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THE H.W. WILSON COMPANY
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Guest Editorial

Our View of Reviewing

At present, book reviewing does not work very well in academic librarianship. Published reviews should be a significant part of the process of critique and counter-critique by which serious scholarship proceeds. When book reviews work, they serve a variety of important functions in a profession or discipline. Beyond indicating whether a book is worth reading or buying, they function as a current awareness service, alerting readers to what is new in a field. By summarizing the content of a book, a review can serve as a kind of proxy for reading the book itself. It can place a new book in the context of previous contributions on the same topic and often can become a highly condensed overview or survey of the literature. A well executed review can take a seemingly narrowly conceived book and place it in a context that argues for a much wider significance. When they fulfill their potential, reviews may provoke responses that can develop into extended correspondence and debates among readers. In all these ways, book reviews enter the collective thinking of a profession and help constitute its public sphere of discourse.

Having worked now for more than two years as book review editors for *College & Research Libraries*, we offer the following propositions:

- More librarians with experience, expertise, and clout need to be willing to review and to take reviewing seriously. Book reviewing should not be regarded as an activity solely for unpracticed writers to cut their teeth on.

- Readers should be more willing to respond to reviews. A review, after all, is itself a response, and it needn’t (and shouldn’t) be the last word.

- Much of what publishers of books in librarianship are producing is weak, and they need to hear it. Reviews of bad or dull books are harder to write than one might think. We are loath to devote scarce space to such books, and it is often difficult to find reviewers willing to take them on. But there needs to be better exercise of quality control over the books published for librarians, and serious, critical reviews would help raise publishing standards.

- None of the journals in academic librarianship includes more than the occasional review of a foreign book. This phenomenon is easy to explain but difficult to justify. We need to be less provincial.

- There should be much more reviewing of books relevant to academic librarians but published outside the field. We grapple on a day-to-day basis with complex issues of technological change, the economics of the information market, the politics and demographics of higher education, and the changing nature of scholarly research and communication. We need to assimilate the research and thinking being done on these subjects wherever they are published, identifying and reviewing a wide range of materials in a way that orients and supports our daily work and deepens our understanding of the issues confronting us. In *College & Research Libraries* we have been reviewing books such as Jaroslav Pelikan’s *Idea of
the University, Julie Thompson Klein’s *Interdisciplinarity: History, Theory, and Practice*, and Tony Becher’s *Academic Tribes and Territories*. The other journals in academic librarianship also carry a small number of reviews of this type. We need to be doing many more.

We would like to see a library journal that comprehensively and critically reviews books of interest and importance to academic librarians. One need only consider journals such as *American Historical Review, Contemporary Sociology, Contemporary Psychology* or *Notes*—all published by professional associations—to see how book reviews can help articulate and shape the best thinking in a discipline. A two-tiered reviewing structure—in general outline not unlike what is currently being done in the *Journal of Academic Librarianship*—would allow detailed, analytical reviews for those books whose subject and significance warrant such attention and effort, and shorter, more descriptive reviews for the rest.

Given current budgets and constraints on journal space, it is difficult to imagine any existing library journal that would take on something so ambitious. Perhaps our concept of a review journal is more feasible in an electronic environment.

Since, at present, publishing on the Internet avoids many of the direct production and distribution costs of conventional journals, book reviews would seem to be prime candidates for an online journal. Certainly the timeliness of publication would be improved and the opportunities for a richer public dialogue would be significantly enhanced. The lively and rigorously edited *Bryn Mawr Classical Review* is an encouraging example of the intellectual vitality an online review journal can offer.

But the needed improvements in book reviewing in librarianship will not be solved by a technological fix. Online as well as on paper, the success of the enterprise will depend primarily on the quality of the involvement of practicing librarians, both as writers and as readers. To lament the state of research and publishing in librarianship is, we realize, to sing an old song, but the need for clear and farsighted thinking about libraries has never been greater. Book reviewing is only a corner of the world of academic librarianship, but its problems are symptomatic of a larger failure. Why not start here?

STEPHEN LEHMANN AND BOB WALther
C&RL BOOK REVIEW EDITORS
UNIVERSITY OF PENNSYLVANIA
Tina E. Chrzastowski and Karen A. Schmidt

A longitudinal study of serial cancellations was conducted by analyzing the cancellation lists between 1987 and 1990 from five midwestern libraries of the Association of Research Libraries. The study was designed to test the primary hypothesis that large academic libraries, faced with the same negative impacts on their budgets, are cancelling the same or similar types of serials. This hypothesis was disproved. Results of the study showed that, of 6,503 cancelled titles, only 281 (4 percent) were cancelled at more than one library, resulting in 6,222 (96 percent) unique title cancellations within this survey. Results also provide an overall profile of the at-risk journal. An additional survey of collection development officers gives insight into the cancellation decision-making process. The impact on serial collections in research libraries is also explored.

Serial cancellations have become a regular and anticipated event in many academic libraries. Reports and studies of shrinking collections have appeared in the literature and have been summarized by Ann Okerson and the Association of Research Libraries (ARL), among others. Most of these studies have focused on serial prices and publisher practices and have shown how purchasing power for libraries has diminished or how prices have escalated over time. Data from these studies demonstrate the effects of serial cost increases on specific libraries or specialized collections within libraries and point to problems with specific publishers. These studies do not look at cancellations in a collective way or seek to interpret the effect such wide-ranging cancellations may be having on our combined serial collection profiles.

The depth and breadth of the serial cancellations wave that began in 1987 have reportedly devastated some libraries throughout the United States and seem likely to change the complexion of research library collections in the future. Because of the persistence of conditions leading to cancellations, librarians need to look collectively at library serial cancellations on a regional or national level. The interconnections that libraries of all types and sizes have made to facilitate resource sharing, answer reference questions, and enhance broad-based

Tina E. Chrzastowski is Chemistry Librarian and Karen A. Schmidt is Acquisitions Librarian at the University of Illinois at Urbana-Champaign, Urbana, IL 61801. The authors wish to acknowledge the University of Illinois at Urbana-Champaign (UIUC) Library's Research and Publication Committee, which provided support for the completion of the research reported in this paper. The Committee on Institutional Cooperation and former UIUC University Librarian David Bishop provided additional financial support. Shu Pei, graduate assistant on this project, and Lisa German, UIUC Library Acquisitions and Binding, assisted with the project.
access to published knowledge show that libraries are committed to relying upon one another. However, while libraries routinely discuss cooperative collection development issues, serial cancellations are often made without consultation with other libraries. Time constraints in meeting deadlines for serial credits with vendors and the delay in receiving target goals of actual deficit figures from campus administration units may account for this lack of consultation. If large-scale serial cancellations are being made throughout the country in many types of libraries, and if these cancellations are being made in relative isolation, it follows that the universe of serial collections is changing in dramatic and perhaps unfortunate ways.

If large-scale serial cancellations are being made throughout the country in many types of libraries, and if these cancellations are being made in relative isolation, it follows that the universe of serial collections is changing in dramatic and perhaps unfortunate ways.

What this change might be has not yet been investigated or clearly defined. There have not been any published reports on longitudinal studies comparing serial title cancellations in different libraries. The authors’ study is designed to provide empirical information about which titles have been cancelled at certain libraries and to help define the characteristics of a cancelled serial (which, for the purposes here, includes periodicals and continuations). This study also suggests ways in which serial cancellation decisions could be managed for the benefit of libraries in general and provides conclusions about the overall vitality of serial collections in research libraries throughout the country.

**HYPOTHESES**

The study first postulated that, if libraries of similar age, size, and mission were faced with the same external pressures, such as inflationary prices and a recessionary economy, they would cancel the same serial titles or titles of the same nature. It was also theorized that low-use and high-cost titles would be cancelled, with the result that the libraries studied would eventually end up with similar collections of heavily used serials.

With this in mind, two hypotheses were developed. The first stated that there would be a large number of identical serial titles cancelled at more than one library. A large number was defined at the outset to be more than 30 percent of the final number of serials cancelled in the libraries studied. Serial overlap studies have found that the possible universe of title overlap in journal collections can range from as low as 24 percent to as high as 68 percent in collections of similar size, age, and subject specialties. 

Because information on the characteristics of the cancelled serial was also being collected, the second hypothesis described the profile of a cancelled serial title. It was predicted that a typical cancelled serial would be in a science call number range and be a high-cost title. For the purposes of this study, high cost was defined as over $200 per year. In addition, because libraries are forced to focus on maintaining core, high-use serial collections, it was predicted that over 50 percent of serial cancellations would be in a foreign language and published outside the United States.

**POPULATION**

Five Association of Research Libraries (ARL) libraries were selected for this study. They all represent publicly funded universities from the Midwest, and they are all members of the Committee on Institutional Cooperation (CIC). The CIC is an academic consortium of twelve midwestern research universities. The five libraries included in the study are at Michigan State University, Ohio State University, the University of Illinois at Urbana-Champaign, the University of Iowa, and the University of Wisconsin at Madison. The libraries at these institutions have large, research-oriented collections,
TABLE 1
TOTAL EXPENDITURES FOR SERIALS 1987-88—1989-90 FOR THE FIVE SAMPLE LIBRARIES (From ARL Statistics)

<table>
<thead>
<tr>
<th></th>
<th>1987/88</th>
<th>1988/89</th>
<th>1989/90</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>$3,058,629</td>
<td>$3,063,482</td>
<td>$3,250,755</td>
<td>+5.9</td>
</tr>
<tr>
<td>Iowa</td>
<td>2,049,249</td>
<td>2,195,108</td>
<td>2,263,864</td>
<td>+9.5</td>
</tr>
<tr>
<td>Michigan State</td>
<td>1,979,604</td>
<td>2,130,162</td>
<td>2,289,075</td>
<td>+13.5</td>
</tr>
<tr>
<td>Ohio State</td>
<td>3,136,210</td>
<td>3,270,224</td>
<td>3,390,294</td>
<td>+7.5</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>2,855,167</td>
<td>2,867,836</td>
<td>3,148,530</td>
<td>+9.3</td>
</tr>
</tbody>
</table>

TABLE 2
TOTAL NUMBER OF SERIALS RECEIVED 1987-88—1989-90 INCLUDING GIFTS, EXCHANGE AND PAID SUBSCRIPTIONS FOR THE FIVE SAMPLE LIBRARIES (From ARL Statistics)

<table>
<thead>
<tr>
<th></th>
<th>1987/88</th>
<th>1988/89</th>
<th>1989/90</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>92,530</td>
<td>94,445</td>
<td>92,077</td>
<td>-0.5</td>
</tr>
<tr>
<td>Iowa</td>
<td>22,877</td>
<td>24,119</td>
<td>24,176</td>
<td>+5.4</td>
</tr>
<tr>
<td>Michigan State</td>
<td>29,556</td>
<td>28,754</td>
<td>28,910</td>
<td>-2.2</td>
</tr>
<tr>
<td>Ohio State</td>
<td>31,154</td>
<td>32,005</td>
<td>32,870</td>
<td>+5.2</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>50,913</td>
<td>48,085</td>
<td>49,553</td>
<td>-2.7</td>
</tr>
</tbody>
</table>

as well as established methods of cooperating on many library issues. For the issues raised in this study, the CIC libraries serve as a homogenous group from which generalizations about research libraries can be extrapolated.

CIC Library Collection Development Officers (CDOs) meet regularly to discuss shared concerns and collection-related subjects of mutual interest. Serial budgets and resulting serial cancellations have been important topics in recent years. For this study, data on serial cancellations were requested from all the CIC libraries. From this group, cancellation lists from five libraries were selected, for the fiscal years 1987-88 through 1989-90, based on the availability of complete data. This three-year time frame represented the most complete data that could be obtained, but it should be pointed out that libraries may not cancel titles in a synchronized fashion.

Printed lists of cancelled titles were supplied by the CDO of each library. These lists contained varying information, but all included serial titles cancelled at that institution from 1987-88 through 1989-90.

Table 1 shows serial expenditures at these libraries for 1987-88 through 1989-90. Each library's serial budget increased during the study, although the five libraries reported serial cancellations each year of the study. Serial expenditures at the five libraries increased an average of 9 percent over the three budget cycles.

Table 2 shows the number of serials held at each institution from 1987-88 through 1989-90. This includes paid subscriptions, gifts, and exchanges. The average number of serial titles received increased by 1 percent during this time, and in three out of five libraries the number of serial titles received decreased. Data on the number of serial titles purchased at each library were not available. Data from these tables show that serial budget monies for these five institutions from 1987-88 through 1989-90 purchased fewer serials and paid more for them. In addition, monograph budgets were reduced in ARL libraries overall during the late 1980s to maintain serial subscriptions, according to ARL statistics.7
METHODOLOGY

A database was created using PC-File, with fields selected to address questions suggested by the hypotheses. Nine items of information for each title were included: title, country of publication, language, institution cancelling the title, year of cancellation, price of title in year cancelled, Library of Congress call number, an indication if the title was received as a gift, and (if reported) if the title was a duplicate at that location. No consistent data on publishers of cancelled titles were available. Ohio State University reported that all of its cancelled titles during the study period were duplicated on that campus.

With none of the libraries giving the full information required by the study, a number of additional sources were used to complete each record. These included the OCLC database, Ulrich's International Periodicals Directory, Faxon's Librarian's Guide to Serials, the University of Illinois' online catalog, Illinet Online, and MELVYL, the online catalog of the University of California Libraries.

In addition, the study sought information from the CDOs at the twelve CIC libraries concerning their cancellation decisions. Each was sent a survey asking him or her to rank the factors considered in making cancellations; his or her opinions on other related topics were solicited.

RESULTS

Because the completed database contains nine fields for each cancelled serial title, and each field can be indexed to act as a "searchable field," the capabilities for data analysis were enormous. Some basic cross-tabulations were made to create a profile of cancelled titles, explore cancellation patterns, and test the hypotheses.

Total Cancellations by School

Total cancellations numbered 6,503 titles. Unique titles numbered 6,222, with 281 titles (4 percent) cancelled at two or more schools. Surprisingly, no overlap occurred among all five schools in this study; and only one title was cancelled by four schools (Who's Who in America, an obvious cancellation of a duplicate title).

The University of Illinois at Urbana-Champaign had the most cancellations (2,279), but also reported the largest total serials holdings. It was followed in total number of cancellations by Michigan State University (1,558), University of Iowa (1,336), University of Wisconsin (872), and Ohio State University (458).

Serial Cancellation Prices

Serial cancellation prices for the five schools during the study period totaled $690,225.64 (see table 3). Serial prices are based on reported subscription price, and do not account for processing, binding, or storage costs associated with the titles. The average cost of a cancelled title was $121.71. This average cost is slightly lower than the average cost of $127.79 for academic libraries during fiscal years 1987–88 through 1989–90 that was figured by Peter K. Young. Table 4 compares Young's data on serial holdings in academic libraries to this study's data on cancelled serial titles, sorted by cost (less than $100, between $100 and $200, and over $200). Most categories consistently correlate the percent of holdings and cancellations, with slightly fewer titles cancelled on average in each category. However, in looking at expenditures, titles that cost over $200 show a higher than average rate of cancellation compared to holdings, confirming the hypothesis that the more expensive titles are being singled out for cancellation.

Table 3 and figure 1 show relative serial cancellation costs. The most dramatic statistic shows that titles costing over $200 accounted for only 12 percent of titles overall, but 64 percent of the total cost. At the opposite end of the spectrum, the less expensive titles (less than $100 per year) account for only 22 percent of the cost but 70 percent of the titles cancelled.

Language and Place of Publication

It was hypothesized that more than 50 percent of cancellations would be titles published outside the United States.
TABLE 3
AT THE FIVE SAMPLE LIBRARIES

<table>
<thead>
<tr>
<th></th>
<th>Greater than $200</th>
<th>Between $100–$200</th>
<th>Less than $100</th>
<th>Gifts $0.00</th>
<th>Without Prices</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>198</td>
<td>220</td>
<td>1,806</td>
<td>55</td>
<td>0</td>
<td>2,279</td>
</tr>
<tr>
<td></td>
<td>$104,951.44</td>
<td>$29,297.13</td>
<td>$52,709.54</td>
<td>$0</td>
<td></td>
<td>$186,958.11</td>
</tr>
<tr>
<td>Iowa</td>
<td>181</td>
<td>208</td>
<td>836</td>
<td>3</td>
<td>108</td>
<td>1,336</td>
</tr>
<tr>
<td></td>
<td>$98,066.44</td>
<td>$28,830.13</td>
<td>$38,362.87</td>
<td>$0</td>
<td></td>
<td>$165,259.44</td>
</tr>
<tr>
<td>Michigan State</td>
<td>111</td>
<td>126</td>
<td>733</td>
<td>317</td>
<td>271</td>
<td>1,558</td>
</tr>
<tr>
<td></td>
<td>$68,227.46</td>
<td>$17,346.28</td>
<td>$27,577.72</td>
<td>$0</td>
<td></td>
<td>$113,151.46</td>
</tr>
<tr>
<td>Ohio State</td>
<td>56</td>
<td>66</td>
<td>312</td>
<td>0</td>
<td>24</td>
<td>458</td>
</tr>
<tr>
<td></td>
<td>$46,851.45</td>
<td>$8,883.46</td>
<td>$13,209.14</td>
<td>$0</td>
<td></td>
<td>$68,944.05</td>
</tr>
<tr>
<td>University of Wisconsin Madison</td>
<td>155</td>
<td>103</td>
<td>560</td>
<td>0</td>
<td>54</td>
<td>872</td>
</tr>
<tr>
<td></td>
<td>$119,434.36</td>
<td>$14,334.41</td>
<td>$22,143.81</td>
<td>$0</td>
<td></td>
<td>$155,912.58</td>
</tr>
<tr>
<td>Total</td>
<td>701 (12%)</td>
<td>723 (12%)</td>
<td>4,247 (70%)</td>
<td>375</td>
<td>457</td>
<td>6,503</td>
</tr>
<tr>
<td></td>
<td>$437,531.15</td>
<td>$98,691.41</td>
<td>$154,003.08</td>
<td>(6%)</td>
<td></td>
<td>$690,225.64</td>
</tr>
</tbody>
</table>

6,046 titles (93% of database) have prices or gift/exchange status.
457 titles (7% of database) could not be assigned a price.
Average cost of a title = $121.71 (based on titles with prices).
* Percent of titles with prices (5,671).

TABLE 4

<table>
<thead>
<tr>
<th>Percent of Total Subscriptions</th>
<th>Academic Library Holdings from Young (1990)</th>
<th>Five Sample ARL Libraries Serial Cancellations*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $100</td>
<td>75%</td>
<td>70%</td>
</tr>
<tr>
<td>Between $100–$200</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Greater than $200</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Percent of Total Expenditures for Serials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $100</td>
<td>26%</td>
<td>22%</td>
</tr>
<tr>
<td>Between $100–$200</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Greater than $200</td>
<td>59</td>
<td>64</td>
</tr>
</tbody>
</table>

Percentages rounded to the closest whole number.
* Six percent of cancelled serials were gift/exchange titles.

English-language domestic titles often form many collections’ core, which is a strong reason for maintaining these titles. In fact, domestic titles accounted for less than one-half (2,956, or 47 percent) of the serial cancellations. These were followed by publications from Great Britain (513, or 9 percent), West Germany (488, or 9 percent), and the Netherlands (215, or 4 percent). Placement of
FIGURE 1
Number of titles and cost of titles for serial cancellations, 1987-88 through 1989-90.

FIGURE 2
LC classifications of 6,247 cancelled serial titles for the five sample libraries, 1987-88 through 1989-90

publication was assigned to 5,566 (89 percent) of the titles in the database.

English was the language of publication of most of the cancelled titles (4,153, or 74 percent). Non-English titles totaled 1,431, or 26 percent. The high percentage of English-language serial cancellations may reflect the fact that most of the United States's library collections are predominantly in English. Language was assigned to 5,584 (89 percent) of the titles in the database.

Library of Congress Subject Analysis

Library of Congress (LC) call numbers were assigned to those cancellation records for which no call numbers were reported and to Illinois' cancellation lists, which were reported in Dewey classification. Ninety-six percent, or 6,247 titles, were assigned call numbers. Figure 2 shows a bar chart for all five libraries sorted into broad LC classifications. Science call numbers Q (science), R (medicine), S (agriculture), and T (technology) represent approximately 40 percent of cancelled titles assigned call numbers. Q classification by itself is the largest subject cancellation area, with 1,161 titles or 19 percent of cancellations with call numbers. Q was also the call number class with the largest overlap, accounting for 31 percent of the
overlapping cancelled titles. It was followed by R (21 percent), H (social sciences, 8 percent), and T (6 percent).

Snapshot profiles of call number analysis for the five individual libraries varied from one another according to the circumstances surrounding each library's cancellation requirements. Cancellations at Ohio State University, for example, were of duplicates only. Their cancellation profile reflects a heavier concentration of A and Z (primarily reference material), and H (social sciences) than do the other schools. The subject cancellation profile of the University of Illinois at Urbana-Champaign shows a relatively high number of P (language and literature) cancellations. This profile reflects the strength of the collection in this area as well as an attempt to cut subject funds "across the board." Since humanities/social science serials typically cost less than science journals, more humanities titles were cancelled to meet subject-fund deficits.

CDO DECISION MAKING

Collection development officers from the twelve CIC schools were surveyed about rationales for serial cancellation decisions. Seventy percent of the respondents ranked "use of the title" as the top factor to be considered when making cancellation decisions. The second-most cited factor was "title is a duplicate," followed by the journal's cost. While Ohio State University reported that all of its cancellations during the study were of duplicates, most libraries reported that cancellation of duplicates was no longer an option. Herbert White reported in his 1980 survey of serial cancellations that 82 percent of cancellations were of titles unique to each library. While Ohio State University reported that all of its cancellations during the study were of duplicates, most libraries reported that cancellation of duplicates was no longer an option. Herbert White reported in his 1980 survey of serial cancellations that 82 percent of cancellations were of titles unique to each library. In his previous survey, White found duplicates the most likely to be cancelled. He concluded, "...it seems more likely that at least some of the unique subscriptions are being cancelled because the duplicates—at least the most obvious duplicates—are already gone." With the issue of duplicates mostly a moot point because many academic libraries shed their duplicate serials in the early 1980s, this survey of CDOs concludes that cost and observed use are the two most important factors considered when journals are cancelled. Margaret Hawthorn's 1990 survey of 223 United States and Canadian academic libraries confirms the importance of journal cost to selectors when evaluating serials for cancellation. The cost of a journal was reported as the most important reason to select a title for cancellation.

CDO opinions were also sought on the depth of serial "retrenchment." Ten of the twelve CDOs said they expect to cancel serials in fiscal year 1993, and ten also see serial cancellations as "an established trend" in academic libraries.

CONCLUSIONS

Two hypotheses were proposed. The first posited that at least 30 percent of cancellations would be of the same title at two or more of the five libraries. Because only 4 percent of the cancelled titles were cancelled by two or more libraries, this hypothesis was rejected. The second hypothesis stated that a composite of the typical cancelled serial would most likely be a non-English science title, published outside the United States and costing at least $200 a year. In fact, about 82 percent of the cancelled serials cost less than $200. In addition, almost half were published in the U.S., and some 74 percent were in English. For these factors, at least, the second hypothesis also was not supported. However, science titles in the Q, R, S, and T classifications accounted for approximately 40 percent of the cancellations, clearly representing a significant portion of the cancellations. This part of the second hypothesis, then, is supported.

While the majority of titles cost less than $200, it is important to reiterate that, as shown in table 4, there is an obvious bias toward the cancellation of high-priced serials. This table shows that, at least in our recent past, cancellation decisions are being made on the basis of cost: higher-priced titles are being targeted for cancellation. This is borne out by the responses from the collection development officers, and by Hawthorn's 1990
survey. It may also suggest that science titles, which generally cost the most, have been protected in the past and are now vulnerable.

Upon reflection, it was not surprising that most cancellations were of English-language titles, given that English is the publication language of choice not only for much of North America but also for many titles published in Europe and elsewhere. Also it is likely that many of the foreign titles received in large academic libraries arrive through gift or exchange, and therefore cancellation would have minimal budgetary impact. Additionally, foreign titles in many humanities and social science disciplines in particular are lower in price than are English-language titles, and cost savings from cancellation would not be as great.

Ten of the twelve COOs said they expect to cancel serials in fiscal year 1993, and ten also see serial cancellation as an "established trend" in academic libraries.

As suggested earlier, science and technology serials, which have suffered in sheer number of cancellations, may have been protected in preceding years and are just now catching up to cancellations in the social sciences and humanities. One of the libraries in the study group reported that science serials accounted for about 50 percent of their overall materials budget and some 70 percent of their serials budget. Science cancellations in this library were a planned strategy to achieve a different balance in the collection. Cancellations in these areas can generate a substantial amount of money as well, and as cuts into materials budgets deepen, this becomes more critical. Science collections tend to purchase serials more heavily than do the other disciplines. Because of these tendencies, the result upon the science collection of any one library can be quite devastating.

The sciences also serve disciplines which historically have required the building of departmental libraries. In turn, these libraries have generated a substantial number of duplicates to serve the departmental libraries which now are required to trim their resources. This study was not able to collect reliable data on the cancellation of duplicates, so it is not possible here to pursue this line of investigation.

Coupled with all this are data from this study that show that, when cancellation overlap occurs, it is likely to occur in these same science areas. Overall, this study indicates that libraries may be cancelling unique titles in favor of maintaining high-use, core titles. Science collections, representing a significant portion of the cancellations and a large portion of the cancellation overlaps, would now seem to be in a position where they have cancelled their unique titles and are down to cancelling their core titles. The difficulties found in one library are then spread to other libraries. This means that fewer and fewer libraries will be able to provide access to particular titles, and it suggests that this constriction is already starting with our science collections. This is a supposition that will be tested in future research.

Why were so few cancellations duplicated from library to library? An analysis of this question suggests some troubling findings. Existing overlap studies, almost entirely devoted to the study of monographs, suggest that research libraries have a high percentage of unique monograph titles. However, the universe of serial publishing is much smaller; while research libraries undoubtedly hold unique serial titles that reflect the focus of each university, serial overlap between libraries of similar age, size, and type is estimated at between 24 and 68 percent, as noted earlier. Studies of serial overlap include publications by Christine Johnston, Donald D. Thompson, and Richard M. Dougherty, as well as by Stroyan and Hooper. Johnston reports overlap in chemistry journals between two academic libraries to range from 30 percent of total serials to 39 percent of currently received serials. Thompson and Dougherty measured serial overlap at the northern campuses of the University of California in 1974. An overall serials overlap rate of 37 percent
was found among six libraries, and overlap rates between two libraries ranged from 5 percent (comparing small to large collections) to 87 percent (comparing large to small collections). Stroyan found serial overlap in hospital libraries to range from 24 to 36 percent, again varying with the size of the library. Hooper found an average serial overlap of 58 percent between two South African university libraries. Overlap peaked in specific subject areas of medicine and science, both at 68 percent. These statistics show that serials are more likely than monographs to overlap between libraries. If similar libraries are not cancelling within the overlap universe, then they must be cancelling titles from their unique universe. The Matthew Effect, a concept developed by Robert K. Merton to describe the recognition that accrues to prolific scientists, can be applied to library serial cancellations and helps define the phenomenon of the development of similar collections of high-use and frequently cited serial titles. Based on the Gospel of St. Matthew ("For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath"), the Matthew Effect, in this context, suggests that high-use items will be used and demanded by researchers and maintained by libraries, while low-use titles unique to each collection are susceptible to cancellation.

These conclusions are presented with some caveats that must be kept in mind. This study looked at cancellations, not holdings or serial additions to collections. It also covered an isolated period and cannot describe activity or motivations for cancellations made earlier, or the effects these cancellations have had during the study period. Finally, serial overlap studies simply are not specific, detailed, or numerous enough for absolute reliance on the data they have produced. Further studies will help validate current research.

FUTURE RESEARCH

The results of this study point to the need to conduct research on the obverse issue, that of analyzing the serial collections that remain after the cancellations. A detailed look at chemistry serial collections is planned for future research. This second study will focus on serial holdings compared to serial cancellations, if cancellations were duplicates within that library or at other libraries in the study, and how important the cancelled titles are to chemistry research.

Another important issue that should be explored concerns the impact of serial cancellations on a collection. Are cancelled titles actually important to the collection; can they be deleted without affecting the success of the user in obtaining needed information; or, are they high-use titles for which there is no substitute? Among libraries with cooperative agreements, does the cancellation affect other libraries and other users? In many ways, use studies are a pivotal issue in the research of cancellations.

The lack of complete data consistent among libraries is a major hindrance to future research efforts. Data on serials cancellations are as important as data on serial acquisitions. Complete machine-readable data would be beneficial to future research in this area.

SUMMARY

This research provides a profile for the at-risk serial. The profile—a high-cost English-language title in a science subject area—suggests that our serial collections are diminishing in parallel ways. In many ways, it would be more heartening to discover that there are few characteristics that define the cancelled serial. If cancellations came from a variety of countries in many languages from all disciplines, there would be less reason for concern about the vitality of our collections. That there seems to be emerging a recognizable profile of the cancelled serial title is cause for concern.

The disturbing conclusion is this: if libraries are not cancelling the same title, then it may be presumed that they are cancelling titles unique to the group. By this act, the diversity that has been the hallmark of our research institutions is disappearing. This situation calls for a
renewed interest in cooperative collection development that addresses the issues of cancellations. It has become increasingly clear to libraries that inter-
dependence defines the future. To the list of cooperative ventures, libraries should now add discussions of what they can and cannot afford to buy.

REFERENCES AND NOTES

6. The CIC institutions include Ohio State University, Indiana University, University of Iowa, Purdue University, Michigan State University, University of Michigan, University of Illinois at Urbana-Champaign, University of Minnesota, Northwestern University, University of Wisconsin-Madison, Pennsylvania State University, and the University of Chicago.
9. Data on holdings by language are not available, but supporting evidence of this statement can be found in, among other places, Rose Mary Magrill and John Corbin, Acquisitions Management and Collection Development in Libraries 2d ed. (Chicago: ALA, 1989), 132. The authors note the difficulty in acquiring foreign-language material and the number of titles that are produced in English worldwide.
Recognizing Multiple Decision-making Models: A Guide for Managers
Joan Giesecke

Empirical studies of decision making find that the process is more disorderly than described in rational models. New models have appeared that suggest that managers need to accommodate the randomness found in complex organizations. This article examines two approaches for dealing with this disorder: the political-bargaining model and the garbage can model. The essay clarifies the differences between these two approaches and assesses their usefulness to managers for understanding the decision-making process.

The decision-making process in academic libraries is becoming more complex and confusing as the environment for the organizations becomes more ambiguous. Academic library managers face the particularly difficult challenge of trying to understand and manage the decision-making process at a time when the university environment is changing, the information delivery mechanisms are in flux, and the economic climate is unstable. This environment for the library can be described as an organized anarchy where goals are ambiguous, organizational processes are unclear, and fluid participation in the decision-making process exists. Nonetheless, within this setting, decision making remains a primary task for managers who must now understand not only the content of the decision-making choice but also the context in which the decision is being made. Managers must be able to recognize which decision-making methods are being employed if they wish to understand and influence the process. This is because the method used affects what alternatives are considered, determines who can participate in the process, and influences how choices are made. Managers must be able to analyze accurately the decision-making context if they are to employ effective strategies for guiding the process to a successful conclusion.

Although the models for decision making developed in the fields of sociology, organizational development, and management are applicable to the academic library environment, researchers have found that the reality of decision making is more chaotic than many of the models assume. In fact, in such complex organizations as academic libraries, more than one decision-making method may be used in any given situation.

This article begins with a theoretical overview of three major decision-making models which are applicable to the library environment: the rational model, the political-bargaining model, and the garbage can model. Next, a framework for identifying two of the models of decision making, the political-bargaining model and the garbage can model, is presented. These two models were chosen for the
study because they developed as alternatives to the rational model, have been presented as more realistic than the rational model, and because clear guidelines had not been developed to help managers distinguish between these two methods. This framework is then tested in a case study set in an academic library to determine if the framework can help managers distinguish among decision-making methods. Finally, strategies for library managers to use for effectively working within these processes are provided.

THEORETICAL FRAMEWORK

Decision making became a subject in its own right at the turn of the century, when administrators sought ways to respond to the growing complexity of their political arena. During this early period, the management literature tried to improve decision making by applying more rational procedures. As James Burns notes, "Classical thinking about decision making has viewed the process as an essentially orderly and rational one. A problem is defined and isolated; information is gathered; alternatives are set forth; an end is established; means are created to achieve that end; a choice is made." Managers were urged to maximize the values of efficiency and economy. The rational model was part of a broad orthodoxy that emphasized scientific principles of management, a scientific approach to personnel management, and budgeting as an instrument of rationality, coordination, and control. The rational model of decision making offered an impartial scientific process for decision making and was reinforced by the success of operations research and systems analysis techniques during World War II.

In spite of this prescriptive emphasis, studies of how decisions were actually made in complex organizations showed that, in practice, the process was not as orderly as the models assumed. Rather, it appears that decision making is a messy, disorderly process and, hence, is difficult to describe and analyze.

Two models that were developed as alternatives to the rational model and that try to address this complexity are the political-bargaining model and the garbage can model. In the political-bargaining model, decisions are the result of bargaining and compromise by participants rather than rational analysis of a problem. When preferences among participants conflict, power determines the outcomes of the process. In the garbage can model, decisions are not the result of conscious choice, planning, or negotiation, but rather are determined by the timing of events or by chance. Decision making is described as an activity where relatively independent problems, solutions, and participants come together, and may or may not resolve a problem.

The political-bargaining model has been reasonably well developed and is frequently used as a basis for research. It is both descriptive and prescriptive. While the garbage can model or revisionist model has received considerable attention and is routinely included in standard texts on organizational theory, the model has not been as well developed nor its terms defined. It is primarily descriptive and does not provide as clear signals for improving the decision-making process.

Because the two models have emerged out of dissatisfaction with the rational model, more energy has been spent on distinguishing them from the rational model than from each other. However, the political bargaining and the garbage can models are often hard to distinguish because they encompass many of the same characteristics of organizations and decision makers. As Charles Perrow has argued, many of the case studies used to describe the garbage can model could just as easily be used to illustrate political-bargaining processes. To clarify the differences, this study begins by presenting an analytical framework that compares the two models. The study then applies both models to a decision-making situation to compare their utility for understanding the decision-making situation. Finally, the study explores the implications and uses of the models.

FRAMEWORK FOR ANALYSIS

The research on decision making is often presented through comparisons of
the various models of decision making. Generally, comparisons of decision-making models view the process as a series of stages that can be identified and separated. This stage analysis makes the process seem more organized than it is in complex organizations and makes it difficult to distinguish between political-bargaining and garbage can processes. Furthermore, the descriptions of the garbage can model presented by theorists generally repeat the basic framework described by James G. March, Michael Cohen, and Johan Olsen, but rarely add to or clarify the concepts presented by the originators of the model.

The political-bargaining model views organizations as "alive and screaming political arenas that house a complex variety of individuals and interest groups."

The framework for this study addresses these issues by beginning with concepts within the models rather than stages of the process. It includes three categories of variables based on the criticisms of the rational model: characteristics of the organization, characteristics of the decision-making process, and problem-solving methods (the dependent variable). Characteristics of the organization include four variables: degree of ambiguity about goals, from unambiguous to ambiguous; degree of certainty about organizational process, from certain to uncertain; degree of structure in the organization, from structured to unstructured; and adequacy of organizational resources, from excess to scarce. Characteristics of the decision-making process include four variables: interdependence of participants, from interdependent to independent; diffusion of power, from centralized to dispersed; use of information by participants, from used to not used; and participants' perception of the issue, from important to unimportant.

In the next sections, the models are described using this framework. By looking at these different concepts, the framework, then, as summarized in Table 1, makes it possible to distinguish the political bargaining and the garbage can models from each other.

**POLITICAL-BARGAINING MODEL OF DECISION MAKING**

The political-bargaining model views organizations as "alive and screaming political arenas that house a complex variety of individuals and interest groups." Because an organization is viewed as a coalition of diverse interests, organizations are seen as having multiple, conflicting goals which change as the balance of power changes. In this system, outcomes or decisions are the result of bargaining behavior. Individuals and interest groups enter into bargaining situations in an effort to influence goals and decision making in the system. They continue to bargain only as long as they believe they will benefit from continuing to participate in the process. Individuals do not need to agree on goals and values. They only need to agree to bargain.

**Characteristics of the Organization**

The political-bargaining model begins with multiple, conflicting goals for the organization. It assumes that people's behavior is purposeful and based on their objectives, and that individual goals remain consistent throughout the decision-making process. Furthermore, because the decision-making process involves multiple actors with conflicting views, participants are likely to be uncertain as to the connections between their actions and the outcomes of the process.

Still, the political-bargaining model assumes that decision-making processes are intentional rather than random. The organizational structures which exist will preselect players, may determine the player's point of entrance into the game, and may distribute advantages and disadvantages to each group. Organizational rules, players' positions within the hierarchy, and imposed deadlines all help structure the bargaining process. However, the rules apply only to participants in the process. Problems and solutions are not
TABLE 1
FRAMEWORK FOR ANALYSIS

I. Characteristics of the Organization
   A. Process of Goal Definition
      1. Well-defined
      2. Ill-defined
      3. Emerging
   B. Degree of Certainty about Organizational Processes
      1. Certain
      2. Uncertain
   C. Degree of Structure in the Organization
      1. Structured
      2. Unstructured
   D. Adequacy of Organizational Resources
      1. Scarce
      2. Excess

II. Characteristics of the Decision-making Process
   A. Degree of Interdependence of Participants
      1. Interdependent
      2. Independent
   B. Diffusion of Power
      1. Centralized
      2. Dispersed or distributed
   C. Use of Information by Participants
      1. Gathered and used
      2. Gathered but not used
   D. Participants’ Perception of the Issue
      1. Important
      2. Unimportant

III. Method by Which the Process Solves Problems
   A. Political bargaining model: bargaining until participants are willing to accept a decision
   B. Garbage can model: ad hoc process; problems are resolved when participants no longer consider the issue a problem

considered as separate entities in the decision-making process. In addition, resources are assumed to be scarce and participants come into conflict as they seek to maximize their own interests and resources.

Characteristics of the Decision-making Process

In the political-bargaining model, participants are interdependent. They react to the actions of others and take other participants into account as they plan their own strategies. Managers have to assess power throughout the organization as it is imperative that they accurately diagnose power to use bargaining strategies ranging from coalition building to co-optation successfully.

Information plays an important part in the decision-making process. Information is gathered to help the decision maker in
assessing alternatives. The political-bargaining model emphasizes the cost of gathering information and recognizes that participants may not seek information on all alternative solutions to a problem. They gather information to support their views and then may use that information in their bargaining process as they try to guess how other participants will respond.

Finally, the political-bargaining model predicts that, if an issue is perceived to be important, then participants will use bargaining tactics, incremental strategies, and coalition building techniques as they try to gain their own objectives within the organization. Negotiation and compromise are likely to occur as participants seek to keep the game of decision making progressing toward a resolution. The issue is resolved at the point that participants agree to accept the decision. However, this may not be a final solution. Because there may be winners and losers in the process, participants who lose in one decision may return to fight the issue another day. In the political-bargaining model, decisions can be reconsidered if participants choose to continue to pursue the issue.

In summary, the political-bargaining model views the decision-making process as a bargaining game where individuals pursue their own interests within the organization, but do so by taking others into account. Conflict is legitimate as individuals have different objectives and different amounts of power to pursue their goals. Participants' behavior is purposeful. The organization, however, may not appear as such because participants simultaneously pursue multiple, conflicting goals.

GARBAGE CAN MODEL OF DECISION MAKING

March, Cohen, and Olsen have developed a model of decision making known as the garbage can model to describe decision-making processes in organizations that are characterized by ambiguity. Although classical theories of choice, which assume that goals and objectives are the basis for action, proved unable to explain the confusion that actually goes on in complex organizations, garbage can studies present a picture of decision making that seems pathological when compared to those assumed by classical theories. Problems appear in various parts of the organization and then disappear without being resolved. Managers spend time making decisions that are not implemented. Participants drop in and out of the decision-making process, seeming to appear at random in decision-making opportunities.

Characteristics of the Organization

The garbage can model begins with the assumption that an organization's goals are problematic or ambiguous. Unlike the political-bargaining model, objectives may also be ill-defined or inconsistent for individual decision makers. Individuals are, in fact, often uncertain about how organizational processes function. As a result, the links between problems, solutions, and people are not always clear. Decision makers find that the outcomes of decision-making opportunities are only loosely connected to the decision-making process. Although organizational structures or rules and regulations help determine how problems, solutions, and participants can be linked, in loosely structured organizations, that initial linking of problems and participants does not guarantee that problems, solutions, and participants will remain stable, consistent, or linked throughout the process.

Furthermore, the amount of resources in the organization affects the number of decision-making opportunities. When there are excess resources, managers can create enough decision-making opportunities to satisfy everyone who wants to participate in the decision-making process. When resources are scarce, not all demands will be met. "Political-bargaining strategies are likely to be employed by participants, and power can take the place of contextual or chance factors in the decision-making situation."

Characteristics of the Decision-making Process

Participants function independently of each other as they choose to attend
Garbage can processes are apt to be most evident when organizations have to deal with issues that are perceived to be important. The reason is that important decisions attract a large number of participants, problems, and solutions, and typically address the problems of scarce resources and those that involve highly emotional, powerful, symbolically visible, or technically fuzzy issues.14

In summary, the garbage can model captures the complex environment that surrounds organizational decision making. It does not concentrate on one or two major concepts to explain decision making, but assumes that there are numerous explanatory variables that may affect the process. The model includes the wide range of confusing events that impinge on the process but which are not covered in other models of decision making. The strength of the model is its ability to account for much of the apparently random behavior that is observed in organizations. It is intuitively satisfying because it brings a level of understanding to organizational behavior that has not been well covered in other models.

Therefore, the political-bargaining model and the garbage can model share some of the same characteristics (see table 2). There are, however, important differences between them. Specifically, the garbage can model emphasizes ill-defined goals for individuals and the independence of the participants in the process, while the political-bargaining model stresses multiple goals only for the organization and the independence of the participants.

The next step in the research was to apply the two models to a decision-making situation to determine if the distinctions provided by this framework, particularly for the variables of goal definition and degree of independence of participants, were significant enough to distinguish garbage can processes from political-bargaining processes.

RESEARCH METHODS

To examine the two models, each model was used to study a decision about the best system for governing a university library.15

To conduct the research in studying the decision-making process, it seemed appropriate to use a case study method along with participant observation.16 By being part of the process, one is better able to describe the context of the decision-making process, to identify the intentions of participants in the process, and to trace problems, solutions, and participants in the process. The problems and difficulties associated with the case study method and one participant observer recording and interpreting events are acknowledged.17 Although the process allows for a detailed description of the observed culture or organization, the observer must be aware of the possibility that participants may change their behavior if they know they are being observed, may be influenced by the researcher, or may try to misdirect the observer.18 Because the author was familiar with the organization chosen for the case study, the author was in a position to try to evaluate if the actions of participants were consistent with their behavior in other decision-making situations. Furthermore, whenever possible, informal interviews and documentation were used to support or deny the author's interpretations.

Data Collection

Information about the decision-making process was obtained in four ways:
TABLE 2
COMPARISON OF THE RATIONAL, POLITICAL BARGAINING AND GARBAGE CAN MODELS

<table>
<thead>
<tr>
<th>Characteristics of Organization</th>
<th>Rational</th>
<th>Political Bargaining</th>
<th>Garbage Can</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals</td>
<td>Well-defined; consistent</td>
<td>Goals are known but may differ among participants consistent for individual</td>
<td>Ill-defined, may emerge at any time</td>
</tr>
<tr>
<td>Degree of certainty</td>
<td>Assumes certainty</td>
<td>High degree of uncertainty</td>
<td>High degree of uncertainty</td>
</tr>
<tr>
<td>Degree of structure</td>
<td>Highly structured</td>
<td>Structure defines particular roles</td>
<td>May be unstructured or partially structured</td>
</tr>
<tr>
<td>Adequacy of resources</td>
<td>Assumed adequate</td>
<td>Scarce</td>
<td>Excess or scarce</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics of Decision-making Process</th>
<th>Rational</th>
<th>Political Bargaining</th>
<th>Garbage Can</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of interdependency</td>
<td>Roles are defined</td>
<td>Interdependent</td>
<td>Independent</td>
</tr>
<tr>
<td>Diffusion of power</td>
<td>Authority is part of bureaucratic structure</td>
<td>Dispersed</td>
<td>Dispersed</td>
</tr>
<tr>
<td>Use of information</td>
<td>Gathered and used</td>
<td>Gathered and used</td>
<td>Gathered, used or not used</td>
</tr>
<tr>
<td>Perception of issue</td>
<td>May be important or unimportant</td>
<td>Important</td>
<td>Important</td>
</tr>
<tr>
<td>Method of solving problems</td>
<td>Value-maximization</td>
<td>Bargaining, coalition building</td>
<td>Ad hoc</td>
</tr>
</tbody>
</table>

direct participant observation as a member of the library faculty, interviews with participants throughout the decision-making process, examination of minutes of meetings and documents related to the process, and interviews with key participants involved in the process after the governance document was completed.

Interviews were particularly important. During the decision-making process, informal interviews were conducted with most participants in the process. Throughout the process, two main questions were asked. First, participants were asked if they believed the decision-making process was progressing, and if their concerns were being addressed. Second, participants were asked what other activities were important to them in addition to the governance decision-making process.

Upon the conclusion of the decision-making process, formal interviews were conducted with the major participants. The participants were interviewed over a six-month period to determine how they saw the process once it was completed. They were asked open-ended questions, such as: How do you feel about the process? Do you believe the process adequately addressed the issues? What problems do you think we were trying to solve? What incidents stand out as significant? What other activities were you involved in during the process?

Follow-up interviews were conducted with participants when clarification was needed. The information gathered from
the interviews was supplemented by data gathered from written documents, minutes of meetings, and university and library publications. Data from the notes, minutes, and documents were used to verify and correct the recollections of participants and to identify actions that fit into the official chronology of events.

Case Study: Applying the Models to a Decision about University Governance

A university committee charged with designing a governance system for the library worked for a year and a half to design a system that would “provide for procedures of due process (regarding employment issues for librarians) and would establish a mechanism by which the Library Director could consult with the professional librarians on matters concerning the quality and development of the library program and staff.”

The issue was important for the librarians because it involved their employment status and established procedures for the evaluation and promotion of the professional librarians. Four groups were active in the decision process. The university’s administration was represented on the committee by the associate vice-chancellor for academic affairs. The administration felt that the librarians should change their current system of governance so that it provided some job security for the librarians but eliminated the current tenure system for librarians. The library director, who served on the committee, also favored eliminating tenure for librarians and wanted the director to have more input into promotion and evaluation decisions.

Two librarians also served on the governance committee and were responsible for representing the views of the librarians and for conveying the librarians’ concerns to the administration. Representation proved to be a difficult task, however, as the broader set of librarians did not have a common objective in the process and as factions emerged among them as the process developed. A minority group of librarians held that librarians should retain their current tenure system. This group formed early in the process and consistently held to their views. They were unwilling to compromise with the administration and argued that the administration did not offer any proposals that were better than the tenure system. Most of the librarians, on the other hand, did not hold firmly to any particular viewpoint. At first, they supported a modified tenure proposal, a proposal rejected by the administration early in the process. As the debates continued over a period of months, the majority of librarians failed to come to a firm consensus on what type of system they wanted. As time passed, the librarians became involved in other projects in the library and devoted less and less time to the governance debate. Some librarians who were active in the beginning of the process and then moved on to other issues returned to the governance debates near the end of the process. These librarians tried to reintroduce their concerns into the debates as if the topics under discussion had not changed in their absence.

Although the decision-making process allows for a detailed description of the observed culture or organization, the observer must be aware of the possibility that participants may change their behavior if they know they are being observed, may be influenced by the researcher, or may try to misdirect the observer.

In the meantime, the two librarians on the governance committee attempted to survey the librarians a number of times for input. Each vote yielded a different result. Sometimes the librarians favored tenure, and sometimes they favored multiyear contracts. In the end, the librarians on the committee supported the university administration and the library director, proposing for the librarians a multiyear contract system that offered some job security to the librarians but denied them tenure. The majority of the librarians accepted this proposal with little debate on the merits of the system and without resolving the conflicts with
the minority group of librarians. The minority group continued to oppose the proposal, sought legal assistance, and spent their energy trying to have the decision changed, but were unable to persuade the other participants in the process to accept their viewpoint.

**DISCUSSION OF THE CASE STUDY**

The framework for the analysis did prove to be a useful way to distinguish between political-bargaining and garbage can processes in the case study. The political-bargaining model successfully describes the actions of the minority group of librarians and the university administration. Both groups had consistent goals and engaged in bargaining tactics in an effort to achieve their primary objectives. The model also predicts that groups will seek to maintain or increase their power and that the eventual decision will reflect the positions of those with the most power. The administration, which was seen as the group with the most power, achieved its primary objective of creating a different governance process for the librarians. The minority group was unsuccessful in its attempt to increase its power by seeking legal assistance in its efforts to keep its limited tenure system as an option for the current library faculty. Nevertheless, the model does not explain or predict the rather inconsistent behavior of the majority of the librarians who held no firm opinions on the governance issues.

The garbage can model, on the other hand, accurately describes the random actions of the majority of the librarians. The librarians drifted through the process, first supporting the current tenure system, and then moving to multiyear contracts without carefully considering the alternatives or thinking through their positions. They did not try to develop coalitions or to amass support for a particular position. Individually, they changed their stances on the issues, inconsistently voting for one position one week, and another position the next. Others in the process could not count on their continued support for any particular proposal. Furthermore, individuals who felt strongly about the issues in the beginning were distracted by other events, as the debates continued. Some librarians who initially argued passionately for a particular point of view, later dropped out of the process, then reappeared at the end of the debates when other events had lost their attention. These individuals then tried to argue for a variety of viewpoints without considering the changes that had occurred in their absence.

The librarians attended library faculty meetings about the governance issue until they found something else to do. They moved on to new issues without resolving the problems in the governance process. Too, they raised unrelated issues in the governance debates whenever something caught their attention. As a consequence of this behavior, the governance meetings included debates about performance appraisal forms, personnel evaluation systems outside of tenure issues, and affirmative action regulations. The garbage can model accounts for these diverse debates by noting that problems can appear in unrelated decision-making opportunities and that participants will use whatever opportunities are available to them to discuss concerns.

**CONCLUSIONS**

**Utility of the Models**

One conclusion of the case study was the demonstration that political-bargaining and garbage can processes can exist in the same decision-making situation and managers can use the framework presented here to distinguish between the different approaches. Once managers are able to identify the approach most likely to be taken by participants, they can alter their own strategies to affect the outcome of the process. That is, managers can seek to adjust their strategies to influence other participants. When political-bargaining behavior is evident, participants can view the decision-making process as a game of winners and losers, and develop strategies for trying to maximize their own gains in the process. Strategies that have been developed to help decision makers
manage political-bargaining processes include game theory, bargaining tactics, satisficing strategies, and incremental strategies.\textsuperscript{20} As Charles Lindblom noted, these strategies allow for pluralistic interests in complex organizations.\textsuperscript{21} To identify garbage can processes and to let go of the rational imperative, managers can ask themselves the following types of questions. Are unrelated problems being discussed at decision-making opportunities as if the problems were related? Do solutions appear on agendas before problems have been discussed? Do participants attend all meetings or is their attendance sporadic? Do participants say that meetings are important, but still fail to attend? These types of questions begin to explore the concepts that are part of the garbage can model and may help managers to recognize the independence of participants, problems, and solutions.

When political-bargaining behavior is evident, participants can view the decision-making process as a game of winners and losers, and develop strategies for trying to maximize their own gains in the process.

Once managers recognize that a decision-making process resembles the garbage can model, they have at least three possible responses: add controls, adapt to the process, or embrace the process.\textsuperscript{22} In the first strategy, managers can try to add structure, rules, or regulations to the decision-making process to limit the movement of problems, solutions, and participants throughout the process. In the second strategy, managers adapt their own style to maximize their ability to influence the decision-making process. Tactics such as setting deadlines, spending a lot of time on a problem, and persisting with an issue can all affect the overall process. Further, managers can try to affect the timing of events by overloading the system with problems. This tactic should distract participants from some of the issues so that the manager is more likely to be able to pursue his or her own agenda. Finally, as a third strategy, managers can embrace the process and increase flexibility in the organization. Managers may suspend rules and encourage participants to act first and think later in an effort to bring creativity into the decision-making process.\textsuperscript{23}

Of course, managers will need to combine a variety of strategies to be effective in this ambiguous environment. For example, they can use bargaining strategies, negotiation, and coalition building techniques with those participants following a political-bargaining strategy. These strategies are not likely to be effective, however, with participants who have ill-defined goals and are acting independently of each other. For these individuals, managers should switch tactics. Here setting controls, establishing deadlines, and overloading the system with problems may be effective in allowing the manager to influence the outcome of the decision-making process. Furthermore, although such strategies as spending time on an issue and persisting with an issue can be effective in both political-bargaining and garbage can processes, this is not true for most tactics. For example, a tactic such as overloading the system with problems in order to distract participants, which can work in the garbage can model, is not likely to be effective in the political-bargaining situation. This is because participants who are dedicated to a cause are apt to ignore other issues and concentrate on their major agenda. The manager, then, needs to recognize this dedication and adopt strategies to work effectively with such groups.

In summary, both the political-bargaining model and the garbage can model provide librarians with ideas on how to successfully manage the decision-making process. While the political-bargaining model prescribes better organizational structures to use to understand, manage, and improve the decision-making process, the garbage can model emphasizes the important role of the manager in understanding the decision-making process. By concentrating on organizational processes rather
than on organizational structures, the garbage can model gives a more complete picture or description of the complexities of the decision-making process. It provides managers with clues as to how to function effectively in times of organizational change and under conditions that seem chaotic. By using the framework for analysis presented here, managers can begin to distinguish between the two approaches and can become more successful at identifying appropriate strategies to use to influence the outcomes of decision-making processes.

REFERENCES AND NOTES

2. For example see Charles Perrow, Complex Organizations (New York: Random, 1986) and Herbert Simon, Administrative Behavior (New York: Free Pr., 1976).
3. For example, see Morgan McCall and Robert Kaplan, Whatever It Takes: Decision Makers at Work (New York: Prentice Hall, 1985) and John Kingdon, Agenda, Alternative, and Public Policies (Boston: Little, 1984).
5. Ibid., 26.
9. For example, the classic work by Graham Allison (see note 6) provides a comparison of three models of decision making, including the rational model, the bureaucratic model, and the political-bargaining model. Bolman and Deal (1984) use four major categories: rational, human relations, political, and symbolic in their work on understanding decision making in organizations. Jeffrey Pfeffer (1981) details the political-bargaining model, and provides brief descriptions of the rational, bureaucratic, and garbage can models. Lawrence Pinfield (1986) divides the decision-making models into structured and unstructured models and compares the characteristics of these two broad categories of models. Anne Grandori (1984) compares various strategies of decision making on the two fundamental dimensions of uncertainty and conflict of interest.
11. Bolman and Deal, Modern Approaches to Understanding and Managing Organization, 250.
14. Bolman and Deal, Modern Approaches to Understanding and Managing Organizations, 250.
15. The identity of the university for this case and the identity of the participants have been masked to maintain the confidentiality of the interviews.
16. A pilot study was conducted as part of the full research, and revisions were made in the framework and in the methodology to resolve problems identified in the pretest.
17. For a more complete analysis of the limitations associated with this methodology, see Joan R. Giesecke, Making Decisions under Chaotic Conditions (Ann Arbor, Mich.: University Microfilms, 1988).


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A Current Awareness Service Using Microcomputer Databases and Electronic Mail

John T. Butler

Libraries are challenged economically to provide customized services to faculty and researchers who have ongoing needs for specialized information. This report describes a pilot current awareness service which provided individual faculty with weekly searches of recently published literature, while incurring relatively low costs. Search results were generated using microcomputer databases and were transmitted electronically to faculty using a combination of mainframe computing, a high-speed campus network, and electronic mail. The methodology, which incorporated an automatic mailing program, is detailed. Costs are analyzed and projected for an expanded service to a moderately large faculty population.

Researchers in the scientific and technical disciplines dedicate considerable time tracking the latest developments in their specialized fields. Assimilating new information acquired through personal networks, scientific meetings, and the literature is essential to advancing their own research and, in turn, the collective knowledge of the field. Well-known factors, however, stand between researchers and their ability to keep pace with the primary literature. These factors include the substantial volume and growth of literature in science and technology, and the increasing demands to monitor the literature across disciplines. In response, many libraries have developed current awareness or Selective Dissemination of Information (SDI) services. Here, individuals' literature interests are profiled and formulated into computer search statements to be regularly searched against recently published literature. The results of these tailored searches are then routinely forwarded to service participants.

While such services in the academic environment have been received by faculty and others with high praise, the cost of sustaining them has remained an issue. Economies of scale are difficult to achieve in customized services. And when budgets are strained, extending such services may seem beyond the possible, especially to libraries serving large faculty populations.

Addressing these issues, the Science & Engineering Reference unit at the University of Minnesota developed a model for providing weekly literature updates to faculty. The Current Awareness Service (CAS) used microcomputer databases, a high-speed campus network,

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mainframe computing, and electronic mail to realize economies and to expedite dissemination of search results. The Science & Engineering Reference unit serves over 350 faculty in the Institute of Technology, which is comprised of eleven academic departments covering engineering, computer science, and the physical and earth sciences. A seven-month pilot project conducted from August 1991 to February 1992 demonstrated the prospects for offering customized current awareness services at relatively low costs.

PURPOSE

The purpose of CAS was to supplement the individual faculty member's methods and habits of keeping current by providing a systematic and selective review of recently published literature. The service was intended to save faculty time, offer extensive coverage of the literature, and incorporate the searching expertise of the professional library staff. CAS was also to complement heavily used document delivery services.

The pilot project model was conceived to serve the moderately large faculty population of the Institute of Technology. To succeed under restrictive budgetary circumstances, operational efficiencies needed to be achieved and costs needed to be minimized.

LITERATURE REVIEW

The literature contains numerous reports on SDI systems and current awareness services from the 1960s and early 1970s. Overviews and comparisons of methods are reported in more recent years. Of particular interest were discussions of locally produced, automated methods for providing SDI services which presented economic alternatives to commercial SDI services. The University of Wisconsin-Stout, a prototype service staff developed by which library staff searched commercial online databases and photocopied tables of contents of select journals for local distribution to faculty and staff. Texas A&M University experimented with front-end search software to upload profile search statements to commercial online databases which, when possible, were searched at off-peak discounted rates. The most inspiring project was found at Portsmouth Polytechnic. There, a locally produced current awareness service provided researchers with references from CD-ROM, diskette, and online databases, with results distributed on microcomputer diskettes for loading into their personal bibliographic databases.

Also reviewed was the application of electronic mail to support specific library services. Harry Llull states that using electronic communications over campus networks to perform library functions is not only efficient but also works to penetrate the physical and organizational barriers of being in different buildings and being members of different departments. Michael Buckland provides a taxonomy for the integration of electronic mail in libraries. His framework suggests numerous possibilities for the application of e-mail to services, including the transmission of tailored information updates to users. The use of electronic networks for transmitting information resources is not uncommon in large, decentralized corporate organizations. At Lehigh University, the use of electronic networks for transmitting documents, literature searches, and other information products is planned as part of the libraries' integrated information services. In this review, specific academic library application of electronic mail for current awareness or SDI purposes was not identified.

OPERATIONAL REQUIREMENTS

Considering the SDI designs reviewed, five requirements of the prospective model were identified:

1. A microcomputer bibliographic database with minimal indexing lag time, a frequent publication rate (at least monthly), and sufficient literature coverage in the disciplines of concern. The rationale for selecting a microcomputer database over other platforms was the cost stability, which was ensured by a flat rate subscription agreement, and in-house control, which was viewed
as key to shaping the service to local needs. The increasing selection of major bibliographic databases for microcomputer searching (CD-ROM, diskette) was also influential.

2. A method to create high quality literature profiles for individual faculty. Results here would, more than anything else, affect the value of the service to participants in the project.14

3. The electronic delivery of search results which would expedite perishable information to participants, provide data in a format ready for electronic postprocessing, and minimize library staff processing and handling.


5. Communication between faculty participants and librarians about issues relating to the service.

**FACULTY PARTICIPANTS**

The faculty of the Department of Electrical Engineering were selected as the test population for the pilot project. These faculty members were noted for their interdisciplinary research (an attribute which would test the literature coverage of the selected database) and were established users of electronic mail. Of the fifty faculty members in Electrical Engineering, twenty-one, or 41 percent, agreed to participate in the pilot project.

**METHODOLOGY**

To initiate profiling, participants were sent a self-reporting questionnaire that asked them to:

1. Detail the subject matter they wished to include in their profiles and to provide appropriate keywords and phrases describing the subject matter.

2. Provide titles of journals for which they wanted complete table of contents listings.

3. Provide names of authors whose publications they wished to track.

4. Specify language restrictions to be applied to search results.

After reviewing completed questionnaires, a librarian telephoned or e-mailed each faculty participant. This proved essential for further defining the context and scope of specific literature interests and for clarifying ambiguous written responses on the questionnaire.

Selected as bibliographic databases for the project were the weekly issued Current Contents on Diskette-Physical, Chemical, and Earth Sciences, and Current Contents on Diskette-Engineering, Technology and Applied Sciences, (both databases referred to as CCOD hereafter). The databases met the operational requirements previously identified.15 Also, the intended use of the databases for this project fit within the vendor’s single work station subscription agreement.16

Using profile information gathered through questionnaires and follow-up correspondence, logical search statements for each participant were formulated and saved with the CCOD software, which is a function similar to search/save on other systems. A weekly routine was then initiated. On receipt, new CCOD issues were loaded into a microcomputer, an IBM-compatible with a 20 MHz 386 processor. Each profile was run against the two databases, with search results from both downloaded into a single text file. Downloaded files were each assigned a control name that would later be referred to by other computer programs in the e-mail procedure. Downloaded files were submitted to error checking procedures to identify potential operator error and were then ready for transmission to participants.

Key to the e-mail component of the model was the University’s Digital Equipment Corporation VAX 6000-520 running the VMS 5.4 operating system and VAX/VMS Mail Utility. (It is suspected that comparable hardware may be substituted.) The VAX is connected to the University Campus Internet, external Internets, Bitnet, and DECnet. The Campus Internet used in this project is a large Ethernet-like network that makes it possible to provide high-speed access to most campus mainframe systems from almost any computer on campus, including microcomputers in local area networks that are in turn connected to it.
To begin the mailing procedure, the microcomputer text files were uploaded to the VAX, using a high-speed connection to the campus Internet. Telnet and file transfer protocol (FTP) facilitated terminal emulation and file transfer, respectively.\textsuperscript{17} Data were uploaded at a rate averaging 40KB to 64KB per second. When all files were confirmed as sent to the VAX, the files were then sent to participants, using the VAX/VMS Mail Utility and a command program created for this project called Automail.

In contrast to standard e-mail distribution lists, which send one message to many individuals, Automail sends en masse numerous unique messages or files to numerous unique addresses. Used with supporting command and data files, Automail links the names of each uploaded file to the electronic address of the participant to which it is destined.\textsuperscript{18} Once the match is made, the program instructs the mail utility to send the file to the specified address. All files are sent routinely without operator intervention. An onscreen status report summarizes the mailing operations to ensure that all files are sent. Combined file transmission activities, which included uploading and mailing, averaged fifteen seconds per data file. These efficiencies firmly established the model's technical feasibility of extending the service to a larger faculty population.

**UPDATING PROFILES**

While requests from participants to modify search profiles were encouraged at any time, an optional review procedure was also established. Every three months, each participant was electronically sent his or her current profile and an update form to specify desired modifications. To do this efficiently, DOS batch files were used to assemble individual profiles and update forms into single text files, which were then transmitted to participants using Automail. Those electing to modify their profiles returned specifications either electronically or as an edited printout. The next literature update then reflected the changes made to the profile search statement.

**RESULTS**

For seven months, twenty-one faculty members received a weekly average of fifty-three citations from CCOD-Physical, Chemical, and Earth Sciences, and twenty-nine citations from CCOD-Engineering, Technology and Applied Sciences. Although anticipated, the heavy retrieval of physics literature confirmed the need for interdisciplinary literature coverage for this group of engineering faculty.

The role CAS played in personal current awareness styles varied among participants. For some, CAS detected research that was unpredictably and infrequently reported in the literature, such as devices for the acoustic detection of termites. Others, nearly 25 percent, wished to receive unfiltered contents listings from selected journal titles. The intent here was to support what Eugene Garfield has referred to as “systematic serendipity” or the organized process of information discovery.\textsuperscript{19} One participant said, “Reviewing article titles from the major journals is the only way to find what I’m looking for. I can’t design a keyword search strategy for crazy new ideas.” For another, CAS provided contents listings to two journals to which, at a combined subscription rate of $8,900 per year, the library did not subscribe but could request individual articles through other suppliers.

Requests for customized packaging of search results were accommodated whenever possible. For example, one participant wanted results batched into sets based on his reviewing priorities. This allowed results needing immediate review to come separate from results that could be reviewed when time permitted. Others requested results sent in particular file formats to facilitate downloading into their bibliographic software packages. Customizing results was an opportunity to add value to the service. It did not appreciably drag on the system’s efficiency.

**EVALUATION**

Participants were surveyed to determine the service’s performance and
value in light of their current awareness needs. Fifteen of twenty-one, or 72 percent, of the participants responded. A summary of responses is provided in table 1.

The survey also solicited comments on the service's strengths and weaknesses. Most frequently cited strengths were savings of time and the identification of relevant publications that would otherwise be overlooked. The electronic delivery of results was praised as convenient and as lending itself to subsequent retrieval and processing of search results loaded into personal files. Also, the use of e-mail to specify profile modifications was considered efficient and responsive. It is believed that the active role participants played in periodically reviewing and rejuvenating their own profiles raised the level of vested interest in the service and, consequently, the quality of the results.

Among the cited weaknesses was excessive quantities of citations and, in some instances, duplicate citations received. The overabundance of citations was frequently attributed to profiles that requested full contents listings of such titles as *Physical Review-B* and the *Journal of Applied Physics*, which typically have 100 to 300 articles per issue. On realizing this, many participants adjusted their profiles. Duplicate citations resulted from overlapping coverage of several journal titles by the two sections of CCOD. Additional programming to prevent duplicate citations was later applied to profiles where this was a problem.

**COSTS**

Also analyzed were the direct costs of the pilot project, which were defined as expenses that would have not occurred without the project. On that basis, direct costs of providing the service to additional faculty were projected. Both actual and projected costs are presented in table 2. As shown, direct costs per faculty member per week are projected to decrease as the number of participants increases.

Labor of professional staff and that of clerical staff was analyzed, too, and is presented in table 3. The values shown

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**TABLE 1**

**EVALUATION SUMMARY (N = 15)**

<table>
<thead>
<tr>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall performance of service</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>46.6</td>
</tr>
<tr>
<td>Good</td>
<td>40.0</td>
</tr>
<tr>
<td>Fair</td>
<td>13.3</td>
</tr>
<tr>
<td>Poor</td>
<td>0.0</td>
</tr>
<tr>
<td>Relevance of citations sent</td>
<td></td>
</tr>
<tr>
<td>Mostly relevant</td>
<td>26.6</td>
</tr>
<tr>
<td>Often relevant</td>
<td>46.6</td>
</tr>
<tr>
<td>Sometimes relevant</td>
<td>26.6</td>
</tr>
<tr>
<td>Seldom relevant</td>
<td>0.0</td>
</tr>
<tr>
<td>Quantity of citations sent</td>
<td></td>
</tr>
<tr>
<td>Too much</td>
<td>26.6</td>
</tr>
<tr>
<td>About right</td>
<td>73.3</td>
</tr>
<tr>
<td>Too little</td>
<td>0.0</td>
</tr>
<tr>
<td>Frequency of updating profile to keep up with research focus</td>
<td></td>
</tr>
<tr>
<td>Less than once a year</td>
<td>6.6</td>
</tr>
<tr>
<td>Once a year</td>
<td>6.6</td>
</tr>
<tr>
<td>Every 6 months</td>
<td>40.0</td>
</tr>
<tr>
<td>Every 3 months</td>
<td>46.6</td>
</tr>
<tr>
<td>Presently downloading CAS results into personal database</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20.0</td>
</tr>
<tr>
<td>I don’t download but would like to</td>
<td>73.3</td>
</tr>
<tr>
<td>No, I have no interest</td>
<td>6.6</td>
</tr>
<tr>
<td>Interest in group profiles in your department</td>
<td></td>
</tr>
<tr>
<td>A lot of interest</td>
<td>6.6</td>
</tr>
<tr>
<td>Moderate interest</td>
<td>40.0</td>
</tr>
<tr>
<td>Slight interest</td>
<td>46.6</td>
</tr>
<tr>
<td>No interest</td>
<td>6.6</td>
</tr>
<tr>
<td>Importance of the Current Awareness Service continuing</td>
<td></td>
</tr>
<tr>
<td>Very important</td>
<td>73.3</td>
</tr>
<tr>
<td>Important</td>
<td>26.6</td>
</tr>
<tr>
<td>Slightly important</td>
<td>0.0</td>
</tr>
<tr>
<td>Unimportant</td>
<td>0.0</td>
</tr>
</tbody>
</table>
for professional staff time are based on the average total time commitment per participant over the test period, then calculated to a per week/per participant unit. Note, though, that the activities of professional staff tended not to be routine or evenly distributed over time, but rather heavily concentrated in the early stages of an individual's participation (in profiling and creation of search profile activities).

The requirements of professional time per participant are projected to remain the same, regardless of the number of participants, as profiling activities were, and would continue to be, largely unaffected by automation. However, reductions in clerical staff time may be realized through additional automation. For example, an auxiliary program to run the profiles in a batch process would virtually eliminate the largest expenditure of clerical staff time and would significantly reduce indirect costs.

Assuming rates of $15 per hour for professional staff and $8 per hour for clerical staff, the total cost per participant per week was $2.55 (for twenty-one participants). The projected total cost of serving larger numbers of individuals are $2.09 per participant/per week for fifty participants; $1.93 for 100; and $1.82 for 200. Depending on the total number of participants, labor accounts for 58 to 81 percent of the total cost. This is important to note because many cost analyses of current awareness services represent only direct costs, as usually paid to a
commercial vendor, and do not factor the costs of profiling activities or associated clerical activities.

The unit costs of CAS held clear economic advantage over delivering similar services through commercially based SDI services. To compare, a competitive online vendor offers SDI updates in Current Contents for 75 cents per bibliographic citation, plus $5.50 per weekly update, or $7 per biweekly update. A realistic portrayal of costs, using commercial services, is seen in the University of Wisconsin-Stout program, which reported $17 per month per participant for SDI updates and citation charges alone. Again, these are just the direct costs paid to the vendor and exclude the costs of labor associated with profile creation and management and handling of search results.

CONCLUSION

Faculty and researchers in many disciplines require a constant flow of current and often highly specialized information. An enterprising library response is to develop ongoing individualized information services. Though challenging economically, certain technological efficiencies present opportunities to minimize costs. Here, the CAS pilot project demonstrated an economical method for providing current awareness services by using relatively inexpensive microcomputer databases and e-mail.

The service was well received. A frequently voiced reaction by faculty was that the service exceeded their expectations of what the library could or would be willing to do for them as individuals. This spoke not only to the primary function of the service—providing tailored literature searches—but also to accommodating requests for special formatting and packaging of results. In evaluation, the service was rated highly overall, and as an indicator of its value, three-quarters of respondents reported the continuation of the service as "very important to their academic activities." Faculty's embrace of electronic mail as the conduit for the service was instrumental in achieving operational efficiency. Because of that, expanding the service to include the larger faculty population can proceed.

It is believed that the active role participants played in periodically reviewing and rejuvenating their own profiles raised the level of vested interest in the service and, consequently, the quality of the results.

Also key to expanding the service is the staff's view that providing current awareness services to faculty fits well within their roles as librarian-academic department liaisons. A clear benefit to librarians is that information gathered in the initial and ongoing profiling activities can be applied to their collection development planning. As a logical extension of the service, future involvement of the staff may include advising faculty on the selection and implementation of personal bibliographic database software for the postprocessing of CAS results. Also, the automated e-mail program implemented here brings to mind numerous possibilities for disseminating other custom-generated information sources to faculty, researchers, and research groups.

Of the many reasons why customized information services deserve serious consideration in the academic library, perhaps one of the best, yet least recognized, is the framework such services provide for building productive faculty-librarian relationships. Robert Grover and Martha Hale propose that academic librarians transcend their traditional reactive or passive modes of service and become integral players in the research efforts of faculty. Only then will librarians really understand the research process and, consequently, the information resources and services needed to support it. By extending individualized services to faculty, the CAS pilot project became an instrument for developing such involvement.
REFERENCES AND NOTES


3. Though there are unprecedented degrees of specialization in the sciences, the amount and range of literature required have increased because of the intertwining of disciplines. See Garvey, Communication, 107; Lancaster and Smith, “Science, Scholarship and the Communication of Knowledge,” 382; and H. W. Koch, The Federal Government and Research Museums and Libraries of the Future (New York: American Institute of Physics, Information Division, 1970).

4. This is similar to stated purposes of many current awareness services, such as those presented by H. P. Luhn, “Selective Dissemination of New Scientific Information with the Aid of Electronic Processing Equipment,” American Documentation 12 (Apr. 1961): 131-38; and those reviewed by John H. Schneider, “Selective Dissemination and Indexing of Scientific Information,” Science 173 (July 23, 1971): 300-8.


14. SDI pioneer Luhn recognized the importance of carefully conducted profiling activities to SDI services back in 1961: "The creation and maintenance of profiles of the participants of the service is the most important and, at the same time, the most critical task within the system. People's interests vary widely as to scope and breadth, and there are no easy means, short of human analysis, to define those interests." See Luhn, "Selective Dissemination," 137.

15. For a review of CCOD, see J. H. Powell, "Current Contents on Diskette: A Review," *CD-ROM Professional* 3 (Sept. 1990): 39-44. Also note that, in 1991, *Current Contents with Abstracts* were commercially introduced, providing author-supplied abstracts for several sections of CCOD.

16. The Institute for Scientific Information, producers of CCOD, considered electronic distribution of search results acceptable under the single work station subscription agreement so long as data transmitted was directed to individuals within the organization holding the subscription and as long as the CCOD database, or any part thereof, did not reside on a network that would allow multiple user access.

17. Telnet is a network program that allows a local and remote computer, which may be of a variety of terminal and computer types, to communicate over the Internet. File Transfer Protocol (FTP) is the protocol and program used to transfer files between Internet systems. Files may consist of text, graphics, sound, software, or other information types.

18. Supporting files for Automail were a command file which defines an alias e-mail address for each participant. Here, the alias is identical to the file name assigned to the microcomputer files as it is downloaded from the bibliographic database. Also used was a data file, listing the aliases through which the Automail program loops.


20. *Current Contents on Diskette* search software version 3.0 supports multiple issue searching, systematically eliminating duplicate citations between simultaneously searched sections.


Recent CLIPpings

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

Interlibrary Loan in College Libraries. CLIP Note #16, compiled by Roxann Bustos.
$34.50; ACRL member $28.75 148p. 0-8389-7652-2 1993

Database Searching in College Libraries. CLIP Note #15, compiled and written by Sarah Pederson.
$29.95; ACRL member $24.95 124p. 0-8389-7651-4 1993

Audiovisual Policies in College Libraries. CLIP Note #14, compiled by Kristine Brancollini.
$21.95; ACRL member $18.65 152p. 0-8389-7495-3 1991

College Library Newsletters. CLIP Note #13, compiled by Patricia Smith Butcher and Susan McCarthy Campbell.
$18.65; ACRL member $15.35 154p. 0-8389-7445-7 1990

Performance Appraisal in Academic Libraries. CLIP Note #12, compiled by Barbara Williams Jenkins with the assistance of Mary L. Smalls.
$18.64; ACRL member $15.35 128p. 0-8389-7444-9 1990

Collection Development Policies for College Libraries. CLIP Note #11, compiled by Theresa Taborsky.
$26.35; ACRL member $21.94 175p. 0-8389-7295-0 1989

Association of College and Research Libraries
A division of the American Library Association
c/o ALA Publishing Services, Order Department
50 East Huron Street • Chicago, Illinois 60611-2795
Indexing Adequacy and Interdisciplinary Journals: The Case of Women's Studies
Kristin H. Gerhard, Trudi E. Jacobson, and Susan G. Williamson

This paper examines access to women's studies journals through standard indexes and abstracts. Reliability of coverage is important for women's studies scholars and possibly other young interdisciplines. Articles from eighty-six journals were searched in online and print indexes. Access to each journal was evaluated as adequate or inadequate based on fixed criteria. Over 60 percent of the journals were inadequately indexed. These titles should be added to appropriate indexes; a list of specific recommendations is appended (see Appendix A). Parallel research in similar fields may allow librarians to draw generalizations about access to interdisciplinary materials.

Women's studies programs have been present in American universities for more than twenty years. A number of core bibliographies have been developed for the discipline (or interdiscipline) and list serial titles covering a wide subject range. The accessibility of material covered in these serial titles is important for current researchers in women's studies. This paper examines access to women's studies serials through standard indexing services typically found in larger research libraries.

The authors' interest in examining the coverage provided by these sources comes from the desire to be fairly certain that the major articles in journals used regularly by women's studies scholars are being indexed in sources available in

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The data on which this study is based were collected by nine librarians. They are: Ruth Dickstein, University of Arizona; Kristin H. Gerhard, Iowa State University; Carol Greenholz, College of Technology, State University of New York; Judith Hudson, University at Albany, State University of New York; Mary Ellen Huls, College of St. Catherine; Trudi E. Jacobson, University at Albany, State University of New York; Bernice Lacks, California State University, Fresno; Rita M. Pellen, Florida Atlantic University; and Beth Stafford, University of Illinois. The discussions that took place as the data were collected and assembled contributed greatly to the preparation of this article. The authors wish to thank Judith Hudson, in particular, for her work as the leader of the project. A study leave granted by the Joint NYS/UUP Professional Development and Quality of Work Life Committee allowed her to organize and analyze the data which form the heart of this study.

The research carried out in this project was assisted greatly by grants from BRS, Dialog and the H. W. Wilson Company. Each of the aforementioned companies provided access to their online services at no charge to the researchers.
large academic libraries. If this is not the case, which indexes can be relied upon to provide broad and thorough coverage? Which provide narrower coverage? Are some indexes more or less dependable than others? This information is crucial to researchers in women’s studies and to those who advise them.

Reliable coverage is also important for those not directly involved in women’s studies. Because women’s studies is an interdisciplinary, studies appearing in women’s studies journals often have applications in other disciplines. These studies should be accessible to scholars not necessarily looking for research from a women’s studies perspective.

Another reason for adequate coverage is that many libraries weigh such coverage heavily in selection decisions. Susan E. Searing and Joan Ariel point out: One typical criterion for adding new periodical titles is the availability of indexing. If a periodical is covered by an index or abstract heavily used by library patrons, one can predict a corresponding demand for the periodical. . . . Regrettably, standard indexes continue to ignore many serials essential to women’s studies. . . .

In a time of shrinking serials budgets and rising serials prices, titles not included in indexes may be particularly vulnerable to cuts.

The review of the literature that follows examines women’s studies as an interdisciplinary, the availability of specialized index sources for women’s studies, and previous research related to coverage of women’s studies journals.

WOMEN’S STUDIES AS AN INTERDISCIPLINE

Interdisciplinary areas such as women’s studies are, by their nature, difficult areas in which to conduct research. Information relevant to any given project is spread among multiple disciplines rather than concentrated in one area of the stacks, one index, or one range of the reference collection. The dispersed nature of relevant information and the amount of time and effort involved in identifying useful articles make index coverage of journals in interdisciplinary fields especially important. Online indexes, in particular, have the potential to save researchers valuable time if those indexes cover the journals likely to contain material of interest to researchers in a given interdisciplinary.

INDEXES FOR WOMEN’S STUDIES

Helen B. Josephine and Deborah K. Blouin examined reference sources on women, evaluating some existing sources and identifying gaps where additional sources were needed. Types of sources they identified as lacking for women’s studies included “statistical sources, encyclopedias, yearbooks, and abstracting and indexing sources including databases.” They continue: “This is certainly not an exhaustive list of sources that need to be published in women’s studies. However, the lack of adequate sources in these four areas has hampered research and frustrated librarians for years.”

Currently, three interdisciplinary women’s studies indexes are available: Women’s Studies Index, Women Studies Abstracts, and Studies on Women Abstracts. Aside from the confusing similarity of names, they share one major drawback: none is available online. However, these are the only basic indexes one can use to search for materials related to women that are published in more than one subject area.

The now defunct Catalyst database is the subject of several articles. This database was available through BRS and Dialog until June 1988. It provided access to the Catalyst Library’s holdings, which relate to women and work. Although available online, it covered only a narrow band of the spectrum of materials on women. Another online source, Sociological Abstracts, allows searches of a subset, Feminist/Gender Studies (area 29). Still, there is no single online index that broadly covers women’s studies journals across disciplines.

Without such an index, the coverage provided in bits and pieces by the more discipline-oriented indexing services takes on particular importance. Josephine and Blouin point out that, because of the lack
of a single, universal database on
women, "searching the indexes, abstracts
and online sources relevant to women's
studies requires sophistication and per­sis­tence." As Helen Ripper Wheeler
comments, "In research, as in the rest of
life, feminist researchers must expect to
make do with that which is available to
them and to pioneer."4

PREVIOUS RESEARCH
ON COVERAGE

In 1984, Mary Alice Sanguinetti docu­mented increasing coverage of women's
studies in indexes from 1972 to 1982. She
identified a core list of fifty-three wom­en's studies periodicals. Only about half
were indexed at that time. More than a
quarter were indexed by at least four serv­ices. "Eight indexing and abstracting serv­ices . . . each cover[ed] five or more of the
titles." While one would anticipate the
numbers to be better ten years later, San­guinetti's conclusions are still relevant:

Librarians and researchers in
women's studies will probably need to
continue referring to several indexes
for needed material. An awareness of
where the most relevant periodicals
are indexed should prove beneficial to
these as well as to others with an inter­est in women's studies.6

Sanguinetti does not address the ques­tion of how she determined which jour­nals were indexed by a given service, but
the implication of her article is that she
worked with lists supplied by the in­dexes themselves. One of the questions
that arose during this study is the relia­bility of such lists.

Suzanne Hildenbrand looked at end
user satisfaction of those searching on­line for topics in women's studies. She
found that researchers' evaluation of search results was related to the number
of raw citations retrieved and the per­centage of citations the researchers perceived
to be relevant.7 Improved coverage would
likely lead to retrieval of more relevant
references in these searches. One can
conjecture that user satisfaction would
be increased by increasing the breadth
and depth of coverage of relevant jour­nals in women's studies.

In another report on the same study,
Hildenbrand says:

Coverage problems were evident in
the study but do not lend themselves
to extended discussion. The wise
searcher must simply note the gaps in
discipline, publication format, and
retrospective coverage and consider
what substitutions, if any, can be
made. . . .8

She considered coverage of journals to
be "generally good." Hildenbrand also
noted that librarians "have a role in the
promotion of improvements in the in­dexing, quality, and coverage of data­bases available for WS research."9 In
order to promote such improvements,
librarians must first develop a clear pic­ture of the existing coverage of women's
studies journals, based on a systematic
exploration of that coverage. That is the
main purpose of this study.

METHODOLOGY

The goal of this project was to analyze
indexing coverage of women's studies
articles for the year 1988. Data collection
was performed by a group of nine librar­ians. The methodology was essentially a
literature search in reverse: searchers
began with journal articles and then
sought indexes containing citations to
those articles.

Eighty-six journals were analyzed.
The initial set of journals was identified
by searching the sixth edition of Katz
and Sternberg's Magazines for Libraries. It
included all current titles listed under
the following headings: Women's Studies—
General; Women—Feminist; Women— Lit­erary and Artistic; Lesbian and Gay; and
Afro-American.

This list of journals was distributed to
the nine participating librarians. Addition­al recommendations for inclusion
were also sought. The result was an ini­tial working list containing 120 titles.
Once this working list was established,
each journal was searched on OCLC and
RLIN to determine whether it was still
being published and which libraries
held it. The bulk of the list was divided
up and assigned to individual searchers,
based on access to the titles and subject
expertise. The remaining titles were allotted arbitrarily to searchers to even out assignments.

As data collection began, it became clear that not all titles on the list were appropriate to this study. The group agreed to exclude certain types of material from the search process. This resulted in the final list of eighty-six journals. The group also devised strategies for dealing with differences of journal type (e.g., journals consisting of book reviews versus articles). The following guidelines were used:

- Newsletters, such as NOW Times or Media Report to Women, were excluded from the search because of their inherently ephemeral nature, the likelihood that they would not be indexed, and the fact that, though these materials cover important issues, they do not do so in depth.
- Journals consisting primarily of fiction, poetry, and drama were dropped from the list. This decision was not made to suggest that these literary genres are unworthy of indexing or of analysis; rather they constitute a very different category of women's studies materials that should be analyzed in a separate study.
- Journals which ceased publication during or since 1988, such as Helicon Nine, were excluded.
- In addition to articles, book reviews in journals were analyzed. In cases where a journal was devoted entirely to book reviews (such as Women's Review of Books), a maximum of twenty-five reviews from each issue was analyzed.
- Although the project coverage was restricted to the year 1988, it was occasionally necessary to analyze issues from the preceding year, if a journal had been issued less than twice a year or if it was impossible to obtain all the 1988 issues. When a journal was issued more than six times a year, the searcher was asked to select six issues from 1988 to analyze. This established a minimum and maximum number of issues to be examined for each journal.
- Only articles of substance were considered appropriate for analysis. In many cases, the decision to analyze was a judgment call based primarily on length and, in some cases, subject matter of the article.

In looking for index citations, some searchers began with the tables of contents for all 1988 issues for their chosen set of journal titles; others transcribed the titles onto a work sheet and arranged the articles on it alphabetically by author. Searchers then chose indexes appropriate to the subject matter to search, working from a checklist. Some members of the group used Ulrich's indexing information to provide a starting point for the search. They discovered that the information in Ulrich's was not always reliably current; some of the journals said to be indexed by particular indexing sources had been dropped. If a searcher found that a journal title did not appear in an index's printed list of journals included in that index, they recorded coverage as zero. If the title did appear, the searcher analyzed the index for the number of articles, reviews, and so forth actually included, recording the number and percentage of items covered. Each search for citations began with known items (author, title) and followed with subject or keyword searching when the known items produced no hits.

Where possible, searchers conducted an online search. At their disposal were hours of free searching provided by BRS, Dialog, and Wilson. When indexes that might be appropriate were not available in a group member’s library, the titles and tables of contents were sent to other searchers to check against their index holdings and report the results. The number of indexes checked varied according to subject area, ranging from eleven for the more narrow categories of law and lesbian journals, to forty-one and forty-three for the broader categories of the humanities and social sciences.

If no indexes provided coverage for a journal title or if the journal was only meagerly covered in indexes, searchers were asked to recommend names of indexes that might be appropriate for inclusion. Each individual based his or her recommendations on a set of criteria
for indexing adequacy agreed upon by members of the group. The criteria were as follows:

- Important women’s studies titles should be indexed in at least one of the three interdisciplinary women’s studies indexes.
- Titles belonging to a specific field or discipline should be indexed in at least one key index for that discipline.

- Interdisciplinary women’s studies journals respected for scholarly content should be indexed in a broad interdisciplinary index such as Social Sciences Index or Humanities Index.
- Periodicals or magazines not directed to an academic audience should be indexed when appropriate in a general index such as Reader’s Guide or Magazine Index.

The results of the search process and the list of recommendations were placed in a matrix arranged by journal title and index or abstract. A spreadsheet was used to house the matrix and to generate two lists: one with titles not requiring further indexing, and the other with titles requiring further indexing, arranged by index.

**RESULTS**

The analysis that follows examines the results of the study in two ways: by journals in broad subject areas, and generally, by index or abstract. The questions considered include: Are individual journals indexed sufficiently? Which ones are not, and where might they be indexed? Which indexes are doing a good job of covering women’s studies journals? Which ones might reasonably be expected to cover additional journals?

The methodology was essentially a literature search in reverse: searchers began with journal articles and then sought indexes containing citations to those articles.

The journals the authors examined fall into six broad subject areas: humanities, law, lesbian studies, social science, women’s studies, and the catch-all “other.” Of eighty-six titles, twenty-two were in the humanities. As shown in table 1, eight of these journals are adequately indexed: Camera Obscura, Gallerie, Hot Wire, Hypatia, Legacy, Lilith, Tulsa Studies in Women’s Literature, and Woman’s Art Journal. One journal, Zora Neale Hurston Forum, was not indexed at all. The remaining thirteen journals were indexed, but not fully or not in all the pertinent indexes.

Six law journals were included in this study (see table 2). Those adequately indexed were Berkeley Women’s Law Journal, Canadian Journal of Women
TABLE 2
WOMEN'S STUDIES JOURNALS IN LAW

<table>
<thead>
<tr>
<th>JOURNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkeley Women's Law Journal</td>
</tr>
<tr>
<td>Canadian Journal of Women and the Law</td>
</tr>
<tr>
<td>*Harvard Women's Law Journal</td>
</tr>
<tr>
<td>*Law &amp; Inequality</td>
</tr>
<tr>
<td>Wisconsin Women's Law Journal</td>
</tr>
<tr>
<td>Women's Rights Law Reporter</td>
</tr>
</tbody>
</table>

* Titles marked with an asterisk are not adequately indexed.

TABLE 3
WOMEN'S STUDIES JOURNALS SPECIFIC TO LESBIAN STUDIES

<table>
<thead>
<tr>
<th>JOURNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Bad Attitude</td>
</tr>
<tr>
<td>*Breaking the Silence</td>
</tr>
<tr>
<td>*Lesbian Contradiction</td>
</tr>
<tr>
<td>*Lesbian Ethics</td>
</tr>
<tr>
<td>*Sinister Wisdom</td>
</tr>
<tr>
<td>*Visibilities</td>
</tr>
</tbody>
</table>

* Titles marked with an asterisk are not adequately indexed.

Indeed, it is not simply the lack of indexes and abstracts that include women's studies journals that is so frustrating—it is also the unpredictable nature of the women's studies journal indexing that is done in most indexes and abstracts.

The indexing of eighteen social sciences journals (see table 4) was examined, and, as with indexing of journals in other categories, was generally found to be inadequate for researchers attempting to find these articles by topic. Seven of the eighteen were indexed well. They were Peace and Freedom, Psychology of Women Quarterly, RFR, Sage, Sex Roles, Women and Environments, and Women & Therapy. Male/Female Roles was not included in any index or abstract; because it contains only very brief articles, this was considered appro-

TABLE 4
WOMEN'S STUDIES JOURNALS IN THE SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>PSYCHOLOGY OF WOMEN QUARTERLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahfad Journal</td>
<td>RFR</td>
</tr>
<tr>
<td>Feminist Teacher</td>
<td>Sage</td>
</tr>
<tr>
<td>Gender &amp; Society</td>
<td>Sex Roles</td>
</tr>
<tr>
<td>Hecate</td>
<td>*Studies in Sexual Politics</td>
</tr>
<tr>
<td>Male/Female Roles</td>
<td>*Woman of Power</td>
</tr>
<tr>
<td>Manushi</td>
<td>Women and Environment</td>
</tr>
<tr>
<td>Minerva</td>
<td>*Women &amp; Politics</td>
</tr>
<tr>
<td>Mothering</td>
<td>Women and Therapy</td>
</tr>
</tbody>
</table>

* Titles marked with an asterisk are not adequately indexed.
Indexing Adequacy

TABLE 5
WOMEN’S STUDIES JOURNALS SPECIFIC TO WOMEN’S STUDIES

<table>
<thead>
<tr>
<th>Australian Feminist Studies</th>
<th>NWSA Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadsheet</td>
<td>* New Directions for Women</td>
</tr>
<tr>
<td>Broomstick</td>
<td>* Signs</td>
</tr>
<tr>
<td>Canadian Women’s Studies</td>
<td>* Sojourner</td>
</tr>
<tr>
<td>* Feminisms</td>
<td>* Spare Rib</td>
</tr>
<tr>
<td>* Feminist Collections</td>
<td>* Trivia</td>
</tr>
<tr>
<td>* Feminist Bookstore News</td>
<td>* Trouble and Strife</td>
</tr>
<tr>
<td>Feminist Issues</td>
<td>Women’s Review of Books</td>
</tr>
<tr>
<td>* Feminist Review</td>
<td>Women’s Studies</td>
</tr>
<tr>
<td>* Feminist Studies</td>
<td>* Women’s Studies International Forum</td>
</tr>
<tr>
<td>* Fontiers</td>
<td>Women’s Studies Quarterly</td>
</tr>
</tbody>
</table>

* Titles marked with an asterisk are not adequately indexed.

appropriate. Mothering was similarly not included in any index or abstract even though it has significant content. The remaining journals should be more fully indexed than they currently are.

Twenty-two journals the authors examined were grouped into the women’s studies category (see table 5). Eight of these journals were well served by indexes. They were Broadsheet, Broomstick, Canadian Woman Studies, Feminist Issues, Signs, Women’s Review of Books, Women’s Studies, and Women’s Studies Quarterly. Three journals did not receive any coverage: Feminisms, Feminist Bookstore News, and Sojourner. Accessibility of the material in most of the remaining eleven journals would profit from indexing beyond what is currently being done.

The “other” category was made up of twelve journals, ranging from Executive Female to Hurricane Alice, from Reproductive and Genetic Engineering (now Issues in Reproductive and Genetic Engineering) to Women’s Sports and Fitness (see table 6). Four of the twelve, Affilia, Executive Female, Healthsharing, and Women & Health, were sufficiently indexed. Hurricane Alice, Tradeswoman, and WLW Journal were not indexed by any of the numerous indexes and abstracts that the authors checked. Because it contains primarily personal essays, memoirs, and reviews, the authors considered the lack of indexing for Hurricane Alice reasonable. The remaining five journals were insufficiently covered.

Because of the large number of indexing tools examined, a report on which indexes include which journals is not practical. A chart of the journals and the indexes in which they were found is available from the authors. Sanguinetti’s “Indexing of Feminist Periodicals” includes a similar report. Her report covers a smaller number of services than those included in this study.

A number of indexes and abstracts should extend their coverage of the women’s studies literature to enable

TABLE 6
OTHER WOMEN’S STUDIES JOURNALS

<table>
<thead>
<tr>
<th>Affilia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Female</td>
</tr>
<tr>
<td>* Health Care for Women International</td>
</tr>
<tr>
<td>Healthsharing</td>
</tr>
<tr>
<td>Hurricane Alice</td>
</tr>
<tr>
<td>* Lambda Rising Book Report</td>
</tr>
<tr>
<td>* On the Issues</td>
</tr>
<tr>
<td>* Reproductive/Genetic Engineering</td>
</tr>
<tr>
<td>* Tradeswoman</td>
</tr>
<tr>
<td>* WLW Journal</td>
</tr>
<tr>
<td>Women and Health</td>
</tr>
<tr>
<td>* Women’s Sports and Fitness</td>
</tr>
</tbody>
</table>

* Titles marked with an asterisk are not adequately indexed.
researchers to find this material more easily. A list is appended of indexing tools and the women's studies titles they could reasonably be expected to add based upon their audience and scope (see Appendix A). The authors recommend that many of the indexes and abstracts pick up just one or a few additional titles. However, the authors also recommend that *Alternative Press Index, General Periodicals Index (Academic Version), Humanities Index, MLA Bibliography,* and *Social Sciences Index* add five or more women's studies titles. These are widely used indexes and abstracts with the potential for broad impact on the accessibility of women's studies literature.

**To avoid duplication, the authors' guideline is to suggest that scholarly journals not yet covered by a women's studies index be added to Women Studies Abstracts, and that more general women's studies journals be added to Women's Studies Index.**

Indexes specific to women's studies could also be strengthened. To avoid duplication, the authors' guideline is to suggest that scholarly journals not yet covered by a women's studies index be added to *Women Studies Abstracts,* and that more general women's studies journals be added to *Women's Studies Index.*

Accordingly, the authors recommend that *Women Studies Abstracts* add eight titles. This abstract is already an essential tool for doing women's studies research. Many researchers rely upon it heavily, expecting it to be inclusive. The addition of these journals would help the abstract merit the reputation it already has. One of these eight journals, *Lesbian Ethics,* is not currently indexed anywhere else, while the remainder would logically be included here as well as elsewhere. *Women's Studies Index,* the new G.K. Hall tool, should pick up another nine titles, three of which are not currently indexed. The authors recommend that *Studies on Women Abstracts* add three titles, and more fully index another three.

**CONCLUSIONS**

The overall finding of this study is that most women's studies journals, fifty-three out of eighty-six, are not sufficiently indexed. While several indexes and abstracts (notably *Alternative Press Index, Women Studies Abstracts* and *Women's Studies Index*) are doing a commendable job in this regard, other indexes and abstracts are ignoring relevant journals or are only picking up a small percentage of articles within a given journal. Indeed, it is not simply the lack of indexes and abstracts that include women's studies journals that is so frustrating—it is also the unpredictable nature of the women's studies journal indexing that is done in most indexes and abstracts. For example, *American Humanities Index* indexed five out of twelve articles from the fall 1988 issue of *Anima,* but indexed none from the spring 1988 issue. Occasionally, an index indicates that it covers a particular journal (for example, *Studies on Women Abstracts* in regard to *Atlantis*), yet no citations to articles from the journal could be found during the year examined. So the issue is not simply that more women's studies journals need to be indexed, but also that they need to be indexed more consistently. Reliability of indexing is particularly important in preventing researchers from believing that they have identified all relevant materials when, in fact, they have not.

Lesbian journals seem to have been given particularly short shrift in the indexes the authors searched; they were the least-indexed category, despite the growth of lesbian studies in recent years. This study did not examine coverage of several important kinds of women's studies materials: media reviews, literature, or coverage of newsletters in news indexes. These are potential areas for future study. Also, the authors did not explicitly set out to evaluate the quality of the lists provided by indexing and abstracting services that give the titles they intend to cover. While the authors have noted some serious inconsistencies, the authors think this situation could be remedied if all indexes listed the specific journal issues the indexes have included,
and if indexes would adopt, as a professional standard, the practice of delineating their indexing policy (how comprehensively do they index, which types of articles, which not, who decides and on what basis) in their printed materials. Some services already provide part or all of this information. Those which do not should give it serious consideration.

The study also shows a need for a comprehensive online index for women's studies. The availability of an indexing or abstracting service specific to women's studies, online or on CD-ROM, would go a long way to enhance the ease with which women's studies scholars carry out their research.

The patterns of indexing discovered in this study may be similar to those of other emerging or young interdisciplinary fields. It would be valuable to compare indexing patterns in women's studies with those for fields such as sociobiology, black studies, peace studies, or aerospace studies. Is indexing coverage similar? Do researchers in these fields have online indexing services available to meet their needs?

The task facing an interdisciplinary researcher, that of gathering together the scattered information related to a topic, can be a formidable one. Improving index access to interdisciplinary materials is one way to reduce this burden to a manageable size. There is always the risk with interdisciplinary areas that access to some portion of their resources will fall between the cracks. It is only by examining the indexing of materials related to an area, such as women's studies, that access can be evaluated and appropriate improvements suggested.

REFERENCES
3. Ibid., 119.
6. Ibid., 25.
9. Ibid., 72.
## APPENDIX A
### RECOMMENDATIONS OF TITLES FOR INDEXES AND ABSTRACTS TO ADD

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<td>New Directions for Women</td>
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<td>Hecate</td>
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<td></td>
<td>Women and Language (more fully)</td>
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<td>Women and Performance</td>
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Instruction Librarians: Acquiring the Proficiencies Critical to Their Work
Diana Shonrock and Craig Mulder

A bibliographic instruction librarian must possess many proficiencies. In an initial survey of members of the Bibliographic Instruction Section of the Association of College and Research Libraries, respondents evaluated the importance of eighty-four bibliographic instruction skills in thirteen categories. Skills in communication, instruction, and planning accounted for fourteen of the top twenty-five skills. In a second survey, respondents indicated how they had acquired the most important proficiencies and where they would have liked to have acquired them. For thirteen of the twenty-five skills, respondents preferred library school to other alternatives. For the other twelve skills, on-the-job training and other formal education were preferred.

Over the years, librarians have provided a variety of different types of library instruction. This study is based on the hypothesis that, although most literature suggests that some form of library instruction is necessary, most librarians don't have the skills needed to provide this instruction effectively. More and more positions in academic libraries require experience in, or the ability to provide, bibliographic instruction (BI). This article examines what skills BI librarians thought they needed to provide BI and to manage BI programs. It then examines what skills BI librarians thought they had, how they had acquired them, and how they thought they could best have acquired them.

REVIEW OF RELATED RESEARCH
Robert E. Brundin noted that, in 1975, only four library schools had special programs to educate librarians to teach library skills. Brundin found the major reason for the lack of programs was that learning theory and teaching methods are not ordinarily part of library school courses. In 1980, Maureen Pastine and Karen Seibert reported that eleven of the sixty-seven library schools accredited by the American Library Association offered a separate course in bibliographic instruction (BI). The number was the same when the Association for College and Research Libraries-Bibliographic Instruction Section, Education for Bibliographic Instruction Committee repeated the study in 1984. That study and a summary of similar research are discussed by Mary Ellen Larson and Ellen Meltzer in a 1987 journal article.

Other research has examined what skills or knowledge are required by librarians and how these should be acquired. However, little, if any, research has been done on the specific skills related to bibliographic instruction in academic libraries. Much of the research done on the skills necessary for academic librarians is based on a survey of Association for Research Libraries (ARL) directors.
Maurice P. Marchant and Nathan M. Smith analyzed the survey and found the need for an increase in instruction relating to analytical and human relation skills, as well as to online retrieval skills, systems analysis, and library automation. The data were distributed at a 1980 ARL meeting. In 1984, Marchant, Smith, and Laura F. Nielson repeated the study with public library directors and got similar results. The biggest weakness in these studies was that they surveyed only library directors, who are not usually the people hiring and supervising new librarians.

Another study, done by Charles D. Patterson and Donna W. Howell, looked at the educational preparedness and attitudes of librarians who participate in bibliographic instruction. Through a number of attitudinal questions, Patterson and Howell examined how librarians feel about teaching, how effective they consider themselves, and what problems they face. Librarians were asked about their educational backgrounds and previous teaching experiences, but not whether and how they had acquired specific skills.

There are only a few studies directly related to the research described in this paper. One was done in 1986 by Ronald Powell and Sheila Creth. They asked similar questions, but directed them toward the whole range of skills and knowledge needed by librarians. They surveyed ARL librarians who had nine or fewer years of experience to determine their knowledge base in each of fifty-six areas, how important each was to effective job performance, where they had acquired the knowledge base, and where they felt it would best be acquired. In their study, bibliographic/library instruction skill ranked nineteenth in importance and fifteenth in perceived level of knowledge. Teaching methods often associated with bibliographic instruction ranked twenty-eighth in importance and twenty-sixth in perceived level of knowledge.

Also in 1986, Scott B. Mandernack completed a study of education and training needs specifically for bibliographic instruction librarians. He drew his sample from members of the Wisconsin Association of Academic Librarians. His responses indicated a need for future education in four areas: program development and management, teaching methodology, instructional development, and learning theory. New and experienced librarians indicated a preference for workshops and in-service training. The main limitation of Mandernack's study is the limited geographical focus.

In 1988, Powell examined where academic librarians had acquired their professional knowledge and where they thought that it would best have been acquired. Respondents in this study indicated that, although their skills had mostly been obtained in library schools and through on-the-job experience, they would have preferred to acquire these skills from continuing education and staff development programs.

Mark Cain found in his 1988 survey of 1,771 librarians that approximately 42 percent of the respondents thought they had learned their library instruction skills on the job, but he did not look at what particular skills were needed or what those skills were.

Barbara J. Smith conducted a survey of 120 Pennsylvania librarians in 1982 to determine the level of their education and training, their perceptions of the adequacy of training, and the need for additional training. She found that 61 percent of the respondents had training in learning theory, but only 17 percent had received that training in library school. Only 7 percent of the respondents indicated that they needed any special training to qualify for bibliographic instruction. Smith's results supported the perception that teaching was the best means of preparation. She concluded that the profession needed to support what it espouses and that teaching practicums should be part of the requirement to assure competency for instructional librarians.

The current study is significantly different from the Smith and Mandernack studies. This study took the approach of first identifying the skills considered most important for bibliographic instruction. Then respondents were asked about training for bibli-
graphic instruction in the context of those specific skills, rather than in a general sense.

RESEARCH PROBLEM AND QUESTIONS

How do BI librarians acquire the skills needed to perform their jobs? How do they want to learn these skills? To answer these questions, the Association of College and Research Librarians Bibliographic Instruction Section's (BIS) Education for Bibliographic Instruction Committee decided to examine whether librarians involved with bibliographic instruction were acquiring the proficiencies needed for effective performance of their jobs. The initial research started with these questions:

- What proficiencies did survey respondents have?
- How important are the proficiencies for effective job performance?
- Where were those proficiencies acquired or developed?
- Where should the proficiencies have been acquired or developed?

HISTORICAL DEVELOPMENT

Deriving a List of Critical Proficiencies

In 1983, the BIS Education for Bibliographic Instruction Committee formed a subcommittee to "attempt to identify the required proficiencies of BI librarians."\(^{12}\) For the purpose of this study, BI included orientation to the library and its resources, course-integrated instruction, library research skills courses, online catalog and CD-ROM instruction, online searching demonstration, and term paper advisory services. "From the outset, the committee members agreed not to offer the final product as a 'standard' or even as a 'guideline' but rather as a means of communicating to library school faculty the preferred credentials for graduates planning to engage in bibliographic instruction activities. It was thought that the proficiencies might also be used in planning continuing education or in-service training programs."\(^{13}\)

A list of eighty-four proficiencies was derived using three sources of information: a survey of a broad cross section of librarians active in bibliographic instruction, an analysis of the literature on this subject, and a review of the requirements indicated in position announcements for bibliographic instruction librarians. The initial study was completed with a report from the subcommittee to the BIS Executive Committee in 1986. This report contained eighty-four proficiencies divided into two levels: those needed to conduct instructional activities (entry level) and those needed to administer a librarywide program (experienced level). The individual proficiencies were divided into thirteen subgroups.

Developing the Methodology

The eighty-four proficiencies identified by the subcommittee in 1986 became the basis for the authors' survey of BI librarians. The survey consisted of two sections and thirteen categories. For each proficiency, responses were requested in relation to the four research questions listed above.

For the purpose of this study, BI included orientation to the library and its resources, course-integrated instruction, library research skills courses, online catalog and CD-ROM instruction, online searching demonstration, and term paper advisory services.

In April 1987, a pretest of this survey was sent to seventeen librarians at the University of California's Berkeley and San Diego campuses. Eight surveys were returned. Using the answers and comments received, the questionnaire was revised and sent to BIS committee chairs in October 1987 for a second pretest. Next, an attempt was made to streamline the questionnaire. A recurring complaint concerned the length of the survey, which took thirty to forty-five minutes to complete. In response to the time concerns, the subcommittee decided to conduct the study in two phases. Phase 1 asked how important each of the proficiencies was to effective performance as
TABLE 1
DEMOGRAPHICS OF RESPONDENTS

<table>
<thead>
<tr>
<th></th>
<th>Phase 1 Survey</th>
<th>Phase 2 Survey</th>
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<tbody>
<tr>
<td>Current involvement in some kind of</td>
<td>n = 144</td>
<td>n = 181</td>
</tr>
<tr>
<td>bibliographic instruction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of involvement in BI:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>128 89%</td>
<td>156 84%</td>
</tr>
<tr>
<td>2-10 years</td>
<td>76 53%</td>
<td>98 54%</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>54 38%</td>
<td>66 36%</td>
</tr>
<tr>
<td>No response</td>
<td>2 1%</td>
<td>0 0%</td>
</tr>
<tr>
<td>The amount of time respondents currently spend on bibliographic instruction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 50%</td>
<td>7 5%</td>
<td>12 7%</td>
</tr>
<tr>
<td>25-50%</td>
<td>29 20%</td>
<td>41 23%</td>
</tr>
<tr>
<td>Less than 25%</td>
<td>60 42%</td>
<td>57 31%</td>
</tr>
<tr>
<td>Administrative only</td>
<td>34 24%</td>
<td>45 25%</td>
</tr>
<tr>
<td>No response/no time</td>
<td>14 10%</td>
<td>26 14%</td>
</tr>
<tr>
<td>Had teaching experience previous to receiving their M.L.S.</td>
<td>79 55%</td>
<td>97 54%</td>
</tr>
</tbody>
</table>

a BI librarian. Phase 2 examined where the most important proficiencies were acquired and where librarians thought they should have been acquired.

PHASE 1: WHAT ARE THE IMPORTANT PROFICIENCIES?

Design of the Survey

For each of the proficiencies, the survey asked respondents, “In your experience, how important is this proficiency for the effective performance of a bibliographic instruction librarian?” The choices were: of no importance, of little importance, important, very important, essential, don’t know. Additional questions concerned the respondent’s involvement in bibliographic instruction and teaching experience prior to receiving a master’s degree in library science. In April 1988, the committee sent 400 of the questionnaires to randomly selected members of BIS.

Results

Of the 400 questionnaires, 155, or 39 percent, were returned and 144, or 36 percent, were usable. The data were analyzed using the SPSS-PC software. Almost 90 percent of the respondents were involved in bibliographic instruction, and 25 percent spent at least a quarter of their time devoted to the area (see table 1).

For analysis purposes, the scale was converted to numerical equivalents: 1 = of no importance, 2 = of little importance, 3 = important, 4 = very important, and 5 = essential. “Don’t know” and no response were treated as missing values.

Of the eighty-four proficiencies, twenty-five had a mean greater than 4.0. (Refer to table 2 for a list of the top proficiencies and their means.)

Of the thirteen categories, those receiving the highest total means were communication skill, instructional ability, and planning ability. These three categories accounted for fourteen of the twenty-five most important proficiencies. Communication was clearly the most important category: six of the original eighty-four proficiencies were communication skills, and all six were included in the top twenty-five. In addition, the top three individual proficiencies were from the communication category.
They were: the ability to organize and structure ideas logically (4.62), the ability to give clear and logical instructions (4.47), and the ability to deliver lectures, vary pace and tone, use eye contact, use appropriate gestures, and so forth (4.47).

This is in line with the Powell and Creth study, wherein “oral communications skills” tied for first in order of importance. Other main categories where numerous items received high means, above 4.0, included the ability to write lesson plans, employ research and evaluation methodologies, plan a BI program, and promote a BI program. Many of these proficiencies could also be considered to fall within the realm of “research methods” and “teaching methods” from the Powell and Creth study.

Mandernack’s study identified the most beneficial areas for future education and training to be program development and management, teaching methodology, instructional development, and learning theory. These are, in many ways, consistent with the findings of this study.

The least important of the eighty-four proficiencies were research and evaluation skills, and budgeting abilities. They were: the ability to write funding proposals (2.89), understanding basic statistical concepts and methods (2.79), understanding of grantsmanship and external funding sources (2.77), understanding of validity and reliability measures for research use (2.65), and understanding of SPSS or other computerized statistical packages (2.19).

PHASE 2: FINDING OUT WHERE LIBRARIANS LEARNED THESE PROFICIENCIES AND WHERE THEY WANTED TO LEARN THEM

Design of the Survey

The subcommittee developed a questionnaire listing the twenty-five proficiencies with the highest means, the five proficiencies that scored the lowest on the first survey, and the four proficiencies with high standard deviations. The first part of the questionnaire asked the respondent, “If you have this proficiency, indicate the most significant source from which you acquired it (check only one).” The second half of the questionnaire asked, “Indicate the most significant source from which you should acquire this proficiency.” For each question, the following options were listed: library school, other formal education, continuing education, mentor/model, on-the-job, self-taught, and don’t know/have.

Communication was clearly the most important category: six of the original eighty-four proficiencies were communication skills, and all six were included in the top twenty-five.

In May 1989, questionnaires were mailed to 400 randomly selected members of the Bibliographic Instruction section. This was a different group from the first survey. Of those mailed, 209, or 52 percent, were returned and 181, or 45 percent, of them were usable. Eighty-four percent of the respondents were involved in BI and 90 percent had been in BI for at least two years. As with the first survey, over half of the respondents had taught previous to obtaining their master’s degree (see table 1). The data were analyzed using Statview and FileMaker software on a Macintosh computer.

Results: Where Did Librarians Learn These Proficiencies?

Librarians overwhelmingly indicated three sources from which they had learned the proficiencies considered important for effective performance: on-the-job training, self teaching, and other formal education (see table 2). On-the-job training and self-teaching were the primary means of learning for eighteen of the proficiencies, and the secondary means for twenty-one of the proficiencies.

On-the-job training was an important source of acquiring proficiencies related to the environment in which the bibliographic instruction librarian works. For example, the ability to understand campus curricular needs is a skill that respondents felt they developed on the job. The workplace was also an important
### TABLE 2
**TWENTY-FIVE MOST IMPORTANT PROFICIENCIES: WHERE LIBRARIANS ACQUIRED THEM AND WHERE LIBRARIANS WANT TO ACQUIRE THEM**

<table>
<thead>
<tr>
<th>Proficiency</th>
<th>Where Proficiency Was Acquired</th>
<th>Where Proficiency Should Be Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to design the curriculum for the goal (4.01)</td>
<td>Library School</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Ability to match instructional method to a given objective (4)</td>
<td>Library School</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Ability to match instructional method to a given academic level (4.11)</td>
<td>Library School</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Ability to determine a reasonable amount and level of information to be</td>
<td>Library School</td>
<td>4%</td>
</tr>
<tr>
<td>presented in a lesson plan (4.38)</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Ability to sequence information in a lesson plan (4.21)</td>
<td>Library School</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Ability to construct assignments which reinforce learning in a lesson</td>
<td>Library School</td>
<td>4%</td>
</tr>
<tr>
<td>plan (4.04)</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Ability to organize and structure ideas logically (4.62)</td>
<td>Library School</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Ability to deliver lectures, vary pace and tone, use eye contact, use</td>
<td>Library School</td>
<td>2%</td>
</tr>
<tr>
<td>appropriate gestures, and so forth. (4.47)</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Ability to stimulate discussion and questions (4.13)</td>
<td>Library School</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Ability to verbalize search strategy (4.31)</td>
<td>Library School</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>Ability to give clear, logical instructions (4.47)</td>
<td>Library School</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Ability to explain abstractions by devising analogies, metaphors, and</td>
<td>Library School</td>
<td>1%</td>
</tr>
<tr>
<td>so forth. (4.08)</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Proficiency (Mean)</td>
<td>Where Proficiency Was Acquired</td>
<td>Where Proficiency Should Be Acquired</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Understanding of the structure of information within various disciplines and the categories of tools necessary to use the information (4.1)</td>
<td>112</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>62%</td>
<td>8%</td>
</tr>
<tr>
<td>Ability to develop a search strategy (4.27)</td>
<td>80</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>44%</td>
<td>5%</td>
</tr>
<tr>
<td>Ability to understand campus curricular needs as part of the planning process (4.19)</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>Ability to relate aims of the institution to bibliographic instruction and BI to other library services (4.09)</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Ability to distinguish different levels of bibliographic instruction (4.11)</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>14%</td>
<td>3%</td>
</tr>
<tr>
<td>Ability to set priorities during planning (4.2)</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Ability to inspire the confidence and respect of the library director and other supervisors (4.06)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Understanding of faculty priorities and value systems in order to promote a bibliographic instruction program (4.11)</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Understanding of student assignments and the role of the library in completing these assignments (4.3)</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Ability to be persistent and persuasive in “selling” bibliographic instruction to administration and faculty (4.09)</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>1%</td>
</tr>
</tbody>
</table>
source of learning for teaching-related skills, such as the ability to determine a reasonable amount and level of information to be presented in a lesson plan.

Seven proficiencies were primarily self-taught. They were the abilities to:

- give clear and logical instructions
- explain abstractions by devising such things as analogies and metaphors
- stimulate discussion and questions, deliver lectures, vary pace and tone, use eye contact, use appropriate gestures, and so forth
- verbalize a search strategy
- inspire the confidence and respect of the library director and other supervisors
- set priorities during planning

Librarians learned five other proficiencies primarily in other formal education settings, including the most important proficiency: the ability to organize and structure ideas logically. The other four skills were the ability to design the curriculum for the goal, sequence information in a lesson plan, construct assignments which reinforce learning in a lesson plan, and match instructional method to a given objective.

Of the twenty-five proficiencies, respondents identified only two proficiencies as having been learned primarily in library school: understanding the structure of information within various disciplines and the categories of tools necessary to use the information, and the ability to develop a search strategy. Both skills concern content rather than teaching or planning skills.

The results were analyzed according to two demographic variables: amount of experience in BI and previous teaching experience. A chi-square test was run to determine if there was any difference in responses according to these factors. There was a significant relationship between teaching experience and whether the proficiency was learned via formal education for eight proficiencies (see table 3).

**Results: Where Do Librarians Feel They Should Learn These Proficiencies?**

All twenty-five proficiencies had library school, on-the-job training, or
TABLE 3
PERCENTAGE OF RESPONDENTS WHO ACQUIRED PROFICIENCY FROM OTHER FORMAL EDUCATION ACCORDING TO PREVIOUS TEACHING EXPERIENCE

<table>
<thead>
<tr>
<th>Proficiency</th>
<th>Previous Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to design the curriculum for the goal</td>
<td>Yes: 51%</td>
</tr>
<tr>
<td></td>
<td>No: 15%</td>
</tr>
<tr>
<td>Ability to match instructional method to a given objective</td>
<td>Yes: 42%</td>
</tr>
<tr>
<td></td>
<td>No: 12%</td>
</tr>
<tr>
<td>Ability to match instructional method to a given academic level</td>
<td>Yes: 30%</td>
</tr>
<tr>
<td></td>
<td>No: 13%</td>
</tr>
<tr>
<td>Ability to determine a reasonable amount and level of information to be presented in a lesson plan</td>
<td>Yes: 30%</td>
</tr>
<tr>
<td></td>
<td>No: 11%</td>
</tr>
<tr>
<td>Ability to sequence information in a lesson plan</td>
<td>Yes: 44%</td>
</tr>
<tr>
<td></td>
<td>No: 17%</td>
</tr>
<tr>
<td>Ability to construct assignments which reinforce learning in a lesson plan</td>
<td>Yes: 44%</td>
</tr>
<tr>
<td></td>
<td>No: 17%</td>
</tr>
<tr>
<td>Ability to deliver lectures, vary pace and tone, use eye contact, use appropriate gestures, and so forth.</td>
<td>Yes: 40%</td>
</tr>
<tr>
<td></td>
<td>No: 19%</td>
</tr>
<tr>
<td>Ability to stimulate discussion and questions</td>
<td>Yes: 26%</td>
</tr>
<tr>
<td></td>
<td>No: 8%</td>
</tr>
</tbody>
</table>

other formal education as the preferred method of learning the skill, and twenty-two proficiencies had one of these three sources as the second preferred method. In terms of the preferred method of learning the skill, thirteen proficiencies had library school, seven had on-the-job training, and five had other formal education. For the second preferred method, nine proficiencies had library school, six had on-the-job training, and eight had other formal education.

Bibliographic instruction librarians felt that library school should be their primary place to learn thirteen of the twenty-five most important proficiencies (see table 4). Most of these proficiencies are related to curriculum and instructional design; these skills had been acquired via on-the-job training and other formal education.

For all twenty-five proficiencies, more respondents thought they should have learned the proficiency in library school than actually did learn them in library school. For eleven proficiencies, the difference between the percentage who acquired the skill in library school and the percentage who thought it should have been acquired there was greater than 25 percent. The five proficiencies for which the difference was the greatest all involved instructional development and teaching methods (see table 5).

On-the-job training and other formal education accounted for the other twelve proficiencies. There were seven proficiencies in which on-the-job training was the preferred means of learning. Five of these related to what could be called environmental skills, such as the ability to find the best paths of communication within the institution. The five proficiencies that respondents preferred to learn via other formal education related to communication.

Self-teaching was not an attractive learning option for respondents. Seven proficiencies had been learned primarily from self-teaching, but self-teaching was not a preferred learning method for any proficiency.

SUMMARY AND CONCLUSIONS

Three of the four most important groups of proficiencies require skills important in all areas of librarianship: communication, planning, and promotion.
Understanding of the structure of information within various disciplines and the categories of tools necessary to use the information  
Ability to develop a search strategy  
Ability to distinguish different levels of bibliographic instruction  
Ability to verbalize search strategy  
Ability to design the curriculum for the goal  
Ability to identify discrete library skills of relevance to student assignments  
Ability to match instructional method to a given objective  
Ability to match instructional method to a given academic level  
Ability to construct assignments which reinforce learning in a lesson plan  
Ability to sequence information in a lesson plan  
Ability to determine a reasonable amount and level of information to be presented in a lesson plan  
Ability to be persistent and persuasive in “selling” bibliographic instruction to administration and faculty  
Ability to set priorities during planning

<table>
<thead>
<tr>
<th>Proficiency</th>
<th>% of respondents who acquired it in library school</th>
<th>% of respondents who feel it should be acquired in library school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to distinguish different levels of bibliographic instruction</td>
<td>14</td>
<td>72</td>
</tr>
<tr>
<td>Ability to design the curriculum for the goal</td>
<td>3</td>
<td>52</td>
</tr>
<tr>
<td>Ability to match instructional method to given objective</td>
<td>3</td>
<td>45</td>
</tr>
<tr>
<td>Ability to verbalize search strategy</td>
<td>14</td>
<td>56</td>
</tr>
<tr>
<td>Ability to match instructional method to a given academic level</td>
<td>2</td>
<td>43</td>
</tr>
</tbody>
</table>

The question is whether these skills are unique to librarianship, or whether students should have acquired them before they entered library school. Larson and Meltzer state in their article, “The skills needed to participate in user education programs are those essential to effective librarianship: an organized, logical approach to problem-solving; an understanding of the literature structure in the various disciplines; and the ability to communicate this knowledge articulately and concisely.”

Respondents thought that library school should be the major source of learning BI skills. Many of the proficiencies that the respondents found they most lacked and thought that they should have acquired in library school were related to material that could be learned in one or two instructional methods and curriculum development classes.
What are the alternatives for teaching these proficiencies? Although library school is the preferred method for learning, many respondents also favored on-the-job training and other formal education. Perhaps prospective BI librarians in library schools could be offered classes through the university's school of education.

Why haven't library schools offered more BI instruction? Two possible reasons are proposed by other authors. Brundin maintains that not enough students have instruction as a career goal to make inclusion feasible. He quotes Anne Roberts as saying too many library school faculty advocate the role of reference librarian as a provider of information and not as an educator.17 Aluri and Engle also note that the major problem with BI, according to library school faculty, is that its theoretical base lies not only in librarianship but also in theories of learning and instructional design.18

All twenty-five proficiencies had library school, on-the-job training, or other formal education as the preferred method of learning the skill, and twenty-two proficiencies had one of these three sources as the second preferred method.

It is important to note that the current study measured the perception of librarians, not whether library schools actually did or did not offer education in these proficiencies. Library schools may include communication, planning, and promotion in other courses, such as management. Aluri and Engle, in the conclusion to their report on the drafting of the proficiencies list, suggest that "it is possible that the integrated approach will do more to foster support for BI and to prepare effective BI librarians than the separate course so strongly supported by those who became our BI experts without it."19

Another issue to consider is that some of the proficiencies considered important by respondents may not be considered important by employers, and vice versa. Herbert S. White and Marion Paris found that directors of large academic libraries recommended sixteen courses for the preparation of entry-level professionals, including ten primarily bibliography and reference courses, two in collection development, two in cataloging, one in management, and one with automation. The directors, however, did not recommend special area courses, such as BI courses.20 What must be taken into consideration, though, is that directors may not be responsible for hiring and supervising BI librarians, and therefore, may not be as aware of the need for BI skills as were the participants in this study.

RECOMMENDATIONS FOR FURTHER STUDY

Continuing education may have fared poorly in this study because it was not well defined and not distinguishable from on-the-job training and self-teaching. It can be presented in a number of formats, ranging from half-day in-house workshops to semester-long courses. If asked in a different way, librarians may have felt differently about continuing education. Jane Robbins, in her article on a continuing education program at the University of Wisconsin, Madison, emphasizes the need for formal programs of continuing education, particularly as the positions of librarians change and they begin to move into middle management positions.21 John Corbin includes as one of five roles for library schools the need to better tailor the continuing education offerings to the needs of the librarians.22 Perhaps in this regard, too, the authors need to look at ways to meet the mandates of the BI librarians responding to this study.

In addition, it is hard to ignore the contrary information reported in the 1988 Powell study concerning the perceived need for more continuing education. In his 1989 comments, Herbert S. White also emphasizes the importance of continuing education when he says, "Continuing education is a normal and recognized process in any discipline that considers itself a profession."23 Surely one of the things that this study brings out is the fact that practicing librarians
have put great emphasis on the role of the library school. Perhaps this indicates the need to look at other types of education and make them viable options, if indeed the library schools cannot, as White says, "justify the lengthening of a program without promise of return on the investment." A question that needs to be examined is whether BI can be learned via continuing education. Can it be learned in one- and two-day courses? Is continuing education for BI effective?

The discussion of the issue of skills has not waned. In a recent article on the educational requirements for future librarians, Anne Woodsworth and June Lester included the ability to "provide instruction to ensure information literacy." If librarians are to have these skills, it must be determined what those skills or competencies are and how they can best be obtained.

It might be useful to replicate this study by surveying the individuals considered by their peers to be excellent BI librarians. Their view of the important skills and how they should be learned may differ from the vision of the more general audience.

Perhaps it is time to examine the standards of library schools and their curriculum, the types of continuing education available from all sources, and other sources of skill updating. In his study of the future of librarianship, Allen B. Veaner indicated that it is time to examine these issues.

Above all, it is important that BI librarians obtain the skills they need, because BI librarians have become highly visible members of the library profession and much has been written in the past couple of years on the importance of such positive visibility for librarians.

REFERENCES AND NOTES

13. Ibid.

19. Ibid.


24. Ibid.


IN FORTHCOMING ISSUES OF COLLEGE & RESEARCH LIBRARIES

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Janet Gertz, Charlotte B. Brown, Jane Beebe, Daria D'Arienzo, Floyd Merritt, and Lynn Robinson

The 1986 College Library Standards: Application and Utilization
David B. Walch

Laura M. Bartolo and Timothy D. Smith

The Managerial Decision Styles of Academic Library Directors
Terrence Mech

A Library Committee on Diversity and Its Role in a Library Diversity Program
Kristin H. Gerhard and Jeanne M. K. Boydston

Job Satisfaction of Academic Librarians: An Examination of the Relationships between Satisfaction, Faculty Status, and Participation
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"To have all these references searchable at one time is fantastic....It takes so much less time and...you're sure you haven't missed anything."
—Helen Stepp, Research and Development Librarian
his article follows the pattern set by the semianual series initiated by the late Constance M. Winchell more than thirty years ago and continued by Eugene Sheehy. Because the purpose of the list is to present a selection of recent scholarly and general works of interest to reference workers in university libraries, it does not pretend to be either well balanced or comprehensive. A brief roundup of new editions of standard works, new titles in series already considered reference, and pieces received on continuations orders is provided at the end of the articles. Code numbers (such as AD540 and CJ331) have been used to refer to titles in the Guide to Reference Books, 10th ed. (Chicago: American Library Assn., 1986) or to the Supplement . . . Covering Materials from 1985–1990 (Chicago: 1992).

PHILOSOPHY

For some time, librarians faced with students pursuing paper topics on moral and ethical issues have been able to offer two reference classics: the Encyclopedia of Philosophy (Guide BA75) and the Dictionary of the History of Ideas (Guide BA70) as starting points for background reading or beginning research. This new two-volume Encyclopedia, edited by a professor of philosophy and a librarian, will provide a welcome fresh treatment of subjects previously covered and will offer information on new issues and problems.

Addressed to “an audience of scholars and university students but fully accessible to others with a serious interest in the field,” (Introd.), this Encyclopedia presents 435 signed essays by 267 contributors which range in length from 500 to 9,000 words. Entries are arranged alphabetically and cover topics such as character, forgiveness, and technology; the ethical problems of a particular discipline, such as anthropology, biology, or library and information science; ethical issues, such as academic freedom or infanticide; history and discussions of sub-fields in ethical and moral philosophy, such as Hindu ethics or animal rights; and biographical sketches of historical or contemporary thinkers. All articles conclude with a bibliography, some of which are surprisingly full and many of which include references to popular or nonacademic authors (e.g., Edward Abbey under “Land Ethics” and Jane Austen under “Integrity”). The extremely detailed index points to the dozens of entries, which include such aspects of broad categories as “Cooperation” or “Grace,” as well as such timely and specific subjects as date rape or moral dilemmas in the novels of William Styron. In addition to the general index, the editors have thoughtfully provided an index to the 5,800 bibliographic references.

Students will love this Encyclopedia of Ethics for its concise and clear treatment.
of some very complex social, political, and personal issues. Librarians will have trouble keeping the volumes on the shelf.

(N.B. Some of the essays in these two volumes have also appeared in a 1992 survey from Garland titled *A History of Western Ethics.*) — B.J.

**RELIGION**


The compilers of this book have set for themselves the task of providing "a comprehensive guide to the many sources of information in the broad field of religion," (Intro.), with the specific aim of providing "a quick and handy reference to anyone working in a particular field" of religion. To that end, they have amassed a great variety of sources, with citations for over 2,500 standard reference books, bibliographies, computerized databases, microform publications, archival and oral history collections, pertinent professional associations, and relevant research centers.

The arrangement goes from general to particular, from sources for the study of the concept of religion, including the many academic disciplines which have turned their attention to religion, to information sources on the world's religions, grouped according to traditional geographic areas, with sections on atheism and the occult. A separate section is devoted to Christianity, including chapters on church history and on Christianity's many denominations.

To help locate the resources within the book, the compilers have provided a table of contents and a title, author, organization, and subject index. However, the index is not always accurate and the last section of the book is omitted from the table of contents.

The real drawback to this source guide is that it attempts to cover too much ground. The resources are spread out over so many topics with the result that any one topic risks being inadequately covered. For example, the index only lists six sources of information on religion in Latin America. Five more (inexplicably omitted from the index) can be identified from the table of contents. Moreover, the lack of Spanish- and Portuguese-language sources makes this guide less useful to students of religion in Latin American.

Undoubtedly, other sections are more thoroughly treated and the convenience, especially for reference librarians, of so much information on religion in one handy volume cannot be underestimated. — O.dC.

**LANGUAGE**


Editor Tom McArthur states, "Sacred threads run though the world of reference books and one of them bears the colours of Oxford," (Pref.). A one-volume companion to the global language of the late twentieth century is no easy task, and, in the end, the editors found it better to define all that this work would not be: not a gazetteer, not a style or use guide, not a grammar or history, not a linguistic atlas nor a dictionary of slang, phrase, and allusion—though all those elements do appear in the final product. The result, to adapt a phrase from Lewis Carroll, is a portmanteau book, and a handy work for browsing or for consulting on all sorts of questions on the history, dialects, literatures, and curiosities of the English language throughout the world.

Short, signed articles are alphabetically arranged and address twenty-two broad themes: geography (further broken down into Africa, America, Asia, Europe, and Oceania, and from there into individual countries or regions); history (e.g., Royal Society, *Anglo-Saxon Chronicles*); biography (Marshall McLuhan, Virginia Woolf); name (forms of address, trademark); literature (James Joyce, in-
tertextuality); style (wit, sexism); education (TESOL, English Language Amendment); grammar (dangling participle, Fowler); writing (uncial, creative writing); speech (Pygmalion, Churchill); reference (Onions, Roget); word (Nonce word, Confusable); usage (barbarism, Doublespeak Award); language (echolalia, American Dialect Society); variety (Gullah, BBC English); media (telephone, headline); and technology (serif, mouse). The main entry for each theme lists all related articles, so that one can read through a series of entries on similar subjects. However, many of the articles fall under several main themes, and the reader may also trace related topics by following cross-references within the text. Most readers will prefer to browse through the volume, grazing on a richly varied diet which includes items as diverse as rap, The New Yorker, quotation marks, and Lambdacism.

Bibliographical references are included within the text and the volume concludes with a name index. Though much of the information contained in the Oxford Companion to the English Language could be found in dozens of other reference works, not many other one-volume works would have entries for such a wide variety of topics. — B.J.

LITERATURE


This is a well-conceived and carefully executed reference work. Its aim is clearly defined: to explore how black and white reviewers treated the aesthetic and political questions raised by black prose and verse writers of the 1920s and 1930s. It limits itself to literary works and discussions of literature. While primarily a bibliography of book reviews, pertinent scholarly articles and literary criticism are also included. The book follows a chronological arrangement. The years covered—1917–1939—are broken down into periods. Within each period, authors are listed with titles with their respective reviews. The book review section is followed by citations to general criticism and scholarship of that period. Most references have a brief annotation; the book reviews are rated on a spectrum from favorable to unfavorable. A final chapter extends selective coverage to 1944. An introductory essay puts the collection of bibliographic references into context. Since the book lacks a table of contents, the author and critics indexes are essential for name access to the work.—O.d.C.


Yes, Virginia, another Shakespeare bibliography. This one is an annotated listing of English-language articles on the plays appearing in reasonably accessible journals arranged by broad subject, and then by publication date. The second volume is a detailed set of indexes by character, scene, and subject. The characters are listed under the individual plays, so that a student cannot, for instance, simply look up Bianca or Bottom. The subject headings are quite detailed and often seem to consist of keywords from the annotations. For the patient user, this bibliography will have its rewards, but libraries with Champion’s The Essential Shakespeare (Suppl. BD26) and the Garland Shakespeare Bibliographies (Suppl. BD261) will want to think twice before investing both the money and the reference librarian's time. — M.C.

ARCHITECTURE


This work, which supersedes and considerably expands the original edition published in 1986 (175p.), was ... prepared primarily to assist professionals
who are involved in the planning, design, construction, and preservation of the built environment to locate international serially published sources of information relevant to their specific interests,” (Introd.). The undeniable growth of interest in architecture and urban form during the mid- to late-1980s, and which continues in the 1990s, spawned “a tremendous outpouring of new periodicals and newsletters dealing with the built environment that has made the process of identifying and locating relevant subscriptions difficult and expensive.” This directory lists and describes over 1,600 serial publications currently being produced by architecture schools, professional associations, government agencies, private consultants, and nonprofit organizations in fifty-seven countries, as well as the major publishing companies. Included are titles that contain a substantial number of articles on the built environment with sufficient bibliographic data to be clearly identified. Foreign periodicals selected are those that provide English summaries or are indexed in a published or online source available in the United States.

The directory is arranged in fourteen major categories, including architecture, building types, office practice, interior design, historic preservation, planning, construction, real estate, and the fine and decorative arts. A “User’s Guide” describes the arrangement of entries, abbreviations, country codes, international money symbols, and identifies nearly seventy indexing, abstracting, and online full-text database services through which the periodicals can be accessed. Each entry is given full bibliographic and publisher information, including telephone and fax numbers, circulation figures, regular features such as advertising, book reviews, and illustrations, and a brief description of its content, editorial policy, types of articles, language notes, and overall quality. ISSN numbers close out the entry. Especially useful is a note about title changes where they have occurred. The titles that have not been directly examined by the author are indicated by an asterisk. Arrangement is alphabetical by title under the major categories listed above, followed by a separate chapter for the indexing, abstracting, and database services. An alphabetical index to all titles, a geographical index, and a subject index, all with entry numbers, provide the needed additional access points.

Architects, engineers, interior designers, contractors, preservationists, landscape architects, planners, real estate professionals, building product and equipment manufacturers as well as students and librarians who rely on periodical information in these fields will find this directory useful for business and academic applications. Its well-defined scope of the built environment makes it a welcome alternative to the more general periodical directories such as Ulrich’s (Guide AE10) and The Serials Directory (Suppl. AE6). — B.S.-A.

ECONOMICS — PUBLIC FINANCE


As stated in the introduction, this handbook “is designed to help professionals in a variety of fields understand the most important of the new developments in the municipal securities industry and evaluate the most innovative solutions to emerging public finance problems.” New developments and state-of-the-art techniques of the past fifteen years have not been addressed in any single volume until now. The forty-two chapters of this handbook, written by industry specialists, cover such topics as debt management, bonding versus pay-as-you-go decisions, and financial infrastructure improvements. On the market side there are chapters on mutual funds and unit trusts, swaps, and refundings. Current issues and future trends are covered by notable industry journalists. Other contributors are drawn from underwriting, investment banking, rating agencies, economists, academics, attorneys, and market makers.

Cumulatively, the book presents a forward looking, broadly focused treatise.
incorporating several perspectives; it is written for a professional or academic audience. An index and glossary are included. Although there is no general bibliography, authors have added bibliographic footnotes. This title is highly recommended for academic and special libraries serving appropriate clients. — J.C.

**LAW—SUPREME COURT**


Hot on the heels of the Thomas-Hill hearings and the presidential elections come these two very different works, both of which provide historical, social, and political contexts for current and past court controversies. Aiming to offer "a comprehensive guide to the history and current operation of the Court," the *Oxford Companion* contains several thousand entries in the familiar alphabetical arrangement. The nearly 300 contributors include noted legal scholars and historians, such as Benno Schmidt and Richard E. Ellis, but the volume's accessible tone will prove as popular in the home as in academic libraries. Entries range in length from a few sentences to several thousand words, and, unlike many recent *Oxford Companions*, all end with brief bibliographies. Also, some articles are accompanied by black-and-white illustrations or photographs. Topics covered include biographical sketches on all justices, nominees rejected by the Senate, and other prominent figures in the history of the court; certain key concepts in legal history, such as due process or separation of powers; over 400 individual court cases; broad social and political issues, such as abortion, race and racism, and school prayer; historical periods and events; specialized terminology and phrases; and court architecture, painting, and sculpture. This inclusiveness of coverage will delight the browsing reader with fascinating bits of court lore, such as the historical personages who are portrayed as abstract ideals on the pediment frieze of the 1935 court building. In addition, because the volume devotes special emphasis to "explaining the way in which the justices conduct the day-to-day operations of the court—its processes, practices, and procedures," (Introld.), readers will find articles on such administrative arcane as the "discuss list" and the "seamstress's room" (for the mending of judicial robes). Many entries include fairly recent information; Justice Thomas is profiled, and the article on abortion covers the ramifications of the Webster decision (1989) as well as anticipating the legal questions raised by the RU-486 pill. Three appendices provide the text of the U.S. Constitution; chronologies of nominations, successions, and retirements; and a section on trivia and traditions of the court. Case and topic indexes conclude the volume.

In contrast, *Historic U.S. Court Cases* does not attempt to present encyclopedic coverage of the U.S. Supreme Court, but "to serve both the student or lay person interested in learning about important American court cases as well as the legal specialist looking for a convenient repository of useful information, analyses, or references." Eighty legal scholars, journalists, historians, and political scientists have contributed 171 essays which range in length from 1,000 to 5,000 words. The essays, which cover issues and cases that have come before state, federal, and even colonial courts, are arranged within six chapters: crime and criminal law; government organizations, power, and procedure; economics and the law; race and gender in American law; civil liberties; and law in critical periods in American history. Short bibliographies follow each essay. Because of the topical arrangement and linking introductory essays, *Historic U.S. Court Cases* may also serve as a textbook for
constitutional history class. Also, reference librarians will find that they need to make frequent use of the case and name/subject indexes to locate all the materials on particular issues. Students will appreciate a number of recent, or recently controversial, topics addressed in this volume, including the Pentagon papers, the Bakke case, the rights of migrant workers, and Native American land claims.

Although the bicentennials of the Constitution and the Bill of Rights in 1987 and 1989 have produced a spate of reference works on constitutional and court history, all libraries will want to own the convenient and complete *Oxford Companion to the Supreme Court*. Many academic libraries may also want to acquire *Historic U.S. Court Cases* for their circulating collection, if not for reference.—B.J.

**AREA STUDIES**


*Latin America and the Caribbean* is a multidisciplinary research guide with annotated bibliographies and essays which gives "an overview of recent trends in scholarship in a given discipline, the structure of the field and its literature," (Introd.). Essays that summarize the achievements and preoccupations of various fields, mainly since 1960, are copiously footnoted and intended to assist students new to Latin American studies and scholars who are engaged in interdisciplinary research. The new bibliography covers the humanities and social sciences from architecture to women’s studies, with an emphasis on history, literature, and the performing arts.

Within a subject, books and periodicals are cited by country. The general bibliography section is subdivided by genre, e.g., book reviews, bibliographies of bibliographies, national and trade bibliographies, biographies, and so forth. A separate chapter deals with computerized databases, giving an overview of Latin American files in such major database systems as *Dialog*, *BRS*, *Wilsonline*, *Nexis* and *Questel*. An area not yet explored is the Internet connection that enables researchers, especially those affiliated with universities in the United States, to consult databases in remote domestic and foreign sites.

One advantage of this guide is its subject-oriented approach. An earlier guide, *Latin American Studies: A Basic Guide to Sources*, 2d. ed., ed. Robert A. McNeil (Suppl. DB94), with many of the same contributors, adopted a format approach. Sources were listed by type of publication, such as national bibliographies, dissertations, and so forth. For students and scholars, a subject approach is preferred because it is easier to use. The book includes author, title, and subject indexes.—J.S.

**RUSSIA AND THE SOVIET UNION**


Travel and memoir literature has long been a key source for the study of Russia, a country of proverbial mystery to its Western neighbors. If anything, this has been even more true of the Soviet period as official controls over the flow of information and international hostilities have combined not only to maintain but even to increase that country’s remoteness to outsiders. At the same time, as Soviet studies mature, scholars are becoming increasingly aware of the need to come to grips with the peculiar ways in which Western states and societies perceived the Great Power in the East.

Both these problems are addressed by this new bibliography of more than 5,000 books, pamphlets, and articles. Covering the period from 1917 to 1990, it attempts to bring together a fairly comprehensive listing of German-language travel accounts, journalistic treatments, and pictorial works that deal
with the Soviet Union with a more selective listing of magazine and newspaper guides, autobiographical and other works that serve to concretize the image of the Soviet Union for the German-reading public. An effort has been made to include Soviet publications as well, so that a wide range of viewpoints, from officially self-apologetic to overtly hostile, are represented.

The entries are arranged by year, enabling the reader to trace something of the history of the Germans’ view of Soviet life. Full bibliographic information is provided, but no annotations other than an indication of the subject matter of an item not explicitly indicated by the title itself. An index to authors and main-entry titles provides additional control, but the lack of a subject index to such a large collection of titles is keenly felt.

The criteria for inclusion are also somewhat unclear, perhaps reflecting the necessarily vague boundaries of the subject matter. One does not find, for example, Gustaw Herling-Grudzinski’s Welt ohne Erbarmen or Ante Ciliga’s Im Land der verwirrenden Lüge, which are key eyewitness accounts of the Gulag from two foreign prisoners. Likewise, while a variety of Soviet memoirs and autobiographies are included, such an important one as Trotsky’s is not.

Regardless of these shortcomings, this is clearly an important addition to the bibliography of Soviet studies, far more comprehensive in its scope than any work proceeding it. It is followed in the body itself by a closer examination of seventy-seven major bibliographies or catalogs, all but seven of them published before 1936, and most of them published before 1916. While diverse in character, ranging from bookseller catalogs to reader’s advisers to genuine subject bibliographies, and from the catalogs of key private collections of institutional libraries to the lists of publications of government bodies, the works collectively offer a key to a host of subjects. These subjects include the major social classes and groups, economic issues, local history, minorities such as Germans, Jews, and Gypsies, and such social problems as prostitution, alcoholism, and crime.

Arranged alphabetically, each entry includes a full bibliographic citation, a list of chapter headings, and unusually substantive annotations on the significance of the particular work as well as its arrangement. A subject index provides quick access to the appropriate title or titles. Naturally, such a brief list can only scratch the surface of the rich bibliographic literature on the subject (and the author has explicitly excluded some of the more comprehensive periodical titles from his survey). At the same time, however, its conciseness is a virtue, offering invaluable guidance to the researcher at the beginning of his or her undertaking. It seems well designed, too, as a potential tool for measuring the strength of a library’s collection in this field. It clearly belongs in any reference collection supporting advanced studies of Russian history.—R.H.S.


Although published three years ago, this concise and useful guide to bibliographies relevant to the study of Russian social history from the peasant emancipation to the revolutions of 1917 does not appear to have been widely reviewed and thus still seems worthy of mention here. An admirable ten-page introduction manages to provide the reader with a fascinating and informative overview of key developments in Russian book publishing and bibliography at the turn of the century, bringing to life such leading figures as A. D. Toropov, D. V. Ul’ianinskii, V. I. Mezhov, and A. V. Mez’er while placing their careers in a broader historical context and providing a substantial list of citations to further literature on the subject. It is followed in the body itself by a closer examination of seventy-seven major bibliographies or catalogs, all but seven of them published before 1936, and most of them published before 1916. While diverse in character, ranging from bookseller catalogs to reader’s advisers to genuine subject bibliographies, and from the catalogs of key private collections of institutional libraries to the lists of publications of government bodies, the works collectively offer a key to a host of subjects. These subjects include the major social classes and groups, economic issues, local history, minorities such as Germans, Jews, and Gypsies, and such social problems as prostitution, alcoholism, and crime.

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**WOMEN’S STUDIES**


This bibliography of English-language material lists some 5,500 citations to journal articles published from 1980 through 1990, arranged in forty broad chapters, “Africa” to “Work.” There are no subject or author indexes, although most entries are cross-listed under more than one subject. The bibliography is still somewhat difficult to use, however, because there are no cross-references. A reader looking for articles on nineteenth-century infanticide might find the “infanticide” section of the “Birth Control” chapter, but might not realize that there are additional articles in the “female criminality” and “reproductive rights and illegitimacy” sections of the “Law/Crime” chapter, and in the “infant mortality” section of the “Family” chapter. Although most of the articles in the bibliography could easily be found in *America: History and Life* or *Historical Abstracts*, there are some unique citations to articles in newsletters. This is recommended for libraries with large women’s studies collections, or for libraries without access to the periodical indexes mentioned above.—S.S.


*Women and Writing in Russia and the USSR* is a fine bibliography which will please many undergraduate and graduate students, even though it only includes writings in English. It is arranged in four sections:

- **Primary Sources: Creative Writing and Personal Documents** lists translations of fiction, and subjective nonfiction alphabetically by woman author.
- **Biographical and Critical Sources** includes criticism of individual women artists, studies of women in specific time periods, and studies of the representations of women in the art of both men and women.
- **Supplementary Sources on Women and Women’s Experience** covers works about education, health and medicine, law, military, mothering (including childbearing, childrearing, family, and marriage), national identity, politics, prison and labor camps, religion and spirituality, rural communities, work, interviews, status of women, yearbooks and statistical reports.
- **Bibliographies** cites twenty-four bibliographies. Coverage extends from the nineteenth century through 1990, with some entries from 1991. Includes a personal name index.—S.S.


This index provides brief biographies with citations to primary and secondary sources for some 1,300 medieval women living between 769 and 1500. Women are listed alphabetically by first names, and forms of the same name are interfiled (e.g., Marie of Anjou, Mary of Antioch, Maria of Aragon . . .). Tables at the end of the volume list women by country, date, surname or region of origin, and biographical categories, which are taken to include professions (abbesses, alevives, and apothecaries), subjects (abduction, adultery, and antinomian heresies) and political roles (negotiators, pawns, and squabbles). European and Byzantine women figure most prominently in this index, although there are a few entries for women in China, Israel, and Lebanon. This is the sort of index that would be very appealing to undergraduates and could also be useful to graduate students.—S.S.

**CHRISTOPHER COLUMBUS**

When the Organization of American States established a library of inter-American affairs in 1902, the representatives of member states apparently had no quibble about naming the library “the
Columbus Memorial Library.” Almost everything relating to Columbus has become a subject of dispute lately, from the rejection of the Eurocentric concept of the “discovery of the New World” to the whereabouts of his mortal remains (no less than three locations: Havana, Santo Domingo, and Seville). Those interested in controversies surrounding the 500th anniversary of Columbus’ voyage to America will welcome some new reference sources for rethinking the significance of his adventure. Several updated Columbus bibliographies and dictionaries have appeared, although not as many as the publications produced at the French Revolution’s 200th anniversary. The following is a brief overview of recent reference books of a general nature, excluding collection-specific bibliographies.—J.S.


An update of the bibliography published in 1986, Un Secolo di Bibliografia Colombiana, 1889–1985 (Genova: Cassa di Risparmio di Genova e Imperia, 1986. 360p.), this edition offers 8,383 entries alphabetically arranged by author with an index of journals, author index, and a topical index. An appendix for items 8,384–8,409 is not indexed. The author index is somewhat redundant because the bibliography is arranged alphabetically. The topical index could have used more subdivisions of topics; as it is, item numbers can fill two-thirds of a page under a single subject heading. The bibliography and the journal listing, though, are a mine of information even if difficult to retrieve. Literary works by such people as Lamartine and Zweig are cited. This book is intended to fill the gap left by recent bibliographies that cover specific library collections or time periods.


Provost’s bibliography offers an extensive international survey of printed primary sources and works of historiography, biography, politics, society, religion, natural science, navigation and iconography, dating from 1750 to 1988. All 780 entries for books and articles are annotated. It is indexed by author/editor, proper name, and topic.


In this Spanish encyclopedia with numerous black and white illustrations, the topics range from mythology of seafaring to historical documents, with a number of entries for personal and place names. The appendixes include chronological tables, a list of the crew members of the three ships of the first voyage, detailed descriptions of the ships, a chronological list of commemorative postage stamps honoring Columbus, maps, and documents.

Although each article is not documented, this volume contains a number of entries not found in Provost’s dictionary, as well as the texts of historical documents and pictures of historical maps.

The Christopher Columbus Encyclopedia. Silvio A. Bedini, ed. New York: Simon &
The encyclopedia offers signed articles by international contributors, each accompanied by a short bibliography, often with line drawings and monochrome photographs. This is perhaps the best among these three encyclopedias for giving the broad historical background and context in which Columbus' discoveries were made. For example, the article titled "Religion" has two parts: one presenting European traditions and the other on Amerindian traditions. This is more like an encyclopedia of the age of discoveries, with a comprehensive survey of the society, encompassing such varied aspects as agriculture, flora and fauna, science and technology, Muslims and Jews, trade and economic institutions, art and architecture, equipment, clothing and rations on board Columbus' ships, an overview of Columbus memorabilia, and documentary sources in museums and archives. It includes a subject index.

NEW EDITIONS AND SUPPLEMENTS

Kenneth Kister's Best Dictionaries for Adults and Young People (Phoenix, Ariz.: Oryx, 1992. 438p. $39.50) is a much-needed revision and updating of the introduction and dictionary profiles of the "Adult" and "School and Children's Dictionaries" portions of his Dictionary Buying Guide (Guide AD2). The compiler has made a determined effort to describe both the print and electronic formats of the dictionaries under review. The appendixes now include a listing of dictionary and language associations, much expanded bibliographies, and a longer directory of dictionary publishers and distributors.

Kister gives a fascinating discussion of the first two editions of the American Heritage Dictionary of the English Language (1st ed., 1969; 2d ed., 1982; Guide AD13). The third edition (Boston: Houghton Mifflin, 1992. 2,140p. $38.95) seems to hark back to the first edition in its appearance, size, and number of illustrations. The number of words covered is about the same as in the second edition (200,000) though the editor points out there are 16,000 new words and meanings and more illustrative quotations. Nine hundred synonym paragraphs offer more detailed distinctions between words. Usage notes remain a big feature in this dictionary. Revised too is the appendix of Indo-Aryan roots.

The BBC English Dictionary has been updated to reflect usage and punctuation as of May 1992 (London: HarperCollins, 1992. xxiv, 1,374p. £14.95; 2d ed. 1983, Guide AD77). The BBC developed a database, the "Bank of English," consisting of all BBC broadcasts made throughout 1988-1992 and 10 million words contributed by National Public Radio in Washington from their 1991 broadcasts. This corpus provided the entries, definitions, pronunciations, and preferred usage for people, places, and events to provide background information. Also included are about one thousand entries.

The IBN: Index bio-bibliographicus notorm hominum by Jean-Pierre Lobies (Guide AJ18, Suppl. A6) usually includes Part B, the list of source works added, as front matter in many of the volumes of Part C. This time, however, an unpaged Part B is issued as a separate volume giving entries 5146-6215 for new biographical works (Osnabrück: Biblio, 1992).


Pierre Conlon for his Le siecle de lumières: bibliographie chronologique (Guide AA751, Suppl. AA113) has produced some housekeeping volumes: tome IX (145p.) is a supplement to the volumes covering 1716-1760 for works omitted, corrections, revised entries; tome X (493p.) is an alphabetical list of titles so far included. The referral number for...
The last-named index is made up of the last two digits of the year and the assigned item number within the year (Genève: Droz, 1992).

Deutsche literarische Zeitschriften, 1945–1970, comp. Barnard Fischer and Thomas Dietzel (Munich, New York: Saur, 1992. 4v. 680DM), is a continuation of the indispensable bibliography of nineteenth- and twentieth-century German literary periodicals compiled by Alfred Estermann (Suppl. AE36) and Thomas Dietzel (Suppl. AE35). Based on the holdings of the Deutsche Literaturarchiv in Marbach, the 1,331 alphabetically arranged titles include literary, theatrical, and general-interest publications. The extraordinarily detailed listings provide variant titles, places and dates of publication, a detailed collation, editors, major contributors, holdings in some 200 European libraries, and often excerpts from the introduction to the first issue or the prospectus. Indexed by editor, contributor, publisher, place of publication and by broad subject.—M.C.

Those cumulative volumes of Suomen kirjallisuus for 1967–1971 (Helsinki: Univ. Library, 1992. 3 v.) bring back categories of materials that have been published separately (see Guide AA740 for an explanation). The alphabetical listing for books, 1967–71, vols. 1–2, presents books published in Finland, and books in Finnish or books by a Finnish author or translator published abroad. Monographic series are included in the books section. Volume 3 contains a list of serials, mostly annuals since journals are covered by Bibliography of Finnish Periodicals, 1956–1977 compiled by Marketta Takkala (Helsinki, 1986). Publications of the University Library, Helsingin yliopiston kirjastot julkaisuja, 48. 632p.) Also in volume 3 are lists of printed maps and sheet music. All parts are indexed by a classed list.

The Music Catalog (Washington: Library of Congress, 1991—Quarterly, $100) is the new title for NUC Music Books, Books on Music and Sound Recordings (Guide BH92). The older title was available in both microfiche and paper; the successor is only on microfiche. The Music Catalog is quarterly to cumulate annually.


Another very useful revision is Mary-Claire van Leunen's book of advice for citing works, for handling quotations, and for composing footnotes and bibliographies: A Handbook for Scholars (New York: Oxford Univ. Pr., 1992. 348p. $12.95; 1st ed. 1978). In fact there is an appendix devoted to citing U.S. federal documents. The other appendix deals with the curriculum vitae, what elements to include, how to present the information.

Dorothy Eagle died before she could complete the revision of her Oxford Illustrated Literary Guide to Great Britain and Ireland (1981, Guide BD568), which is itself a revised and illustrated edition of the Oxford Literary Guide to the British Isles (1977). Meic Stephens has completed the work (Oxford: Oxford Univ. Pr., 1992. 322p. $45) with the addition of many new authors (137) and places (105), especially expanding coverage of Scotland, Wales, and Ireland. Still heavily illustrated with drawings and photographs, the work ends with thirteen regional maps.

BNTL: Bibliografie van de nederlandse taal- en literatuur-wetenschap indexes books and articles on literature and language published in Holland. Begun in 1975, it is an annual with a classed arrangement and with author and title indexes. This year the compilers have issued a retrospective volume covering the years 1940–1945 (s'Gravenhage: Stechting Bibliographia Neerlandica).

Edna Coll has issued volume 5 of the Indice informativo de la novela hispanoamericana (Río Pedras: Ed. Univ. Puerto Rico, 1992. 541p.) this one covering the Altiplano: Bolivia, Ecuador, and Peru. The arrangement is the same as in the earlier volumes (Guide BD1213): for each
country, a general section is followed by authors in an alphabetical list with citations for novels and critical and biographical works for each. Many of the entries have biographical notes.


Warren Walker has been most assiduous in his care for the short story. Now he has produced an index to the third edition with its five supplements, 1961–1991 (*Guide BD254*) of *Twentieth-century Short Story Explication* (Hamden, Conn.: Shoe String, 1992. 254p.). Arranged by literary author and short story, a citation indicates the volume and page of the bibliographic reference to the explication.

The second edition of Gerald Bordman’s *American Musical Theatre: A Chronicle* (New York: Oxford Univ. Pr., 1992. 821p. $49.95; 1st ed. 1978, *Guide BH247*) extends coverage to the 1989–90 season. Added too are “turn-of-the-century musicals that toured from city to city without every playing first-class houses” (Pref.). These are in an appendix along with “musicals that did play first-class houses but which were overlooked originally.” Indexed are shows and sources, songs, and people (including nine theaters).

The *Encyclopedia of Educational Research* with Marvin C. Alkin as editor-in-chief (New York: Macmillan, 1992. 4v. $330; 5th ed. 1982, *Guide CB143*) strives to provide a “valuable record of the conception of education in the early 1990s” (Pref.). The articles are written by scholars and most of them have been revised. New areas of concentration discuss “societal issues of the time that affect education: pregnant and parenting teenagers, prevention intervention, AIDS education.” There is an additional emphasis on the teachers themselves. The appendix covers “doing library research in education.”


Jacques Barzun and Henry Graff have revised *The Modern Researcher*, 5th ed. (New York: Harcourt, 1992. 409p. $ ); 4th ed., 1985, *Guide DA4*). It is still a research manual with much illustrative material, but now the uses of the computer are covered. As the authors note: “When our First Edition was published, the ballpoint pen was a recent invention... In the present edition we discuss laptop and other computers” (Pref.).
In 1990, data on the employment status of librarians was collected from two groups of academic libraries in higher education—a random sample of all institutions in the United States and all academic members of the Association of Research Libraries. This data provides a twenty-year retrospective of librarians' status and indicates that 67 percent of higher education institutions grant them faculty status. In general, faculty status for librarians has been vigorously expanded during the same period, though the process has slowed in recent years. Understandably, librarians with faculty status enjoy perquisites similar, but not identical to, teaching faculty. In addition, 7.3 percent of the institutions sampled grant librarians academic status, which carries many characteristics of faculty status. Thus in over 74 percent of the sampled institutions, librarians have a status that conforms closely to the ACRL standard. Among the ARL members, the general condition has changed little since the last major survey in 1982.

For several years, the Association of College & Research Libraries (ACRL) Academic Status Committee discussed the possibility of a general survey of librarians' employment status in higher education similar to that undertaken for the Association of Research Libraries (ARL) by Thomas English and published in College & Research Libraries in 1982. At the ALA Annual Conference in 1989, a number of current or former committee members were brought together by the chair, Larry R. Oberg. This group determined to undertake a study to investigate the status of faculty status for librarians near the twentieth anniversary of the first publication of the ACRL-AAUP Joint Statement on Faculty Status.

Charles B. Lowry is University Librarian at Carnegie Mellon University, Pittsburgh, Pennsylvania 15213-3890. The research for this article was conducted while he was Director of Libraries at the University of Texas at Arlington.

* Oberg appointed a committee to undertake the research that led to this paper. The committee included Irene Hoadley of Texas A & M University, Rush Miller of Bowling Green University, Susan Perry of Stanford, Larry Oberg of Willamette University, and the author.
The Academic Status Committee (ASC) subcommittee ultimately chose not to replicate English's study, although the present effort takes inspiration from the earlier work. It was decided instead to study all types of academic libraries, as well as those that were members of ARL. The study was also inspired by the hope that the results would inform ASC's work of revising the **Standards for Faculty Status for College and University Librarians** for the first time in that document's history. That revision was completed by the committee and approved by the ACRL Executive Board at the 1991 ALA Annual Conference in Atlanta and by the ALA Council at the 1993 Midwinter Meeting. The full results of the study will be presented in a collection being edited by the author, tentatively titled *Faculty Status in Academic Libraries: Empirical Studies of Librarians' Status*. The methodology and survey instrument will be discussed fully therein. Accordingly, in this paper only a few words will be said about the survey instrument, and the sampling and return rates. Instead, emphasis is placed upon the high points of the analysis of the survey results.

The questionnaire is composed of twelve questions with slightly over fifty data elements and was intended to take about twenty minutes to answer. It investigated library staff size, gender distribution, the status of librarians at the responding institution, changes in that status over twenty years, and various perquisites and responsibilities of librarians related to such things as promotions, the review process, and the term of service. The survey was distributed to library directors in two distinct groups of libraries. One is a sample of 500 libraries drawn at random from the Carnegie Classification of Institutions of Higher Education. The other is composed of the academic members of the ARL in the United States and Canada.3

The research group had the assistance of the ACRL office and distributed the survey under its auspices. In retrospect, this association seems important because it resulted in 370 respondents to the first sample, a 74 percent return rate, and 89 respondents among ARL libraries, or 74 percent of the academic membership. Coincidently, this is exactly the same number achieved by English in his study. The high response rate to the Carnegie sample inspired confidence in some of the results that differ from other studies. However, this essay will largely omit reference to earlier works; that will be reserved for the fuller discussion to be published in the monograph.

Some analysis was done with reference to ALA's success in establishing standards for the employment of librarians in academic institutions (see table 1). The survey asked if the ALA-accredited M.L.S. was a condition for employment of professional librarians. It found that in 62 percent of the cases it was always a condition, and that in 28 percent only a few exceptions were made based on specialized job requirements. Conversely, the respondents indicate that the ACRL Standards for Faculty Status of College and University Librarians and the ACRL/AAUP Joint Statement on Faculty Status of College and University Librarians were used explicitly as the basis for defining the status of librarians in only 6 percent of the cases. These standards are a point of reference, but do not explicitly define status in 50 percent of the cases. Clearly, the authority of these two standards has yet to be established in most institutions.

### TABLE 1
**ALA/MLS CONDITION FOR JOB: CARNEGIE SAMPLE**

<table>
<thead>
<tr>
<th>Condition for Job</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>227</td>
<td>62.0</td>
</tr>
<tr>
<td>A few exceptions</td>
<td>103</td>
<td>28.1</td>
</tr>
<tr>
<td>Not used</td>
<td>36</td>
<td>9.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Are ACRL Standards Used?</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicitly</td>
<td>23</td>
<td>6.5</td>
</tr>
<tr>
<td>Reference point</td>
<td>178</td>
<td>50.3</td>
</tr>
<tr>
<td>Not used</td>
<td>153</td>
<td>43.2</td>
</tr>
</tbody>
</table>
### TABLE 2
LIBRARIANS’ STATUS FOR CARNEGIE INSTITUTIONAL CLASSIFICATION AND ARL SAMPLES

<table>
<thead>
<tr>
<th>Institutional Classification</th>
<th>Frequency</th>
<th>Academic Status</th>
<th>Professional Status</th>
<th>Civil Service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research/ doctoral</td>
<td>15</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>53.57</td>
<td>25.00</td>
<td>21.43</td>
<td>0.00</td>
<td>7.57%</td>
</tr>
<tr>
<td>Comprehensive university</td>
<td>65</td>
<td>5</td>
<td>11</td>
<td>3</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>77.38</td>
<td>5.95</td>
<td>13.10</td>
<td>3.57</td>
<td>22.70%</td>
</tr>
<tr>
<td>Liberal arts</td>
<td>49</td>
<td>11</td>
<td>26</td>
<td>0</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>56.98</td>
<td>12.79</td>
<td>30.23</td>
<td>0.00</td>
<td>23.24%</td>
</tr>
<tr>
<td>Two-year</td>
<td>119</td>
<td>4</td>
<td>46</td>
<td>3</td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>69.19</td>
<td>2.33</td>
<td>26.74</td>
<td>1.74</td>
<td>46.49%</td>
</tr>
<tr>
<td>Total Carnegie sample</td>
<td>248</td>
<td>27</td>
<td>89</td>
<td>6</td>
<td>370</td>
</tr>
<tr>
<td></td>
<td>67.03%</td>
<td>7.30%</td>
<td>24.05%</td>
<td>1.62%</td>
<td>100.00%</td>
</tr>
<tr>
<td>ARL member sample</td>
<td>41</td>
<td>30</td>
<td>18</td>
<td>0</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>46.07%</td>
<td>33.71%</td>
<td>20.22%</td>
<td>0</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Note: Association of Research Libraries members form a separate sample group, albeit research/doctoral institutions include some ARL members who were drawn into the random sample of all Carnegie institutions.

### LIBRARIAN STATUS—THE NATIONAL CONDITION

One of the major focuses of this research concerns the employment status of librarians. The good news for advocates of the ACRL standards is that a majority of librarians work under employment conditions defined by faculty status. Table 2 indicates that librarians in the Carnegie classification research/doctoral granting institutions have faculty status over 53 percent of the time, in comprehensive universities over 77 percent, in liberal arts colleges nearly 57 percent, and in two-year institutions nearly 70 percent. In the aggregate, academic librarians have faculty status in 67 percent of our institutions of higher education.

These results vary markedly from the results of other surveys. For instance, a 1989 study by Betsy Park and Robert Riggs that sampled the same Carnegie institutions at about the same time as the ASC survey indicates that librarians have faculty status in 41 percent of the sampled four-year institutions. This is a dramatically lower result than the general sample even though this sample excluded consideration of two-year institutions. Among the four-year liberal arts colleges, the result was 57 percent (see table 2). This large statistical difference may be explained partially by the difference in definitions of faculty status. On the one hand, the present research assumes that the respondents know best the conditions that characterize faculty status in their own institutions and whether librarians are designated as faculty by that institution’s definition. On the other hand, the ARL member sample indicated that slightly more than 46 percent of the institutions responding granted librarians faculty status, a figure that is almost identical to the English study result of 46 percent.

Even when librarians do not have faculty status, survey results indicate that they are frequently given a close parallel academic status. For instance, in the Research/Doctoral category, 25 percent of the libraries grant academic status. This means that nearly 80 percent of the institutions in this group grant faculty status or something very close to it. Results also show that academic librarians are least likely to be classified as civil service personnel, with less than 2 percent in that category. Overall, 74 percent of the Carnegie sample and 80 percent of the ARL sample grant faculty or academic status to librarians.

It is also interesting to note the number of librarians affected by various status
TABLE 3
NUMBER OF LIBRARIANS IN STATUS GROUPS

<table>
<thead>
<tr>
<th>Institutional Classification</th>
<th>Faculty Status</th>
<th>Academic Status</th>
<th>Professional/Administrative Status</th>
<th>Civil Service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research/doctoral (n=28)</td>
<td>Frequency 461.8</td>
<td>379.5</td>
<td>152.3</td>
<td>0</td>
<td>993.6</td>
</tr>
<tr>
<td>(n=35.5) Row%</td>
<td>46</td>
<td>38</td>
<td>15</td>
<td>0</td>
<td>36.3%</td>
</tr>
<tr>
<td>Comprehensive university</td>
<td>Frequency 607.0</td>
<td>67.0</td>
<td>111.7</td>
<td>16.3</td>
<td>802.0</td>
</tr>
<tr>
<td>(n=86) Row%</td>
<td>76</td>
<td>8</td>
<td>14</td>
<td>2</td>
<td>29.3%</td>
</tr>
<tr>
<td>Liberal arts (n=860)</td>
<td>Frequency 204.2</td>
<td>47.6</td>
<td>142.1</td>
<td>0</td>
<td>393.9</td>
</tr>
<tr>
<td>(n=4.6) Row%</td>
<td>52</td>
<td>12</td>
<td>36</td>
<td>0</td>
<td>14.4%</td>
</tr>
<tr>
<td>Two-year (n=172)</td>
<td>Frequency 369.5</td>
<td>15.5</td>
<td>149.6</td>
<td>13.3</td>
<td>547.9</td>
</tr>
<tr>
<td>(n=3.2) Row%</td>
<td>67</td>
<td>3</td>
<td>27</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Total Carnegie Sample</td>
<td>Frequency 1642.5</td>
<td>509.6</td>
<td>555.7</td>
<td>29.6</td>
<td>2737.4</td>
</tr>
<tr>
<td>(n=370) Sample %</td>
<td>60%</td>
<td>18.5%</td>
<td>20.3%</td>
<td>1.1%</td>
<td>100%</td>
</tr>
<tr>
<td>ARL member sample</td>
<td>Frequency 2171.4</td>
<td>2191.8</td>
<td>1506.0</td>
<td>NA</td>
<td>5869.2</td>
</tr>
<tr>
<td>(n=89) Sample %</td>
<td>37%</td>
<td>37.3%</td>
<td>25.7%</td>
<td>NA</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: The number of libraries (n= ) is indicated for each institutional classification. For instance, there are 28 research/doctoral libraries. The average number of librarians [n= ] per library is also indicated.

Assignments, not just the number of institutions involved. The 370 responding institutions in the large Carnegie sample indicate that they hire over 2,700 librarians. Table 3 shows the number of librarians in the various status groups. The 28 research/doctoral institutions constitute 7 percent of the total sample of libraries but hire 36 percent of the librarians involved. Among the research/doctoral institutions, 53 percent grant faculty status to librarians, but the number of librarians affected is only 46 percent of this institutional category. The conclusion we may draw from this disparity is that major research libraries with larger professional staffs are less likely to grant faculty status. This same conclusion may be inferred from the ARL sample. Over 46 percent of the ARL libraries grant faculty status, but only 37 percent of the librarians in these libraries hold faculty status. Again, the explanation is that the oldest and largest research institutions are less likely to grant faculty status to librarians who represent both a newer profession than established disciplines and may not evince such primary faculty characteristics as regular classroom teaching and publication. In all, 1,642 librarians, or 60 percent of the total, are employed in institutions that grant faculty status to librarians.

Table 4 illustrates the gender distribution of librarians by their employment status. Female librarians are slightly more likely than their male counterparts to work in libraries where they are granted faculty status. This is true of both the Carnegie and the ARL samples. Yet males in the Carnegie sample libraries are slightly more likely to have academic status. These differences, however, are small. The most important findings illustrated by this table are that gender has no effect on the assignment of status to librarians, and that over 67 percent of all academic librarians are female. The percentage is slightly lower in ARL libraries—65 percent.

APPPOINTMENTS AND PROMOTIONS—PERQUISITES AND OBLIGATIONS

The following tables illustrate various conditions for librarian appointments and expectations for promotional considerations. Table 5 indicates the possible...
length of appointments for librarians. Respondents were asked to indicate all possible categories. By and large, no matter what status is assigned to librarians, the prevalent answer was twelve months of service. The last column indicates that in nearly 74 percent of the faculty status libraries this was a condition of appointment, as it was in over 96 percent of the libraries granting academic status, and 84 percent of those granting professional or administrative status. However, it is significant that in cases of faculty status, nine-month appointments are more characteristic. Nearly 32 percent of the faculty status institutions grant this term as an option for librarians, while only 15 percent of those granting academic status offer nine month appointments.

On the one hand, it has long been clear that faculty status for librarians may not be accompanied by the full privileges of the teaching faculty. On the other hand, academic status often reflects some of the characteristics of appointments for teaching faculty. The present research strongly confirms attenuated status. Table 6 makes it obvious that the faculty status for librarians in the Carnegie sample is closely associated with tenure because over 68 percent of the faculty status institutions grant tenure to librarians. Among those same institutions, another 40 percent grant some sort of continuing appointment. Similarly, promotion in faculty rank is granted by over 62 percent of the faculty status institutions, and promotion in nonfaculty rank is granted by another 12 percent of these libraries. Research and sabbatical leaves are also closely affiliated with faculty status. Librarians who receive faculty status appointments enjoy a fuller participation in the characteristic perquisites for teaching faculty than do those receiving other types of appointments.

The question of criteria for achieving tenure or continuing appointment always has been complicated when applied to librarians. Table 7 illustrates that in those Carnegie sample institutions where librarians have faculty status, the criteria are the same as those for teaching faculty in over 60 percent of the cases and are modified faculty criteria in another 31 percent. Yet where librarians have academic status, the criteria are the same as for the teaching faculty in only 14 percent of the cases and are modified faculty criteria in 33 percent. More than half of these Carnegie sample libraries have some sort of professional criteria. This pattern is also true of librarians who receive professional or administrative status appointments. In summary, the criteria for tenure or continuing appointment are much more closely associated with faculty criteria where librarians have faculty status. This conforms to the other characteristics of librarians with faculty status.
### TABLE 5
LENGTH OF APPOINTMENT PERIODS FOR LIBRARIANS' STATUS: CARNEGIE SAMPLE

<table>
<thead>
<tr>
<th>Librarians' Status</th>
<th>9 Months</th>
<th></th>
<th>10 Months</th>
<th></th>
<th>10.5 Months</th>
<th></th>
<th>11 Months</th>
<th></th>
<th>12 Months</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Faculty status</td>
<td>Frequency</td>
<td>169</td>
<td>79</td>
<td>194</td>
<td>54</td>
<td>237</td>
<td>11</td>
<td>214</td>
<td>34</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Sample %</td>
<td></td>
<td>68.15</td>
<td>31.85</td>
<td>78.23</td>
<td>21.77</td>
<td>95.56</td>
<td>4.44</td>
<td>86.29</td>
<td>13.71</td>
</tr>
<tr>
<td>Academic status</td>
<td>Frequency</td>
<td>23</td>
<td>4</td>
<td>25</td>
<td>2</td>
<td>27</td>
<td>0</td>
<td>27</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sample %</td>
<td></td>
<td>85.19</td>
<td>14.81</td>
<td>92.59</td>
<td>7.41</td>
<td>100.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Professional/ Administrative status</td>
<td>Frequency</td>
<td>81</td>
<td>8</td>
<td>73</td>
<td>16</td>
<td>83</td>
<td>6</td>
<td>77</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Sample %</td>
<td></td>
<td>91.01</td>
<td>8.99</td>
<td>82.02</td>
<td>17.98</td>
<td>93.26</td>
<td>6.74</td>
<td>86.52</td>
<td>13.48</td>
</tr>
<tr>
<td>Civil service</td>
<td>Frequency</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Sample %</td>
<td></td>
<td>66.67</td>
<td>33.33</td>
<td>1.62</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>Frequency</td>
<td>277</td>
<td>93</td>
<td>298</td>
<td>72</td>
<td>353</td>
<td>17</td>
<td>324</td>
<td>46</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Sample %</td>
<td></td>
<td>74.86%</td>
<td>25.14%</td>
<td>80.54%</td>
<td>19.46%</td>
<td>95.41%</td>
<td>4.59%</td>
<td>87.57%</td>
<td>12.43%</td>
</tr>
</tbody>
</table>

Note: Respondents were asked to check all relevant categories. Therefore, total frequency and percentage exceed 370 N and 100 percent and are not summative.

### TABLE 6
APPOINTMENT AND PROMOTION FOR LIBRARIANS' STATUS: CARNEGIE SAMPLE

<table>
<thead>
<tr>
<th>Librarians' Status</th>
<th>Tenure</th>
<th>Continuing Appointments</th>
<th>Promotion in Faculty Rank</th>
<th>Promotion in Non-Faculty Rank</th>
<th>Research Leave</th>
<th>Sabbatical Leave</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty status</td>
<td>Frequency</td>
<td>169</td>
<td>99</td>
<td>155</td>
<td>31</td>
<td>111</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>68.15</td>
<td>39.92</td>
<td>62.5</td>
<td>12.5</td>
<td>44.76</td>
<td>66.94</td>
</tr>
<tr>
<td>Academic status</td>
<td>Frequency</td>
<td>3</td>
<td>17</td>
<td>4</td>
<td>11</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>11.11</td>
<td>62.96</td>
<td>14.81</td>
<td>40.74</td>
<td>33.33</td>
<td>33.33</td>
</tr>
<tr>
<td>Professional/ Administrative status</td>
<td>Frequency</td>
<td>5</td>
<td>40</td>
<td>9</td>
<td>18</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>5.36</td>
<td>44.94</td>
<td>10.11</td>
<td>20.22</td>
<td>19.10</td>
<td>24.72</td>
</tr>
<tr>
<td>Civil service</td>
<td>Frequency</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Row %</td>
<td>33.33</td>
<td>66.67</td>
<td>16.67</td>
<td>16.67</td>
<td>0.00</td>
<td>16.67</td>
</tr>
<tr>
<td>Total</td>
<td>Frequency</td>
<td>179</td>
<td>160</td>
<td>169</td>
<td>61</td>
<td>137</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>% N</td>
<td>48.38%</td>
<td>43.24%</td>
<td>45.68%</td>
<td>16.49%</td>
<td>37.03%</td>
<td>53.51%</td>
</tr>
</tbody>
</table>

Note: Respondents were asked to check all relevant categories. Therefore, total frequency and percentage exceed 370 N and 100 percent and are not summative.
But librarians must look deeper to understand what that really means. Studies have consistently shown that evaluations for tenure or promotion are based on job performance in over 90 percent of the cases. This research is no different. We asked respondents to "rank in order of importance criterion on which librarians' performance is judged." In over 95 percent of the cases, job performance/effectiveness is ranked as the number one criteria for judging performance. This can only mean that even in those institutions that indicated that librarians are subject to the same criteria as faculty, the position assignment of the individual librarian is viewed as equivalent to teaching.

Librarians who receive faculty status appointments enjoy a fuller participation in the characteristic perquisites for teaching faculty than do those receiving other types of appointments.

In general, this research concludes that application of the criteria for promotion and for tenure of librarians has been realistically adapted to the needs of the library in the academic setting and the kinds of assignments that librarians receive. This does not differ from the flexibility evinced when criteria for promotion are applied to teaching faculty.

**TABLE 7**

<table>
<thead>
<tr>
<th>Librarians' Status</th>
<th>Teaching Faculty</th>
<th>Modified Faculty</th>
<th>Professional Criteria</th>
<th>Civil Service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty status</td>
<td>Frequency 137</td>
<td>Frequency 70</td>
<td>Frequency 17</td>
<td>Frequency 1</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td>Row% 60.89</td>
<td>Row% 31.11</td>
<td>Row% 7.56</td>
<td>Row% 0.44</td>
<td>76.27%</td>
</tr>
<tr>
<td>Academic status</td>
<td>Frequency 3</td>
<td>Frequency 7</td>
<td>Frequency 11</td>
<td>Frequency 0</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Row% 14.29</td>
<td>Row% 33.33</td>
<td>Row% 52.38</td>
<td>Row% 0.00</td>
<td>7.12%</td>
</tr>
<tr>
<td>Professional/administrative status</td>
<td>Frequency 13</td>
<td>Frequency 6</td>
<td>Frequency 25</td>
<td>Frequency 2</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Row% 28.26</td>
<td>Row% 13.04</td>
<td>Row% 54.35</td>
<td>Row% 4.35</td>
<td>15.59%</td>
</tr>
<tr>
<td>Civil service</td>
<td>Frequency 2</td>
<td>Frequency 0</td>
<td>Frequency 0</td>
<td>Frequency 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Row% 66.67</td>
<td>Row% 0.00</td>
<td>Row% 0.00</td>
<td>Row% 33.33</td>
<td>1.02%</td>
</tr>
<tr>
<td>Total</td>
<td>Frequency 155</td>
<td>Frequency 83</td>
<td>Frequency 53</td>
<td>Frequency 4</td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>Row% 52.54%</td>
<td>Row% 28.14%</td>
<td>Row% 17.97%</td>
<td>Row% 1.36%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

**ACADEMIC STATUS—THEN AND NOW**

The next three data tables address the question of changes in the status of librarian appointments over the last twenty years. In the Carnegie sample of 370 respondents, 341 provided information concerning the timing for changes in librarians' status, while 80 of the 89 ARL sample libraries did so. Table 8 indicates that over 28 percent of the reporting Carnegie sample institutions have the same status today that they did in 1970. Among ARL libraries, over 51 percent have left the status of librarians unchanged for over twenty years. Between 1970 and 1980 another 33 percent of the reporting Carnegie institutions and 36 percent of ARL institutions had assigned librarians the status they carry at the present time. Since 1980, approximately 38 percent of the Carnegie sample and 12 percent of the ARL sample have modified the status of librarians' employment. Of those libraries that grant faculty status, 30 percent of the Carnegie and 49 percent of the ARL libraries did so before 1970. Among Carnegie sample libraries particularly, the bulk of the change every five years has been in the direction of faculty status. The pace of this change may be characterized as slow; that is not to say glacial. Moreover, the general picture is one of some stability. Nonetheless, this
phenomenon of change in status deserves closer examination.

In recent years, there has been an increasing expression of concern that academic status for librarians might be eroding. This concern has been based largely on anecdotal evidence and was tested empirically in this survey. In general, faculty status is holding its own and making small gains. As demonstrated above, this research indicates that more than 67 percent of all categories of academic libraries grant faculty status. This affects the working lives of about 60 percent of all academic librarians. Among the Carnegie respondents, 80 libraries, or 21 percent of the total 370 respondents, indicated a change in the status of librarians since 1970. In general, these changes have favored faculty status (see table 9). Fifty-five percent (n = 44) of these libraries experienced a change to faculty status. Thirty-six percent (n = 29) experienced a loss of faculty status. Among sixteen responding ARL libraries changing status since 1970, 31 percent (n = 5) gained and 37 percent (n = 6) lost faculty status.

The concern in some quarters that in recent years there has been an acceleration in the number of “attacks” on faculty status led to the analysis shown in table 10, which illustrates changes in status for five-year periods beginning in 1970. The survey provided information on 75 of the 80 Carnegie sample libraries which had indicated such a change, and the resulting pattern is somewhat even. In cases where faculty status was lost, the percentages are not dramatically
TABLE 9
CHANGES IN STATUS CATEGORIES SINCE 1970

<table>
<thead>
<tr>
<th>Changed From</th>
<th>Changed To</th>
<th>Carnegie Sample</th>
<th>ARL Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Faculty status</td>
<td>Professional Administrative status</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Frequency</td>
</tr>
<tr>
<td>Incomplete data</td>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Faculty status</td>
<td></td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Academic status</td>
<td></td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Professional/ administrative status</td>
<td></td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>Civil service</td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total Carnegie sample</td>
<td></td>
<td>44</td>
<td>11</td>
</tr>
<tr>
<td>ARL Sample</td>
<td></td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Faculty status</td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Professional/ administrative status</td>
<td></td>
<td>50.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Total ARL sample</td>
<td></td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

TABLE 10
LIBRARIANS' STATUS CHANGES, FIVE-YEAR CYCLES, 1970–1990: CARNEGIE SAMPLE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
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<tr>
<td>Faculty status lost</td>
<td>Frequency</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Column%</td>
<td>33.33%</td>
<td>25.00%</td>
<td>33.33%</td>
<td>41.38%</td>
</tr>
<tr>
<td>Faculty status gained</td>
<td>Frequency</td>
<td>6</td>
<td>11</td>
<td>13</td>
<td>14</td>
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<td></td>
<td>Column%</td>
<td>66.67%</td>
<td>68.75%</td>
<td>61.90%</td>
<td>48.28%</td>
</tr>
<tr>
<td>Other status change</td>
<td>Frequency</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Column%</td>
<td>0.00%</td>
<td>0.51%</td>
<td>0.16%</td>
<td>0.39%</td>
</tr>
<tr>
<td>Total</td>
<td>Frequency</td>
<td>9</td>
<td>16</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Column%</td>
<td>12%</td>
<td>21.33%</td>
<td>28.00%</td>
<td>38.67%</td>
</tr>
</tbody>
</table>

higher in the most recent five years than in the earliest period. From 1970 to 1974, 33 percent of the changes were cases of the loss of faculty status, and from 1985 to 1989, 41 percent of the change was a loss of faculty status. Yet librarians were also steadily gaining faculty status in other institutions. From 1970 to 1974, over 66 percent of the change was in the direction of faculty status. This trend continued for nearly fifteen years. In the most recent five years 1985 to 1989 the percentage of libraries changing to faculty status has dropped to about 48 percent of
the total change. That, however, should not be viewed with dismay, given the increasing reluctance of administrations and governing boards to add new categories of employees wholesale to the ranks of tenured faculty. Under the present circumstances, any gains may be viewed as positive.

CONCLUSIONS

The results of this survey indicate that faculty status for librarians has continued to make gains in institutions of all types since the joint ACRL/AAUP statement twenty years ago. On the one hand, faculty status for librarians is so well established that confidence in its continued growth should be high. On the other hand, any erosion in faculty status for librarians is dismaying to its proponents. Advocates may then question how both the ACRL and the AAUP can assist libraries in protecting the employment rights of their librarians if preferred rights fall below the status represented as the standard.

If academic librarians believe that faculty status is vital to fulfilling the mission of the libraries within the academy, then they must emphasize the specialized teaching role of librarians, their contribution to scholarship and knowledge, and their service to the academy. Governing boards and administrations should be reminded that the gender distribution among librarians is such that granting them faculty status will improve the overall performance of higher education toward increasing the ratio of females among tenure track faculty, a position supported by ACRL and AAUP. However, as with colleagues in various disciplines, these expectations of librarians must be germane to the mission of the library. During the next twenty years, academic libraries will be transformed as they have not been since the turn of the century. The mission of the library is being adapted to a new paradigm characterized by access in addition to collection-centered services and mediated by the presence of information technology. The impact of information technology on teaching and scholarship will be equally profound. This change may raise anew objections to librarians as faculty, but it will also offer new opportunities for librarians to integrate themselves into teaching and scholarship through collaboration with faculty colleagues in other disciplines. If closer affinity with classroom teaching and with research are logical outcomes of the new paradigm, then the case for faculty status during the next twenty years will be a persuasive one.

REFERENCES AND NOTES

Letters

To the Editor:

I am dismayed to see another article by economists who use imaginary situations to analyze the serials price crisis, and then tell librarians where we have gone astray (College & Research Libraries 53[Nov. 1992]:523-35).

From their toy model, Kingma and Eppard infer that “The Solution” is “to increase the demand for private journal subscriptions by increasing the cost of photocopying.” This is superficially plausible given the numbers they use: on the order of $30 for a library subscription and on the order of $10 for a personal subscription. Although examples like that exist, they are not at the core of our problems.

The crisis is almost entirely due to the large number of very expensive scientific and technical journals which have come to dominate scientific publication and our acquisitions budgets. A fairly typical example is the Elsevier publication Chemical Physics (CP hereafter), which in 1992 cost $2,029 for something over 6,000 pages. There is no separate price to individuals since Elsevier long ago decided that only libraries would purchase this title; we can safely assume that the number of individual subscribers is zero, or close enough as to make no difference. The number of library subscribers is harder to determine but a plausible estimate is between 1,000 and 2,000, let us say 1,500 (this would give a total subscription income of $3,043,500). A more prestigious (based on impact-factor) society-published journal, the Journal of Chemical Physics (JCP) sells to individual members of the American Physical Society for $180 and a reasonable guess is that half of the 2,500 members of the Chemical Physics section of APS subscribe; this suggests that CP could have on the order of 1,000 personal subscribers (in addition to their perhaps 1,500 library subscribers) if they set an individual price of $180. (It is doubtful that more than 1,000 individuals would subscribe even at a lower price, since few people want or have space for 6,000 pages of journals added to their offices every year).

Since Elsevier doesn’t bother to offer CP to individuals at $180, perhaps this is less than their marginal cost (but, of course, they keep such information confidential). Even if they did, added revenues of $180,000 would allow them to reduce the cost of a library subscription only by a bit more than $100 (and it is unlikely that such revenues would be used to reduce library costs).

More significantly, there is no plausible way to increase photocopying charges enough to prod individuals into subscribing to CP at the current price of $2,000. “The Solution” of Kingma and Eppard leads nowhere in trying to address the problems of science and technology libraries, and this is where the serials crisis has its bleeding edge.

If instead we look at the real origin of the problem, commercial publishers abetted by our faculties, we may begin to find our way to a solution. Faculty for the most part do not want their own set of CP or of JCP even at a modest price. They want instead only the small subset of articles that interest them, and in pursuit of this elusive (impossible) goal they propose ever more specialized journals, which commercial publishers are delighted to publish since these publishers aim to maximize their market shares. However, today all the articles in, let us say, Elsevier journals are in electronic format before being published. A large publishers could extract all the articles on a given micro-specialty and offer a “virtual journal” in this micro-specialty, without the costs associated with launching a new real journal. Articles in the “virtual journal” would
have citation information from their parent real journals, and only the real journals would ever be cited. "Virtual journals" needn't even ever appear in printed form; they could be electronically sent to their subscribers who might make hard copies of some individual articles for convenience. Since articles would have been refereed, accepted, set in electronic format, and subject-indexed for the parent journals, and since printing and binding costs could be avoided and mailing costs replaced by much cheaper electronic transmission, there would be very few costs involved in creating an almost limitless array of new micro-topical "virtual journals," with new vj's created almost instantly as new research areas are born. Individual vj subscriptions would provide revenue to defray the costs of the parent, real journals—and to ensure that such revenue will be put to this good end, all research institutions should institute the proposal of Scott Bennet and Nina Matheson (Chronicle of Higher Education, May 27, 1992) and have their researchers retain republication rights to their articles.

ROBERT MICHAELSON
Head Librarian
Seeley G. Mudd Library for Science and Engineering
Northwestern University

To the Editor:

I have just read with interest the article by Kingma and Eppard, "Journal Price Escalation and the Market for Information: The Librarians' Solution" (College & Research Libraries, 53[Nov. 1992]:523-35). There are three issues that need to be raised to help prevent the reader from coming to incorrect conclusions as to the proper strategic response to journal price escalation.

First, what are the goals of publishers and what do these goals have to do with journal pricing? While society may be better off with a different journal pricing structure (and this, is often what may underlie library arguments), in a free market, publishers will do what they think is in their own best long run self-interest. Thus, publishers facing multiple market segments with different elasticities of demand are acting in what they think is their own self-interest when they charge different prices in different markets.

Both publishers and subscribers are trying to produce benefits to society—publishers through publishing and subscribers by using the information. Publishers are likely to believe that an important measure of their service to society is the level of their profits. Subscribers are likely to believe that an important measure of their service to society is the level of information provision or knowledge expansion. Since the different groups view differently the measures of their service, we would expect (and get) different behaviors in trying to meet those measures.

In their article, Kingma and Eppard apparently are willing to believe that publishers seek some satisfactory level of profits—not maximum profits. The profit levels illustrated in table 2 (p.329) all reflect some nonoptimal profit level. Publishers, however, seem to act in a profit maximizing fashion. The authors themselves provide the data to illustrate profit maximizing price discriminatory behavior (Tables 1-3, p.329). Consider a "Case 5" where libraries are charged $30 and individuals are charged $14.50. In this case the publishers' profits are $11,837.50; the benefits to libraries are $9,800; the benefits to individuals are $11,556. Net societal benefits are thus $33,193.50. While society overall would seem to be worse off than in any of the other cases, publishers would be much better off. (Actually, given the authors' figures, a profit-maximizing publisher would be most likely to charge $50 to libraries and $19 to individual subscribers and receive a total profit of $17,450.)

Second, is raising photocopy costs a viable solution to the problem of rising costs of journals? The belief that increased photocopy costs will cause some faculty members to obtain personal copies of journals rests on the assumption that individual faculty members actually now bear the costs of photocopying. It seems reasonable to assume that most colleges and universities provide subsidized photocopying (both costs and labor) for faculty. Thus, faculty typically do not feel the complete direct financial costs
of photocopying. As a consequence, raising photocopy rates in the library will do little
to change the photocopy behaviors of faculty. Removal of faculty subsidies would seem
to be what the authors would need to have done to produce the effect they are looking
for. Students and other unlikely potential subscribers will end up paying the increased
photocopy costs.

Finally, would libraries use additional photocopy fees to subscribe to additional
journals and thereby increase access? Journal subscriptions by libraries may rise in the
short run if the additional photocopy funds are directly allocated to the serials budget.
However, given past behavior and the underlying goals of publishers, my belief is that
increased photocopying fees would ultimately be passed on to publishers in the form
of increased ability of libraries to pay for more expensive journals.

In an ideal world all parties would work toward the same goal using the same
measures. However, in the real world, it is unrealistic to expect publishers to use the
goals of libraries or individual subscribers as a direct guide to action. Any policy that
expects publishers to act in other than in their own short- and long-term economic
self-interest is doomed to failure.

JAMES TALAGA, PH.D.
Assistant Professor
LaSalle University
Philadelphia, Pennsylvania

To the Editor:

Bruce R. Kingma and Philip B. Eppard's article entitled "Journal Price Escalation and
the Market for Information: The Librarian's Solution" (College & Research Libraries, 53:523-
35, Nov. 1992) provides some insights into the market for scholarly journals. Their discus-
sion of the relationships between the library and individual markets and the library's role
as an alternative provider, and their discussion of how social benefit that can be provided,
in some situations, with dual pricing, are particularly useful. However, their policy
recommendations are severely flawed. Had the idea not appeared in the pages of a
respected library publication, one would be tempted to laugh off as a jest the suggestion
that increasing the cost of library photocopying was the way to halt escalating journals
prices. Because of the place this solution was proposed, a response is required.

To begin with, Kingma and Eppard assume that in the individual market, journals
are priced at marginal cost. At least where for-profit publishers are concerned, this is
an unrealistic assumption. For-profit publishers can be expected to attempt to maximize
profit in both sectors of the market. The same logic indicates that for-profit publishers
have no incentive to reduce prices for libraries simply because individuals are paying
more. Again, they will appropriately seek to maximize profits in both sectors. Thus the
additional social benefit that they postulate is unlikely to materialize.

Kingma and Eppard also suggest that increasing the cost of photocopying will
provide the incentive for faculty to subscribe to journals on their own. In fact, the largest
cost that an individual faces in making a photocopy for a library journal is not the costs
of the photocopy, but the cost of the time invested in going to the library, finding the
issue, and making the copy. It is unlikely that doubling or even tripling the cost charged
for photocopying would significantly alter this. If the cost is charged to departments,
there might be some grumbling, but certainly no changes in behavior. Without a
behavior change, Kingma and Eppard's scheme fails.

A final flaw in Kingma and Eppard's logic is to disregard students. For students the
library is the only viable means of acquiring access to the scholarly journal literature.
It is extraordinarily unlikely that any increase in photocopying costs will provide
sufficient incentive for students to subscribe to scholarly journals. However, if photo-
copying prices are raised above the marginal cost, which is what most libraries charge,
social benefit will be lost. If we make what I believe is the reasonable assumption that
student demand is very elastic, then even small increases in photocopying cost could
have a significant impact on the demand and a similar decline in social benefit. The
suggestion that note taking will instill better research habits is as reasonable as suggesting that Kingma and Eppard give up their calculators and return to doing their division longhand—neither makes sense. In fact, if one were to follow Kingma and Eppard's logic to its conclusion, libraries would best serve society if they did everything in their power to segment the market for faculty photocopying from that of student photocopying, and charge faculty very high prices.

The problems of scholarly publishing have little or nothing to do with the price of library photocopying. The root problem is that the scale and nature of scholarship have outgrown the traditional mechanisms for distributing scholarly information. We are in a period of adjustment and are struggling to find a reasonable replacement. What scholars need is easy and prompt access to the articles relevant to their work. They don’t much care about the journal issue as a package. It is unlikely that most scholars can reliably keep up in their fields by subscribing to three or four, or even eight or ten titles, and mailing them packages of a dozen or so largely unrelated articles each month is neither an effective nor efficient means of scholarly communication. This approach might have been reasonable when disciplinary boundaries were firmer and when there were fewer scholars producing fewer articles, but those times are gone. Because articles can be purchased only in batches and only if you pay beforehand, incentives have been created which lead us to where we are today. There is no incentive to limit publication of marginal material, or to limit the exploitation of the library market.

Scholars need a better mechanism for distributing information, one that provides articles, not journal subscriptions. When articles are delivered and paid for one at a time, especially if this is done electronically, cost structures will change, systems can become more efficient, and there will be less incentive or need to distribute marginal scholarship. Cheap library photocopying and interlibrary loan services made delivery of articles a reasonable alternative. Services such as CARL's Uncover, RLG's CitaDel, and Faxon's Finder (see Chronicle of Higher Education, Nov. 11, 1992, p.A19–A21) are making it quick and easy. Rather than being the root of the problem, cheap library photocopying was the first step towards the solution.

To the Editor:

DAVID W. LEWIS
Homer Babbidge Library
University of Connecticut
Storrs, Connecticut

It is good to read that strategic planning is going well in academic libraries (Meredith Butler and Hiram Davis, “Strategic Planning as a Catalyst for Change in the 1990s,” College & Research Libraries, 53:393–403, Sept. 1992), but not so good that some early pioneers are still being overlooked in the current literature of library planning.

In their useful review of the foundation of strategic planning, Butler and Davis appropriately cite authors in librarianship: “Building on this foundation . . . [these authors] began to focus on the importance of planning for academic libraries.” Their earliest reference to strategic planning in libraries is 1978, yet its foundation had been laid out well before then.

One of the founders was David Kaser, director of libraries at Cornell University in 1972, and formerly distinguished editor of this journal. Kaser had the courage and vision to introduce concepts of strategic planning in a major library when many in the profession were quite comfortable in the belief that libraries needed no planning. Everybody knew what libraries were for. Libraries were already well structured and self-perpetuating and, therefore, whatever “plans” were made, would go right on doing what had always done. To overcome this entrenchedment would not be easy.

Kaser’s work, begun with a grant from the Council on Library Resources and in contract with the American Management Association, was carried out in a series of executive retreats away from campus and in many intensive meetings with staff and department heads over a year’s time beginning in December 1972. Novel about the Cornell effort was Kaser’s
willingness to pull the library’s top executives and department heads away from their demanding routines and schedules for extended periods to thrash out whether those routines warranted priority within the library’s overall mission. All of that activity was fully reported and the effort well-documented in a formidable long-range strategic plan. Though never formally published, it was issued by Cornell University Libraries and made available through ERIC. Its influence was felt well beyond Cornell, serving as impetus and model in other libraries for several years afterward.

Now it seems that this landmark effort has been either ignored or forgotten and the document itself seems to have fallen through the cracks. It has not been cited in library literature since Johnson and Mann’s excellent summary in 1980. Interestingly, articles are being written with strikingly similar titles but without any reference to the Cornell effort. Butler and Davis do cite Kaser as coauthor of a peripheral document, which only testifies to Kaser’s wide-ranging scholarly output.

Still earlier work has been overlooked: Kemper (1967 and 1970), no doubt two of the scholarly sources driving Kaser’s effort; the landmark study, “Problems in University Library Management” by the consulting firm Booz, Allen & Hamilton (1970), and a series of planning documents by other universities cited by Kaser in his original proposal to CLR, some of which date back to 1965. Johnson (1981) remarks that academic library planning can be traced back to at least the early thirties. The Cornell effort was going on at about the same time that Duane Webster (now executive director of Association of Research Libraries), who was an observer, as I was, throughout the Cornell meetings, was developing the highly successful and long-running Management Review Analysis Program (MRAP). Many large libraries conducted management reviews and long-range planning through this program. Butler and Davis do not cite it.

Surely, David Kaser, now Distinguished Professor at the University of Indiana, deserves recognition for his pioneering effort in long-range strategic planning. Directors Butler and Davis, as head catalysts, should be commended for reporting their approach to planning and how they do it well at their respective universities. But now David Kaser should be commended for being one of those who started the process twenty and more years ago.

WILLIAM E. MCGRATH
Professor, School of Information and Library Studies
State University of New York at Buffalo

REFERENCES AND NOTES

1. William E. McGrath, Development of a Long-Range Strategic Plan for a University Library; The Cornell Experience: Chronicle of the First-Year’s Effort (Ithaca, N.Y.: Cornell Univ. Libraries, Feb. 1973, 185p. [ERIC Document ED077511]). Though I am the author of this document, I had nothing to do with the effort. I was merely an observer/reporter. This was Kaser’s work and citations to it should really have included him. Cataloging copy should have included him as an added entry. The irony was that the Cornell effort probably had a greater impact in other university libraries than it did at Cornell.


8. Edward R. Johnson, "Academic Library Planning, Self-Study, and Management Review," Journal of Library Administration, 2, nos.2/3/4 (Summer/Fall/Winter 1981): 71. This was the only one of fourteen articles on "Planning for Library Services" appearing in a special issue of Journal of Library Administration edited by Charles R. McClure to mention the Cornell experience. In none of the references cited by Butler and Davis is there any reference to Cornell or Kaser.

To the Editor:
I find it rather ironic that Hernon, in his article "Literature Reviews and Inaccurate Referencing" (College & Research Libraries, 53:499–512, Nov. 1992) is not able to correctly cite another article of his.
Footnote 22 (p.512) gives the citation for his earlier study as 55:507–19 (Nov. 1992). To date, there is no volume 55 of C&RL. The November 1992 issue does not contain an article by him on pages 507–19.
I have neither the time nor inclination to check this out, but it certainly bears out the thought that reviewers should check the references.
GEORGE E. PETTENGILL
Arlington, Virginia

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Book Reviews


One approaches a book subtitled “A Manifesto” with the expectation that it will contain an exhortation to embrace a radically new vision of the future. Unfortunately, this book, despite its heavily italicized, upbeat style, presents neither a very original vision nor particularly compelling arguments. Although the purpose of the book is “to suggest some general bases for planning or, at least, to provide a general framework for thinking about future library services,” anyone who has thought at all about the future of libraries will probably have considered in much more depth and detail most of the issues presented in this “Manifesto.”

The book begins by drawing a distinction between the paper library, the automated library, and the electronic library. In the chapter on the paper library, the standard drawbacks of paper as an information medium are reiterated: paper documents can be used by only one person in one place at a time, they require a lot of space and are housed in libraries that are closed some of the time; manual catalogs consisting of cards are problematic because a separate card is required for each entry, and because the catalog and the documents to which it refers are physically separated. On the other hand, the automated library—i.e. one in which the documents are on paper but “the Libraries’ procedures have been computerized”—is an improvement, but it eliminates only a few of the impediments to access that characterize the paper library.

In a chapter entitled “Bibliographic Access Reconsidered,” the author presents a modified version of an article he published in 1988, in which he compares the nature and uses of bibliographies and catalogs. He concludes that bibliographies and catalogs will eventually coalesce into a single synthetic source that will not only list publications but will also include information on their location or the process by which they can be accessed.

The chapter on the electronic library considers the advantages of electronic sources, the drawbacks of paper sources, and the potential for digitizing information now in paper form. The author does not envision the paper, automated, and electronic libraries as separate and distinct phases of library development, but rather he anticipates, no doubt correctly, that different libraries will combine different aspects of these three types over time, and that paper and electronic sources will exist side by side well into the future.

A chapter on collections in the online era compares the advantages of online sources to the disadvantages of building paper collections. The major challenges facing the future of library collections in the online era, such as the relationship between libraries and the publishing industry, and the need to redefine intellectual ownership are mentioned but are not discussed. A brief review of reference services stresses the shift from service to self-service. The section on reference assistance contains a description of standard reference operations, but with very little consideration of how such methods will be affected in an online environment. The same is true of the subsequent chapter on organization, which appears to have been included simply to round out the picture: it contains some standard statements on library management,
but it makes practically no effort to assess how the advent of online sources might alter organizational structures or management methods.

After having been presented with such simple fare throughout most of the book, one arrives at the final chapter, entitled "The Challenge," hungry for substance. Once again, however, very little substance is served up. Instead of an action agenda and some original conclusions, the reader receives yet another recitation of the drawbacks of paper publications, followed by a list of "major changes" that one can expect to characterize library services in the online age (e.g., "assembling local collections" will become "less important," and "local storage may be desirable but is no longer necessary."). And thus the book ends—nating in conclusion that "[computers], networks, and electronic documents" will provide library services in the future with "interesting possibilities."

This book is very disappointing for many reasons, not the least of which is that it gives the impression of having been written five or ten years ago, before many of the nation's research library catalogs were accessible on the Internet, before such systems as NOTIS MDAS permitted libraries to mount online bibliographies that link bibliographical citations to local holdings, and well before most of what is presented and re-presented in this book had been examined in much more developed form throughout the library literature. The book also gives the clear impression, to me at least, that it was written very quickly, as if the author simply sat down and wrote up what he knew, drawing heavily and primarily on his own previous publications, without taking the time to refine or update his views. There is in fact very little, if anything, in this book that one would not expect to hear in the first few lectures of any introductory library school course. One also encounters statements like "[research] . . . has shown that . . . " (p.36), or "studies have shown that . . . " (p.49), without any accompanying information as to where these studies were published or this research was conducted; it is as if the author did not want to take the time to look up the documentation.

Redesigning Library Services can certainly be read as a basic introduction to some of the key issues facing library services, and there can be no doubt that the book is sincerely written and well intentioned. However, it is also shortsighted, outdated, hyperbolic, and repetitive. It is especially regrettable that the American Library Association should have seen fit to publish such a book with such a title, giving as it does the impression that this is the profession's official view of itself. If this book is any indication of the wisdom and facility with which libraries are preparing for the advent of the online age, then the future of library services is indeed dim.—Ross Atkinson, Cornell University, Ithaca, New York.


Over the past twenty-five years, feminism has made a significant impact on American librarianship, yet very little scholarly attention has been paid to this topic. It clearly merits research and investigation from a variety of perspectives, greater publishing activity, and focused attention in library school curricula. The reader thus approaches Feminist Thought in American Librarianship expectantly, hoping to find in the promise of the title answers to questions that scholars have not asked before. Indeed, Baum might be considered a pioneer for making one of the few attempts to date to "trace the impact of various kinds of feminism on the thought and political agenda of American library women." Unfortunately, her recognition of an area in need of careful and critical research isn't enough; the end result is disappointing on most counts.

The time frame of Baum's book, 1965-1985, spans the two decades that marked the emergence of the second wave of feminism in the United States and the increasing involvement of many, including librarians, in the women's move-
ment. In a brief introductory paragraph, she dismisses out of hand "obtrusive techniques of data gathering such as surveys and interviews," and makes vague and undocumented references to internal debates about the "nature of 'library feminism'" and "defensiveness among library women" in an effort to justify her design of an "empirical, unobtrusive study." She proposes to "test the impact of various kinds of feminism" in three ways: 1) content analysis of literature "about library women by American library women" published during this period (some 250 books and articles); 2) citation analysis of this literature with an aim to classify the feminist authors outside librarianship who have been cited by library women; and 3) content analysis of "all programs devoted to women's issues" at the American Library Association annual meetings during these same two decades.

If this methodology and source material are peculiarly limited given the scope and complexities of her topic, they are further weakened by a lack of sophisticated and informed analysis of the data. The work is replete with vague references, broad assertions, and questionable assumptions (e.g., "... many kinds of sex discrimination have been outlawed, and the requirement of affirmative action programs and the legal right to abortion have been established.") The "analysis" presented is confined to a categorization of the literature on "library women" and ALA conference programming as either liberal/mainstream feminist or radical feminist.

Baum argues, accurately albeit simplistically, that liberal feminism strives to integrate women into existing institutions on an equal basis with men, while radical feminism seeks to transform those very institutions. But these arbitrary and problematic categorizations into "liberal/mainstream" or "radical"—as if all feminist activity, let alone all feminist librarians, can be defined and labeled with these very narrow terms—severely restrict the analytical potential of this study. Moreover, Baum fails to define these categories in a way sufficient even to her limited purposes. Among the many vague and contradictory assertions encountered in this work, she places such revolutionary initiatives as comparable worth (efforts extending far beyond liberal equal pay for equal work formulas) in the liberal category and at the same time flatly asserts that "liberal feminists stress transforming social institutions, such as the law, the economy, and the schools, in ways that would liberate women." (italics mine). She seems to trip herself up with a liberal/radical dichotomy which ignores not only other types of feminism (socialist feminism is one notable example) but also the fact that most issues—affirmative action, pay equity, maternity rights (labeled here as liberal) or pornography, homosexuality, sexual harassment, reproductive rights (labeled here as radical)—can and should be addressed from multiple theoretical and political frameworks. Librarians have tackled such issues using a variety of approaches, but Baum, firmly entrenched in her arbitrary classification scheme, fails to explore the implications of these efforts. She also fails to recognize the many issues in librarianship that are not neatly categorized as "women's issues" but which have been approached and shaped through librarians' feminist perspectives and activities (such as cataloging and classification practices, bibliographic instruction, and implementation of new technologies).

This work rests on the premise that an uncritical examination of library literature and conference programming will somehow reveal the impact of feminism on American librarianship. For more than twenty years, feminist librarians have brought a variety of philosophical, political, and analytical perspectives to their work in libraries, their publications, and their ALA activities. Lamentably, little analytical acumen is applied to the literature and the programming examined here, resulting in a study that is both shallow and incomplete. If this study provides evidence of anything, it is the limitations of simple content and citation analyses to represent and analyze complex phenomena that elude neat categorization.
With a more rigorous theoretical and methodological framework and a judicious editorial hand, this project might well have made a notable contribution to the literature and to our understanding of recent developments in American librarianship. As it is, the publisher apparently reproduces here a barely reworked dissertation, acknowledged nowhere in the book. Further, the publisher neglects even the most basic editing of obvious grammar and spelling errors, let alone redundant, disjointed, and simplistic discussions of complex issues. One can only suspect commercial exploitation of a hot topic in the publication of a book whose promising title alone will carry it into many libraries despite its poor quality.

There are enormous potential and need for solid scholarship on this topic. Our profession can only benefit from well-researched, insightful studies of feminism and librarianship and feminist perspectives on librarianship: library applications of feminist critiques of information and knowledge; gender-based values and politics in library workplaces; ways in which feminism informs bibliographic instruction or management or materials selection; library implications of feminist debates around censorship and media, to name just a few potential areas that warrant investigation. In spite of its definitive-sounding title, "Feminist Thought in American Librarianship" skirts the complexities of multiple feminisms and their application within a predominantly female but still male-dominated profession. Readers thus must wait still longer for the authoritative study of the impact of feminism on librarianship that the profession so critically requires.—Joan Ariel, University of California, Irvine.


The Washington Post reported in late November that the Australian government had lifted its ban on homosexuals in the military. This is just one example of the many issues common to both Australia and the United States. Published materials on such issues are of current interest to American readers. As Robert Ross, the director of the Australian Studies Center at the University of Texas, writes in this volume, interest in Australian studies in the United States is growing, albeit gradually. Ross cites the founding in 1978 of the Association of College and Research Libraries's Australian Studies Discussion Group and the 1985 establishment of the American Association of Australian Literary Studies as evidence.

Australian Studies "addresses the needs of librarians charged with collecting and managing collections with an Australian content." The book contains eighteen essays divided into five broad areas—Demand for Australian Collections; Australian Publishing; Selecting and Purchasing Australian Publications; Australian Collections (Experience in Three Countries); and Special Needs and their Solution.

This is the only work that brings together information on Australian publishing, selection, and collections. The essays that cover publishing in Australia are especially helpful. Reference librarians can use John Mills's article on reference publishing as a checklist for building a current reference collection on Australia. Michael Harrington's essay on government publishing provides current information about the Australian Government Publishing Service, as well as other government information, including the scientific and technological works published by the Commonwealth Scientific and Industrial Research Organization (CSIRO). Jerelynn Brown provides a summary of useful sources for selecting Australian materials, although this reviewer questions the practice of having an article on selection written by the sales manager of the major Australian book supplier (the article does favor the author's employer, the firm of James Bennett). The article by Ross Atkinson, "Developing an Australian Literature Collection: An American Per-
spective," provides an excellent model for developing a literature collection. Although the article is about Australian literature, it should be read by anyone charged with building a collection of literature, regardless of its source. It is also an excellent guide to current sources on Australian literature.

Several articles also provide information on Australian collections outside Australia. Two articles describe Australian collections in Great Britain: one is about the British Library and the other treats materials supporting Australian studies in other British libraries. Unfortunately, there is no similar article on Australian collections in American libraries.

There are some major weaknesses in the volume. As Brown's article states, "The Australian publishing output represents only a small percentage (almost certainly less than 5%) of the world's annual English-language publishing output." Missing from this volume is a rationale for why American libraries should spend their limited resources on this five percent. Also, an article providing a current summary of Australian research and scholarship would have been a useful addition. There is too much emphasis on Australian literature — an important area of interest to American libraries but by no means the only one. There is also a significant overlap among the articles. For example, the publication *Australian Government Publications* is mentioned in five separate essays, none of which gives a totally accurate description of it.

The major drawback of the work for American librarians (with the notable exception of the Atkinson article) is the lack of evaluative guidance for selection. Knowledge of the selection sources is valuable but by itself does not provide the information on how to build a collection. The book's aim is to "encourage dialogue among those libraries around the world which seek to collect publications from and about Australia." This is an admirable goal but not enough to justify the purchase of this book (with its $80 price) for other than library science collections, libraries wishing to build Australian collections, and the largest research libraries.—William Z. Schenck, Library of Congress, Washington, D.C.


This volume begins with eleven essays by Walt Crawford on the elements of online catalog design. For libraries of all types, these essays cover the full range of issues raised by this topic. They are complemented, and challenged, by a series of thirty-two presentations of various electronic catalogs prepared by their developers and/or users. A more readable, complete treatment of the current state of online catalogs is difficult to imagine.

Crawford, a senior analyst at the Research Libraries Group, is a highly respected author in the field of library technology. His purpose in writing and compiling *The Online Catalog Book* is "to discuss current issues in catalog design and to offer existing catalogs as sources of ideas for new and revised catalogs." Many of the ideas presented in the essays cover topics he has addressed before in writings and conference presentations, but they are brought together here in one volume and updated. The more traditional design aspects of online catalogs are covered well, and several of the chapters are quite forward-looking, addressing such issues as the implications of remote use, the integration of document delivery services, and the addition of local databases, community information, full text, gateways and images to the catalog. Two related and important themes emerge in the series of essays: the appropriateness of designing catalogs from the user's perspective, and the lack of a single answer about how to do it best. Crawford notes, "... by now, it should be clear that this book won't say, 'Good online catalogs look like this and work like that.'" His biases are always noted and are quite clear. Readers are urged to become familiar with the literature and to draw their own conclusions based on careful review of research, experience and real examples, and library users' needs.
Over half the book is devoted to providing examples of real online catalogs. Contributions were sought from all possible systems; guidelines were provided for the content and format of the submissions. The thirty-two responses received cover systems from integrated library system vendors such as DRA, Innovative Interfaces, and Dynix; locally developed systems such as those at the University of California, Dartmouth, and University of Texas; and smaller CD-ROM-based systems such as Marcive, Follett Software, and Winnebago. Libraries whose catalogs are featured include academic, public, school, and special. Each contribution is twelve to fourteen pages in length, usually containing three to five pages of text, and twenty to thirty screens. The focus is on the user interface in conducting several sample searches or alternatives prescribed by Crawford.

There is real value in being able to view and understand how users of all these different catalogs interact with the catalog. The range of catalogs represented exceeds what would be possible by sampling catalogs available on the Internet. The collection, in conjunction with the essays, makes it easy to compare and contrast approaches to catalog design. The text adds to the understanding of how, and sometimes why, the catalog works. Every library will have to give thought in the future to a new online catalog, whether it be its first, a replacement for or a rethinking of an existing one, or an enhanced catalog with a broader scope. The *Online Catalog Book* makes it possible to sample broadly the efforts of many libraries and vendors and to put into context the wide-ranging design questions that must be addressed.—Flo Wilson, Vanderbilt University, Nashville, Tennessee.


For decades, the Soviet library world was under the ironclad control of the Communist Party. Through a highly centralized network extending to the local library, the Party exercised complete control over collection policies, processing, and readers services. Even books published under a previous Soviet regime were often ordered removed from the shelves because a later ruler's method and ideological stance were different from his predecessor's. The well-known example of the mandatory excision of the article on Lavrenti Beria and its replacement by one on the Bering Sea in the *Great Soviet Encyclopedia* epitomizes the type of complete control the party exercised over libraries and librarians.

Ironically, although the library was abstractly regarded as an important part of Communist propaganda and ideology, librarians and library facilities were not. Library buildings were not well maintained, inadequate space and working conditions were a common complaint, library education was heavy on ideology and light on other content, and librarians were poorly paid and poorly treated.

With the advent of Gorbachev's policy of glasnost, or openness, previously muted voices in the library world have been raised against the corrosive effects of party control over libraries and librarians. As more people have spoken and written without repression about the terrible conditions, inadequate support, and mindless censorship and as more deficiencies in library policies and facilities have been uncovered, dissident opinions have begun to be published in mainstream library periodicals and non-Party library associations have been formed.

It is the excitement of this period of change that Dennis Kimmage has captured so well in this anthology of library glasnost literature. As he writes, "The selections in this anthology reflect an important part of a spiritual rebirth that we can all share, that presents not only librarians but Americans from all walks of life with an extraordinary opportunity for meaningful interaction and cross-cultural influence."

The anthology consists of Soviet newspaper and journal articles arranged in three parts. Each is preceded by a brief essay, written by Kimmage, that serves
to place the subsequent material in context. Part 1, "Glasnost Exposes the Problem: A System in Decline," concerns the fire at the Library of the Academy of Sciences in February 1988, as well as related problems of preservation and collection maintenance. Part 2, "Information Politics, Partinost, and the Spetskhran," includes impassioned articles about the "cult of secrecy," obfuscation of the truth, and several articles on the special collections that hid "dangerous" books from the public's eyes. Several articles discuss the role of ideology in information politics. Part 3, "Soviet Libraries and Democracy: Directions for the Future," focuses on initiatives and actions by librarians outside the traditional bounds of party control, including formation of library associations, participatory management in libraries, and library education.

The selections are all well translated and read smoothly. The choice of articles is sound and the authors are well-known leaders in the Moscow and St. Petersburg library worlds, as well as an established Russian literary scholar and a literary journalist. The book leaves the reader with a feeling of exhilaration and near despair. The exhilaration comes from the tremendous energies and spirit that have been unleashed among librarians in Russia; the despair results from knowledge of the tremendous obstacles that have yet to be overcome.—Robert H. Burger, University of Illinois at Urbana-Champaign.

SHORT NOTICES


This is a Festschrift for one of the outstanding African American librarians of our time, E. J. Josey. It consists of twenty-two short essays, a poem, and a comprehensive bibliography of his writings. The contributors make good use of the occasion to describe their own experiences working with him, and, thereby, to recount a large portion of the history of the civil rights and antiracist struggles within the American library

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profession during the past forty years. Josey has been an activist since the 1960s. He is a founding member of the American Library Association’s (ALA’s) Black Caucus, and the Social Responsibilities Round Table. Also, he has served as library director at two state colleges, and administrator in the New York State library system. He is currently teaching in the library school at the University of Pittsburgh. Among the many interesting items in this volume is Sanford Berman’s particularly engaging essay, which includes portions of his correspondence with Josey to document their joint struggle against apartheid in South Africa and the racism of Library of Congress subject headings. Clara Stanton Jones and Eric Moon both give details of Josey’s career from being refused membership in the Georgia Library Association to becoming ALA’s president in 1984. Two essays, by Ching-chih Chen and Vivian Hewitt, describe Josey’s involvement with international issues through IFLA and the national library associations of many countries. (B. W.)


This book is quickly becoming a classic. The author, Ed Krol, is assistant director of LAN Deployment at the University of Illinois and previously published (electronically on the Internet) the brief *Hitchhiker’s Guide to the Internet*. The new work is, in effect, a greatly expanded and updated version of the earlier *Guide*. Krol’s approach is basically nontechnical and designed for the Internet neophyte. He briefly sketches the history and structure of the Internet (a network of computer networks) and clearly explains the basic functions of e-mail, telnet and ftp. He devotes a chapter each to several important information servers: Archies, Gophers, WAIS, and the World-Wide Web. The book ends with a 50-page “Whole Internet Catalog” in which Krol attempts to list with annotations roughly 300 of the most interesting resources currently available on the Net. Of course, in the rapidly evolving Internet scene, this book became outdated the moment it was published. Nevertheless, it is extremely useful, not the least for its down-to-earth, commonsense attitude toward a vast, confusing, amorphous communications web that seems destined to play a major part in the information environment of academic libraries well into the next century. (B. W.)


Designed as a companion to John N. DePew’s *A Library, Media, and Archival Preservation Handbook* (1991) (reviewed in *College & Research Libraries*, Mar. 1992), this glossary is generally valuable though not comprehensive. It will be especially useful to those who are interested in or responsible for preservation responsibilities but who have little training or background. The entries for many terms contain references to more extensive treatments of the subject; these are listed in a brief bibliography at the end. (S. F. R.)


This report will be of interest primarily to administrators and those who have responsibility for preservation. It documents the work of the Committee on Institutional Cooperation’s (CIC’s) task force, concluding that CIC libraries should proceed to implement a cooperative pilot mass deacidification treatment program, purchasing services from Akzo. Such a program would address the need for mass deacidification, demonstrate a market for these services, encourage the nascent industry, test cooperative selection, and push libraries to develop recurring budgets for this form of preservation. Beyond its conclusions and recommendations, the report presents a substantial corpus of information on a rapidly changing field of great interest to research librarians. Its extensive
appendixes are conceived as a manual for those responsible for designing mass deacidification programs. (S. F. R.)


The Gutenberg legacy notwithstanding, the history of the production, distribution, and consumption of books has not enjoyed the kind of lively attention in recent German scholarship that it has in France. Wittmann’s absorbing book, although a survey written for the non-specialist, is an important and original contribution towardremedying this deficit. It covers the German book trade from the late Middle Ages to modern times and stresses the socioeconomic and political conditions that have shaped the relationships of publishers to authors and readers. It addresses topics ranging from paper-making technologies to governmental licensing and censorship practices to the growth of literacy (from two percent of the population in 1,500). Also included are sketches of major figures in the history of German publishing, such as Philipp Erasmus Reich, Johann Friedrich Cotta, and Julius Campe. (S. L.)


In addition to the fifty-two contributed papers given at the 1992 ACRL conference, this collection includes the texts of the four “theme papers” (by Julian Bond, Paul Saffo, Catherine R. Stimpson, and W. David Penniman) and summaries—some substantial, too many only a sentence—of the program sessions. The contributed papers (comprising two-thirds of the text) lean heavily toward bibliographic instruction and public services (at ten papers each), with two...
each on bibliographic control and technology. Although most of the papers are about everyday problems and issues, the mix of approaches is eclectic, including case studies, empirical research, and politically focused presentations, as well as some theoretical papers. One would hope for more careful proofreading of future conference proceedings. (S. L.)


With the publication of this volume on the twentieth century, a magnificent four-volume history of French libraries is now complete. It is divided into large chronological sections, with separate chapters in each by over seventy writers (including many librarians) on subjects such as the Bibliothèque Nationale, municipal libraries, academic libraries, library architecture, sociology of reading, and documentation centers. Other chapters address le choc of new technologies and European perspectives at the dawn of the twenty-first century. This also happens to be a beautiful book, impeccably designed, with fascinating photographs, and other illustrative material. (S. L.)

Contributed by Stephen Lehmann, Susanne F. Roberts, and Bob Walther.
TECHNOLOGY FOR THE 90's AND FOR THE LIBRARIES OF TOMORROW

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