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Editorial

Research and Respect

The Association of College and Research Libraries' (ACRL) National Conference, "Continuity & Transformation: The Promise of Confluence" attracted a lively assortment of papers, poster sessions, conference speakers, and colleague-to-colleague discussions. This editorial recounts two related concerns: the state of research in librarianship and the issue of respect. In these areas and others, librarians must rethink priorities and commit themselves anew to action.

RESEARCH

Larry Oberg, College and Research Libraries Research Notes editor, and I participated with John Berry III of Library Journal and Library Hotline, GraceAnne DeCandido of Wilson Library Bulletin, and Patricia Glass Schuman of Neal Schuman Publishers in a McLaughlin-style panel moderated by James Neal to discuss "Library Publishing in the 90s: Future Generations Will Ask ...." The panel agreed that less research is being produced than is needed to meet future decision-making requirements. All perceive that librarianship is changing rapidly and that the need for factual information upon which to base decisions has never been greater. Nevertheless, the pressures of everyday service during times of shrinking budgets and the continuing need to learn new technologies have reduced the production of research-based articles. From the audience, Don Riggs of the University of Michigan noted that 30.3 percent of the papers presented at the ACRL conference in 1978 were research-based. However, since 1978, the percentage of research-based papers presented at ACRL conferences has declined dramatically.

Because the formal scholarly publication system is slow and because the pace of change is fast, the panel discussed the place of listservs in an evolving scholarship communications system. GraceAnne DeCandido and her staff regularly review listservs for promising ideas. Authors are then contacted and ideas are developed into articles suitable for publication in Wilson Library Bulletin. Larry Oberg, who moderates the COLLIB-L list, believes that such lists encourage both a practical and theoretical dialogue within college librarianship, a dialogue that would supplement our published literature and allow for the continuation of discussions begun at associated conferences and professional workshops. John Berry emphasized that the lack of refereeing, reviewing, and editing makes this format a poor substitute for a traditional discipline literature.

Librarians can start producing a more vital research literature by undertaking three incremental steps. First, promotion and tenure committees and administrators who evaluate both faculty and nonfaculty librarians should focus on quality rather than quantity. An article employing a rigorous research methodology should receive significantly more credit than a case study. Second, library administrators must set aside modest amounts of money to support research projects. Librarians must design the studies, but money should be available for expenses, such as statistical assistance, data entry, and questionnaire mailings. Third, librarians must organize formal and informal collegial forums.
to discuss ideas, to sharpen research topics, and to review manuscripts.

RESPECT

Scholar Librarian

In the “Introduction” to the Summer 1994 Library Trends issue on library directors, Irene B. Hoadley says, “The scholar librarian is really a concept of the past.” With so much emphasis being placed on leading the library in a complex external environment, shifting to a professional administrator, instead of a faculty member, making campus policy, and expanding development activities, the time available for scholarship has been reduced. On campuses everywhere, these same factors are changing the roles of deans in all colleges. Thus, not only is the time of the scholar librarian passing but also that of the scholar, dean, provost, and president.

Having librarians with doctorates in other disciplines was a method for gaining respect from other faculty on campus. Through years of reliable work with faculty and students, the library has achieved an enviable reputation among many faculty as a central part of the academy. To maintain this campus position, library deans and directors must provide vision, inspiration, and direction in an increasingly complex environment. This means developing and maintaining ongoing dialogue and partnerships with faculty and administrators across campus.

Paraprofessionals

Empowering library staff to participate more fully in the library is an important trend. Its advantages include better and quicker decision making on process issues, a more diverse input to problem resolution, and freeing librarians to develop new initiatives in instruction, service, and research. Researchers such as Larry Oberg report increased blurring between professional and paraprofessional/staff roles.

Unlike the issue over faculty status, where both sides are well matched and have carried on a rigorous public discussion, the issues between librarians and library staff have not been openly and honestly presented. Library staff, who are even less socialized to the scholarly process than librarians, have summarized their aspirations into a call for respect. Library staff want recognition for the value of the work performed. In most libraries, staff handle critical routine functions that are essential to smooth operations and that involve sensitive interactions with library users. Staff want the value of this work acknowledged. In addition, staff do not want to be treated disrespectfully just because they don’t have a master’s degree in librarianship. It would be helpful to know what other issues are sheltered beneath that short word “respect.” Many new techniques, such as decision centers where computers allow individuals to participate equally without regard for rank, are now available. A study that explores this subject would make a highly desirable addition to the literature of librarianship.

Research and respect converge here. Trusting library staff to administer many library functions frees up librarian time for more research. Creating a meaningful literature to guide our decision making, providing vision and inspiration for librarians, and improving the working relationships within the library are some achievable results that can yield a brighter future.

The editor wishes to thank Karyle Butcher and Larry Oberg for their assistance with this editorial.

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FURTHERING ACCESS TO THE WORLD'S INFORMATION
Library Journals and Academic Librarianship in Germany: A Sketch

Stephen Lehmann

Based partly on interviews with German library journal editors and other German librarians, this study looks at the world of German academic librarianship through the prism of German library journal publishing. The German journals differ from their American counterparts in numerous ways that reflect the differences in the structure and culture of the profession as it is practiced in two countries. An especially interesting example is the German concern with “Bibliothekspolitik,” that is, questions regarding the internal politics of librarianship. The article concludes by describing a set of initiatives intended to make the German professional journals more available to American librarians.

Has Europe disappeared?” a bemused Swiss visitor once asked, going through a San Francisco newspaper. Indeed, one often hears the complaint that Americans are surprisingly uninformed about the world on which we have such an impact. Librarians, too, sometimes share this insular perspective: America seems big and self-contained, and if we need to communicate, well, everyone knows English. We ignore developments elsewhere, however, at our own peril. One need only consider French advances in electronic information provision, the Germans’ long experience with nationally coordinated resource-sharing programs, the state-of-the-art paper conservation techniques developed in Leipzig, or the English experience with a highly effective national periodicals center and document delivery program to make the point: it’s a big world out there, and we would do well to know what is happening in it.

To keep informed and inform one another, academic librarians have published professional journals since the nineteenth century. The very first was the German Serapeum, founded in 1840, and its first article carried the title “University Libraries and Their Administration.”† (Some things never change.) Library journals, like those of other professions, serve a variety of purposes, both informational and scholarly. Like other forms of communication, journals also reveal themselves, the institutions they represent, and the readers they address, providing a window into the culture of the profession, exposing to the viewer its structures and its values, its

Stephen Lehmann is Humanities Bibliographer at the University of Pennsylvania, Philadelphia, Pennsylvania 19104. The author would like to thank Bas Guyt of Martinus Nijhoff International for his generosity in establishing and maintaining the grant that made this study possible; Joseph Zucca for his help in preparing the grant proposal; the following German librarians, editors, and publishers for their time and the frank, enjoyable, and very helpful discussions: W. Beck, B. Burgemeister, G. Herdt, D. Höchsmann, R. Frankenberger, K. Kempf, V. Klostermann, K.-D. Lehmann, H. Lohse, E. Mittler, K. Schräber; Frau Bertz of the library of the Deutsches Bibliotheksinstitut in Berlin and Herr Burger, the librarian of the Fachhochschule für Bibliotheks-und Dokumentationswesen in Cologne, for their assistance; K. Schreiber, Sem C. Sutler, and Bob Walther for their suggestions in helping to prepare this article for publication.
tensions and energies. They are "a mirror-image," as one writer put it, "of the infrastructure of librarianship of the country in which they are published." Tellingly, Mary Ann Bowman's *Library and Information Science Journals and Serials: An Analytical Guide* excludes all non-English journals from its listings. To study and promote German academic library journal publishing, I interviewed the editors of the six major journals published for academic librarians during the course of a trip to Germany funded by the Martinus Nijhoff West European Specialist Study Grant in the fall of 1994. The report that follows is the result of that trip. It has a number of goals: 

- To sketch a portrait of German academic librarianship through its journals;
- To encourage librarians whose responsibilities include German-related subjects (represented primarily by ACRL's 700+ member Western European Specialists Section) to cultivate a deeper and more active interest in the work of our European colleagues; and
- To offer for those who contribute to, edit, and publish U.S. library journals a description of another tradition and another practice, under the premise that a foreign perspective can provide a new and possibly useful frame of reference.

To focus specifically on the professional journals of Germany is in one sense an arbitrary choice: one could learn as much from the journals of the United Kingdom, France, Scandinavia, Italy, or Japan. Nonetheless, it would be disingenuous to pretend that Germany is not, in this matter as in so many others, a particularly interesting and special case. It is the most populous country in Europe, with the largest book production. Its universities provided the decisive model for the development of academic research in the United States, with an impact felt to this day. Further, Germany compels a certain fascination because of its extraordinarily difficult history. You can't get away from it, even, or maybe especially, in libraries: life stories, buildings, collections, all have been shaped and scarred by politics and war in a way that is difficult to imagine from American experience. In a library conference presentation, a top-level German library administrator from the former German Democratic Republic (GDR) gave poignant, characteristic expression to the mark that history has left on him and his generation: "It is the trauma of my generation . . . to have gone in an almost seamless transition from one dictatorship to another, seeing, comparing, knowing and yet, as if paralyzed, heading inexorably again towards moral and political destruction. . . . My generation participated in this—whether as master or as servant, or as both at the same time." German history is, as the expression goes, *hautnah*, close as your skin, and inevitably the library journals both reflect and offer reflections on the impact of Germany's wars and political upheavals on its libraries.

**GERMAN LIBRARY JOURNALS**

**Overview**

German academic librarians publish six major journals with a national readership: *ABI-Technik, Bibliothek: Forschung und Praxis, Bibliotheksdienst, Bibliotheksforum Bayern, Mitteilungsblatt des Verbandes der Bibliotheken des Landes Nordrhein-Westfalen,* and *Zeitschrift für Bibliothekswesen und Bibliographie.* None, remarkably, is older than the present German state. Frequency of publication varies from monthly to three times a year, with approximately 100 to 200 pages per issue. Circulation figures range from less than 1,000 to close to 5,000 (compared to 13,000 for *College & Research Libraries* (C&RL)—a membership journal—and 2,200 for *Library Quarterly*).

Although the content, style, and tone of the German journals bear a clear resemblance to their American counterparts, some important distinctions remain. Germany lacks the large number of highly specialized journals that characterize U.S. academic library publishing. U.S. librarians publish journals on bibliographic instruction, on librarianship in colleges as distinct from universities, on serials librarianship, and
numerous other subfields. This specialization is largely a function of the size of the U.S. market. In addition, according to one German, it comes from the greater willingness of American librarians to write and publish on the basis of their own day-to-day experience.

The German journals seek uniformly to expand professional horizons beyond the German experience.

The German journals all emphasize substantive content. (One of the editors of Dokumentationsdienst Bibliothekswesen (DOBI), the German equivalent to Library Literature, complained that there was so little in American Libraries that it was hardly worth indexing.) The articles span the range of theoretical, historical, and practical topics familiar to readers of U.S. library journals, though the Germans seem not especially interested in the statistically based research that characterizes College & Research Libraries. The German journals seek uniformly to expand professional horizons beyond the German experience. The flagship journal of the profession, the Zeitschrift für Bibliothekswesen und Bibliographie, for example, has initiated a series of articles that provide an overview of the field country by country; Bibliotheksdienst carries a subsection of its “Themes” feature devoted solely to contributions about libraries outside Germany, and at the back of each issue it reproduces the tables of contents of major U.S. and other foreign library journals; roughly half of the reference books and bibliographies reviewed in the Germany’s new library review journal, Informationsmittel für Bibliotheken, are not in German; and the professional reading section of Bibliothek: Forschung und Praxis carries abstracts of foreign books only. Articles on every aspect of librarianship in other countries are a regular feature of the German journals, with one recently carrying a twenty-page account of an East German librarian’s eighteen-library U.S. tour, “coast to coast, von N.Y. über Texas bis Frisco.” The editors of the German journals know that the frontiers of relevant experience and knowledge do not stop at the German border.

Unlike American academic library journals such as Library Quarterly, College & Research Libraries, and Journal of Academic Librarianship, most of the major German journals happily publish scholarship and research together with “news,” covering conferences, exhibits, institutional developments, important promotions, substantial obituaries, and the like. Given the very clear, legally defined structure of ranked positions that characterizes the profession of German academic librarianship, it may be that German librarians are spared the particular ambiguities regarding status that American librarians often articulate, and therefore feel freer to publish journals that more closely reflect the profession as it is experienced by working librarians. ¹⁰

Editorial practices vary among the German journals, but within a framework that is familiar to United States librarians. As is typical of many German academic journals, the editorial process is generally looser: the decision to publish or not publish an article rests in the hands of the editor, who polls editorial board members only in doubtful cases. In the U.S., by contrast, submitting all articles “blindly” to a board or outside readers for approval or rejection is standard procedure. Again, this may reflect both the greater need of U.S. academic librarians to manifest the formal requirements expected in academic publishing, to give the appearance of rigor in its standards of scholarly objectivity, as well as the less personalized (or at least less openly personalized) structures of decision making in academic librarianship on this side of the Atlantic.

Most of the editors solicit contributions, although a few say they have such a surplus of unsolicited articles that they rarely need to ask for more. Unlike their American counterparts, several of the German journals offer authors modest honoraria. As in the United States until very recently, the German journals are all edited by men, and all but one hold (or
held) positions at the level of library director. Men, too, occupy almost all of the positions on the German editorial boards. With the exception of the two regionally based journals that are fully subsidized, the German journals pay for themselves, although the editors' home institutions may subsidize certain overhead costs.

Zeitschrift für Bibliothekswesen und Bibliographie

The ZfBB, as it is known, is, in the words of its editor, Klaus-Dieter Lehmann, "the classic German library journal." Few would disagree. Lehmann's position as the general director of the German national library, Die Deutsche Bibliothek, and his stature as the country's preeminent library administrator are an indication of the special place held by the ZfBB in German librarianship. Although it is commercially published and self-supporting (with a circulation of about 1,900, of which almost fifty are in the United States), the ZfBB serves as the official journal of the two national professional associations of academic librarians. A product of the cold war, the ZfBB was founded in 1954 as a West German alternative to the once distinguished but by then doctrinaire, Marxist-Leninist Zentralblatt für Bibliothekswesen (ZJB): "We needed our free journal in our free world."12

The ZfBB has a reputation for being stodgy, though its mixture of articles, reports, news features, official announcements, etc., gives each bimonthly issue a variety that is lacking in some of its U.S. counterparts. An important feature is Rolf Griebel's annual national survey of university library acquisitions budgets. The ZfBB sustained a major blow in 1993 when the editor of its highly regarded reviews of reference books and bibliographies, Klaus Schreiber, spun this feature off into a separate journal, Informationsmittel für Bibliotheken, in order to get more space.13 (In 1974 Schreiber had credited College & Research Libraries' "Selected Reference Books" as his original model.)14 Schreiber, known for his thoroughness and uncompromising standards, wields a famously sharp pen, and his reviews make for lively, informative reading. One senior administrator said that she regards them as a part of her Allgemeinbildung, her ongoing general education. In 1994, in a widely appreciated move to open up the ZfBB, it published its first "Forum"—a group of position papers on a controversial topic, in this case the proposed, government-mandated "fusion" of the historic State Library of Saxony in Dresden with the library of the local technical university. Lehmann, fully aware of the general desire for a livelier ZfBB, intends to publish at least one such "Forum" a year.

Der Bibliotheksdienst

With 4,600 subscribers (including ten United States libraries), Der Bibliotheksdienst is published for librarians in both academic and public libraries, although it tends to emphasize the former. Its growth in size and stature since its inception in 1967 has paralleled closely that of its publisher, the Deutsches Bibliotheksinstitut (DBI) in Berlin. Receiving 70 percent of its funding from the states and 30 percent from the national government, the DBI is the only state-supported, national-level library organization in Germany. After unification and the elimination of the two equivalent organizations in the former GDR, it increased its staff to 180.15 The DBI is responsible for coordinating a large variety of nationally based projects and providing the infrastructure for a network of committees that sets guidelines for library policy at the national level. It runs an active publishing program, including the national union serials list (Zeitschriftendatenbank, or ZDB), DOBI (the previously mentioned German index to the literature of librarianship) and a large number of monographs and journals, the newest being Klaus Schreiber's Informationsmittel für Bibliotheken. The ability of the DBI to fill a need quickly was exemplified by its newsletter, Bibliotheks-Informationen Ost-West, published for six months in 1990 to disseminate current information relating to unification.

Bibliotheksdienst is edited on a part-time basis by three staff members of the
It also serves as the official journal of the Bundesvereinigung Deutscher Bibliotheksverbände, the umbrella association of German library associations. A very short turnaround time—as little as a month—gives it a hot-off-the-press currency. It has a bit of a rough-and-ready appearance to it, still bearing its origins as the newsletter it once was. Roughly half of each monthly issue is devoted to “information”—short reports of current interest, announcements and schedules of meetings, seminars, conferences, and the like. Nonetheless, each issue carries numerous articles of varying length, and it enjoys a reputation as a genuine and serious journal. American librarians responsible for acquiring German publications, for example, would not want to miss Rolf Griebel’s analysis of the role of dissertations in German academic publishing.

The articles are often on topics that have a shorter shelflife than those of the ZfBB, but they must be “of interest beyond the nearest church tower,” in the words of editor Werner Beck. Although the journal is almost entirely subsidized by local government and association funding, Lohse insists nevertheless, “We write for the whole country,” and, indeed, the journal enjoys an excellent reputation nationally.

Regional Journals

According to the terms of the German constitution, education and culture—the bureaucratic categories to which academic and public libraries are, respectively, generally assigned—are the responsibility of the sixteen federal states and not of the national government. Since all German universities are public institutions, the funding and coordination of policies regarding academic libraries tend to be strongly centralized at the level of the state. In two states, North Rhine-Westphalia and Bavaria, academic librarians publish regional journals that reach a national readership by virtue of their reputation and the quality of their articles.

North Rhine-Westphalia, in the northwestern quadrant of Germany, is the most populous of the German states, with a population of approximately seventeen million, sixteen universities, and a system of libraries that has been traditionally well supported. It is one of the few states with its own library association, founded before World War I. The quarterly Mitteilungsblatt of the North Rhine-Westphalia Library Association, begun in 1948, is published for both academic and public librarians and has an editor for each constituency. Hartwig Lohse, the retired director of the library of the University of Bonn, has been its academic libraries editor since 1976. Although the journal is almost entirely subsidized by local government and association funding, Lohse insists nevertheless, “We write for the whole country,” and, indeed, the journal enjoys an excellent reputation nationally.

The fact that its new editor, Klaus Kempf, is not a Bavarian does not alter the locally focused and conservative character of the journal for
which he is responsible. Founded in 1973, it has remained true to its dual role as a medium for communication among Bavarian libraries and as a journal founded to represent and publicize "the community of libraries of a State of decided individuality." Because of the national importance of Bavaria and its libraries, the BFB is by no means uninteresting to librarians elsewhere in Germany. Its annual theme issues are especially noteworthy, with highly informative articles devoted to Bavarian libraries, e.g., sci-tech collections, museum libraries, and music libraries, featuring important but little-known collections.

The Bavarian libraries, themselves tightly organized under a central administration in Munich, are not known as team players at the national level.

The library association of the state of Hamburg, publishes a less well-known but very respectable quarterly, Auskunft. Although it carries articles on a wide range of topics, the focus is definitely local. A paragraph from its first issue in 1981 gives the flavor of a certain kind of intensity characteristic of German public discourse:

The state association believes that in times in which cultural politics ["Kulturpolitik"] and thus, not least of all, libraries find themselves in the maelstrom of so-called financial exigencies, by which is meant empty state coffers—in such times it is all the more necessary to possess a mouthpiece. For one, Auskunft makes clear the immense significance of libraries within the framework of cultural politics, and it also shall offer the opportunity for libraries to express their common concerns.

Since 1991 the library association of the state of Lower Saxony has published its regional journal, mb: Mitteilungsblatt der Bibliotheken in Niedersachsen und Sachsen-Anhalt, jointly with the "new" (eastern) state of Saxony-Anhalt as a kind of model of cooperation in a unified Germany. Unlike its more ambitious counterparts in North Rhine-Westphalia and Bavaria, it may not appeal to a wider audience, although it serves its local readership very well.

Other Commercially Published Journals

Given the broad coverage of the two large national journals with formal associational status, it is surprising that commercial publishers find there is still room for two more, but both Bibliothek: Forschung und Praxis and ABI-Technik have secured a very distinctive niche. By curious coincidence, they share a design—their dimensions are legal-size and the text is set in double columns—that sets them apart and gives a visual correlative to their separate status from the other journals.

Bibliothek: Forschung und Praxis, published three times a year by K. G. Saur, has a circulation of about 800. Its price, almost twice that of any other German library publication (almost $200 in 1995), puts it out of the range of what most U.S. libraries are willing to pay for a library journal in German, although, given its size (the equivalent of over 400 pages per issue), it gives good value per word. Its editor, Elmar Mittler, the director of the library of Gottingen University, figures prominently in the world of German academic librarianship.

The subtitle, Forschung und Praxis, translates as "research and practice," and the emphasis on extended, research-oriented articles is unique in this journal and central to its conception. (The journal was started in 1977, at a time when the Deutsche Forschungsgemeinschaft, a kind of German National Science Foundation/National Endowment for the Humanities with a major role in funding academic libraries, was promoting library-related research.) These can be up to forty pages in length, with each issue generally including the thesis (Diplomarbeit) of a recent library school graduate. Abstracts in German, English, and French precede the major articles, whose topics are broad in scope. A recent issue, for example, includes six long papers covering hypermedia systems, con-
trol of duplicate copies in online catalogs, the social history of German public libraries, women in academic libraries from 1921 to 1945, and public relations and libraries. In addition, the journal includes a number of short reports (current research, travel, conferences, etc.) and book reviews. Aside from the length of its articles, its other hallmark is its section of abstracted reviews of foreign-language books, about fifty per issue, taken largely from British and American journals. Editor Mittler stresses the importance of informing German librarians about publications from other countries, and he is justly proud of the role his journal plays in making this happen. At present he is also beginning to work toward an active cooperation with the French journal, Bulletin des Bibliothèques de France, possibly toward an exchange of articles.

ABI-Technik is the only major German library journal which devotes itself to specialized subfields of librarianship, focusing solely on technology and on the physical space of the library (Bau), i.e., architecture, renovation and restoration, and other issues relating to the physical plant. This particular combination of fields came together fortuitously—they happened to be the interests of the three men who founded this quarterly in 1981. Visually it is the slickest of the German journals, printed on semiglossy paper, with photographs and other graphics, some even in color. Its many advertisements—the publisher, Karlheinz Holz, specializes in publications on marketing—give it an unabashedly commercialized flavor that invites a certain disapproval in German library culture. Nonetheless, no one denies its usefulness or the high quality of its articles, and its circulation of about 1,000 indicates a general popularity. The emphasis on technology from its inception, at a time when automation was just beginning to take off in Germany, positioned it well for future developments. And if there was any danger of running out of articles on the topic of the physical plant, the recent political and economic changes in Europe have stimulated a great deal of new construction as well as widespread rehabilitation of older buildings, thus giving this subject new and unexpected relevance.

Other Journals

In addition to the six major journals, a host of other journals are published for academic librarians. These fall into three broad groupings: technologies-focused, "alternative," and in-house journals.

Given the broad coverage of the two large national journals with formal associational status, it is surprising that commercial publishers find there is still room for two more, but both Bibliothek: Forschung und Praxis and ABI-Technik have secured a very distinctive niche.

There are a surprisingly large number of technically oriented journals in information science and new technologies. Of these by far the most generally useful to librarians is nfd (Nachrichten für Dokumentation), with a subtitle that is translated on the title page as "Journal for Information Theory and Work." It is issued six times a year by the German Society for Documentation. Lengthy abstracts in English accompany the articles. Germany's "alternative" library journal, Laurentius, tends to be dismissed as a fringe publication by many librarians. The explanation of its name in each issue is indicative of its tone: "Because we are always asked—we have taken our name from that of the patron saint of librarians, who according to legend was killed in the year 258 on the order of Pope Sixtus II. It is said that he was literally roasted to death." (Lawrence is also the patron saint of the poor.) Consistent with its oppositional stance, it frequently carries articles on the former GDR, including a very personal account by Friedhilde Krause, the former director of the Deutsche Staatsbibliothek in East Berlin. Laurentius has been published since 1984 and is issued three times a year.
Finally, German in-house library newsletters are much more substantial and ambitious than those familiar to American librarians. They range from thirty to sixty pages per issue, often are well enough established to have ISSNes, and some are quite polished in appearance. They are published two to four times a year and typically address a broad range of topics, e.g., how to download from an OPAC and other online systems, a study of the languages of the library’s newly acquired books and the implications for cataloging, and the development of interlibrary loan at an eastern library after unification. Judging from the results, offering librarians a vehicle for thoughtful consideration of local practice and experience can stimulate an interest in communicating with one’s colleagues that is quite salutary. These newsletter/journals serve an especially important function in the older, so-called two-level (zweischichtige) university libraries that are comprised of a multitude of more or less autonomous departmental libraries as well as a central library.

THE IMPACT OF GERMAN UNIFICATION

In the German context the term unification is somewhat misleading: it was not, as the word suggests, a process of two states coming together, but rather the total absorption of one by the other. Where libraries have been brought together, as with the merging of the two halves of the Staatsbibliothek in Berlin (east and west), and of the two national libraries in Frankfurt and Leipzig, a delicate balance had to be struck juggling a very complicated set of political, economic, and human factors. While the university libraries are being rebuilt, in some cases quite literally, from the foundation (including collections and restructuring of staff), much of the old East German library-related infrastructure simply disappeared—the publishers, the various centralized support and research institutions, the librarians’ professional association, and most of the professional journals.

Of the GDR’s library journals the Zentralblatt für Bibliothekswesen (ZfB) was by far the most important and best known, having served as the profession’s main journal since its founding in 1884. When the Federal Republic absorbed the GDR in 1991, the publisher of the Zeitschrift für Bibliothekswesen und Bibliographie, Vittorio Klostermann, bought up what remained of the ZfB, that is, its title and subscription list—which turned out to consist largely of factory libraries that immediately went under. One issue that had to be resolved immediately was the choice of a name for the journal. Klostermann had hoped the title ZfBB would be subsumed under the historic name of the Zentralblatt. Editor Lehmann says he was neutral on the subject and that the decision was made by the editorial board, which wanted to affirm the democratic traditions associated with the newer name and, further, that the whole notion of a Zentralblatt is an anachronism in the late twentieth century. The words vereinigt mit (united with) now join the two titles on the cover, with the name of the former East German journal in much smaller letters under the proud banner of the ZfBB. Like many aspects of unification, this trivial but characteristic example of the unambiguous and thoroughly unapologetic domination of the east by the west is seen rather differently depending on which side of the former border one happens to live. For West Germans it is kein Thema, not an issue. For the East Germans it represents the disappearance of another familiar institution that in this case goes back to the nineteenth century, though the loss here is largely symbolic.

While the university libraries are being rebuilt, in some cases quite literally, from the foundation, . . . much of the old East German library-related infrastructure simply disappeared. . . .
When asked about publishing articles by East German librarians, West German editors are unanimous in affirming their interest, although they vary in their assessment of the suitability and quality of much of the material submitted. One said, perhaps diplomatically, that there was no difference between the work of easterners and westerners, but the others (including an East German), agreed that the East Germans wrote in a way that seemed "formal and defensive," that they avoided writing about the very serious problems confronting the libraries of the former GDR, and preferred instead to publish reviews of the literature or highly specialized studies. Another said that the sensitivities on both sides were such that it was impossible for anyone to write candidly on east-west issues. Librarians from the former east fully reciprocate this critical attitude. In addition to the very immediate feelings of grievance resulting from actual or ever-threatening loss of employment and salary inequities vis-à-vis western colleagues, they complain about everything from West German budget and accounting practices (the prohibitions from carrying funds over from one year to the next and from transferring money from one budgetary line to another) to the astonished perception that in the workplace librarians seem cowed and do little to exercise "freedom of speech," vaunted western civil liberties notwithstanding.

**LIBRARY JOURNALS AND "BIBLIOTHEKSPOLITIK"**

Bibliothekspolitik means, literally, library politics. It refers to the structures and relationships that influence and determine library policy (locally, regionally, and nationally) and, inevitably, access to funds made available by the government or by agencies such as the all-important Deutsche Forschungsgemeinschaft. Germans also speak of Kulturpolitik (cultural politics), Bildungspolitik/Wissenschaftspolitik/ Hochschulpolitik (educational politics), Sozialpolitik (social politics), etc. Presumably this is a vocabulary derived not only from the ability of the German lan-

...guage to agglutinate words but also from a general awareness of and interest in the politics of ostensibly nonpolitical spheres of public life.

In recent years Bibliothekspolitik has been the subject of a number of articles in German library journals, perhaps appearing too irregularly to constitute an ongoing "debate," but nevertheless keeping the subject of library politics alive and in general consciousness. The theme of the 1991 academic librarian conference was libraries in a unified Germany, but the presentations were on "Bibliothekspolitik . . . in many of its facets." The center of much of the controversy on the subject of library politics has been Joachim Stoltzenburg, the retired director of the University of Konstanz library, who lobs periodic bombshells in the form of articles on such topics as the domination of national policy by what he calls "the inner circle" (der innere Kreis), a small, closed network of men who determine the course of German library politics and steer decisions in such a way as to preserve their own power at the expense of more rational and disinterested policies. These, in turn, have stimulated reactions and responses, some direct, others oblique.

In addition to making the "unthinkable expression" innere Kreis a fixture in the vocabulary of German librarianship, Stoltzenburg's articles have brought into open discussion a subject that is difficult by its very nature. Those in authority usually prefer to discuss the specific issues behind closed doors and the fundamental questions not at all; those ready to air questions of power and decision making publicly tend to be outsiders and marginal figures. Of course, the journals themselves are very much a part of the landscape of library politics, and so to raise the subject in the pages of the journals brings it uncomfortably close to home. It is very much to the credit of German librarians and their journals, as well as a positive sign for German public life and a testimony to hard-earned lessons, that they have taken on this discussion. Indeed, American librarians have something to learn here.
WHAT NEXT?

The principle motivation for this study has been to try to open the windows of American academic librarianship more widely, here specifically to the practice of librarianship in Germany. This report represents one piece of that effort. In addition, Klaus Schreiber, the editor of the Informationsmittel für Bibliotheken, put forth the idea of a U.S. version of the IFB, so that American librarians can readily inform themselves about new and important European reference sources. A team of about thirty members of ACRL's Western European Specialist Section (WESS) and two librarians in the United Kingdom are now preparing English-language abstracts of the IFB reviews—about three hundred a year—for access through the WESS homepage, WESSWeb. Secondly, in order to promote the usefulness of German library journals to American librarians, the online discussion group German-E now lists their tables of contents as the journals appear. A third cooperative undertaking, approved early in 1995 by the editorial boards of both journals, entails the exchange of articles between C&RL and the ZJBB. Along with other German-U.S. cooperative projects—for example, the Association of Research Libraries' German Demonstration Project, or the possible inclusion of bibliographic data from the German vendor Otto Harrassowitz in U.S. bibliographic utilities—these initiatives mark further progress toward an internationalization of information in a world in which political and technological barriers have fallen dramatically. Given the role that librarians hope to assume in this process, it is important, indeed necessary, that we continue to expand these frontiers in the world of our own profession.

REFERENCES AND NOTES


3. Library and Information Science Journals and Serials: An Analytical Guide, comp. Mary Ann Bowman. (Westport, Conn.: Greenwood, 1985). Compare Greta Renborg, "Om att läsa utlandska bibliotekstidskrifter," BBL: Biblioteksbladet 69 (1984): 238-39, which argues the usefulness of foreign library journals to Swedish librarians. On the other hand, it should be noted that all but one of the six major German journals are indexed in LISA. Two of the six are indexed in Library Literature. So it is not entirely accurate to say, as one German librarian put it, that the German journals are "left out of the loop."


7. Gottfried Rost, "Deutsche Einheit aus einer bibliothekarischen Sicht," Mitteilungsblatt des Verbandes der Bibliotheken des Landes Nordrhein Westfalen 43 (1993): 63. (This journal is cited subsequently in abbreviated form.)


10. Professional library positions are classified into three tiers. Those holding positions in the highest rank (“höhere Dienst”) have both university and library degrees; the “gehobener Dienst” usually requires only the library degree, attained after a three-year professional training past high school; the “mittlere Dienst” comprises the clerical and lower level support positions. Librarians in each of these ranks are represented by their own professional association (see note 16 below).


13. The review section in the ZfBB continues under the editorship of Erika Tröger. In 1994 Schreiber’s new journal ran over nine hundred pages.


16. The constituent associations of the BDB include the Deutscher Bibliotheksverband (DBV), the association of libraries; the Verein der Bibliothekare an Öffentlichen Bibliotheken (VBB), the association of public librarians; the Verein Deutscher Bibliothekare (VDB), the association of academic librarians with academic training; the Verein der Diplom-Bibliothekare an Wissenschaftlichen Bibliotheken (VdBB), the association of academic librarians with professional training; the Bundesverein der Bibliotheksassistenten/innen (BBA), the association of library assistants. Ongoing attempts to join all the librarians now in the VBB, VDB, VdBB and BBA into one organization, on the model of the disbanded East German Verband der Bibliothekare, or the ALA, have repeatedly failed, most recently at the close of 1994. The new association was to have carried the name Verein der Bibliothekarinnen und Bibliothekare Deutschlands, abbreviated VBD—"a previously undiscovered combination," as Anne Buhrfeind writes in her wry depiction of the German library associations’ alphabet soup ("Ordnung muss sein," Börsenblatt für den deutschen Buchhandel, June 10, 1994, 6).


20. It should be noted that German public librarians publish a number of successful journals of their own, including *Buch und Bibliothek (BuB)*, the official journal of the association of German public librarians (VBB), the German library journal with the highest circulation, and the only one with several full-time editors. Interestingly, *BuB* has recently advertised for a part-time editorial position to cover academic libraries.


28. For an overview see Joachim-Felix Leonhard and Monika Münnich, "lokale Bibliothekszecheraten," *Bibliothek: Forschung und Praxis* 5 (1981): 220–30. See also Dagmar Jank, "10 Jahre 'Bibliotheks-Informationen der Universitätsbibliothek der Freien Universität Berlin': Ein Erfahrungsbericht," *Bibliotheksdienst* 26 (1992): 331–36. The *Harvard Library Bulletin* and New York Public Library's *Biblion* are obviously of another order and have German counterparts in publications issued by the Staatsbibliothek in Berlin (Mitteilungen) and Die Deutsche Bibliothek (Dialog mit Bibliotheken). Some of the better known in-house journals are published by the libraries of the universities of Freiburg i.Br. (Expressum), Konstanz (Bibliothek aktuell), Tübingen (Tübingen Bibliotheksinformationen), Free University Berlin (Bibliotheks-Informationen), Bochum (Bibliothekszeitung), Bielefeld (Bibliotheksebene), Göttingen (SUB Kultur), Mainz (UBJ), and Heidelberg (Theke).


35. Edited by James M. Campbell at the University of Virginia. The URL is http://www.lib.virginia.edu/wess/. The URL of IFB Abstracts is http://www.library.upenn.edu/ifba.

36. To subscribe, telnet to: campbell@virginia.edu.
What Journals Do Psychology Graduate Students Need? A Citation Analysis of Thesis References

Margaret Sylvia and Marcella Lesher

The increasing price of journal subscriptions and the increasing number of journals available make it difficult for libraries to supply all needed material locally for scholarly research. Bibliographic citation analysis of student research papers is one method of evaluating the use of a journal collection. Journal selection and cancellation may be done on the basis of cost-per-use to maximize the usefulness of materials purchased with the library budget. Theses provide a convenient archival resource of student research. This study used the bibliographic citations found in theses and dissertations of graduate students in the psychology and counseling departments of the university, cost-per-use statistics, and shelving statistics to develop a basis for psychology journal selection in the Academic Library. The library should not rely on one single evaluation technique. It should take advantage of a combination of techniques, which as this study indicates, serve to complement each other.

Academic libraries face a serious budgetary problem in the development of library collections because of the rising cost of journal subscription prices and the increasing number of new journals. Journal prices have, in recent years, increased far in excess of inflation so that most academic libraries, even those with modest budget increases, are canceling subscriptions rather than adding to their collections. In addition, since 1665, scientific journals have doubled in number every fifteen years. This combination of circumstances makes it more difficult for academic libraries to supply the information needs of clients.

The Academic Library has been in the unusual position over the past five years of being able to add extensively to its collection of journals in psychology and counseling due to the establishment of a new Ph.D program in counseling. Titles ordered for the counseling program alone increased from forty-six in 1989 to 144 in 1994. Librarians selected new titles using various methods with priority given to requests from faculty and secondarily to an evaluation of interlibrary loan requests. All titles must also be indexed in Psychological Abstracts before they are approved for purchase. Back files were ordered (usually in five-year increments) as part of this expansion. Because of this combination of new titles and back files, the budget amount committed to ongoing subscriptions has increased each year while the amount available to order new titles and their accompanying back files has decreased.

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Since the amount of money available for this collection is relatively stable, there is a point where current subscriptions can be maintained but new titles cannot be ordered without sacrificing older titles. In order to ensure that the utility of the collection is maintained, it is important to start evaluating the collection with some additional measures of utility other than those currently in use.

**COLLECTION EVALUATION**

There are several established methods for evaluating library collections, including checking specific lists and bibliographies against the collection, having experts in the literature examine the collection directly, compiling comparative statistics on collection size and expenditures, studying circulation and in-house use, surveying user opinions, doing shelf availability studies, analyzing interlibrary loan statistics, and analyzing bibliographic citations. There are advantages and disadvantages associated with each of these methods of collection evaluation. No one method used alone is sufficient to provide all information needed for a good collection evaluation.

Ideally, this study will set some parameters for how other subject areas in the journals collection can be measured on an ongoing basis.

The Academic Library is involved currently in using most of the collection evaluation methods noted above, either formally or informally, in an ongoing collection evaluation. Title selections are made based on expert "faculty" evaluations. In addition, bibliographic lists are consulted, and usage statistics (based on shelving counts) are taken on an ongoing basis. Limitations exist in that periodical titles do not circulate. There are also vagaries inherent in shelving counts, i.e., patrons shelving their own material, use by students from other universities, etc.

One untapped resource is the collection of master's theses and dissertations done by psychology and counseling students. Up until the time of this study, it was unknown what titles were actually appearing in the bibliographies of these manuscripts.

**WHY CITATION ANALYSIS?**

Empirically, one of the best ways to measure past use of an academic library is through citation analysis of student research papers. Citation analysis has been done through nationally collected citation statistics, and proposals have been made to use these analyses for library collection development and evaluation. The easiest approach is to simply look at previous studies and use the findings to govern one's own collection development strategies. There are, however, some very strong arguments for doing a local study. Maurice B. Line argued that every library has a differing clientele, and that these clients have different information requirements so that national surveys may have little relevance for individual libraries. Many libraries have, indeed, done local citation analyses to determine their own special needs. A drawback of this procedure is that students tend to use what is found easily in local libraries.

One other area of investigation for the journals collection involved determining if it fit into the familiar bibliographic pattern known as the Law of Scattering. If our usage patterns fit this pattern, 80 percent of the citations from our database should come from about 20 percent of the cited journals. This top 20 percent of cited journals should represent at least part of a core list of psychology journals found in the Academic Library.

**OTHER FACTORS**

There were two additional factors used in refining the "core" list of psychology journals. These factors are cost-per-use and shelving statistics. Although subscription price is only one element of the cost factor associated with maintaining the periodicals collection, it is a major factor in making selection and deselection decisions, especially for journals with relatively low usage. Reshelving
counts are also important because these data provide some indication of how titles are used for purposes other than thesis and dissertation research.

PURPOSE OF THE STUDY

Using the three measures discussed—citation analysis, cost-per-use, and reshelving counts—several questions can be answered that provide useful information about how the collection should be managed in the future. Ideally, this study will set some parameters for how other subject areas in the journals collection can be measured on an ongoing basis. Consider the following:

- Which journals have the highest usage?
- Does the Academic Library hold these titles?
- Do our journals fit into the Law of Scattering pattern?
- According to citations from the psychology and counseling theses, which are the most cost-effective journal titles for the Academic Library to own in terms of cost-per-use?
- Do we hold the most cost-effective journals?
- Is there a relationship between citation analysis and shelving counts?
- Does citation analysis give us a better understanding of the needs of our own clientele?

PROCEDURE

The bibliographic citations for journals from theses and dissertations written by psychology and counseling students at the university during the past six years were collected. The journal title and citation date were recorded for each journal citation, and library holdings were checked using this information. The current subscription price taken from the latest Librarian's Handbook was used to determine the cost-per-use of each journal by dividing the cost of the journal by the average number of citations per year over the six-year period that data were collected. Journals were ranked in two ways: (1) by the number of citations in the database, and (2) by cost-effectiveness. Shelving counts for the 1991–92 fiscal year were also examined.

RESULTS

Usage

Table 1 lists twenty-eight titles cited more than ten times in the theses and dissertations included in the study. Of these twenty-eight titles, seven are not owned by the library. Two of the titles, Primates and Folia Primatologica, are very specialized and do not really fit with the primary emphasis of the program at the university. These titles were not consid-

<table>
<thead>
<tr>
<th>No. of Citations</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>* Personnel Psychology</td>
</tr>
<tr>
<td>30</td>
<td>* Hispanic Journal of Behavior Sciences</td>
</tr>
<tr>
<td>28</td>
<td>* Journal of Counseling Psychology</td>
</tr>
<tr>
<td>26</td>
<td>* Journal of Applied Psychology</td>
</tr>
<tr>
<td>24</td>
<td>* Journal of Consulting and Clinical Psychology</td>
</tr>
<tr>
<td>23</td>
<td>* American Psychologist</td>
</tr>
<tr>
<td>23</td>
<td>International Journal of the Addictions</td>
</tr>
<tr>
<td>21</td>
<td>* Counselor Education and Supervision</td>
</tr>
<tr>
<td>21</td>
<td>* Nature (ordered for another department)</td>
</tr>
<tr>
<td>20</td>
<td>Primates</td>
</tr>
<tr>
<td>19</td>
<td>* New York Times (ordered for another department)</td>
</tr>
<tr>
<td>16</td>
<td>* American Journal of Psychiatry</td>
</tr>
<tr>
<td>16</td>
<td>* Journal of Abnormal Psychology</td>
</tr>
<tr>
<td>16</td>
<td>* Journal of Educational Psychology (ordered for another department)</td>
</tr>
<tr>
<td>16</td>
<td>Journal of Vocational Behavior</td>
</tr>
<tr>
<td>15</td>
<td>* Journal of Personality and Social Psychology</td>
</tr>
<tr>
<td>15</td>
<td>* Psychometrika</td>
</tr>
<tr>
<td>14</td>
<td>Journal of Human Evolution</td>
</tr>
<tr>
<td>13</td>
<td>Intelligence</td>
</tr>
<tr>
<td>13</td>
<td>Journal of Educational Measurement</td>
</tr>
<tr>
<td>13</td>
<td>* Journal of Marriage and the Family</td>
</tr>
<tr>
<td>12</td>
<td>* Psychological Reports</td>
</tr>
<tr>
<td>11</td>
<td>* American Journal of Family Therapy</td>
</tr>
<tr>
<td>11</td>
<td>* Archives of General Psychiatry</td>
</tr>
<tr>
<td>11</td>
<td>Folia Primatologica</td>
</tr>
<tr>
<td>10</td>
<td>* Journal of Clinical Psychology</td>
</tr>
<tr>
<td>10</td>
<td>* Journal of Counseling and Development</td>
</tr>
</tbody>
</table>

* Indicates ownership by the Academic Library.
ered for purchase, particularly since all citations for them came from a single user with a very extensive bibliography. A third title, *International Journal of the Addictions* has a current subscription cost of $1,045 and requires careful examination before purchase because of the high cost. The other four titles are possible replacements for lesser used journals. Several of the most heavily used journals included citations for older volumes not held by the library. For example, *Hispanic Journal of Behavioral Sciences* had twelve citations from older issues, indicating a need to consider more back issue purchasing.

**Law of Scattering**

There were 376 titles cited in the database. The top seventy-five titles (20 percent) constituted 62 percent of the citations (769 out of 1,732 total citations). This is not the 80 percent predicted by the Law of Scattering. However, the difference is not strong enough based on this statistic alone to warrant serious changes in our collection strategies. However, as more data are gathered in the future, and the collection changes, an increase may occur among the top 20 percent. The Academic Library holds fifty-eight of the most heavily cited seventy-five titles. Since seventeen of the titles from this group are not owned, this is another resource "pool" for making possible changes and/or additions to the collection.

**Cost-Effectiveness**

Table 2 ranks the top group of titles by cost-per-use over the study's six-year period. This shows a fairly effective cost-per-use ratio, especially taking into consideration the relatively short time period and the small pool of theses and dissertations included in the study.

Table 3 is a summary limited to the titles which are included in the budget for psychology or counseling, as well as the seven journals not owned by the Academic Library but which fall in the high usage group listed in table 1. As is indicated in table 2, seventeen of the most highly cited journals have a cost-per-use

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>ANNUAL COST-PER-USE 1988-1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost ($)</td>
<td>Title</td>
</tr>
<tr>
<td>273.00</td>
<td>International Journal of the Addictions</td>
</tr>
<tr>
<td>204.00</td>
<td>Folia Primatologica</td>
</tr>
<tr>
<td>187.00</td>
<td>Journal of Personality and Social Psychology</td>
</tr>
<tr>
<td>158.00</td>
<td>Journal of Human Evolution</td>
</tr>
<tr>
<td>117.00</td>
<td>Psychological Reports</td>
</tr>
<tr>
<td>102.00</td>
<td>American Journal of Psychiatry</td>
</tr>
<tr>
<td>89.00</td>
<td>Journal of Vocational Behavior</td>
</tr>
<tr>
<td>84.00</td>
<td>Journal of Clinical Psychology</td>
</tr>
<tr>
<td>81.00</td>
<td>Primates</td>
</tr>
<tr>
<td>72.00</td>
<td>Psychological Bulletin</td>
</tr>
<tr>
<td>63.00</td>
<td>Journal of Consulting and Clinical Psychology</td>
</tr>
<tr>
<td>63.00</td>
<td>American Psychologist</td>
</tr>
<tr>
<td>53.00</td>
<td>Journal of Educational Psychology</td>
</tr>
<tr>
<td>51.00</td>
<td>Journal of Applied Psychology</td>
</tr>
<tr>
<td>51.00</td>
<td>Intelligence</td>
</tr>
<tr>
<td>50.00</td>
<td>Journal of Abnormal Psychology</td>
</tr>
<tr>
<td>46.00</td>
<td>Archives of General Psychiatry</td>
</tr>
<tr>
<td>41.00</td>
<td>American Journal of Family Therapy</td>
</tr>
<tr>
<td>39.00</td>
<td>Journal of Counseling and Development</td>
</tr>
<tr>
<td>28.00</td>
<td>Psychometrika</td>
</tr>
<tr>
<td>23.00</td>
<td>Journal of Educational Measurement</td>
</tr>
<tr>
<td>18.40</td>
<td>Hispanic Journal of Behavioral Sciences</td>
</tr>
<tr>
<td>10.00</td>
<td>Personnel Psychology</td>
</tr>
<tr>
<td>7.00</td>
<td>Counselor Education and Supervision</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 3</th>
<th>SUMMARY OF COST-PER-USE OF ALL COUNSELING AND PSYCHOLOGY TITLES INCLUDED IN CITATION COUNTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Titles</td>
<td>Cost-per-Use ($)</td>
</tr>
<tr>
<td>14</td>
<td>1-49</td>
</tr>
<tr>
<td>16</td>
<td>50-99</td>
</tr>
<tr>
<td>8</td>
<td>100-149</td>
</tr>
<tr>
<td>8</td>
<td>150-199</td>
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<tr>
<td>7</td>
<td>200-249</td>
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<td>5</td>
<td>250-299</td>
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<td>4</td>
<td>300-349</td>
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<td>2</td>
<td>350-399</td>
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<td>3</td>
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<tr>
<td>1</td>
<td>600-649</td>
</tr>
<tr>
<td>2</td>
<td>650-699</td>
</tr>
<tr>
<td>4</td>
<td>Over 700</td>
</tr>
<tr>
<td>78 Total</td>
<td></td>
</tr>
</tbody>
</table>
of less than $100. Totals for the entire sample as summarized in table 3 indicate that thirty of the titles purchased by the library have a cost-per-use of less than $100. This is 43 percent of all titles measured for cost-effectiveness.

Figures in tables 1 to 3 are based only on citation counts for the past six years of master's theses and dissertations, and do not include usage as measured by shelving counts. Since the increase in the budget was made to support the Ph.D program in counseling, it was more appropriate to limit cost-per-use measurements to citation analysis only. These figures provide a starting point. As data are collected, titles with high cost-per-use will be monitored.

**SHELVING COUNTS**

Bibliographic citation counts provide a simple form of measurement but are not definitive. It was somewhat surprising to see that shelving counts did not correspond to citation analysis. Although some titles in table 1 did have very high shelving counts—an average of sixty-one times in a one-year period (1991–92) for eighteen titles—there were many titles that had little or no usage in the citation analysis but had heavy use according to shelving counts. The top group of those titles is indicated in table 4, which compares titles that were shelved more than thirty times with the number of times that they were cited.

<table>
<thead>
<tr>
<th>TABLE 4</th>
<th>HIGH-USAGE TITLES WITH LOW CITATION COUNTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Shelving Count</td>
</tr>
<tr>
<td>Family Relations</td>
<td>115</td>
</tr>
<tr>
<td>Family Therapy Networker</td>
<td>72</td>
</tr>
<tr>
<td>Journal of Family Therapy</td>
<td>72</td>
</tr>
<tr>
<td>Child Development</td>
<td>34</td>
</tr>
<tr>
<td>Counseling Psychologist</td>
<td>31</td>
</tr>
<tr>
<td>Journal of Drug Education</td>
<td>35</td>
</tr>
<tr>
<td>Journal of Homosexuality</td>
<td>39</td>
</tr>
<tr>
<td>Journal of Mental Health Counseling</td>
<td>38</td>
</tr>
<tr>
<td>Journal of Social Psychology</td>
<td>30</td>
</tr>
<tr>
<td>Mediation Quarterly</td>
<td>32</td>
</tr>
<tr>
<td>Psychotherapy</td>
<td>54</td>
</tr>
</tbody>
</table>

None of the titles in table 4 figured into the citation count more than seven times. One obvious conclusion from this is that both measurement tools are important. Citation analysis can be used to confirm what shelving counts should be indicating, but citation analysis will not provide a complete picture of journal usage. Since many students are not required to present the master's thesis, their research is harder to measure but obviously many titles are used that do not show up in citation counts. Data collected in future years may indicate a much broader listing of titles. If broadening does not occur, some theorizing might be made about a possible narrower range in focus of theses and dissertations. This would not be unusual in that the independent research conducted by this group of students is undoubtedly more heavily influenced by the research interests of their faculty supervisors than students doing class assignments. Because of budgetary limitations, faculty research interests do not rate as highly in the St. Mary's collection development guidelines as do student research interests.

**MEETING STUDENT NEEDS**

Perhaps the most interesting outcome of this study is in seeing just what types of journals are used from a qualitative rather than quantitative viewpoint. In San Antonio the population of the university and of the community is primarily Hispanic. Thus, the heavy usage of the Hispanic Journal of Behavioral Sciences reflects this demographic trend. One other factor that was also surprising was the heavy usage of journals dealing primarily with science. This may indicate a need to think in a more "interdisciplinary" manner regarding future collection decisions.

**CONCLUSION**

There is no easy formula for determining what should constitute the collection for any program. However, citation analysis, shelving counts, and cost-per-use are all extremely helpful. Each technique complements the other. By
beginning a routine of careful analysis using all of these measurements, academic librarians can make future collection decisions with confidence. Furthermore, the use of psychology and counseling journals provides us with a model that can be used in other areas of the collection.

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Telecommuting for Original Cataloging at the Michigan State University Libraries

Leah Black and Colleen Hyslop

Telecommuting has become a popular option in recent years for workers in the business world seeking relief from lengthy, stressful commutes and workplace distractions. Working conditions in library technical services departments can be a problem for catalogers in need of a quiet work environment. As technological advances continue to influence library cataloging applications, creating cataloging records from work sites outside the library is an attractive option for addressing library work environment concerns. Based on a successful program for indexers at the National Agriculture Library, a proposal for an experimental telecommuting program for original cataloging in a university library was developed and tested.

Telecommuting arrangements in the business world have become common in recent years. Increasingly lengthy commutes on crowded freeways, sophisticated technological capabilities combined with employee needs, and environmental issues have prompted companies to develop and implement programs allowing employees to work from their homes. Computer links between office and home and electronic mail systems are among the methods employed to enable the at-home worker to communicate with the office. While some businesses allow workers to telecommute five days a week, others combine in-office with at-home work arrangements enabling the employee to work from home some portion of each week.

While telecommuting arrangements in libraries are not so prevalent as those in the business world, to some extent because some library activities require staffing at a public desk or handling of materials on-site, technological advances in library applications have made the idea of telecommuting in library work increasingly attractive. Staffing issues and the increasing need for flexibility may be the catalysts that force libraries to examine telecommuting arrangements as one means of addressing these concerns. In addition, successful programs such as the National Agriculture Library's extremely popular Flexiplace option now provide valuable precedent.

At the Michigan State University Libraries, a need for flexible arrangements providing varied workplace choices has been identified as a means of enhancing employee satisfaction. Since the cataloger may now search online sources such as OCLC and library online catalogs for possible classification numbers and subject headings, and since printed

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tools such as classification schedules and subject headings are being converted to machine-readable online formats, it seemed reasonable to pursue the possibility that a process for creating cataloging records from work sites outside the library could be developed. Interest on the part of one cataloger, with substantial support from Technical Services administration, prompted a request for funding to pursue the development and implementation of a telecommuting pilot project for cataloging. Library administrators chose original cataloging for the test because professional staff composed the unit, and the structure and scheduling of original cataloging was appropriate for the type of experiment under consideration. The unionized environment for support staff made the program design more complicated, so copy cataloging was not considered for the pilot test.

In preparation for the development of the telecommuting plan for the Michigan State University Libraries, staff at the National Agriculture Library participating in the Flexiplace program were interviewed during a two-day visit in May 1993. Participants and supervisors representing both indexing and public services staff were included. Issues for telecommuters were identified through a literature search prior to the interviews and included communication difficulties, isolation, misconceptions about telecommuting on the part of coworkers, and difficulties maintaining an appropriate separation between work and home life. Similarly, library administrators’ concerns included supervisory and performance evaluation issues, scheduling difficulties for other staff members, liability, budgets and equipment, procedural issues, and criteria for participating. Using a list of questions developed and distributed prior to the visit, the interviews provided a wealth of information about the issues and problems associated with developing and implementing a telecommuting program. The enthusiasm of the National Agriculture Library participants and their willingness to share both their experiences and program documentation impressed the interviewers.

They presented the proposal for telecommuting developed in consultation with various library units, including Systems and the Original Catalogers Team, to the Libraries’ administration for consideration in February 1994. The program was designed as an experimental project for one original cataloger to test the following basic telecommuting assumptions:

- That a quieter, less distracting cataloging setting would have a positive impact on cataloging workflow, productivity, and costs;
- That the level of employee satisfaction would be enhanced by work-style choices;
- That library telecommunications’ setup and operations could be configured satisfactorily;
- That inlibrary communications would not be hindered; and
- That other librarians might benefit from telecommuters’ experiences.

Long-term goals of a permanent telecommuting program were also identified:

- To provide work environment choices for librarians;
- To make the best use of technological advancements and capabilities in a library setting;
- To help alleviate overcrowded working conditions in Technical Services;
- To provide incentives for employees to remain with the university, and
- To explore the applicability of telecommuting experiences in the business world to a library setting.

The proposal document included: a program description, a memorandum of understanding outlining program guidelines and a library telecommuting policy, and defined responsibilities for the participant and the library in areas such as scheduling, time frame, library-supplied equipment use, liability, and performance evaluation. The pilot program allowed the telecommuting cataloger to work from home up to two days per week, returning to the library for the remainder of the workweek. A telecommuting schedule mutually agreeable to
the participant and the Original Catalogers Team was developed and included on the team’s calendar. Cataloging records were created by the telecommuter offline, using the Cataloging MicroEnhancer Plus software. Original cataloging procedures at the MSU Libraries specify direct input of cataloging records into OCLC, but the added cost of dial-access OCLC use from an off-campus work site was prohibitive in the experimental stages. While Internet access to OCLC was highly desirable, the Libraries’ Systems staff was unable to devote the time necessary for implementation of this access method.

The pilot program allowed the telecommuting cataloger to work from home up to two days per week, returning to the library for the remainder of the workweek.

Equipment requirements were identified in consultation with the Libraries’ Systems staff, and the telecommuter’s personal equipment was used since it met the basic program requirements. The program description provided a mechanism for original catalogers without personal computers at home to participate using library equipment, but this approach was not tested since no original cataloger in that circumstance expressed an interest in participating.

The Libraries supplied the software necessary for the project, including the Cataloging MicroEnhancer Plus for offline cataloging record creation, OCLC’s Passport for dial-access OCLC use, and Kermit for access to the Libraries’ online catalog and the university’s Gopher system. Word processing software was already available, allowing the telecommuter flexibility to work on other assigned duties from home. The telecommuter installed the software successfully and did not require assistance from the Libraries’ Systems staff.

Program expenses were limited to purchase of the CATME+ software and dial-access OCLC fees. Since the latter was an added expense for the MSU Libraries, use of dial-access to OCLC was judicious. Careful presearching using dedicated-line OCLC terminals in the library met most searching needs, and the dial-access connection was used from home most often for quick authority searches.

The telecommuter prepared draft cataloging records which required access to the piece being cataloged and selected cataloging tools. The uncataloged materials were carried home each week by the telecommuter, and copies of AACR2 and OCLC formats were available to the telecommuter at both in-library and at-home work sites. The telecommuter was able to complete drafts for ten to twelve items in a typical at-home workday. Since the telecommuting cataloger worked from home no more than two days per week, materials being cataloged were not absent from the library for long periods of time. Tentative subject headings and call numbers were determined at home by access to the Libraries’ online catalog (MAGIC), OCLC, and other libraries’ online catalogs, with final assignments made later, after consulting LCSH and the classification schedules in the library. Records were uploaded into OCLC after completion upon return to the library. Problems which required consultation with colleagues or reference sources in the library were handled by telephone or electronic mail contacts, or by setting the piece aside for later completion.

Access to voice and electronic mail ensured effective communication channels between the telecommuting cataloger and other library staff members and colleagues. Each cataloger at the MSU Libraries has a private work telephone number with voice mail capability, so the telecommuter was able to easily retrieve messages from home and in-library staff were not burdened with recording and transferring messages to the telecommuter at home.

Evaluation criteria for the six-month experiment included a statement from the telecommuter addressing work environment issues, cataloging workflow and productivity, communication issues,
effect on committee assignments and other noncataloging duties, telecommunication operation, effect on cooperative projects and general workflow, and a comparison of statistics for the pilot project period and the six months preceding the experiment.

The pilot program was implemented June 1, 1994, and officially concluded November 30, 1994. An evaluation of the project is under way. Preliminary conclusions indicate the process as designed was successful and reasonably efficient, with both the library and the telecommuter pleased with the program's outcome. The telecommuter's at-home office arrangement proved to be a comfortable improvement over the main library's crowded and busy Technical Services department. Original cataloging output increased for the test period, although an increase in productivity was not considered a criterion for success. The cataloging workflow as designed was adequate, although the interruption in the workflow required by lack of access to LCSH and classification schedules at home was a greater problem than anticipated. The telecommuter reported occasional feelings of isolation when working at home, and concluded that while the chatter of co-workers and background noises such as ringing telephones can hinder concentration, the social nature of the in-library environment can be a comfort as well. Telecommunications links during the test period were trouble-free; at no time was the telecommuter unable to work from home due to lack of access to needed systems.

For the cataloger disadvantaged by a noisy working environment, cataloging from home provides a more controlled and individually suitable work setting. Away from the distractions inherent in an overly social work environment, a cataloger's work output is potentially enhanced. However, online access to a wider range of cataloging resources is necessary to realize the full potential of the telecommuting process. Access to OCLC via the Internet is also critical. Until the cataloging record can be completed and input from the home work site, the process will have achieved only a limited degree of success.

The pilot test was successful in proving that original cataloging can be accomplished from a home work site, but expansion and improvement in technological access are necessary for telecommuting to be considered a strong alternative to a traditional cataloging setting at Michigan State University. It is important that an effort be made to realize the potential of this alternative. In a recent journal article on telecommuting in a library environment, Delores Meglio clearly outlines the advantages of such arrangements:

Computers, modems, hard disks, CD-ROM, and other technologies have provided the means of doing work away from the library or corporate headquarters. New technology allows companies to develop effective telecommuting programs with enormous benefits for both staff and employer. For the employer, it means less employee turnover, less absenteeism, improved morale, increased flexibility, lower overhead costs and increased overall efficiency. For the staffers who work at home, telecommuting allows greater flexibility of and control over their schedules, ... ability to pursue other interests, and a more desirable environment. In this situation, both the employee and employer gain.*

A successful telecommuting program for cataloging at the Michigan State University Libraries could reduce staff crowding in the main library building, boost morale, reduce environmental pollution and parking congestion, provide a less stressful work environment, take advantage of technology, and offer a variety of positive work options to catalogers.

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Electronic and Print Information: Active Distribution and Passive Retention in Relation to a Murder—A Case Study

Frances K. Groen

Within the context of a belief in individual freedom and the right to know, this article describes the McGill University Libraries' response to the court ban on access to information regarding details of a murder trial in Ontario, Canada. It reviews attempts to ascertain how Canadian research libraries dealt with this issue. It contrasts the policy of the Computing Centre, McGill University, and that of the McGill University Libraries, and looks at what constitutes publishing in an electronic environment. The article examines the values of librarians as they relate to questions of censorship and access to information, and concludes with a discussion of the right to know in the electronic age.

The right of the individual to know in a changing information environment can lead to dilemmas for the library. Library staff traditionally place significant value upon free access to information and have a proud history of opposing censorship. Evidence of these efforts is seen in the American Library Association's Intellectual Freedom Manual, now in its fourth edition and in the recent draft code of ethics of the Canadian Library Association, which stipulates that librarians uphold the Canadian Library Association Statement on Intellectual Freedom.1,2 Librarians hold a trust in the eyes of the public for the protection of intellectual freedom and have accepted the consequences of maintaining that trust.

The electronic information environment, where information may be available in print, electronic, or both formats, creates new challenges for the librarian. The right of the individual to access electronic information must take into consideration the storage and distribution of information as well as its traditional availability. As electronic information becomes part of daily life, the relationship between technology and access issues on the one hand and the individual's right to know on the other are becoming critical concerns. Librarians are committed to upholding intellectual freedom and the individual's right to know in this changing information environment. But at times this commitment may be in conflict with institutional requirements. Are there essential differences in the provision of print and electronic information? A recent development at McGill University may provide some insight into this issue.

A CASE STUDY

A grisly multiple murder case came to trial in Ontario in late spring 1993. Two
separate trials of a husband and wife accused of these murders needed to occur. Prosecutors had to guarantee that the evidence presented in the first trial of the wife, Karla Homolka, did not influence the subsequent trial of the husband, Paul Teale/Bernardo, scheduled for some eighteen months later. For this reason Ontario Justice Francis Kovacs imposed the following order on July 5, 1993:

There will be no publication of the circumstances of the deaths of the victims referred to during the trial and they shall not be revealed directly or indirectly to a member of the foreign press.

While allowing reporters into his courtroom, Kovacs sought to limit details severely in the media. Foreign press representatives were banned completely from the courtroom since the court ruling could not control publications outside of Canada. As a reminder of the ban and an indication of the seriousness with which it should be taken, the Ministry of the Attorney General of Ontario issued a news release on December 2, 1993, on the importance of respect for the publication ban. In the words of this communiqué:

The Ministry is continuing to apply its policy of reviewing all potential breaches of the publication ban and all potential contempts of court. It views any potential breach very seriously.

The publication ban imposed in July 1993 regarding details of the trial of Karla Homolka was to have implications for libraries. It required that librarians focus on the issues of dissemination and publication in the light of this court order, with respect to printed as well as electronically published information. Although issues of publication and dissemination of information arise daily in the work of librarians, the ban created an environment in which the differences among the publication, dissemination, and possession of information in print and electronic form began to be defined more precisely. Universities, especially those at which the Computing Centre acted as a feeder for newsgroups over the Internet, formulated institutional policy and created precedent. In the case of McGill University, a clear distinction evolved between active dissemination by the Computing Centre, on the one hand, and mere possession by the Libraries on the other.

Although issues of publication and dissemination of information arise daily in the work of librarians, the ban created an environment in which the differences among the publication, dissemination, and possession of information in print and electronic form began to be defined more precisely.

The Computing Centre of the University reacted first to the availability of the news discussion group called “alt.fan.karla.homolka,” believing that the provision of this service constituted a violation of the publication ban. An interim decision was made to withdraw this news group, pending a legal interpretation of the responsibility of the university with respect to the ruling of the Ontario Court of Justice. The Ontario Court ban was considered to “reach” outside that province “as a result of federal jurisdiction over the administration of the criminal justice system.”

By failing to observe the ban, the university would have been, in the opinion of McGill’s legal advisor, Raynauld Mercille, punishable for a criminal contempt of court charge. The legal advisor also developed a working definition of publication which, in the context of the court ban, meant “the dissemination of information to any number of individuals in whatever form and through any medium.” This definition is similar to that provided by Elizabeth Davenport in a recent publication of the National Federation of Abstracting and Indexing Services: “a document may be any item which has an owner or author on a network, not necessarily a finished textual item (report or article) released for publication, and those who participate in the network may be individuals, groups, or organizations, in the commercial, aca-
ademic or government sectors." Both definitions attempt to describe publication in print and electronic formats.

Since the university policy to ban the newsgroup was confirmed to be not only proper but mandatory, it became essential to have legal advice on the appropriate action to be taken by the Libraries. A Montreal newspaper had announced that the Washington Post would be publishing the details banned by the Ontario court, and it was essential that library administrators formulate policy for staff dealing with published materials. On December 2, 1993, McGill Library administration consulted member librarians of the Canadian Association of Research Libraries (CARL) with the following concerns:

Senior administration at McGill University has suspended the posting of the newsgroup “alt.fan.karla.homolka” on the McGill system as long as the court ordered ban is in effect. The Library position on documents containing this information is being defined, and we would find it most helpful to know what is happening at other CARL institutions... Our concerns are both intellectual and practical... Although not all CARL directors responded, those who did provided an interesting variety of responses. Most responded only regarding actions taken at computing centres, although a few formulated library policy as well. Most interesting were responses from libraries in the Province of Ontario—the province where the publication ban originated. Direct quotations, without attribution, follow:

From the Province of Ontario:
- “I have been informed by the Secretary of the University that the Computing Centre Director was asked to cancel access to the Newsnet two or three weeks ago.”
- “... the newsgroups on Internet (and Freenet) have been blocked. We are looking into what to do about printed publications and commercial online services. We don’t subscribe to the Washington Post...”
- “I have heard nothing here so far. The Director of Computing Services tells me we do not have the newsgroup on our Newsnet feed.”
- “... we have never monitored or censored any materials coming from the Internet and we aren’t now. A reporter asked... Reference to help him find the newsgroup. After conferring with University Counsel, I decided that until there is greater clarity about what constitutes ‘publication’ we should not help users find the newsgroup on the Homolka case...”
- “I am aware that the Library has received at least one newspaper which contains article(s) which violate the publication ban... the law is quite clear and the University is placed at risk of being charged and prosecuted if material which breaches a Court Order is received and distributed by the University. By this memo I am directing you to take whatever steps are necessary to remove the material from the Library and the network...” [memo quoted by the library director].

From other provinces:
- “... this group has been deleted.”
- “Access to the newsgroup... is being withdrawn for the duration of the ban. I note that other universities have taken similar steps with their library materials...”
- “This newsgroup was removed... by our network manager without consultation. It in fact amounts only to being a gesture insofar as news/discussion regarding the case is available in many other newsgroups which do not boldly announce the contents in their titles. If legally we believe we are obliged to remove or deny access to such files we are opening ourselves up to becoming network policy—a prospect I do not relish and which goes against all my natural instincts as a librarian and information provider. In this case it would appear the courts have demonstrated that they have some way to go towards becoming more technologically literate.”
- “The group is banned in Canada and not forwarded by the CA*Net sites...”
People are cross-posting the items into other groups as a defiance, some of the talk groups have the material."

- "Today we cut out the article from the November 23 Washington Post and put the issue on the shelf with photocopy of material on reverse of [the] cut out portion and attached a notice that we are required to remove the material due to a court ban."

The McGill University Libraries operated within the law as understood and interpreted by legal experts.

It is clear that, although these responses vary, many interpreted the court order as covering possession of information, not only publication and distribution. Library administration approached McGill's legal counsel for advice on library policy.

It was surprising, therefore, to note comments in recent publications describing McGill University Libraries' response. For example, Feliciter, the news publication of the Canadian Library Association noted, "With exception of McGill University, library staff and administration contacted by Feliciter indicated a willingness to comply with the publication ban." At the opposite end of the debate, yet equally erroneous, a paper presented at the recent meeting of the Canadian Association of Information Science claimed, "Several academic and public libraries, fearing they would be in violation of the publication ban, initially removed copies of newspaper articles that covered the case ... later, on legal advice ... McGill University restored the publications."

The McGill University Libraries operated within the law as understood and interpreted by legal experts. What they did not do, and this is at the very heart of the matter, was jump to the conclusion that merely receiving printed publications in the normal course of activities was a criminal act. The concepts of publication and distribution, implicit in the decision regarding the withdrawal of the newsgroup by the Computing Centre, were not assumed to transfer directly to library policy. In formulating an appropriate institutional response, basic issues, both practical and philosophical, were examined carefully. Factors that helped to shape library policy were: (1) the reality that distribution of the alt.fan.karla.homolka usergroup was in violation of the court order, (2) the variety of institutional responses received from directors of Canadian libraries, (3) the complexity of screening information as it arrived in libraries, (4) the variety of formats in which information was available, and most significantly, (5) the librarians' value system as expressed in the statement of the Canadian Association of Research Libraries and in discussion with McGill librarians.

Values in Conflict

Professional practitioners express their values in the code of ethics of their professional associations. These are clear statements of the ethics of the profession to which the practitioners adhere in exercising their responsibilities. But it is not unusual to find that institutional and professional responsibilities are not fully homologous. The statement by the Canadian Association of Research Libraries, a group of some forty directors of Canadian university libraries, expresses the collective view of library administrators who hold overall accountability to senior university administrators for the functioning of libraries at their institutions. Its preamble acknowledges the right of research libraries to hold controversial materials but also stresses the responsibility of the library to express a range of views on a topic, not only the received opinion. Most relevant to the question of banning publications in the library was the following statement:

It is the responsibility of research libraries to facilitate access to all expressions of knowledge, opinion intellectual activity and creativity from all periods of history to the current era including those which some may consider unconventional, unpopular, unorthodox or unacceptable.—Canadian
Librarians have fostered a sympathetic professional public image as the defenders of access to information. Society and users have applauded this image, and, in a profession in which the public image is still less than attractive, it has been appealing to polish it. It is this self-definition that has made it difficult for librarians to confront rationally the dilemmas involved in the economics of the information industry and the issue of charging for library services. The commonality of values in the library and health care professions emphasizes the tendency of practitioners in both groups to operate on principles of universality:

Librarians define values abstractly, with phrases such as "intellectual freedom," "free flow of information," and "freedom of access to information." Physicians, nurses, and other health care providers use similar abstract phrases to define their fundamental values, substituting the word "health" for information. Thus, ironically, in both information services and health care, professionals have come to accept a value framework that places high quality service to the individual client or a patient ahead of all else and also assumes that the resources needed to provide these services are, or should be, unlimited and freely accessible to all.7

Buoyed by a code of ethics and a professional image that supports a liberal and egalitarian view of access to information, librarians are vigilant against any form of suppression of information within their organizational environments. However, library administrators holding responsibility as senior officers in their organizations may find their values as professionals in conflict with their responsibilities within the organization. Professor Ann Curry of the University of British Columbia's School of Library, Archival, and Information Studies researched the potential for a conflict in values for library administrators. She found in interviewing library directors in Canada and Britain "a disturbing willingness . . . to restrict display or simply not stock books that had been deemed objectionable . . . ."8

It is not surprising, given this potential for dissonance, that librarians welcomed the advice of McGill University's legal assessor on the responsibility of the Libraries in the possession of information in the Homolka trial. In the opinion of the legal advisor there was a prohibition against publication and distribution of banned material, but not against possession. In his words, "merely placing the newspapers on the shelves of the periodicals room would not constitute a prohibited act." However, if the library staff were to make multiple copies of the articles in question for distribution, this would constitute a prohibited act. Placing such material on reserve in the library was also interpreted as a violation of the court order, since this was interpreted as the dissemination of banned material. The fundamental logic hinged on the fact that the passive receipt as part of standard procedure of foreign newspapers containing articles which would contravene the ban on publication if they were printed in Canada did not contravene the law. Mr. Mercille concluded his review with the following statement:

Theoretically, the police could come and seize the offending newspapers from the shelves; this would not mean that we have acted in breach of the ban, and, on a practical note, it is virtually impossible for the University to monitor the content of each and every periodical and newspaper it receives each day.9

The resulting library policy satisfied librarians, administrators, and almost all users who were aware of the controversy. For the record, as soon as the issue of the Washington Post appeared containing the detailed account of the murders, it disappeared, then was placed "behind the desk" to guarantee that it would not be missing from the library. After all it contained other articles that might be needed! On a more serious note, librarians acting in defense of access to information
brought credit to their institution and their profession. Canadian librarians have not been challenged in the same way, as for example, librarians in China during the cultural revolution when they slept in their libraries to protect from destruction the books they had so carefully collected. Although the situations are certainly not similar, the librarians’ response at one institution made it clear that they too would defend access in extraordinary circumstances.

**SOME GENERAL CONCLUSIONS**

**The Right to Know in the Electronic Age**

The McGill experience provided practical experience in balancing individual rights and institutional responsibilities in the information age. The experience also confirmed some general insights. Just as lawyers specializing in civil rights cases may find themselves defending perpetrators of acts which they personally deplore, so librarians may need to provide access to information which they personally find distasteful. The case study emphasized also the importance of reasoning from first principles. It reinforced the importance of a value system, as articulated in codes of ethics. The value placed upon the right to know is a constant. Printing cut the ground from under oral and scribal cultures, although scriptoria and the printing press coexisted for a period. If electronic information plays a similar role with respect to the print culture, information professionals must possess a strong and defined value system. Without values, the information market will become precisely that, and liberal discourse could go the way of scriptoria. Without the active support of libraries, the ideals of classical liberal democracy are threatened. The right to know supported by librarians is a cornerstone of a free society:

Classical liberal models of democracy were premised upon the assumption that knowledge is a social resource, a public utility or a collective good. For this reason free public libraries have been regarded as cornerstone of democracy. Even the most criticized utilitarian image of “a free market of ideas” protects the belief that access to information is a right rather than a privilege; it assumes free entry of diverse ideas into a public market place which is open to all citizen/shoppers who seek knowledge.

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Requirements for the Digital Research Library

Peter S. Graham

A digital research library (DRL) is a collection of electronic information organized for use in the long term. To meet user needs, the founders of a DRL must accomplish two general tasks: establishing the repository of electronic scholarly materials and implementing the tools to use it. More important, long-term commitments are needed if scholarly information is to be available over periods longer than human life: organizational commitments, fiscal commitments, and institutional commitments. The establishment of DRLs is directly related to the changes taking place in the library profession.

USER REQUIREMENTS FOR THE DIGITAL RESEARCH LIBRARY

What will users require of a digital research library? The answer merges the histories, capabilities, and missions of research librarianship and computing science to produce a new service meeting long-defined needs.

The mission of research libraries is to acquire information, organize it, make it available, and preserve it. This has been their significant, distinctive, and successful role with print and other artifactual materials for the past several hundred years. An implicit mission of computing science has been to make the benefits of technology of use to society at large. Missions, needs, and capabilities now come together so that information users can have added assistance in performing research and in assuring the continuity of scholarship, today and in the future. But it will take conscious, planned efforts by both librarianship and computing to make this happen.

Many libraries are now trying to provide the increasing volume of scholarly electronic information to their clienteles. Current information needs are being provided in electronic form with varying success in public, college, and research libraries around the country and the world. As yet, however, no research library has taken on the provision, organization, and preservation of information with the same long-term commitment we have made for print materials. It is an expensive, uncharted, and difficult task.

But until the long-term commitments are undertaken, many currently proposed solutions will have only temporary effects. For example, discussion of cataloging network resources must remain tentative, for until resources being cataloged have a permanent network presence (whether at fixed or virtual locations), the cataloging that points to them must also have an ephemeral quality. (Cataloging for some transitory
electronic materials will always be necessary.) Similarly, the expensive products of recent valuable digitizing demonstration projects, from microfilm to digital form and vice versa, will be at risk after only a few years if tools and commitments are not in place for the preservation of what has been achieved.3

Most important, the ability of the scholarly community to give serious weight to electronic information depends upon their trust in such information being dependably available, with authenticity and integrity maintained. Looked-for changes in scholarly publishing to help alleviate the serials crisis, for example, are usually thought to be bound up with the prestige of electronic journals in the academic tenure process. The ability of the academy to count on the long-term, secure existence of electronic scholarly work will be an important determinant of the success of academic electronic publishing. The ability of the academy to count on the long-term, secure existence of electronic scholarly work will be an important determinant of the success of academic electronic publishing. Libraries and universities have a stake in helping electronic publishing to succeed, and therefore have an interest in establishing secure digital research libraries.

Users' needs will continue to be what they long have been. Users will want information reliably locatable, so that when they go there (whether personally or on the net) they can expect to find what they're looking for. Users will want information easily accessible: the cataloging must be clear and accurate, and the information must be promptly retrievable. In the electronic environment the need for access tools will be more evident, and users will expect appropriate and standard software to be readily available. Users will expect information to be available that was placed in the library's care a long time ago; and they will expect that the integrity of the information they get from the library will be assured.

This article sets out what must be done for a digital research library to be successful in meeting these user needs. The primary requirement for a digital research library is that from the start it be committed to organizing, storing, and providing electronic information for periods of time longer than human lives.4 Implementation of a digital research library will require two kinds of tasks (establishing the repository itself and implementing the tools for use with it), and three kinds of new commitments. In what follows, the tasks are given the most space, yet as technical problems they probably are the easiest to solve. The institutional commitments described in the final section will be much more difficult to achieve.

All the issues are described here in cursory form. Each could be developed in great detail, but at the moment the outline and overall program are most important. Early implementations will test many of these assumptions and will add more requirements to the list. Work needs to begin.

**TASKS**

*The Electronic Storage Repository*

The digital research library will be manifest to users as collections of information existing in various places (not always evident) and accessible through the use of widely available tools. The locus of information may be called the electronic storage repository; the access tools will be described below.

In contrast to print collections, it is unlikely that there will be a high degree of content duplication across many electronic repositories, since for most purposes existence in a single place allows worldwide access.

Over time, we will learn how collection development plays out in an access environment as well as in an ownership environment. It is sometimes loosely proposed (not by librarians) that libraries need not acquire electronic information, for it will be available somewhere on the network. Such proposals ignore the obvious truth that some institution must still, in the end, take responsibility for the information. That has always been a definition of the library responsibility.
There will be many electronic storage repositories, responding both to requirements of redundancy and to the individual needs of institutions. In contrast to print collections, it is unlikely that there will be a high degree of content duplication across many electronic repositories, since for most purposes existence in a single place allows worldwide access. Aside from their actual contents, however, repositories that are part of a DRL will have many common characteristics. Some of these are described here; in some cases, open questions are noted that need to be explored in early implementations.

Megadocument Contents. Even an initial repository should comprise many gigabytes of information, growing quickly to millions of electronic documents. The medium itself (disk storage) is cheap and the possible resources are plentiful.

Sources and Potential Participants. It is easy to cite numbers of electronic scholarly resources that now exist. A few are noted here only as examples:
- Johns Hopkins Medical Library medical image database and its e-Journal of Medical Imaging;
- Texts maintained by the Center for Electronic Texts in the Humanities at Rutgers/Princeton (e.g., those of the Women Writers Project);
- Texts at the Georgetown electronic text center, such as those of C.S. Peirce, Hegel, and Feuerbach, under varying licensing arrangements;
- Survey research data from the Inter-university Consortium for Political and Social Research (ICPSR);
- Aviador, the Columbia University Libraries architecture image resource;
- Commercial publications, either profit or nonprofit (from a university press? publications of a scholarly society, such as IEEE? a partnership with a commercial press?); a repository could be a commercial alternative to local storage or no storage;
- Los Alamos National Laboratories Physics Preprint Data Base;
- National Archives and Record Administration materials;
- e-journals now established on the network, especially if peer reviewed (e.g., Psycoloquy, Bryn Mawr Classical Review, Journal of Fluids Engineering, Modal Analysis, OCLC Journal of Online Critical Trials (with attendant copyright issues), Scientist, Solstice);
- Early network activity as examples of ephemera, e.g., selected alternate (alt.x) newsgroups, information located at temporary ftp sites, samples of early advertisements, etc.;
- Listserv and newsgroup electronic archives;
- Commercial information bases which will not be made widely available, e.g., Biosis Previews or Chadwyck-Healey’s English Poetry, where it can be recognized that long-term preservation is necessary even though access might be licensed or otherwise constrained.

All these are only examples. None, of course, should automatically be selected; collection development policies should be adapted and followed. The continuing substantial costs of providing electronic information will require that electronic collection decisions be made even as carefully and parsimoniously as for print.

Backup Mechanisms. Backup/restore procedures must be in place and must be automated and economical, for libraries are never likely to have expensive labor available in quantity. Backups must be multigenerational, using remote storage, with regular disaster simulations and tests.

Staged Access. In computing jargon, staging refers to the prioritized use of different mechanical methods of storing data as it waits to be recalled. All data do not need to be immediately available on the most expensive and fastest storage media. Alternatives for providing immediate online access to the enormous potential volume of scholarly information need to be provided. What can be offline, and how can it be retrieved? Present alternatives include magnetic disks, optical disks and jukeboxes, optical disks on shelves, magnetic tapes on site, tapes in remote storage, and automated data warehouses of magnetic tapes.

Data Structure Standards. In a repository, does information simply exist as is
(as first created) or is complementary information metadata associated with it? Widely differing examples include SGML (Standard Generalized Markup Language) headers, ICPSR codebooks, picture captions, hypertext links, and early software versions for use with data files. There is an increasing need to link bitmapped page images to ASCII text versions of the page contents. If there is an association, is it through use of header portions of a file or through supplemental files? How are they indicated and connected?

Refreshing Mechanisms. Refreshing is agreed to be necessary for long-term preservation across advances in computing technology, media, and software. There will be organizational and bureaucratic issues in addition to the simply technical. If information is copied from magnetic to optical disk, copyright issues must be recognized. Automation will be necessary to reduce labor costs. Other issues include workflow and record keeping, migration techniques, and standards and techniques that will apply independently of technology. It may be possible to link refreshment to backup techniques for expediency and economy.

Authentication and Integrity. Intellectual preservation goes beyond preservation of the medium and the technology to assure the protection of the intellectual structure of information as it was recorded by its author. To meet user expectations, DRLs must implement authentication and integrity techniques that combine mathematical security with ease of use, public trustworthiness, and privacy protection. For example, bit patterns of texts, sound, and images may be preserved through cryptographic hashing and encoding methods such as the digital time-stamping technique. Standards and conventions for use and citation will be necessary.

Redundancy. It will be important to establish standards for the number of repository locations necessary to assure long-term existence of specific electronic information and access to it. One location won’t do for a particular major electronic document or set; will two, or three? How many? Major institutions may separately or consortially establish repositories. It is not yet clear how much redundancy of their components will be desirable among them.

Aside from assuring longevity, other issues come to bear on decisions to provide multiple permanent copies of electronic information. Geographic location, nationalism, and regionalism will still play a role (at least intercontinentally, and probably intracontinentally); so will informed decisions about the dynamic interplay between costs of network bandwidth, response time, and costs of storage. Many library consortia will be formed on the basis of joint contracts with information vendors, leading to further redundancy.

Access Tools and Policies

Usage and Retrieval Mechanisms. The full panoply of present access tools must be supported by a digital research library (e.g., online catalogs and OPACs, FTP, gopher, World Wide Web and its multiple clients) with provision for the new access tools that are likely to appear regularly. The “granularity” of documents needs to be addressed: How may one retrieve only part of a document (e.g., a chapter of Moby-Dick or of a legal code; or a particular chart from a presentation) when the full document may be of substantial size? Must documents be pre-coded (or premarked) to allow such granular access, or can access-time mechanisms be made available?

Techniques for document update and consequent archiving and labeling need to be developed, as well as flags indicating obsolescence or supersession (or conversely indicating status as an authorized version), e.g., for ANSI standards, monthly statistical reports, or draft versions. A form of SGML may be appropriate in some cases, for example, the format proposed by the TEI (Text Encoding Initiative).

Cataloging. Providing access to voluminous information is an intellectual problem that historically has been solved in the print environment by ab-
stracting and indexing services and by library cataloging, with attendant rules and procedures to ensure consistency and accuracy. These tools, adapted to suit new needs, will work for electronic information as well.\textsuperscript{12} They should be linked to the new retrieval mechanisms so that users can smoothly navigate from location of information to retrieval of it without having to shift their mode of use. Early mechanisms will probably link catalog records to documents using tools such as the WWW, the Uniform Resource Indicator (and Locator) or URI/URL, and the recently proposed MARC 856 field.\textsuperscript{13} SGML may offer other possibilities for linking of certain documents through its document description techniques. In any case, there eventually will need to be consensus both for the representation of physical electronic locations in bibliographic records and for representation of virtual locations.

If the DRL's catalog system works well, users will be able to search for information, locate bibliographic records for desiderata, and use those records directly to draw the desired information to their workstation.\textsuperscript{14} Where an authentication technique is used (see above), means for including and testing the certification must be provided. Standards for such cataloging and remote access still need to be developed, particularly for providing catalog access to non-owned materials. The present review of AACR2 Chapter 9 is to be applauded, as is the recent OCLC study on the cataloging of nonbook materials.\textsuperscript{15}

Remote Access. A DRL should from the outset be intended for access from multiple remote locations. Internet-wide access should generally be possible. In early pilot implementations it initially may be advisable for a few libraries to plan and develop catalog and access mechanisms that integrate the individual libraries' collections with that of the DRL. Procedures for dissemination of such catalog records will be needed; it will be not only a technical matter but also a policy matter for libraries associated with the DRL to provide nonlocal access to their local patrons. Presumably the bibliographic utilities will play their accustomed role.

Fees and Freedom. In practice these are often linked issues. Standards and techniques will be necessary to solve a knot of interconnected problems surrounding access and ownership, including:

- Privacy preservation for users, while also protecting
- Copyright protection for intellectual property holders, while also protecting
- Fair use mechanisms, and also providing
- Fee-charging techniques, including billing, where relevant.

**COMMITMENTS**

Much of what has been described so far is merely technical, and the outlines of solutions are clear even if the details remain to be worked out in practice (set aside here are the nontrivial matters of cost). More difficult will be the social compacts, that is, the agreements on standards, intellectual property, and access modes. But most difficult of all to achieve, if electronic preservation and access are to be accomplished on any significant scale, will be the long-term commitments to these goals by institutions.\textsuperscript{16} Nothing makes clearer that a library is an organization, rather than a building or a collection, than the requirement for institutional commitment if electronic information is to have more than a fleeting existence.

**Organizational Commitment**

The organization of libraries is already changing as electronic information increasingly becomes part of their charge. Most research libraries now have substantial systems departments. Some libraries locate the responsibility for electronic information distinctly from that for print. Other libraries see the forms as inseparable and include electronic responsibilities along with artificial responsibilities in assignments for collection development, cataloging, and public service.

What is new will be the permanent assignment of staff responsibility for the long-term maintenance of electronic information within a library. There is no
obvious artifactual parallel for this responsibility: circulation, stack maintenance, preservation, and physical plant departments now share it for print. Nor are there present parallels in academic computing centers, where staffs focus typically on technological advance and availability, leaving data to the users. The electronic preservation responsibility will be focused as it will require technical expertise likely to be located in a single functional area.

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It is by no means clear that this functional area will simply be what we used to call the library’s systems department. As libraries move more into the electronic environment, the historic tripartite division of libraries into public services, technical services, and collection development continues but in more fluid arrangements. People who combine bibliographic understanding, problem-solving abilities, and process orientation have often been found in technical services as well as elsewhere in libraries. Similar librarians will take on the demanding new technical, collection, and service responsibilities for long-term support of digital collections. At the same time, it is becoming clear that the traditional computing community is fertile with ideas, analyses, and skills that are important to electronic library goals.17

**Fiscal Commitment**

The permanent existence of a digital research library will require assured continuity in operational funding. Almost any other library activity can survive a funding hiatus of a year or more. Acquisitions, building maintenance, and preservation can be suspended, or an entire staff can be dispersed and a library shut down for several years, and the artifactual collections will more or less survive. But digital collections, like the online catalog, require continual maintenance if they are to survive more than a very brief interruption of power, environmental control, backup, migration, and related technical care.

Online catalog maintenance costs have reached a rough steady state, and the capital costs for new OPACs are decreasing relative to the capabilities provided. The catalog size will continue to increase, but catalog records are small relative to the information to which they refer. DRLs, however, as a proportion of the library’s supply of information, will grow for the foreseeable future, and the quantity of information requiring care will become considerable (and much larger than the catalog). Unit costs of storage are likely to continue falling for some time, which may make the financial burden manageable. (Staffing costs are not expected to increase, as most libraries now recognize that overall staff growth for any reason will not be allowed for some time; reassignments, however, are likely.)

Long-term funding will be required to assure long-term care. Libraries and their parent institutions will need to develop new fiscal tools and use familiar fiscal tools for new purposes. Public institutions, usually constrained to annual funding, will have particular difficulties; existing procedures for capital or plant funding may provide precedents. One familiar technique is the endowment. It has been difficult to obtain private funding for endowments of concepts and services rather than books and mortar, but it is possible. Institutions might also build endowments out of operating funds over periods of time.

Some revenue streams associated with Digital Research Libraries may be practical. Consortial arrangements may allow for lease or purchase of shares in a DRL. Shorter-term access might be provided to other institutions on a usage basis. Access could be sold to certain classes of users, e.g., businesses, nonlocal clien-
teles, or specific information projects. New relations with publishers, presently difficult to perceive through the mists rising from intellectual property, might result in fee income for storage of electronically published materials during the copyright lifetime in which publishers collect usage fees. With commitment and imagination long-term fiscal tools will be found.

**Institutional Commitment**

All these are instrumental means of accomplishing the greatest requirement, that of conscious, planned institutional commitment to preserve that part of human culture which will flower in electronic form. While museums preserve artifacts, often beautiful, that embody information, libraries preserve information that—until now—has been embedded in artifacts (only occasionally of aesthetic interest in themselves). The advent of electronic information will accentuate the difference between these roles as libraries take the responsibility for the preservation of information in nonartifactual forms.

For the past century most research libraries have been associated with universities, and this connection seems likely to continue in the immediate future. Whatever the governance structure, an institution wishing to benefit from electronic information will have to make a conscious commitment to providing continuing resources. Michael Buckland of the University of California at Berkeley has distinguished between a library's role and its mission. Where the role of a library is to facilitate access to information, its mission is to support the mission of its parent institution. One can extend this to understand that if a university wishes to continue gaining support for its mission from its library, it will have to make commitments to the library's role. In the electronic environment, this means new longstanding financial commitments which the library and university together must identify and gain.

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The commitment will have to be clearly and publicly made if scholars and other libraries are to have confidence that a given DRL is indeed likely to exist for the long term. It will probably be desirable for guidelines or standards to be established defining what is meant by a long-term commitment, and defining what electronic repositories of data can qualify to be called a digital research library. Just as donors of books, manuscripts, and archives look for demonstration of long-term care and commitment, so too will scholars and publishers as electronic information is created and requires a home.

**CONCLUSION**

Establishing a digital research library continues the research library role. To do so should be considered as natural as acquiring the next book or cataloging the next journal. Not to do so would be an abdication of that role. The tasks call not so much on new knowledge nor on new techniques, but upon informed commitment; that is, upon will. For librarians wondering what is to come of their profession in the electronic age, here is their challenge.

**REFERENCES AND NOTES**

1. Artifactual materials include books, journals, manuscripts, recordings, and other information resources which are inseparably linked to the objects that are their medium, and therefore exist in space and require specific physical handling to use. In contrast with such materials, where to preserve the artifact is to preserve the information contained in it, electronic information is easily transferred from one medium to another with no loss.


4. I refer to the digital research library in preference over the Digital Library, a term preempted and given currency by Vice President Albert Gore, and virtual library, a companion term brought forth by the National Science Foundation (see, e.g., Thomas J. DeLoughry, "Government Provides $24-Million for 'Virtual Libraries' Projects," Chronicle of Higher Education [Oct. 5, 1994]: A26). The announcement for "Digital Libraries '95: The Second International Conference on the Theory and Practice of Digital Libraries" refers to new media and data types, high-speed networks, social and legal issues, and collaboration, but makes no reference to long-term access to information. These terms have so far been used narrowly to define a quantity of databases available for use at a given time. A library however is not simply a network full of databases nor a building full of books; it is an organization. A DRL is a set of electronic information organized for the long term.


12. Lynch, in Framework proposes “that the emphasis be on describing content . . . rather than access mechanisms” (§ “Cataloging Networked Information Resources”).

13. Tim Berners-Lee, July 14, 1993, Uniform Resource Locators [online, as ftp://ds.internic.net/internet-drafts/draft-ietf-uri-url-01.txt (or . . . -01.ps)]. There is a good deal of more recent work in this area being done by IETF groups (for current status, see <URL:http://www.ietf.cni.reston.va.us/1id-abstracts.html>). See also MARBI Proposal 93–94 (Nov. 20, 1992), 5 ff, for comments on the possible relations between the URL and the proposed MARC field 856 (Electronic Location and Access); and MARBI Proposal 93–94 (Dec. 6, 1993), which specifically proposes adding a subfield $u$ to field 856 to accommodate a URL.

14. For a further description of this potential for integration, see Peter S. Graham, “The Mid-Decade Catalog,” in ALCTS Newsletter (Jan., 1994), A–D.


General Note:
  “Appendix: Recommendations for URLs in Context . . .
  “In some cases, extra white space (spaces, line breaks, tabs, etc.) may need to be added to break long URLs across lines. The white space is ignored when extracting the URL.
  “Special caution must be used with regard to hyphens: because some typesetters and printers may erroneously introduce an extraneous hyphen at end of line when breaking a line, no white space should be introduced after a ‘-’ character. When extracting the URL from text or printed material, a hyphen followed by a line break may be ignored as well.”

18. The national libraries are the great exceptions, such as those of Britain, Russia, France, and the United States. Exceptions in this country include the handful of independent research libraries, such as the Folger, the Huntington, and the American Antiquarian Society, and some of the great civic institutions such as the Boston and New York Public Libraries. For the possibility of the link between research libraries and universities being lost, see the 1991 Malkin Lecture of Terry Belanger, The Future of Rare Book Libraries (Charlottesville, Va.: Book Arts Press, in preparation; text available from Dec. 16, 1991, archive of ExLibris, a listserv at rutvm1.rutgers.edu, message from: terry@cunixa.cc.columbia.edu, subject: Malkin Lecture).

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FROM THE ASSOCIATION FOR LIBRARY COLLECTIONS & TECHNICAL SERVICES

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Unionization and Job Satisfaction among Professional Library Employees in Academic Research Institutions

Tina Maragou Hovekamp

Previous research pertaining mostly to blue-collar unionized workers indicated that the reported job satisfaction among these employees tends to be lower than among nonunionized workers. The present study concentrated on a professional group—professional librarians in academic research institutions—to reexamine the issue. By comparing the survey results of union and nonunion participants, this research found that the presence of unions has a negative relationship with job satisfaction. However, the results of this study did not support the argument that such a relationship is a product of union culture, as some researchers have suggested. Salary was revealed as a more consistent predictor of job satisfaction. There was also the suggestion that part-time employment status might relate to the survey participants' happiness with their job.

Several attempts to estimate the degree of job satisfaction among union workers have shown that this type of employee may report lower levels of satisfaction compared to nonunion workers. Research in this area has mainly concentrated on the blue-collar or nonprofessional worker. In addition, the few studies which have focused on professional employees have produced conflicting results, indicating that the relationship between unions and job satisfaction may be complex and not so predictable.

The present investigation was based on the survey results of a professional group of librarians in union and nonunion academic research institutions. The data received compared the reported levels of job satisfaction between the union and nonunion participants. To examine any possible association between union culture and the employees' attitudes, this research also explored the relationship between union membership and job satisfaction as well as the relationship between union loyalty and job satisfaction. The researcher believed that if unions had an impact, it would be particularly evident among registered union members or those most committed to their union.

The researcher analyzed the data using multiple regression. Several demographic variables which otherwise could affect the results of the research entered the regression equations as controls. This method also allowed the researcher to explore these variables and their possible relation to job satisfaction.

THEORETICAL AND RESEARCH BACKGROUND

Repeatedly dissatisfaction with employment conditions has been found as

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a common explanation for the reason workers decide to unionize. As Charles Odewahn and M. Petty indicate, the literature for some time has supported the idea that economic and other job-related issues are a primary cause for union organizing.1

Researchers continue to reaffirm the link between job satisfaction and unionization. For example, Julius Getman, Stephen Goldberg, and Jeanne Herman found that voting behavior during union elections is affected by the level of employee satisfaction.2 They indicated that the less satisfied employees were more prone to vote for union representation than the more satisfied employees. In his study William Bigoness also found that there is a significant relationship between employee attitudes toward unionism and job satisfaction with respect to work, pay, supervision, and opportunities for advancement.3

Besides research findings on the relationship between job discontent and prounion behavior, a number of investigations have also shown that job satisfaction tends to be lower among union compared to nonunion employees after the establishment of bargaining relations. Both Richard Freeman and George Borjas were among the first to find that, on average, unionized workers report significantly lower levels of job satisfaction.4,5

Whereas Freeman and Borjas used a single item to measure overall job satisfaction, later studies explored the same issue in a more detailed way by examining the relation between union presence and different facets of job satisfaction. Thomas Kochan and David Helfman, for example, reported that unions have a positive effect on wages and this in turn has a significant, positive influence on the members’ satisfaction with bread-and-butter issues (pay, fringe benefits, and job security).6 However, when it came to satisfaction with other job issues such as job content, resource adequacy, and promotions, the researchers found a significant, negative relationship with union presence after controlling for wage level. Based on data compiled from a national probability sample of employed adults, Chris Berger, Craig Olson, and John Boudeau indicated that the relationship between union presence and different facets of job satisfaction might be indirect.7 Specifically, quite similarly to Kochan and Helfman, those researchers showed that unions are positively related to pay satisfaction because of higher pay rewards and pay values among workers. However, a negative relation was found between union presence and other job aspects, such as job content, supervision, or opportunities for promotion. The study tried to explain that such a negative relationship existed because of the employees’ less favorable perceptions and lower values related to these issues. Berger et al. also indicated that when considering the overall job satisfaction, union workers tend to be less satisfied than workers in nonunionized environments.

It is believed that in an effort to attract and maintain membership, unions emphasize the shortcomings of a work situation, which then acquire a greater importance for the employees.

In 1987 Susan Schwochau again attempted to investigate the issue with data she collected from a national probability sample.8 Consistent with previous research, her analysis confirmed that union members report lower levels of job satisfaction than nonmembers in all job facets but pay. In a very similar study Ronald Meng found the same differences in job satisfaction among Canadian union and nonunion workers.9

In an effort to explain the above findings, researchers such as Russell Smith and Anne Hopkins argue that the politicization of the work force by the presence of the union is one possible cause of decreased job satisfaction.10 It is believed that in an effort to attract and maintain membership, unions emphasize the shortcomings of a work situation, which then acquire a greater importance for the employees.
Another frequently cited rationalization of the reasons why union workers report lower job satisfaction was discussed by Richard Freeman. According to his “exit-voice” concept, unionism creates mechanisms that enable workers to “voice,” rather than suppress, their dissatisfaction. By doing this, members become more aware and more expressive of the possible problems associated with their jobs. It is for this very reason, Freeman says, that unionized employees respond more negatively to questions of job satisfaction than nonunionized employees. The advantage of this situation is that despite their dissatisfaction, employees have more opportunities actually to resolve problems in their employment relations. For instance, the grievance and arbitration system, or even the process of negotiations, allows employees to express openly their feelings and perhaps find a solution. In contrast, dissatisfied employees in nonunion facilities who do not suppress their emotions often view quitting their jobs as the only alternative.

Still, the relationship between unionization and job satisfaction is rather complex and still not fully understood. Furthermore, there have been findings from studies of unionized professional employees which contradict the idea of a negative relationship between unions and job satisfaction. For example, Luis Gomez-Mejia and David Balkin studied the relationship between faculty organization and satisfaction with pay and other job dimensions. Their survey showed that union presence was associated positively with faculty pay satisfaction. In addition, they found no evidence of any association with satisfaction on issues such as promotion, supervision, job content, job context, or resource adequacy.

In a similar study of 260 Canadian university faculty, Bernadette Schell and Andrew Loed concluded that unionized faculty report the same high level of job satisfaction as nonunionized faculty. Furthermore, according to their analysis, "work itself was a major contributor to faculty members' satisfaction." Such results imply that the predictive relationship between job satisfaction and unionism may not always be consistent. This may also mean that the relationship could be different for unionized professional employees as opposed to nonprofessional or blue-collar workers.

Michael Gordon, Laura Beauvais, and Robert Ladd confirmed this idea by finding that whereas job satisfaction was related significantly to union satisfaction and loyalty among a group of unionized technicians, these variables were hardly correlated in a sample of unionized engineers. The researcher speculated that "engineers [might] perceive their membership in the engineering profession, rather than in the union, as responsible for the rewards associated with their overall employment situation." The character of a professional occupation, in other words, might play an important role in the way individuals approach their job and what they expect to derive from it.

The present research concentrated on a particular professional group, professional library employees in academic research institutions. The researcher wanted to examine whether indeed these types of union employees have a different degree of job satisfaction than their nonunion colleagues.

Specifically, the hypotheses tested in this research examined differences in job satisfaction between professional librarians in unionized versus nonunionized institutions. Besides overall job satisfaction, this investigation looked at the relationship between unions and satisfaction separately with bread-and-butter, job content or growth, and work environment issues. To explore whether union culture may affect the way individuals perceive their jobs, this study also analyzed the variables of membership status and union loyalty as predictors of job satisfaction among unionized employees. The researcher believed that if unions related to job satisfaction, such an association could be best reflected in the sentiments of registered members or those most committed to their union.

The four hypotheses of this investigation explored the following research questions:
• Is there a significant relationship between the presence of unions (unionization) and professional librarians' degree of overall job satisfaction?
• Is there a significant relationship between the presence of unions and professional librarians' satisfaction with bread and butter, job content or growth, and work environment issues?
• Is there a significant relationship between union membership status (whether an employee is a registered union member or a nonregistered union member) and professional librarians' job satisfaction?
• Is there a significant relationship between union commitment and professional librarians' job satisfaction?

**METHOD**

**Subjects and Setting of Study**

The participants in the study were full-time or part-time employees with an M.L.S. or equivalent degree and professional appointments (academic or faculty) in academic research library institutions which were members of the American Research Library Association (ARL). The reason for selecting academic research libraries as the setting for this study was the relative availability of data on unionization among these institutions compared to smaller college libraries, as well as the fact that research libraries because of their complex, bureaucratic structure are more likely to be unionized than smaller libraries.

In August 1991 the researcher mailed requests for participation in the study to twenty-six research libraries in the United States, which at the time did not have union representation for either professional or paraprofessional staff. They selected these libraries by eliminating from a list of ARL academic libraries those which had union representation for professional and/or paraprofessional library staff. The final sample included twenty-six libraries drawn randomly from the remaining population.

Seventeen American research libraries which at the time had collective bargaining agreements for their professional library employees also received a similar mailing. Since most of the ARL libraries were not unionized, the sample of non-union institutions was larger than that of union libraries. In this way the research samples represented more accurately the population of the study.

Library directors in both union and nonunion libraries received a letter describing the purpose of the study accompanied by a request for their institution's participation. As a result, nineteen nonunion (i.e., 73 percent of the originally selected nonunion libraries) and thirteen union libraries (i.e., 76 percent of the original number of unionized research libraries) agreed to participate in the study.

**Survey Instrument**

In order to measure employee job satisfaction, the researcher based questions,
with a few modifications, on the short form of the Minnesota Satisfaction Questionnaire or MSQ. This questionnaire measured job satisfaction in regard to bread and butter, job content, or growth issues, as well as work environment.

The MSQ was appropriate to use in this study because it covered job facets relevant to the characteristics of the specific population and to the scope of this study. Moreover, previous tests on the reliability of the MSQ had already provided evidence that this instrument was quite reliable and consequently relatively safe to use. For each of the items in the job satisfaction questionnaire, researchers asked the subjects to respond using a 5-point Likert-type scale.

To explore the relationship between job satisfaction and union commitment, the survey also included eleven items adapted from Porter’s Organizational Commitment Questionnaire (OCQ), which measured the union participants’ loyalty to their bargaining association. Chester Schriesheim and Anne Tsui, Dan Dalton and William Todor, and Edward Conlon and Daniel Gallagher used a similar instrument in their previous union studies. This measure previously showed high levels of internal reliability and agreed with the definition of union commitment in the present study. The items of this measure were included only in the survey of the union sample. The response format for this measure also employed a 5-point Likert scale.

In addition to the survey items discussed above, those questionnaires sent to participants in the union sample asked them to identify whether or not they were registered union members. The survey instrument also requested that all respondents indicate their sex, age, total years of work as a library employee, employment status (full-time or part-time), and total annual salary. These variables were entered as “controls” in the data analysis. In this way it was also possible to explore any relationship these variables might have with job satisfaction.

The researcher collected most of the data for this study by the end of December 1991. The response rate reached 91 percent including six (6) refusals to participate and thirteen (13) invalid responses. Within the nonunion group, 189 or 94.5 percent of the sample responded to the survey. From the union group, 174 or 87 percent returned responses.

**RESULTS**

Table 1 provides the population profile of this survey based on an analysis of the demographic characteristics of the respondents.

The results from table 1 show that the most distinct difference in the demographic characteristics of the nonunion versus the union group is in the area of salary, with the majority of union librarians placed in the upper salary scales. That might relate to the fact that within the nonunion group there was a larger percentage of younger and less experienced professionals. In addition, researchers observed that the distribution of the population regarding employment status (full-time versus part-time) was quite uneven for both groups. Despite that, it was the researcher’s decision to include this control variable in the analysis of data.

The researcher also used regression analysis to test each of the four hypotheses. All regression equations included gender, age, years of library experience, employment status (full-time versus part-time), and salary as control variables. By including these variables, it was also possible to examine their contribution to job satisfaction.

The means of overall job satisfaction for the union and nonunion group were 3.555 and 3.687, respectively, based on the Likert scale with 1 as the lowest value and 5 as the highest value. Consequently, the overall tone of the participants’ feelings toward their job in both groups was somewhere between neutral and satisfied.

The regression analysis of the first hypothesis of the study revealed that union presence had a significant, negative relation to overall job satisfaction; the regression coefficient for the variable of union presence was equal to -3.914, \( p < .01 \).
TABLE 1
SUMMARY OF DEMOGRAPHIC CHARACTERISTICS FOR RESPONDENTS

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>No. of Nonunion Respondents</th>
<th>% of Union Respondents</th>
<th>% of Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>34.8</td>
<td>38.0</td>
<td>36.3</td>
</tr>
<tr>
<td>Female</td>
<td>65.2</td>
<td>62.0</td>
<td>63.7</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>6.7</td>
<td>3.7</td>
<td>5.3</td>
</tr>
<tr>
<td>31-40</td>
<td>30.2</td>
<td>29.0</td>
<td>29.6</td>
</tr>
<tr>
<td>41-50</td>
<td>41.3</td>
<td>42.0</td>
<td>41.6</td>
</tr>
<tr>
<td>51-60</td>
<td>15.1</td>
<td>14.8</td>
<td>15.0</td>
</tr>
<tr>
<td>Over 61</td>
<td>6.7</td>
<td>10.5</td>
<td>8.5</td>
</tr>
<tr>
<td>Years of library experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>15.5</td>
<td>9.9</td>
<td>12.8</td>
</tr>
<tr>
<td>6-10</td>
<td>19.9</td>
<td>16.2</td>
<td>18.1</td>
</tr>
<tr>
<td>11-15</td>
<td>18.8</td>
<td>18.6</td>
<td>18.7</td>
</tr>
<tr>
<td>16-20</td>
<td>17.7</td>
<td>23.0</td>
<td>20.2</td>
</tr>
<tr>
<td>21-25</td>
<td>14.3</td>
<td>17.4</td>
<td>15.8</td>
</tr>
<tr>
<td>26-30</td>
<td>6.1</td>
<td>8.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Over 31</td>
<td>7.7</td>
<td>6.8</td>
<td>7.4</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>93.9</td>
<td>93.9</td>
<td>93.9</td>
</tr>
<tr>
<td>Part-time</td>
<td>6.1</td>
<td>6.1</td>
<td>6.1</td>
</tr>
<tr>
<td>Annual salary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $20,000</td>
<td>4.5</td>
<td>1.8</td>
<td>3.2</td>
</tr>
<tr>
<td>$20,000 to 24,999</td>
<td>10.6</td>
<td>3.7</td>
<td>7.3</td>
</tr>
<tr>
<td>$25,000 to 29,999</td>
<td>22.9</td>
<td>16.6</td>
<td>19.8</td>
</tr>
<tr>
<td>$30,000 to 34,999</td>
<td>21.2</td>
<td>13.4</td>
<td>17.5</td>
</tr>
<tr>
<td>$35,000 to 39,999</td>
<td>14.0</td>
<td>21.0</td>
<td>17.3</td>
</tr>
<tr>
<td>$40,000 to 44,999</td>
<td>14.5</td>
<td>20.2</td>
<td>17.3</td>
</tr>
<tr>
<td>Over $45,000</td>
<td>12.3</td>
<td>23.3</td>
<td>17.6</td>
</tr>
</tbody>
</table>

Additionally, among the demographic variables of this study, part-time employment and salary were also significant and related positively to overall job satisfaction; their regression coefficients were equal, respectively, to 12.232 and 2.331, *p < .001*. The regression model for the determination of overall job satisfaction by union presence and demographic characteristics had a squared multiple correlation coefficient (R^2) equal to 0.086 (*p < .001*); in other words, union presence along with the demographic control variables explained 8.6 percent of the variance of overall job satisfaction.

In addition to examining overall job satisfaction, this study took a more detailed look at the participants' satisfaction with several job aspects. To be more specific, the researcher divided participant responses to the 19-item job satisfaction questionnaire into three categories based on conceptual relationships among the questionnaire items. These included satisfaction with:

- Bread-and-butter issues (3 items). The job dimensions included in this category were: employee benefits, job security, and salary.
- Job content or growth issues (10 items). The job dimensions included in this category were: degree of job independence, variety of work, opportunity to render service, use of one's...
TABLE 2
REGRESSION COEFFICIENTS AND t's FOR THE DETERMINATION
OF DEGREE OF SATISFACTION WITH DIFFERENT JOB FACETS
UNDER UNION AND NONUNION CONDITIONS (N = 344)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Bread and Butter</th>
<th>Job Content/Growth</th>
<th>Work Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union</td>
<td>-0.026</td>
<td>-2.408</td>
<td>-1.717</td>
</tr>
<tr>
<td></td>
<td>(-0.118)*</td>
<td>(-2.930)‡</td>
<td>(-3.345)‡</td>
</tr>
<tr>
<td>Gender</td>
<td>0.160</td>
<td>0.054</td>
<td>0.116</td>
</tr>
<tr>
<td></td>
<td>(0.709)</td>
<td>(0.066)</td>
<td>(0.225)</td>
</tr>
<tr>
<td>Age</td>
<td>0.019</td>
<td>-0.119</td>
<td>0.203</td>
</tr>
<tr>
<td></td>
<td>(0.120)</td>
<td>(-0.206)</td>
<td>(0.555)</td>
</tr>
<tr>
<td>Years of library experience</td>
<td>-0.051</td>
<td>-0.484</td>
<td>-0.386</td>
</tr>
<tr>
<td></td>
<td>(-0.513)</td>
<td>(-1.313)</td>
<td>(-1.669)</td>
</tr>
<tr>
<td>Part-time versus full-time</td>
<td>2.332</td>
<td>6.216</td>
<td>4.645</td>
</tr>
<tr>
<td></td>
<td>(4.602)‡</td>
<td>(3.373)‡</td>
<td>(3.881)‡</td>
</tr>
<tr>
<td>Salary</td>
<td>0.533</td>
<td>1.451</td>
<td>0.524</td>
</tr>
<tr>
<td></td>
<td>(6.321)‡</td>
<td>(4.617)‡</td>
<td>(2.744)‡</td>
</tr>
<tr>
<td>R²</td>
<td>0.158‡</td>
<td>0.078‡</td>
<td>0.072‡</td>
</tr>
<tr>
<td>Constant</td>
<td>8.738</td>
<td>33.975</td>
<td>19.069</td>
</tr>
</tbody>
</table>

* t's appear in parentheses; ‡ p < .01; † p < .001

abilities, advancement opportunities, degree of job responsibility, opportunity for creativity, recognition received, feeling of achievement, opportunities for educational advancement.

- Work environment issues (6 items). The job dimensions included in this category were: social status in the campus community, decision-making competence of supervisor, relation of supervision to supervised employees, workplace policies, working conditions, relations among coworkers.

Table 2 presents the regression results of the analysis of job satisfaction with the above job facets by union presence and demographic characteristics.

The results of Table 2 indicate that union presence has a statistically significant negative relationship with satisfaction in regards to issues of job content or growth (p < .01) and work environment (p < .001). On the other hand, the relationship between satisfaction with bread-and-butter issues and union presence was nonsignificant. Once again, among the control variables, part-time employment and salary turned out to be highly significant positive predictors of job satisfaction with all three job dimensions (p < .001).

The third hypothesis of this study investigated the issue of job satisfaction within the union group. Specifically, it tested the significance of any possible differences between professional librarians who were registered union members at the time, and those who were not registered as official members but were covered by the bargaining agreement at their campus. The purpose of such an analysis was to determine whether union culture may affect the way registered members approach their jobs. Regression analysis showed that the variable of union membership was not a predictor of job satisfaction among unionized library employees; the regression coefficient for the variable of union membership was 2.264, p > .05. The demographic variables, however, of part-time employment and salary level turned out to be fairly powerful predictors of job satisfaction among the union participants with regression coefficients respectively
of 13.592, \( p < .01 \) and 3.901, \( p < .001 \). The \( R^2 (= 0.196) \) of this regression model indicated that 19.6 percent of the variance of overall job satisfaction among unionized library employees was accounted for mainly by the variable of part-time status and salary regardless of union membership status.

The final hypothesis of this study explored the relationship between job satisfaction and union commitment. The researcher believed that those individuals most committed to their bargaining organization would reflect best the sentiments of the union group in this study. The results of the regression analysis indicated that the relationship between these two variables was nonsignificant. The regression coefficient for the independent variable of union commitment was \( 0.086, p > .05 \). As expected, part-time status and salary level were the only statistically significant variables in the regression equation for the prediction of overall job satisfaction (\( p < .001 \)).

**DISCUSSION**

Previous theoretical speculations and research findings tried to explain the influence of interest groups such as unions on their membership. Some theorists suggest that employee satisfaction is often affected by the unions' deliberate effort to stress the negative aspects of a workplace in order to attract and retain their membership. Other researchers propose that union mechanisms tend to generate a stronger expression of discontent among workers and, consequently, lower their reported level of job satisfaction. Past research concentrated mainly on blue-collar workers in an effort to investigate the relationship between unions and job satisfaction. The present study, however, looked at a specific professional group, professional librarians, in order to reexamine the issue.

Similar to previous findings, this study provides evidence that union presence is indeed a negative predictor of overall satisfaction among professional library employees. The data show that unionization along with demographic characteristics is a statistically significant, negative predictor of satisfaction, specifically with issues of job content or growth and work environment. To further explore the issue, the researcher tested the likelihood of a link between union membership status and job satisfaction; however, it was discovered that registered and nonregistered union members reported comparable levels of satisfaction. Similar results indicate that the relationship between union commitment and job satisfaction is also not significant. Union employees reported similar levels of job satisfaction regardless of their degree of union loyalty.

Based on the above findings, the researcher suggests that even though unionized professional librarians tend to report lower levels of job satisfaction than their nonunion colleagues, there is no clear evidence that such attitudes are a product of union culture. Neither the registered membership nor those most loyal to the union seem to have a stronger awareness or feelings of work injustice than nonregistered or less loyal union members. The mere presence of unions may encourage "exit-voice" behavior among union workers, as Freeman suggests; yet one might wonder whether job satisfaction is actually more strongly affected by other variables, typical of unionized environments but independent of union influences. For instance, it might be worth investigating whether the work environment in unionized workplaces is different than that in nonunion workplaces. According to the data of this study, unionized librarians report lower levels of satisfaction specifically with job content and growth and with work environment. The presence of a labor organization might imply a history of problems in the employer-employee relationship, and the case might be that these problems still persist and affect the employees' work experiences. In other words, union presence simply could be an indication, and not the actual source, of decreased levels of job satisfaction.

Further research needs to analyze in more detail the reasons why unionized
library employees tend to be less content with their jobs than their nonunion colleagues. Why did the participants of this study indicate lower levels of satisfaction with job content and work environment issues? Are there problems characteristic of union workplaces and independent of union culture? Within the same framework, it would also be interesting to compare the levels of job satisfaction between unionized library professionals and unionized faculty on the same campuses.

A secondary finding of the present survey was that, contrary to previous research, unions did not seem to affect the way professional librarians felt about the extrinsic rewards of their jobs. This possibly could imply either that collective bargaining did not improve the overall financial status of participants in the study or that those library professionals did not have any particularly favorable perceptions regarding the extrinsic rewards of their job.

Finally, among the demographic characteristics of this study, researchers consistently found salary and part-time employment status to be statistically significant, positive predictors of job satisfaction among the survey participants. The positive predictive relationship of salary with job satisfaction was not a surprise. Previous research findings focusing on the issue of pay have already shown that job satisfaction increases with salary. Part-time status, however, was a new significant variable in the determination of job satisfaction. This research suggested that among library research institutions, part-time employees tend to report higher levels of satisfaction with their job than full-time employees. Unfortunately, no conclusive inferences could be drawn in the present study since part-time employees were only 6.1 percent of the total survey population (see table 1). However, one may speculate that part-time employment could be a significant variable because of the importance it might carry among female-dominated professions such as the one involved in the present investigation (63.7 percent of the participants were females). Future studies should address the significance of this variable in connection to job satisfaction and examine whether this significance may relate to the characteristics of certain occupations.

REFERENCES AND NOTES


15. Ibid, 548.


17. Ibid, 365.

18. For a detailed description of the design of this study see Tina Maragou Hovekamp, “Unions and Work Attitudes: Job Satisfaction, Work Values, and Organizational Commitment of Professional Librarians” (Ph.D. diss., Univ. of North Carolina at Chapel Hill, 1993), 75–79.


20. For more details, see ibid, 23–26.


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Research Notes

Encouraging Research through Electronic Mentoring: A Case Study

Tami Echavarria, W. Bede Mitchell, Karen Liston Newsome, Thomas A. Peters, and Deleyne Wentz

In 1991 the Association of College and Research Libraries (ACRL) Research Committee established an experiment using electronic mail to create mentoring relationships focusing on library and information science research. This article reports on that experiment's progress to date and includes first-hand accounts of participants' experiences.

An innovative experiment in electronic mentoring that utilizes the Internet and listserv software is entering its fourth year. A small group of librarians is using these relatively new technologies to extend the traditional boundaries of mentoring and the recent paradigm of network communication in the field of library and information science (LIS). The project, sponsored by the ACRL Research Committee with technical support from New Mexico State University, aims to get more professionals involved in LIS research by engaging them in discussions with mentors and fellow protégés on a variety of research topics and issues.

Project goals include: introducing mentoring activities to the network environment, expanding the scope of network/listserv forms of communication, getting more LIS professionals involved in research, encouraging improvements and diversification in the research skills of LIS professionals, and expanding communication within the LIS research community.

GENESIS OF THE PROJECT

The project began with a conference program titled "Mentoring and Academic
Research: Using Bitnet Conferencing to Encourage Research," which took place at the 1991 American Library Association (ALA) Annual Conference in Atlanta. Helen Spalding from the University of Missouri-Kansas City spoke about the one-on-one, face-to-face mentoring tradition, and Vicki Gregory from the Division of Library and Information Science at the University of South Florida discussed the possibilities for electronic mentoring. Program participants received a handbook containing program abstracts; guidelines; technical information; a network directory; and a selective bibliography on mentoring, LIS research, and electronic networks. Mentors and protégés were given the opportunity to get to know one another, exchange ideas, and discuss the potential for this program. After the Annual Conference, program participants returned to their locations to begin this unique experiment in electronic mentoring.

PROJECT DESIGN

The Research Committee divided the participants into six groups centered around broad topics within the field of library and information science research: bibliographic control, collection management, expert systems, library effectiveness, scholarly communication, and understanding the user. Each group was composed of one or more mentors, a group of protégés, and a member of the committee who functioned as liaison and facilitator. A listserv discussion group list was reserved for the use of each group. Mentors and protégés used the electronic mail facilities at their institutions to send messages to their list. The listserv software redistributed all incoming messages to everyone in the group.

EXTENDING THE BOUNDARIES OF MENTORING AND NETWORK COMMUNICATION

The electronic mentoring project has attempted to extend the traditional practice of mentoring by creating small groups of mentors and protégés and a nationwide network of people interested in the same area of research in library and information science. Realizing that the local pool of active researchers in LIS research is small, the committee hoped that nationwide communication among beginning researchers would encourage more professionals to take the research plunge.

Although a much more recent phenomenon than professional mentoring, network communication using the listserv software and national educational communication networks also has developed "traditional" patterns and accepted norms. Traditionally, the listowner announces the subject area for discussion, in addition to technical information on how to subscribe and post messages. The listserv list then functions as a type of high-tech forum or speaker's corner. Typically, a relatively small group of people are inclined to conduct the majority of the discussions, moving from one topic to the next within the given subject area, while many more subscribers read the postings. This tendency is typical of many forms of communication, information transfer, and business inventory, and it exemplifies the so-called 80/20 rule.* In this context, the rule can be stated as follows: "Approximately 80 percent of the postings are made by 20 percent of the total potential participants." In light of the 80/20 rule, the Research Committee intentionally kept the number of members of each group between twelve and twenty-four in order to increase the likelihood that each participant would become actively involved in the discussion.

REPORT ON ACTIVITIES

During the first year of the pilot project, total message traffic for all groups averaged slightly over one message per day. The LIS Research Understanding the User (LISRUU) group was the most active, and

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the general consensus was that it also was the most rewarding for the participants. Unfortunately, it was the only group to continue after the first two years, for reasons that will be discussed later, and, therefore, most of the remainder of this article focuses on the experiences of the LISRUU group.

Surprisingly, the number of individuals who contacted the listowner with technical questions was small, although a few problems did occur during the early stages of the project. Two months into the project's first year, the listowner changed institutional affiliations and network nodes. This not only created confusion with individual messages to and from the listowner, but it also necessitated reconstructing all of the lists. Once the technical glitches were fixed, concerns and complaints expressed about the project were human-based.

In essence, it is possible that electronic communication puts all the communicants on an equal footing—and, while it allows them to respond spontaneously, it also enables them to take time composing messages when more-thought-out responses are desired.

Participants found that the project affected them in a variety of ways that could not be achieved in more traditional mentoring relationships. Few of the former or continuing participants are from the same institution. This allows protégés the freedom to explore topics without the interference that local political concerns might cause. The role of the mentor is also less likely to be as pivotal to the protégés' progress, especially in tenure-track situations. While mentors' opinions particularly were solicited in several cases, protégés also offered insights by relating similar experiences, concerns, and suggestions for the research topics discussed. In essence, it is possible that electronic communication puts all the communicants on an equal footing—and, while it allows them to respond spontaneously, it also enables them to take time composing messages when more-thought-out responses are desired.

Participants are also limited to the written word in expressing their ideas, intent, and criticism. Restating a posting is not uncommon after responses are received, which demonstrates how an intended meaning can be misconstrued. Composing clear and careful postings about a research project is good practice for writing up the results of that project when completed. The dynamic interactions of any group of people brought together for a common purpose also add to the group process in accomplishing a task. As well as the participants getting to know each other through posted messages and statements of research interests, the asides about personal situations create a trusting, supportive atmosphere in which even the most hesitant researchers can bounce ideas off each other. In just over a year, various members of the LISRUU group experienced a severe budget crisis, a tragic death, a marriage, and a birth. While these happenings were not explored at length (and in fact, were mentioned only briefly, usually to explain long absences or temporary unavailability), they are a part of life and can interrupt research endeavors. In a group setting, other members can be relied on to “carry the ball” until the group as a whole can be reestablished.

The patterns and discoveries discussed in the foregoing summary of activities will be explored further in the words of the LISRUU participants in a later section of this report. Unfortunately, not all of the groups could overcome the hurdles of electronic mentoring; only one group survived. The researchers offer several speculations to explain the failure of the other groups.

When the ACRL Research Committee began setting up the electronic mentoring project, the primary focus of attention was on the listserv software as a new communication device, rather than on the history of mentoring in the LIS profession and the possibility for future developments. The technical feasibility of
the project drove its development, with an assumption that the human element would take care of itself. The electronic mentors were not briefed adequately on the anticipated duties and responsibilities offered by this new experiment. Some of the mentors may not have realized that for this project, unlike in other forms of communication via listservs, they would need to elicit participation delicately from a majority of the protégés. The protégés, in turn, may not have understood their responsibilities. Further, the need to minimize the number of protégés per mentor had to be balanced with the need to have enough people in each group to sustain a discussion group. Finally, the introductory program’s crowded and noisy environment was not conducive perhaps to the birth of lasting mentor-protégé relationships.

Once the groups formed, several factors and events may have worked against the continuation of most of them. The technical problems encountered early in the project have been mentioned. Another factor may have been poor matches between mentors and the groups of protégés. Although we have no evidence to support this hypothesis, some of the mentors and protégés may have forsaken the electronic group projects in favor of a more traditional mentoring relationship. Ultimately, the failure of most of the groups may have been due to the unfamiliarity and instability inherent in a national professional association overtly fostering a new kind of mentoring activity in an electronic network environment.

THE EXPERIENCES OF LISRUU

In the early stages of establishing the pilot project, the LISRUU group encountered various difficulties. Once the aforementioned technical problems were ironed out, the group struggled for an identity and an understanding of the respective roles of the mentor and protégés. There was uncertainty as to whether the mentor should prepare the equivalent of lessons and lectures or simply respond to protégé inquiries about how to go about doing research. After much discussion, as well as long periods of silence, participants decided in the fall of 1991 that a simulated research project for the group would be the most useful way to proceed since all members would learn from each other’s thoughts, and the work of the simulated project could be spread out among several people. The group discussed various research projects, but one member (who shall be referred to hereafter as the principal investigator) indicated she wanted to survey the patrons of her library to compare their evaluations of two types of interlibrary loan service offered at that library. Thus the simulated project addressed a real-life issue involving patron satisfaction levels.

The mentor made it clear early on that he intended the protégés to do the work so that they would get as much firsthand experience as possible. The mentor would help answer difficult questions, guide the group away from pitfalls, and suggest areas that should be addressed or investigated. The principal investigator provided background information about her institution, library services, and patrons, and specifics about the two types of interlibrary loan service offered—traditional ILL and a method for patrons to send their own ILL requests electronically to other libraries within the state. The group then discussed hypotheses and methods for testing those hypotheses. The principal investigator prepared a draft of questionnaires to be given to the users of the two ILL services, and the group critiqued the drafts. Program participants performed a pretest of the instrument in order to identify any necessary refinements before conducting the actual survey.

Thus, the LISRUU project grew out of the several protégés’ comments that their biggest research problem was simply getting started. In early discussions, it became apparent that the idea of conceptualizing and implementing an entire research project was daunting. The spontaneous and informal style of daily electronic communication helped group members get to know each other, and together they began to break a research
project into its less formidable components.

Responsibility for developing the framework for the study and the first draft of the survey instrument fell largely on the principal investigator, but the group's contributions were substantial and thoughtful and had a great impact on the direction of the project. Designing and pretesting of the questionnaire, determining the population to be surveyed and the method for distributing the questionnaire, selecting the time frame in which the survey was to be carried out, and deciding how to encourage people to complete the questionnaire were discussed enthusiastically by the participants. One protégé contributed the literature review, and another adapted the survey for use in her own institution.

The LISRUU participants recorded the following evaluations of and responses to their experiences in the project:

**Member A**

In the beginning I volunteered to participate in this project because I'm in a library in a major research institution where research is an expectation of librarians who want to advance. Even after two master's degrees, I have not learned how to do original research and have no one in my library with time and willingness to mentor me. I want to learn to do this properly, I have electronic access, and I thought this might be a way to learn.

But I had no idea of how electronic mentoring was supposed to work or what I was supposed to do. The set up of a listserv was entirely new to me, and I thought I was doing something wrong because the messages I sent to the list were returned to me as undeliverable. As I read postings, I realized there were some problems outside of my immediate electronic environment that someone with technical expertise would straighten out.

When those problems were ironed out, the next challenge began. The postings to the list seemed to be indicating that we had research projects individually under way and yet I had no clue how or where to start. I was really lost and disappointed, but too ashamed to admit that I was so ignorant.

The breakthrough occurred when the mentor took the initiative to suggest working together on a learning project. To my relief I realized that I wasn't the only one out there who knew very little of how to approach this challenge. The brainstorming resulted in several ideas for research projects that were simple enough for beginners, and I was happy to think that I would really learn.

The decision to begin with an ILL survey gave us a direction. Others on the list with some experience at this began to contribute citations to resources on how to develop a questionnaire, perform the survey, and analyze it statistically. Others read the citations and summarized them faster than I was able to get my hands on them. I kept a file of all the citations, thinking that if I ever got time, I could go back and read and learn more. I know I would never have known these resources on my own.

Then we began to write the questionnaire. I contributed comments on the layout and content along with others. Then the ACRL Conference in Salt Lake City came along, and it presented an opportunity for two of the protégés and the mentor to meet in person. At that meeting we discussed the questionnaire further, and I could see I was among colleagues more experienced than I at this. My contribution was small by comparison to theirs, but it was not undervalued. The best part of that meeting for me was that these people became real persons with faces and personalities, and, thereafter, electronic communications with them were more enjoyable for me.

The questionnaire took on life after that and, after a couple of more revisions, was in its final form. At the next ALA Annual Conference we met again, and I met both the listowner and the project member who had initiated the idea of the survey. At that meeting we realized that the original group of
realized that the original group of nineteen who had been on the list had shrunk and that we were the only list-serv that had maintained activity since the start. I feel lucky to have been with this group, where real mentoring and learning have been taking place for me. I'm looking forward to continuing this experience and am hopeful that I will eventually learn to do meaningful research that can contribute to the profession.

Member B

I was excited when I read the announcement about the formation of the ACRL electronic research mentoring groups. I immediately responded. Just choosing which group to join made me focus on what really interests me in our profession. I have come to realize that we probably all think we understand our users better than we do. I [am glad] I picked the "Understanding the User" group because it has met my needs.

Our mentor does a fine job of leading the group. He lets the group decide what concepts members want to learn and what projects to tackle. He prods us to keep moving, notes problems that we may encounter in research, and spreads out the alternatives for us to study in order to reach a solution. He has taught us a great deal about doing research. In addition, he has suggested sources to read and articles to discuss and given me professional development advice.

Being in this group has given us experiences that go far beyond learning to do survey research. Being associated with LISRUU has affected my attitude toward the library profession, my role in my library, the needs of our patrons, and my desire to learn more about them. Many aspects of my life have been changed by my membership in this group.

Being part of this research group motivated me to take a class on survey research from the sociology department. I also plan to take another one taught by the business department with a marketing emphasis. Between this list and the class I took, I feel I have the basic tools and understanding to design a survey.

My interest in users and their needs prompted me to participate in a week-long total quality management (TQM) workshop. This led to more opportunities for networking. I contributed the bibliography for the class and made a presentation on TQM in Higher Education. It was a good experience for me to get acquainted with the professors who team-taught the class. Their expert teaching methods made them role models for me.

Being associated with LISRUU has affected my attitude toward the library profession, my role in my library, the needs of our patrons, and my desire to learn more about them.

The contacts I have made are just as important as the knowledge I have gained. Both the group mentor and the professor of the class would likely be willing to critique a research proposal, look over a survey, etc. I recall that someone who is good with statistics is on the list, and I could possibly ask him or her for help too. I have found that I really enjoy networking with colleagues from around the country. The members of the group are supportive and willing to share their ideas. An electronic research group is a good way to network with other academic librarians who are also feeling the pressure to publish and get help from someone who knows the ropes.

I still feel a bit threatened by the idea of writing an article and submitting it on my own, but I feel comfortable contributing to LISRUU and getting feedback from the group. I have plans to write an article on our library's liaison program and try to get it published. I plan to send it out to the group for critique. I am also thinking of doing a poster session on this program at ALA and will ask colleagues in the group...
who have done poster sessions in the past for advice.

This summer I transferred from the cataloging department to the reference department, and this decision to change course was motivated by being part of LISRUU. I realized that the environment in the cataloging department wasn’t conducive to doing research, and I eagerly sought contact with library users. Being a part of LISRUU has had a strong influence on what I have read, what I have thought, and where I find myself today.

Principal Investigator

When I first joined the ACRL electronic mentoring project, I had a research topic in mind that I wanted to investigate. I believe that expert systems have the potential to greatly impact interlibrary loan and document delivery. Unfortunately, I knew little about the capabilities, types, and possibilities for expert systems. I also realized that end-users as self-determining consumers might have different expectations than traditional ILL patrons for whom library staff mediate. While I needed some technical education about expert systems, I also wanted to explore user behavior in an automated resource sharing environment.

The owner of the listservs agreed that my research interests were interdisciplinary, and he allowed me to join both the Expert Systems and the Understanding the User groups. The technical expertise in the Expert Systems group was pretty daunting, but the members seemed willing to educate the uninitiated. When I later sat down with the Understanding the User group, I found them to be very congenial and to have a wide variety of research experience.

There was a fair amount of activity on the Expert Systems group’s list in the beginning. Several people, including me, asked some fairly low-level questions and were referred to basic texts. Several people on the list who were beginners were encouraged to purchase a basic ES software package.

At this time, there was simply no budget for me to buy this software, and it was highly doubtful that I had enough memory in my computer to run it.

Right from the beginning, I felt pretty “at home” on the LISRUU list. I never knew who the mentor was until I had been on the LISRUU for a few months, and he happened to mention it. I did, however, notice right away that he was a natural leader and that he tended to focus the group. There have been times when he has sat back and let us contribute and help each other, and I think that has been an effective technique. After all, we are librarians. We can usually find appropriate citations about any given aspect of research, as well as the evaluative materials that support its being one of the best citations. Although I believe that studying research techniques and recognizing good research are the keys to setting the standard that your own research must meet, the most dynamic part of this project has been sharing our individual ideas and insights with the group.

It was gratifying when my project became the group project, but I have also felt selfish, wanting to be the decision-maker and maintain control of it. But this turned out not to be a problem after all. I am certainly free to reject advice offered, but I find that if I really consider it, it is very good (and I cannot think of anything I have rejected so far). The ideas and help have contributed greatly to guiding and shaping the project. I found it a little off-putting that some people were not enthused about doing a survey involving ILL patrons. I do not have a problem recognizing that it is not everyone’s cup of tea, but then I feel that I am doing it, and it should be okay if everyone on the list is not. I am afraid maybe some people dropped off or lost interest in the list at the point we decided on the ILL project. Because the automated environment for which the survey is designed is unique, the survey is not replicable,
with constructive criticism and a good place to bounce around ideas. For example, there is no better double-check for jargon than showing the surveys to someone who does not work in ILL every day. It really helped me decide what to clarify and what to omit.

Within the last year I developed a lot of guilt over this project. For a variety of reasons I was not able to give it enough time, and I was afraid I was causing the group to lose momentum. I am grateful that another protégé has begun sharing the development of a survey project in which the group is interested. I have been able to follow her research project with the rest of the group for the last few months while my own efforts simmer on the back burner. It is best for others to have projects as well, so that the forward motion of the group does not depend on one person.

**Mentor**

One of the sources that the ACRL Research Committee suggested we consult was Jennifer Cargill’s article “Developing Library Leaders: The Role of Mentorship,” which appeared in the Winter 1989 issue of *Library Administration & Management*. Cargill describes a mentor’s responsibilities when guiding a protégé within a typical library or professional association. The responsibilities of a mentor in an electronic environment are much the same, but naturally the lack of face-to-face communication creates challenges that are not often found when the relationship exists within the same institution.

Cargill says that a mentor should be a developer of skills and of careers, a promoter of professional activities, and a counselor. I have found that much of an electronic mentor’s efforts in those directions tends to be general and only sometimes specific to individuals because of the public nature of listserv communication. As in a traditional classroom, communication is shared among all participants for the purpose of learning together. While this approach has obvious advantages, the biggest drawback is that it can inhibit honest and critical examination of individual protégés’ research background and experience. Such discussion may need to be moved off of the list and handled privately.

The development of a true mentor-protégé relationship can also be hindered by the fact that e-mail is less personal than direct communication. The lack of nonverbal cues and lack of tonal inflections are examples of what is lost in electronic communication. But what is a problem for some can be liberating for others: some people find that the lack of face-to-face contact in electronic communication makes it easier for them to confess ignorance or ask questions they fear are naive.

The greatest frustration I have encountered has been the difficulty of gauging whether my messages are being understood. In face-to-face discussions, a blank expression can be an indication that the listener does not understand the point being made. In the electronic environment, silence in response to a posting may mean any number of things: people are mystified, people have not read their e-mail in several days, people are uninterested, etc. It is very important that electronic mentoring participants agree on certain protocols, so people know whether their postings are making their desired point. Acknowledgment of messages, even when no substantive response is made, goes a long way toward eliminating frustration and uncertainty.

Originally I expected that we would spend much time examining specific research questions and ideas raised by the protégés. However, the protégés were reluctant to express what others might regard as naive questions, and they were more interested in pursuing the group research project as a means of gaining some familiarity with all aspects of one type of research. Nevertheless, some of the most interesting and informative interactions have been separate from the group
have been separate from the group project. The LISRUU group has engaged in philosophical discussions inspired by research articles or queries about particular research methods. Readings have been suggested and topics introduced from time to time to generate participation, and such efforts have not always been initiated by the mentor. Protégés are taking an active role in furthering the direction of the group and stimulating discussion. Some of the topics that have been discussed by the LISRUU group have been differences between pure and applied research, campus policies relating to human subjects research, techniques for generating ideas, the process of writing and applying for grants, and making time for research in the midst of busy schedules.

All of the foregoing leads to the question of whether the LISRUU experience represents a true mentor-protégé arrangement. We believe it does qualify as a special kind of mentoring because we have done what Cargill describes in her account of the classic mentoring model. Nevertheless, some may think that the lack of regular face-to-face contact precludes mentoring in the classic, full sense of the term. It is also true that my original expectation of playing a largely reactive role (which has proven to not be the case anyway) may not be entirely consistent with what is typically expected of a true mentor. However, even if our experience does not appear to qualify as true mentoring to some, the LISRUU participants continue to use the mentor-protégé terminology. Why?

While granting that electronic communication among remotely-located participants is inherently more limited than the communication between a mentor and protégé who work in the same physical location, the LISRUU participants do not believe that alternative descriptions of their experience (e.g., electronic research tutorial) are adequate—as one participant put it, the perception that the so-called mentor was a mentor influenced the way in which the others asked questions and sought advice about many professional and personal matters, many of which were unrelated to research. In short, the lack of an adequate alternative description led the LISRUU participants to honor their founders by continuing to use the electronic mentoring model that the Research Committee envisioned. If we have not achieved the goal yet, we will keep trying. I think our group has made creditable progress, and I have enjoyed working with stimulating and fun colleagues. I hope others will get involved in electronic mentor-protégé relationships. However, I offer a final word of caution to those who do. Electronic mentoring can be sporadic and is effective only when the protégé makes time to report activities fully, not selectively. Thus, more than anything else the electronic mentor should have patience and perseverance.

CONCLUSION

As the electronic mentoring project enters its fourth year, it is making the transition from experiment to establishment. The project’s first two goals largely have been accomplished: a special kind of mentoring has been introduced to the electronic network, and the scope of network forms of communication has been expanded. Retaining the terminology of the ACRL Research Committee and the experimental nature of this project led to flexibility in redefining mentor and protégé in the context of network/listserv forms of communication. Electronic mentoring developed somewhat differently than the classic concept of face-to-face mentoring.

Originally, it was expected that mentors would respond to specific questions related to research interests and projects. Then the mentors and other participants would offer suggestions, ideas, and questions that would generate discussions about research in general, as well as guide the original inquirer with his or her project. Instead, group members were unfamiliar with the venue, research techniques, and terminology so that most
participants had difficulty articulating their interests and research ideas. We discovered that electronic mentors need to be prepared to spend time initially establishing trust among participants and ground rules for participation. Participants should be encouraged to develop a pattern of regular posting. The mentor will need to break long silences by reviewing what the group was doing and discussing, and proposing provocative ideas, suggestions, and questions to kick start the group into renewed participation. The nurturing and attention that this mentor gave to the group, combined with the group members' desire to interact, contributed to the survival of this group. With time and patience, the mentor found that the other participants gained a sense of ownership in the group and felt equally responsible for its success.

As that occurred, this group continued beyond the original experiment, and individuals began to try basic research projects of their own. One of the group members surveyed all 1989–1994 participants in a program that recruits minority undergraduates to the LIS field. The investigation inquired into their progress and the influence of the program on their career choices. It is being analyzed with the intention of contributing the results to the LIS literature. This group has assisted and coached that group member, and succeeded in improving and expanding that individual's research skills.

Modest progress has been made toward getting more LIS professionals involved in research and toward improving and diversifying their research skills. Finally, as the project continues to refine itself and become an established fixture in the electronic network, it is time to address more directly the goal of expanding and accelerating communication within the LIS research community. New mentors and protégés should be sought and new groups created to accommodate the many areas of research interest. Anyone interested in participating should contact W. Bede Mitchell, the mentor, or Thomas A. Peters, the list-owner.

**SUGGESTED FURTHER READING**


The Raven

Once upon a midnight dreary, while I pondered weak and weary,
Over many a quaint and curious volume of falter,
Mystery tapping, suddenly there came
Rapping, rapping at my chamber door.

I muttered, "Rapping at my chamber door—"
"This and nothing more."

The Raven

Patiently I saw her close her door,--
And shut it upon列举...

And then the silence came again.

The Raven

This is the raven, never flitting
Near the old manor-hall...
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Letters

To The Editor:

Emma Bradford Perry's guest editorial, "Why Diversity Isn't So Plain" (College & Research Libraries 56 [Mar. 1995]: 97-98), is right on target. The big question to me pertains to whether or not progress will be impeded as the nation moves away from big government and a federal social agenda. While I believe that trend is desirable to some extent and inevitable in the short term, diversity is not a goal that is captive to public funding. It is in our hands; in the hands of our administrators, personnel directors, search committees, and line supervisors. I think we can all agree with Emma Bradford Perry's statement of the real purpose of diversity. The difficult task of working out the specifics supporting that purpose rests with each of us.

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To the Editor:


OCLC itself has for years been publishing its holdings data as indicators of title popularity, frequency, etc.—as witness page 10 of the January/February 1995 issue of the OCLC Newsletter (No. 213).

Hence it did not occur to me to claim novelty when using these data to compare public library holdings of certain series books ("Bad Books in Series: Nancy Drew in the Public Library," The Lion and the Unicorn 18 [1994]:92-102), nor again in the paper, "Bibliographic Mystery: Missing Books; Missing Author," in Rediscovering Nancy (Univ. of Iowa Pr., 1995).

There is less new under the sun than we may wit.

ESTHER G. BIERBAUM
Professor
The University of Iowa
Internet Resources: A Subject Guide
Reprinted from C&RL News
Newly updated articles originally appearing in C&RL News that list information sources on the Internet, including gophers, WWW, listservs, bulletin boards, discussion groups, online bibliographies, newsletters, and more. Sixteen diverse subject areas ranging from architecture to women's studies.
$18.00, ACRL member $15.00, 95p.
0-8389-7785-5, 1995

Library Services for Non-Affiliated Patrons, CLIP Note #21
Eugene S. Mitchell, comp.
Sample policies and procedures for dealing with service to the non-affiliated library user. Collected from academic institutions nationally. Includes examples of information sheets, application and registration forms, ID cards, recourse letters, and reciprocal agreements.
$32.95; ACRL member $27.95, 151p.
0-8389-7781-2, 1995

Managing Student Workers in College Libraries, CLIP Note #20
Michael Kathman, Jane McGurn Kathman, comps.
Comprehensive guidance for managing student employees. Includes examples of policies and procedures for employment, dismissal, orientation, training, supervision, and performance review. "Highly recommended for small and medium-sized libraries employing student workers."—Library Journal
$29.95; ACRL member $25.95, 140p.
0-8389-7752-9, 1994

Overview of the coverage and indexing of conference proceedings and papers in subject-oriented abstracting and indexing services. A valuable working tool for the practicing librarian involved with public services for the scientific and engineering community.
$16.50, ACRL member $14.00, 84p.
0-8389-7790-1, 1995

Discovering Librarians: Profiles of a Profession
Mary Jane Scherdin, editor
Results of national studies of vocational interests of library and information professionals. The librarian profile is presented from the ACT, the Strong Interest Inventories, the Myers-Briggs Type Indicator, and the SIGI PLUS computer-aided career guidance tool, along with analysis of demographic data.
$35.95; ACRL member $31.95, 220p.
0-8389-7753-7, 1994

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Book Reviews


The cybernaut's siren song can be seductive indeed. The reasons are simple: the technology of the information age enables us to store and project highly flexible information to anyone, anywhere, at any time. Almost all media—print, music, photographs, and video—can be converted to digital format. Electronic data can be instantaneously routed to remote computer terminals whether in libraries or schools, workplaces or homes. The scenario is attractive on logistical grounds alone. Combined with an optimistic ideology, the appeal can seem irresistible: "If the NII [National Information Infrastructure] were to offer access to everything found in the nation’s libraries, museums, theaters, auditoriums, and archives, it could help dissolve the boundaries that now separate communities, social classes, people of different economic levels, the highly educated and the broad public, and the peoples of different nations" (Humanities and Arts on the Information Highways: A Profile. Final Report, Sept. 1994, 9).

The siren song is, of course, too good to be true. Walt Crawford and Michael Gorman’s Future Libraries sets out, with a zest, to debunk the myth. As chapter titles like "The Madness of Technolust" or "Deconstructing Dreams of the All-Electronic Future" may suggest, our authors take no prisoners in rebutting electronic extremists. The book is in the first instance a sharply amusing polemic that pillories the "new barbarians" and "techno-junkies" afflicted with "technolust." The skewering continues apace with its scathing allusions to the "bumper-sticker school of library thought" and kindred professional foibles.

Despite—or due to?—its entertaining demythologizing of electronic exaggerations, this book is at once more and less than a satisfying manifesto for the "balanced view." The authors wisely profess their allegiance to all information formats, as warranted by each one’s strengths and shortcomings, and as further informed by economic common-sense and an understanding of what people really want. They take pains to show (as their prominent careers also attest) that they are not simply cybernetic Luddites enamored of Norman Rockwell libraries. Their careful arguments for balance, masterfully cast in a section entitled "And' Not 'Or," make for some of the book’s most compelling paragraphs. The analysis that distinguishes between data, information, knowledge, understanding, and wisdom, and then suggests the formats most appropriate to each, is a signal contribution. Other insights abound.

This sort of reasoned rebuttal, however, is at intervals compromised by straw-man arguments, hyperbole, and unwarranted assertions. Readers are repeatedly warned of the "many" administrators, politicians, and library leaders who, lost to technolust, would destroy their institutions. A few arguments are based on assumptions that may not hold, for instance, that six hundred dots per inch is a minimum scanning resolution for usable page images; or on over-simplified portrayals like the laudatory account of Eureka and FirstSearch that slides past both the shortcomings of these systems and the often substantial library holdings that are only represented in local online catalogs. These occasional flaws by no means vitiate the
book's message, but they do blunt some of its needles.

*Future Libraries* does more than simply smite the technojunkies. The final third of the book edges away from declamatory rebuttal to engage in fine-hewn analyses of current library dilemmas. Some of this discussion entails unexpectedly specific analyses of such current products as FirstSearch, CitaDel, and Ariel. The authors also offer a hardened dissection of the "serials crisis," trenchant defenses of adequate library funding, disquisitions on appropriate statistics keeping, and a sobering look at the erosion of academic libraries' support for—and therefore perhaps from—their traditional strongholds in the arts and humanities.

The book is thus amusing, appealing, balanced, provocative, and overwhelmingly right-minded. For all that, it figures as little more than a period piece. The failure lies in the issues it does not address rather than the ground it covers. *Future Libraries* is founded in a candid liberal faith in libraries, knowledge, and informed democratic decision making. Norman Rockwell may indeed be in the wings, albeit in a technologically savvy incarnation fully celebratory of today's social diversity. Literary quotes from the likes of Lewis Carroll, Charles Dickens, and Walt Whitman reveal this grounding. So do stirring affirmations that libraries are "the guardian of our culture and an essential element of the empowering democracy of the mind," and that (italicized in the original) "[t]he only way to have an equitable society is to have universal literacy." The final paragraph is almost martial in cadence and content: "Librarians should never be afraid to defend the eternal mission of libraries—to collect, preserve, organize, and disseminate the records of the knowledge and information of humankind and to provide human services based on those records. Moreover, they should never be ashamed to defend and to show by example the core values—community, literacy, learning, service, reason, democracy, and intellectual freedom—upon which the culture of libraries is built."

For better or worse, all these affirmations are open to question. For better or worse, they also suffuse the "technojunkie's" vision—look again at this review's opening quotation. Painful as the process may prove, the ideological roots of library liberalism are past due for reexamination. "Postmodern" critics pose fundamental challenges to the closed visions—Marxist or liberal, religious or mundane—that have characterized the industrial age. New electronic technologies, mass media and mass communications, "haves" and "have-nots" on a global scale, and "electronic democracy" require us to reconsider the nature of our society, of information's role within that society, of the purposes and varieties of literacy, and therefore of the library's lot. Where do libraries and literacy belong in an age of talk radio and electronic town meetings? The analytical task is huge and complex; *Future Libraries* does not even begin to address it. In some senses the book thus focuses on symptom rather than cause, epiphenomenon rather than essence.

*Future Libraries* is appealingly produced: it is legible and clean, and comes complete with end-of-chapter bullets to remind distracted readers of "Points to Remember." Given the book's balance, its aggressively vocational advertising hype ("... the one book that may save your library and your job") is unfortunately demeaning. Particularly after the authors' discussion of plausible production costs for a paperback book ($11.95 is a price approvingly cited for a full-color "tiny-folio" tome of 275 art reproductions), ALA's price tag—$25 for some two hundred pages—gives reason for pause.

*Future Libraries* is trenchant, instructive, and timely. Its messages and mood are just a bit too scattered for it to serve as a satisfying Countermanifesto, though some of the pieces are certainly here. Its long-term importance is more profoundly limited by its failure to address the larger philosophical issues associated with the meaning of libraries and knowledge in our information age.—*Dan C. Hazen, Harvard University, Cambridge, Massachusetts.*

Ergonomic considerations of the printed word began with the invention of movable type. The early history of print is marked by efforts to design printed objects that would not only be familiar to readers within a manuscript culture, but that would make the complex act of reading pleasurable and informative. Often the design of books reflected the theoretical considerations of highly educated printers, such as Aldus Manutius, with practical design issues of legibility and ease of use. The Aldine editions of Dante, for example, were printed without the extensive commentaries found in earlier editions, in a smaller octavo format using Aldus Manutius' new italic font, suggesting that the famous humanist-printer wished to have his readers directly encounter classic texts. Paratextual features—such as title pages, tables of contents, indexes, location and extent of glosses—which appeared in bewildering arrays during the century after the invention of print, were developed to make information found in these volumes more accessible, easier to read, and frequently more portable and less costly.

Andrew Dillon's examination of the ergonomics of electronic text thus falls within a long tradition of book/print design. As in the Renaissance, the new technology of electronic text requires a systematic assessment of the strengths of older technologies, such as print, and models which will make exploitation of the new technology more effective and marketable. Dillon's well-designed and attractively printed volume will not serve as a cookbook for designers of electronic texts. His analysis and conclusions suggest models in which the design of electronic texts should occur and by which they can be assessed rather than a set of rules to be applied.

Dillon's conception of electronic text is extremely flexible, and would seem to include any information resource that can be apprehended by a human. As such, we might include character-based documents, bitmapped images of documents, composite documents combining text, image, and other elements (such as audio or video). I would presume that documents compiled from the results of queries in one or more databases would also be considered by Dillon as electronic text. Further, Dillon sees that hypertextual links or cross-references are vital components of electronic text. The ergonomics of electronic text, in Dillon's view, combines the ways in which access to information is performed with the textual organization and on-screen display attributes.

Given this broad definition of electronic text, Dillon proposes a task-oriented framework of e-text design based on four overlapping components of the reading experience: "1) a task model ... that deals with the reader's needs and uses for the material; 2) an information model ... that provides a model of the information space; 3) a set of manipulation skills and facilities ... that support physical use of the material; and, 4) a serial reading processor ... that represents the cognitive and perceptual processing involved in reading words and sentences."

Readers approach a body of material with very specific goals and skills which must be understood and facilitated by the database designer. We are all very familiar with the different cognitive acts of scanning an academic journal for recent research trends, reading a collection of verse, and looking up a command from our favorite software package. Of particular importance is the organization of "information space," since all information is located within a much larger context found within a particular document, and given an increasingly integrated network environment, within constellations of disparate documents. Electronic texts must be designed to enable readers to find and navigate information using a variety of cues, ranging from tables of contents and headers to complex hypertextual cross-references between texts located on networks.
The underlying strength of Dillon's analysis is his sophisticated view of the complex of activities associated with the act of reading. Much of this volume is devoted to a discussion of previous research from many fields, such as cognitive science and psychology, on the act of reading. It is clear that basic technical aspects of reading electronic text, such as image quality and organization of on-screen displays, are as important as print fonts and page formatting are to printed documents. There are many subtle aspects of textuality and reading, such as the ability of readers to grasp and retain the overall structure of a document and an argument, which have been rarely discussed in examinations of reading of either print or electronic text. In Dillon's view, no single discipline, such as cognitive psychology or information retrieval, adequately explains the reading process. Thus, his discussion attempts to draw points of contact between a number of different conceptions of reading or, perhaps more accurately, information consumption.

It is to Dillon's great credit that he sees broad lines of continuity between print and electronic text. The organization of print and electronic reference materials, such as encyclopedias and dictionaries, are rather similar. Dillon suggests that proponents of hypermedia have failed to grasp the degree to which users of print documents rarely read in purely sequential fashion. While it may be slightly less convenient to jump from place to place in a printed document, there are many cues to entice the reader to break the linear order of the printed book, including indexes, tables of contents, foot- and end-notes, not to mention cross-references and other points where authors recall or anticipate related discussions. Finally, Dillon warns us in several places, electronic resources will not completely supersede print media at all. It is obvious, he suggests, that few people would want to read a lengthy text of any kind in its electronic rather than print form. Thus, "one should avoid seeing electronic text as a competitor to paper in some form of 'either-or' challenge for supremacy." The two forms of text will exist as complements to each other, distinguished by the tasks best performed by each medium: "The strengths of the computer will enable cheap storage and rapid access while the intimacy and familiarity of paper will be retained for detailed studying and examination of material."

The degree to which electronic text becomes an important distributive media, alongside print, largely depends on the degree to which electronic text design can make information responsive to the requirements of readers and the demands of particular kinds of textual information.—Mark Olsen, University of Chicago, Chicago, Illinois.


The title of this collection is from Milton: "Books are not absolutely dead things but do contain a potencie of life in them to be as active as the soule whose progeny they are." This animistic credo nicely epitomizes a volume which brings together under the editorship of Nicolas Barker an admirable set of articles on the history of the book. Based on lectures given at UCLA in 1986-87, the collection provides a useful introduction to the range of topics and methodologies that coexist under the rubric of "the history of the book." In fact, Barker contends that the history of the book is more than a field of study; it is a genuine discipline in its own right. Thus Barker and his collaborator, Thomas Adams, begin the volume with a founding manifesto, a "new model for the study of the book," one which seeks to provide a more defined and functional conception of the new discipline than Robert Darnton's earlier "communications circuit" did: "Our scheme is designed to encompass all the topics that would properly be included in the history of the book . . . What we offer is a map." Models are, I suppose, necessary evils; we chafe at their pretensions and confinements but find their
architectures reassuring. Barker and Adams’ model is thoughtful and inclusive, and it has a heuristic value that should make it valuable to instructors and their students. Where Darnton’s model stressed individuals and communication as a process, the Barker-Adams version emphasizes functions in the material production of “the book.” It is, they state, about books rather than communications. One can quibble with its claims, elements, and patterns—I always thought that books were about communications—but this model, like Darnton’s, is useful in bringing focus to a still amorphous field of research.

The pity of it is that the volume took so long to appear. Nearly a decade old at this point, Barker and Adams’ concerns are part of an earlier conversation on the history of the book, and some of the contributions to the volume have appeared elsewhere. Tom Tanselle’s escaped altogether. Nonetheless, better late than never. Crafted by a distinguished group of scholars and librarians from Britain and America, the contributions are uniformly solid. They offer something to specialists and generalists alike, and in brief compass they cover the terrain from the Middle Ages through the nineteenth century, from the written to the printed word, from author to bookseller.

Richard and Mary Rouse document the rise of an organized book trade in late medieval Paris, then the bibliocenter of Europe. Fueled by demand from the new University of Paris and from an emerging market of lay readers, the trade operated according to an increasingly specialized division of labor. Lotte Hellinga reminds us that as the printed word came into its own in the fifteenth and sixteenth centuries, the manuscript codex did not die or disappear. Rather, it was revalued, its roles and functions redefined as a transmitter of texts.

Two contributions offer case studies in the business of the book. John Bidwell’s excellent piece of research on the fortunes of the papermaking business in early nineteenth-century America integrates the history of book production into the larger economic history of the new nation. “Nothing succeeds like success,” might well have been the tag for Thomas Adams’ inquiry into the eighteenth-century publishing firm of Mount and Page. Acquiring a virtual monopoly of maritime imprints in Britain for over one hundred years, Mount and Page succeeded not because of their bold entrepreneurship but rather because of their conservative approach to a utilitarian market, their care in adding new titles, their acumen in building a stable backlist, and their reluctance to diversify.

Two other contributions are broadly suggestive of different routes into the history of the book. Mirjam Foot offers an enticing menu of approaches to the history of bookbinding and its relationship to the history of the book in general. If you can’t tell a book by its cover, you can surely say a lot about it, especially, argues Foot, its relationship to an intended market or reader. One of the most interesting contributions of the history of the book to the study of literature has been its dismantling of the notion of the solitary, monolithic, proprietarial author. W. B. Carnochan notes that before we started hearing funeral orations from France about the “death of the author,” scholars working on bibliography and the history of the book had charted the effective “depersonalization” of the notion of authority which printing’s division of labor introduced. While an author may write a text, it takes many “authors” to produce a book. At the same time, printing helped foster the mythology of the proprietarial author, creating markets large enough to permit the liberation of the author from a patron and making the author the owner of his labor.

If approached as an introduction to the study of a field—complete with its own paradigm—this volume holds together reasonably well. The one egregious omission is a historiographical overview that would have given the reader a general sense of the evolution of the field over time. The fact that so much has happened in the field since 1986 blunts the urgency that Barker seems to want to impart to the volume, but li-
brarians who either teach the history of the book or who are called on to do occasional presentations to classes on book history, have here a useful collection to consult. Graduate students should find most of its articles suggestive of any number of topics and approaches to help them sort out methods and design their research. More illustrations would have been welcome, and I am sure that many will wonder as to the professional identities of the contributors: they are nowhere identified. Nevertheless, like other volumes in this British Library series, the present one is well worth perusing by anyone interested in the history of the book.—Michael T. Ryan, University of Pennsylvania, Philadelphia, Pennsylvania.


There are a great many published aids for booksellers, book collectors, and librarians, guiding them through the maze of buying and selling books, describing and preserving them, calling attention to their most arcane attributes, and otherwise providing aid and comfort to bibliographical tyros as well as to those more seasoned in the art of bibliophily. Others are more specialized in subjects such as bibliography, the use of rare book catalogs, the practice and management of rare book and special collections in libraries, directories of booksellers, book collectors and librarians, and so forth, all claiming some expertise in guiding the knowledgeable and the gullible alike.

The latest contribution to this field is Antiquarian Books: A Companion for Booksellers, Librarians, and Collectors. This volume is organized alphabetically with comparatively short entries for most subjects, but with longer, more discursive contributions by a variety of experts for the more important topics, as selected by the editors. For example, there are contributions by Mirjam Foot on fine bookbinding, John Kerr on book auctions, Anthony Rota on bookselling in a changing world, and H. R. Woudhuysen on bibliography. The coverage is wide-ranging, but with special focus on entries broadly relating to bookbinding, bookplates, and collecting English books on any number of topics.

Several articles are aimed specifically at assisting booksellers as business people, particularly those on cataloging (with a charming section on the "personal touch"), and booksellers as publishers. A piece on computers for booksellers is unhelpful to those hoping to automate their business, take advantage of electronic cataloging, or in any other way adapt to the rapidly changing world of electronic data management and applications to the antiquarian book trade. There is also very little on autographs and manuscripts, and the entries on the broader topics of techniques of book illustration, copyright, and incunabula, provide adequate, if not authoritative, coverage that a reference guide of this nature might be expected to provide.

The editorial policy concerning selection of entries for repositories and individual collections of rare books (especially those in institutions) seems inconsistently applied. There is, for example, an entry for the Osborne Collection of children's books at the Toronto Public Library, but not for the Opie Collection at the Bodleian Library at Oxford, or the Ball Collection at the Pierpont Morgan Library; there is an entry for the Folger Shakespeare Library in Washington, but not the Newberry Library in Chicago. The presence of bibliographies, or the lack of same, at the end of entries seems also curiously inconsistent. Readers of the volume will appreciate several useful appendixes, including one for Latin and other foreign place names, an explanation of the system of Roman numerals, a list of the earliest surviving imprints by place, and a selected list of booktrade directories. The proofreading is good, with a minimum number of the inevitable errors.

With the exception of a creditable entry for American first editions (especially
for literary subjects), the focus in this volume is for British booksellers and book collectors. American booksellers and book collectors, not to mention librarians, will find the extensive references to English books, institutions, and collections somewhat limiting. The volume retains, however, a real utility in the convenient manner in which the entries are arranged and cross-referenced. Despite its limitations, this volume will be useful indeed for booksellers, particularly those just getting started and those with a particular interest in British rare books more generally. It will be of less utility for most librarians.—William L. Joyce, Princeton University, Princeton, New Jersey.

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John M. Budd

Use-Based Selection for Preservation Microfilming
Paula De Stefano

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