library with no signs, people, or books in sight, simply a huge, attractive entryway with five doors leading off to the side. Or go into a large public library with a multitude of signs (with conflicting information) pasted on the door. One or two such trips should raise the librarian's consciousness about the effectiveness of his or her own library. I'm a supporter of databases, electronic retrieval, even robots if they work, but if the patrons are lost or disoriented at the front door, the rest doesn't matter. The message of all this goes along nicely with Veaner's central thesis—that for us to function effectively and creatively and adaptively we must be willing to place the human element first in thinking about our profession.

EUGENIA B. WINTER
Acquisitions Librarian/Bibliographer
California State College, Bakersfield

To the Editor:

I have just read with interest your optimistic article "1985 to 1995: The Next Decade in Academic Librarianship, Part I (C&RL May 1985). Although I am aware of the saints and scholars of Libraryland, I recognize the surfeit of the ignorant, the semi-literate, the fascinatingly confident members of our semi-profession whose idea of their personal, professional and monetary worth is sadly misplaced.

If by 1995 academic librarians suddenly appear as "marvellously expert, well-educated, and highly trained," I will know that Holy Writ must include the miracle of the ages.

I await Part II of your article.

JOHN LITMAN
To the Editor:

In response to Mr. Crowe’s letter, I agree that the data he suggests would be a useful extension to a study of the productivity of librarians as a faculty group. However, my article in the July 1985 C&RL was meant to be simply a study of institutional productivity modeled on other such studies that have been done in fields other than librarianship. The data collected in my research seen in light of other recently published research on librarians and faculty status also allowed me to make some observations on library faculty requirements and their effect on publication productivity among librarians.

Although the 1985 article was limited to examining the questions mentioned in the preceding paragraph, I have done research in the past directly addressed to the aspect of librarian publishing in which he is interested; namely, assessing the relative productivity of librarians as a faculty group. I would refer Mr. Crowe to an earlier article of mine published in C&RL in September 1977, "Publication Activity Among Academic Librarians." The aim of that article was to establish norms of publishing productivity for academic librarians. The period surveyed was 1969–1970 to 1973–1974. The findings indicated that, at that time at least, only an average of about 7 percent of the library staff at the institutions surveyed published during the five years studied. It was also found that the median productivity for the total survey population of publishing librarians was two publications in five years, and that this median dropped to one publication in five years if book reviews were excluded.

The profession has changed dramatically since the first part of the 1970s and it is possible that a replication of my 1977 study might produce quite different results now. However worthwhile a replication of the 1977 study might be, it was not among my purposes in the 1985 article to produce one.

PAULA D. WATSON
Assistant Director of General Services
University of Illinois at Urbana-Champaign

To the Editor:

I strongly recommend the reading of Dr. Samuel Rothstein’s article in the April 1, 1985 Library Journal which is titled “Why People Really Hate Library Schools” in order to assess more reliably the direction academic librarianship is likely to take in the next decade. What interests me mainly in Rothstein’s stimulating article is that he quotes extensively from a social worker’s comparative study of the value systems of graduate students from different departments, including library students. I would summarize its findings briefly by saying that the library students were individualistic, reserved, self-sufficient, self-opinionated, suspicious and respectful of established ideas; versus outgoing, venturesome, trusting, adaptable, experimental and committed to intellectual inquiry (which they were not). These traits were developed to a preeminent degree both positively and negatively as compared to other graduate students. The same traits were characteristic of the library faculty except that they were more intelligent and more enlightened. It seems to me that the librarians in this sample did not possess the value systems of persons likely to be leaders in the field of information science. It is true that the library students had good academic backgrounds, but that is not enough without creativity that requires a willingness to try unorthodox solutions and to be risk takers.

I would expect that the members of a professional community with the characteristics which were revealed by this cited study would possess the traits of clannishness and anti-intellectualism. Moreover, I have been advised (University of Toronto Library School) that the reason for the establishment of the new Master of Information Science degree is that the M.L.S. holders are not good at research-oriented work and are not good at coping with science and technology. Allan Veaner mentioned in his interesting July 1985 article in C&RL that the twenty-four library leaders he consulted advised him that the academic libraries should only “hire the brightest and the best.” However, Veaner also noted in the same article that librarians publish so little (of merit I would add), that a recent bibliography
of thirty articles on problems in the storage and retrieval of information did not include a single contribution from a librarian. I have to conclude sadly that the concept of "the brightest and the best" used by the library leaders does not include a capacity for assisting in the creation of a real research librarianship. This is also my personal experience since, of thirty-odd academic library positions I have applied for in 1985, the job advertisements of only two asked for publications and none of them requested a Ph.D., although this sample included several senior institutions. I am not optimistic concerning the future of academic librarianship. It is too conservative for its own good in my opinion.

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The continuing discussion about the nature and value of education in the United States has led to another book. This one, from four authors, is slim in volume and content. Its purpose and audience are not entirely clear. Its approach is primarily historical and its emphasis is on elementary and secondary education, chiefly as practiced in public schools in the United States.

"Where we have been and where we are likely to go form a continuous dialogue, involving our intellects and our passions," (p. 111) the four authors observe in a concluding chapter. In some detail, they explore the history of such curriculum developments as those emanating from the School Mathematics Study Group (SMSG) and resulting in such programs as Man: A Course of Study. With the perspective of time, those efforts of the 1960s can be viewed and evaluated. Brought into being by the virtual panic about being behind in education that the launching of Sputnik caused in the United States, these efforts at curriculum change began at the national level and were based on national concerns. Their final failures to achieve universal adoption can be attributed to several characteristics: the commitment and enthusiasm they stimulated did not survive the several generations of communication necessary to bring them to every teacher in every classroom; teachers were not sufficiently engaged in their development and were in fact reluctant to incorporate the new curricula; and, finally, the enduring conflict between striving for excellence and working toward equality in education practically did them in. Lazerson and his fellow authors return repeatedly to the theme of this conflict. All too often, efforts to achieve excellence are seen as threatening the prospects of providing equal opportunity.

Exploring another area in some detail, the authors present an interesting perspective of vocational education and conclude that "The debate about vocational education is not really about education for work. Rather, it is about the tendency of school programs to perpetuate social class, racial, and gender inequalities and about the tendency of vocational programs to demand less critical reasoning and fewer literacy skills than students have a right to expect" (p. 58-59). Their argument is well reasoned, and it is comparable to the statement they make about the incorporation of computers into educational programs. Computers are being provided more generously in schools in the more advantaged communities, and the large sums being spent on computer software suggest that one of the chief values of computers—stimulating creativity and discovery—may not be achieved. Further, since computers are associated with mathematics programs, where male students typically predominate, they may cause another "gender inequality" as identified by these authors.

Remarkable in a book by several authors are the integrity and clarity of the text.
There are occasional lapses, as when they refer to "a flair of unreality," or fail to attribute a comment to an initial, rather than to a secondary source. Their view of education is wholesome and holistic. Since all are or were (Bailey, evidently the mentor of the group of authors, is dead) associated with schools of education, their defense of teachers and clear recognition of their special problems are expected and understandable. Less clear, as noted earlier, is what the audience for this book may be. While one might wish to skim over some of the more detailed comments, the lay reader should find the book provocative and informative. The pity is that multiple copies of this book are likelier to be found on the shelves of academic or professional libraries rather than in the "Current and Choice" bins of public libraries where they would have a good chance to find the literate, concerned audience the book is meant to reach.—Peggy Sullivan, College of Professional Studies, Northern Illinois University, DeKalb.


It is in the maelstrom of current controversy about access to published information that one can appreciate The Right to Information. The Right to Information is the published proceedings of the twenty-first annual symposium sponsored by the alumni and faculty of the Rutgers Graduate School of Library and Information Science held on April 1, 1982. The book consists of four essays and an extensive bibliography about right-to-information issues. The latter emphasizes such issues as access to government information, the right to privacy, private versus public sector competition in the dissemination of information, censorship, and the role of technology. What is remarkable is that this conference was held three years ago and the debate is as heated as ever.

"The Right to Privacy vs. the Right to Know" by Edward Blaustein is a balanced essay about the First Amendment. Irving Louis Horowitz' article on "Librarians, Publishers and the New Information Environment" discusses many issues including copyright and publishing in an environment that is essentially electronic. The private sector is represented by Paul Zurkowski's contribution that focuses on the AT&T divestiture and the distribution of Medline, among other problems. The last essay by Shirley Echelman, "The Right to Know: The Librarian's Responsibilities" rounds out what must have been a truly stimulating conference.

The words "right to information" bring to mind two discrete concepts: the right to publish and the right to access published information. For the first of these concepts, consider the obstacles an idea must go through before making its way into print. From the conception of the idea to its printed form, editorial judgments, market conditions, and distribution networks must be faced. Once these obstacles have been overcome, there are other hurdles, mostly external and sometimes invisible. Pressure and special interest groups certainly fall into these categories. Then there is the governmental presence that controls book and magazine rates that are admittedly still preferential. It is also the government that passes regulatory actions such as copyright legislation that can have a major impact on the printed word.

Once this outer veneer is stripped away, there is the more direct threat of the censor. In the narrow sense, censorship is the hiring of an official censor to read manuscripts and pass judgment on their suitability for publication. Fortunately, there is little of this type of censorship in the United States. However, in the broader sense of the definition, censorship is any action taken to remove a printed item from its potential audience. When arguments of libel, obscenity, and national security are factored into the equation, it is a wonder anything makes it to print at all.

The second broad concept that comes to mind when the phrase "right to information" is mentioned, deals with the "right to access published information." Indeed, in the last decade this has become one of the key information policy issues. This is where The Right to Information becomes a valuable addition to the literature. The "free or fee" debate over accessing online databases is one such issue. There is also
the question of cutbacks at the Government Printing Office that impacts on access to census data. The number of issues is growing.

The question of access is especially pronounced since the arrival of the Reagan administration in Washington in 1981. It appears that those people directing the "Second American Revolution" have their own ideas of what a national information policy should be. The zealous implementation of the Paperwork Reduction Act of 1980 (Public Law 96-511) is at the heart of the de facto Reagan administration information policy. The act directed the OMB to develop federal information policies and standards and to reduce information collection, among other things. There is also the move to increase the amount of information that is classified (Executive Order 12356). Polemics aside, there are individuals, some librarians in particular, who do not share the Reagan administration's view on the access to information. The reduced access is especially true for government documents. Peter Hernon and Charles McClure are perhaps the most vocal among those harboring reservations about recent government changes. In their recent article in the Drexel Library Quarterly (75, no. 3 [Summer 1984]), "Impact from U.S. Government Printing on Public Access to Information," they spell out what changes at GPO have meant to library users. The American Library Association's ALA Washington Newsletter also has been monitoring events in Washington vis-a-vis access to information. So far they have issued five reports that chronicle the events of the last few years. The first four of these chronologies have been published as a book, Less Access to Less Information by and about the U.S. Government, a 1981-1984 Chronology: April, 1981-December 1984.

The Right to Information enhances the reader's appreciation of issues regarding access to information, especially from a historical perspective. It is brief, cogent and easy to read. The discussions at the end of the four chapters adequately embellish the speakers' comments. Although some of the specific issues brought up at the conference may have been resolved since 1982, the broader questions have not. Reading this book was in many ways the next best thing to attending the conference.—Tom Smith, Paul Himmelfarb Health Sciences Library, The George Washington University Medical Center, Washington, D.C.


The premise of The Restoration of Leather Bindings (first edition, 1972) is that restoration of old and worn bookbindings is more than a technical skill: rather, it is a specialized craft that calls for an understanding of historical methods, specific technical terms, and aesthetic styles in order to be developed fully. The second edition is a commendable follow-up to the first, continuing from this premise.

Additions to the book are intended primarily to update the binder's technical terminology and resource listings, with the only new section being a detailed description of the rebinding of antiquarian books. The Restoration of Leather Bindings is thus an extensive instruction manual and reference guide for those who practice or wish to practice leather bookbinding restoration.

In the section concerned with terminology, bookbinding styles, tools, techniques, and materials are defined and explained in such a way as to provide historical and procedural background to their usage. The new edition differs from the first in that stylistic adjustments and typographic corrections have been made as well as a few new subjects added.

The section on tools, equipment and materials follows that on terms by providing advice on supplies and their usage. For example, "Gold," in the section on terms is described in its three forms used in bookbinding; in the workshop section, gold leaf is recommended as a necessary supply item in contrast to foil. The 1984 edition contains a part devoted to "recent
developments in leather" as well as updated addresses for resource suppliers.

The text proceeds in this manner, step-by-step instructions about binding supplied with stylistic revisions and contemporary developments. Pliantex and its use in leather treatment receives discussion in the second edition, with particular mention of R. Muma's techniques.

"The Rebinding of Antiquarian Books" is introduced in this text with reference to the controversy about (a) whether such re-binding is to be done at all; (b) if so, whether new, "improved" binding methods should be used or earlier practices should be replicated; and (c) if earlier practices are employed whether they should be imitations of the specific style of the original or merely "evocative" of an earlier approach. The author's solution: to rebind, in period styles resembling the originals but, where possible, utilizing recently developed structural techniques.

Finally, the bibliography for additional reading has been expanded in this text. This, of course, will be very useful for binders and conservators.

The new version is a logical and thorough continuation of the earlier. If the quality of paper, binding, and graphic contrast of the original edition could have been retained in the revision, it would have been helpful. However, The Restoration of Leather Bindings preserves its value as an important resource and is to be recommended.

Archives and Manuscripts, Conservation: A Manual on Physical Care and Management, which caps the SAA basic manual series, incorporates principles refined in the Society's series of regional conservation workshops. These two very successful ventures have culminated in a comprehensive, clearly written and well-organized book. I would recommend it as a "must read" for any archivist or librarian with preservation responsibilities, particularly if he or she is involved in establishing an in-house conservation program.

The manual's scope is commendably broad. It contains chapters not only on such things as the nature of archival materials, causes of deterioration, and environment and storage, but also on conservation philosophy, integrating conservation into archival administration, budgets, and personnel. These last sections are important because an effective conservation program requires the support and cooperation of an institution's entire staff. This support can never be won if conservation operates, or is perceived to operate, at cross purposes to the archive's other functions.

I would like to voice a few words of caution about the section, "Basic Conservation Procedures." While there is nothing incorrect about the information presented, experience has shown that spot testing, pH testing, dry cleaning, humidification, mending, and leather dressing are difficult to learn from written instruction alone. The primary problem is that it is impossible to represent adequately the varied reactions of materials to these procedures. Therefore, this reviewer would have preferred that the segment would have been treated in a different manner, or not at all.

In her discussion of document boxes on page 55, the author leaves the impression that such cases may be safely stored flat on shelves. Flat storage does eliminate curling of records found in underfilled upright boxes. However, standard five-inch flip-top document boxes were not designed for horizontal storage: they do not stack well and use shelf space inefficiently when stored on their sides and, since file folders are usually shorter than these boxes, records are likely to slide around during retrieval. If flat storage is required, as where oversized material is of concern, boxes designed for horizontal use should be employed. As the author describes, it is much preferable to prevent curling by using spacers in upright boxes.

The problem here is that the author discusses the use of laminated museum board spacers, which are both heavy and expensive. Equally effective ones can be constructed of alkaline card stock folded into an accordion-like spring or folded and glued to make a hollow box shape.

These minor points merely underscore the importance of using ingenuity to address the unique conservation challenges of each collection. They do not detract from the value of the manual to the field of library and archival administration.
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A final note: it is fortunate that this manual is punched for a three-ring binder; the adhesive binding is so tight that in order to lay the book flat, its spine must be practically broken.—Don Etherington, Harry Ransom Humanities Research Center, The University of Texas at Austin.


Dr. Paul Kantor, president of Tantalus, a library management consulting firm, has developed a set of library effectiveness measures which have been used in a number of ARL libraries and which ARL has asked him to present in this small volume for use in other libraries. Three measures are described in detail.

One measure is an estimate of the chances that a user coming to the library to obtain a particular title will be able to lay hands on the desired item (approximately 48 percent chance in ARL libraries). By doing this analysis, a library may learn how much of its performance failure is associated with (1) acquisitions, (2) user interaction with the catalog, and (3) circulation. Those patrons who are searching for specific items in the catalog are asked by survey workers if they will record on a form titles being sought. Before leaving the library, the patron then notes on the form whether the desired items were found and deposits the form in a collection box. Staff then follow through to determine causes of failure.

Other effectiveness measures described are (1) estimate of the time required to complete a particular process, such as obtaining and checking out a particular book; and (2) identification of bottlenecks in library processes by use of delay analysis.

These analyses are useful because they measure the performance of the library as a whole in a way that permits comparison with peer libraries. Some normative data for these measures are said to be available from Kantor.

This book is intended to serve as a guide to enable other libraries to carry out these procedures. However, as Kantor notes, in order to do this successfully, a library must be committed to self-evaluation and must also have available persons to serve as coordinators who have some research experience, some background in statistics, and considerable diplomatic skills.

Data carefully collected by use of these methods should be of benefit to a library in improving its public services.—Marjorie E. Murfin, William Oxley Thompson Memorial Library, Ohio State University, Columbus.


David A. Kronick's extensive and varied experience as a medical librarian is evident in this highly personal introduction to the literature of the life sciences. Intended for the user of the literature, the book emphasizes useful information rather than reference or bibliographic sources. Consequently, Kronick's book complements standard sources such as Smith's Guide to the Literature of the Life Sciences (Burgess, 1980).

This work includes chapters on a wide variety of topics such as the historical development of the literature, the primary and secondary literature, characteristics of the literature, writing and publishing, indexing languages, citation indexing, searching, and personal information files. Kronick's interest in the history of science is evident in the abundance of information he provides on the development of scientific communication. In fact, his knowledge and fascination with the literature of science are present throughout the book. In a sense the book could as easily be entitled The Literature of the Sciences. While Kronick uses examples from the biomedical literature (predominantly medical), the subject matter of the book has equal applicability to other sciences as Kronick's extensive examples from physics and psychology confirm.

The book includes a list of 484 literature references. Both the references and examples in the text include works published as recently as 1983. Therefore, the contents
are reasonably current. Some important topics such as downloading and use of microcomputers are discussed but in much less detail than current applications and interest require; there is a greater loss of currency in these areas than in the literature references.

The chapter entitled "Citation Indexing and Analysis" provides a disproportionately detailed discussion of Science Citation Index and other publications of the Institute for Scientific Information. The significance of the ISI publications would be better stated and explained in accordance with the treatment given Biological Abstracts and other important secondary publications. Kronick correctly emphasizes the value and place of citation indexing but the author's interest in the topic may be greater than the interest of the typical reader for whom the book is intended. The emphasis is also unfortunate in view of the book's publisher.

Kronick mentions the existence and role of libraries but in two instances he fails to mention how the library assists the researcher. In discussing reprints, Kronick mentions the practice of photocopying by readers and commercial sources for both copies and originals, but he does not mention the elaborate and formalized mechanisms existing among libraries for obtaining photocopies. Similarly, Kronick indirectly suggests that the library has a role in online literature searching but he does not adequately describe the complex service which a library's staff provides; in discussing a search conducted through an intermediary he does not link the intermediary with a library or information center.

Kronick writes gracefully and each chapter is a carefully delineated unit. More careful editing to delete occasional first person references would have given the text greater consistency. The librarian or information scientist will find a good deal of interesting information in this book both for its own value and for the assistance it provides in working with and instructing patrons. In all likelihood a book such as this one will find its way to library shelves rather than to the laboratory or office shelves of its intended audience.—Richard J. Dionne, Kline Science Library, Yale University, New Haven, Connecticut.

ABSTRACTS

The following abstracts are based on those prepared by the ERIC Clearinghouse of Information Resources, School of Education, Syracuse University.

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This paper describes the development and implementation of an automatic bibliographic facility and an electronic newsletter created for a special collection of aerospace and mechanical engineering monographs and articles at the University of Arizona. The project included the development of an online catalog, increasing the depth of bibliographic description, providing the beginnings of a comprehensive citation index for selected subjects, and developing an automatic bibliographic facility and local area electronic newsletter. Appendices, which make up the major part of the report, comprise: (1) the full code listing for the search program, written in FORTRAN 4, which demonstrates the relative simplicity of the facility for developing bibliographies; (2) the help note written to aid the user in implementing a search; and (3) the full text of an electronic newsletter (the IGEL Bibliographer) developed to make all bibliographic searches available within the interested group. The sample newsletter includes short bibliographies on eigenvalues, geometric
nonlinearities, and composites. A source code listing of a single descriptor search facility is included as an addendum.


This study explores the changing role of the book in the future. The report draws on interviews with authors, publishers, booksellers, computer experts, librarians, scientists, educators, and scholars and on the experience of the Library of Congress staff. The first part, "The Culture of the Book: Today and Tomorrow," includes sections on: "Books in our Lives," "A Nation of Readers?" "The Twin Menaces: Illiteracy and Aliteracy," "Combining Technologies: The Adaptable Book," and "Unexplored Opportunities." Part Two, "A Manifold Program for a Massive Problem," suggests numerous activities that citizens can undertake to improve reading habits with sections on families and homes, schools, libraries, churches, civic and fraternal organizations, businesses, book publishers and booksellers, newspapers and magazines, television and radio, labor unions, colleges and universities, cities and local communities, the states, and prisons and correctional institutions. A directory of organizations cited in this section is provided. The next two sections in Part II offer suggestions to Congress and the Executive Branch, and the report concludes with a brief review of initiatives undertaken at the Library of Congress.


This paper defines performance measurement as the clarification of objectives and standards, identification of key activities, data collection and analysis, and formative evaluation of services. It then examines some of the factors involved in using performance measurement to evaluate public services activities and analyzes performance measurement in three parts. The first part provides a general background on current evaluation theory. Building on this theory, the second part applies performance measurement to existing library activities through a model. The concluding section looks at the forces for and against public services performance measurements and future trends. The bibliography includes a selection of articles related to performance measurement; those relating to public services are grouped according to library functions (circulation, reference, etc.), and particularly useful methodologies or approaches are noted in the annotations.

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