

Research Notes

The Literature of Academic Libraries: An Analysis

John M. Budd

Like all literature, the literature of academic libraries exhibits certain characteristics with regard to source journals and related subjects. Citations within this literature are distributed according to format of material, age, journals and individuals cited. The present study uses the ERIC database on compact disc to investigate these characteristics. Among the findings is the realization that the citations are primarily to journals and that both authorship of articles and citations to individuals are quite dispersed. Also, while there is some evidence of interdisciplinarity, this aspect of the literature is not very well developed.

The literature related to academic libraries is diverse. It is as varied as the work of the libraries, their collections, their personnel, their technology, and the communities they service. As economic challenges, organizational complexity, and computer applications (designed to enhance access, use, and analysis) complicate the world of academic libraries, it might be expected that the literature reflects the related difficulties and opportunities. The sizable literature illustrates both interest in the subject and possible idiosyncrasies of access to it.

The present study examines that portion of the literature that can be accessed through ERIC on compact disc. ERIC is selected because it indexes many of the major library and information science journals, but also because its coverage is

broader and includes such areas as higher education. Through use of ERIC, a researcher can construct a database of the literature of academic libraries and study the characteristics of the literature. Database users can identify titles of source journals, authors of articles, and related descriptors. They can also examine citation characteristics, including format and age dispersion of cited works and most frequently cited authors and titles. Such an examination can determine the scope of the literature, the elements that recur in written communication, and the individuals actively contributing to the literature.

The creation and use of such a database permit unobtrusive study of the concerns of any one area of academic librarianship as reflected in its literature. This assumes that the literature discusses or debates

John M. Budd is Assistant Professor at the Graduate Library School, University of Arizona, Tucson, Arizona 85719.

major issues, and that the questions and problems identified by those interested in the field appear in the literature.

THE STUDY

This article's investigation begins with a set of questions regarding the published literature and citations in it:

- What journals can be identified as having articles relevant to academic librarianship?
- What are the most frequently occurring subjects of articles in this segment of the field?
- What formats of materials are cited in the literature?
- What is the age dispersion of cited materials?
- What specific titles are most frequently cited in the literature of academic libraries?
- Which individuals are most frequently cited in this literature?

An examination of the literature must first establish a set of parameters defining the subject area and time frame. The use of compact disc products such as ERIC-CD, made available through Silverplatter, facilitates this task. "Academic libraries" is an operative descriptor in ERIC, employable as the central access point to answer the above questions. The relevant time frame as a search parameter was the five-year period of 1984 through 1988. Of course, materials included in ERIC are assigned descriptors by a variety of indexers, so some unevenness may be evident. ERIC also has levels of indexing, with articles assigned some major descriptors. Descriptors attached to articles indicate a connection, not necessarily strong, with regard to the content of academic librarianship. Major descriptors are intended to indicate a relatively strong connection between the descriptor used and the content of a given item.

Another parameter of this study is the limitation of output to journal articles, the most formal means of communication in most disciplines. From 1984 through 1988, 1,165 articles were assigned the descriptor "academic libraries." However, with ERIC's indexing policy, an indexed article need only make some mention of aca-

demically libraries to be assigned this descriptor. "Academic libraries" as a *major* descriptor was attached to 328 articles. This set of papers forms the basis of the present study.

The 328 articles can be analyzed in a number of ways, but potential idiosyncrasies of this set need to be stated. Some characteristics are alluded to above; the assignment of descriptors is at the discretion of an indexer. Recognition of the subject of academic libraries may or may not be consistent. The extent of coverage (journals indexed and the degree of coverage of each title) is also at the discretion of ERIC. Margaret F. Stieg and Joan L. Atkinson point out discrepancies in the level of coverage of specific titles among the compact disc products of ERIC, Library and Information Science Abstracts (LISA), and Library Literature.¹ For instance, the percentage of coverage of articles in 1984 in *College & Research Libraries* was 74% for ERIC, 72% for LISA, and 95% for Library Literature; in the *Journal of Academic Librarianship*, coverage was 77% for ERIC, 92% for LISA, and 100% for Library Literature. On the other hand, the coverage of *Library Quarterly* was more complete for ERIC (91%) than for LISA (81%) or Library Literature (75%). Of course, coverage of specific titles over time is subject to change, as Stieg and Atkinson note. Because ERIC is a widely held and widely used tool and is multidisciplinary, it is the source for the list used here.

Analysis focuses on the characteristics outlined in the introduction and set of questions above. In part, this entails analysis of the citations included in the source papers. Sixty of the 328 articles contained no references, and 6 more were not available for analysis; therefore, citations in 262 papers are studied.

FINDINGS

The first question considered relates to those journals that have published articles relevant to academic libraries. The 328 articles are dispersed over 50 separate journals. Forty of these are library- or information science-related titles; 10 are from other disciplines—5 from higher education, 4 from computing technology,

TABLE 1
JOURNALS WITH MOST ARTICLES
ON ACADEMIC LIBRARIES

Title	No.
<i>College & Research Libraries</i>	76
<i>Journal of Academic Librarianship</i>	44
RQ	21
<i>Library Journal</i>	18
<i>International Library Review</i>	17
<i>Catholic Library World</i>	12
<i>Library Trends</i>	12
<i>New Directions for Teaching and Learning</i>	10
<i>Library & Information Science Research</i>	9
<i>Library Quarterly</i>	9

and 1 from journalism. As might be expected, the 2 top-ranked journals are *College & Research Libraries* and *Journal of Academic Librarianship*. This fact is consistent with the findings of Mary K. Sellen in a more limited citation analysis.² The most heavily represented journals are presented in table 1.

The authors of these papers are even more widely dispersed. Three hundred different individuals are represented—282 by a single article each. Of the 18 authors responsible for multiple contributions, only 4 have written more than two articles each. Because of the somewhat less than exhaustive coverage of some jour-

TABLE 2
MOST FREQUENTLY
OCCURRING DESCRIPTORS

Descriptor	No.
Library services	52
Librarians	49
Library role	42
Library administration	38
Library instruction	37
Library collections	34
Public libraries	28
Research libraries	24
Reference services	22
Library collection development	20

nals by ERIC and the limitation to major descriptors, the researcher cannot necessarily infer that there are only 18 multiple contributors to this subfield. It is likely that some of the authors have written articles that are at least tangentially related to academic libraries and are not included in this study population.

The second basic question of this study focuses on additional subjects of articles dealing with academic libraries. The major descriptor "academic libraries" is certainly not the only one assigned to these articles. In fact, a total of 406 different descriptors is attached as index terms. While some of these other descriptors are outside of the library and information science realm (such as "developing nations," "futures of society," and "college faculty"), most are in the library mainstream. The 10 most frequently occurring descriptors reflect this trend; they are presented in table 2.

TABLE 3
FORMATS OF MATERIALS CITED

Format	No.	%	Cum. %
Journals	2,088	56.3	56.3
Books	1,064	28.7	85.0
Reports	179	4.8	89.8
Theses and Dissertations	69	1.9	91.7
Proceedings	59	1.6	93.3
ERIC	47	1.3	94.6
Miscellaneous	202	5.4	100.0

As stated above, 262 articles can be examined with regard to their citations. Specifically, the 262 articles include 3,708 citations, or an average of 14.2 citations per article. The third question addresses the formats of these cited items; the intent is to discover the kinds of materials that are incorporated into formal communication in the field. The journal article is the most common format of cited material, with books a distant second. Other formats, such as reports, theses, and proceedings, appear, but not in great numbers. The dispersion by type of material appears in table 3.

These results agree with those of Sellen. She found that 56% of the references in *College & Research Libraries* and 54% of those in *Journal of Academic Librarianship* were to journals (for an overall percentage of 56%).³ She also reported that 39% of *College & Research Libraries* references and 36% of those in *Journal of Academic Librarianship* (38% overall) were to monographs. This percentage is higher than that for books in the present study, but the difference may be due, at least in part, to collapsing categories. For instance, Sellen may have considered proceedings or reports as monographs.

The journal article is the most common format of cited material, with books a distant second.

The dispersion by format of these citations is a bit different from that in other social science or humanities fields. For instance, in American studies, sociology, American literature, and English literature there is greater reliance on books than on periodicals.⁴ In the sciences, though, there is a much higher proportion of periodical literature among cited works.⁵ This does not imply that writings on academic libraries are more scientific than are those on sociology, but it does indicate the formats likely to find their way into formal communication channels in the area under scrutiny here.

TABLE 4
AGE DISPERSION OF CITED WORKS

Age (Years)	No.	%	Cum. %
0-5	1,900	51.6	51.6
6-10	935	25.4	77.0
11-15	359	9.8	86.8
16-20	189	5.1	91.9
21-25	77	2.1	94.0
26-30	48	1.3	95.3
31-35	33	0.9	96.2
36-40	19	0.5	96.7
41-45	15	0.4	97.1
46-50	26	0.7	97.8
51+	81	2.2	100.0

TABLE 5
MOST FREQUENTLY CITED
JOURNALS

Title	No.
<i>College & Research Libraries</i>	291
<i>Library Journal</i>	132
<i>Journal of Academic Librarianship</i>	131
<i>RQ</i>	75
<i>Library Quarterly</i>	65
<i>Library Trends</i>	60
<i>American Libraries</i>	55
<i>Library Resources & Technical Services</i>	46
<i>College & Research Libraries News</i>	38
<i>Special Libraries</i>	35
<i>Library & Information Science Research</i>	33
<i>Collection Management</i>	27
<i>American Archivist</i>	26
<i>Chronicle of Higher Education</i>	25
<i>Wilson Library Bulletin</i>	25
<i>Journal of the American Society for Information Science</i>	24
<i>Drexel Library Quarterly</i>	23
<i>Advances in Librarianship</i>	20
<i>Information Technology & Libraries</i>	20
<i>Canadian Library Journal</i>	17
<i>Journal of Documentation</i>	17

* Includes citations to the title *Library Research*.

Examination of the age dispersion of these cited works, the focus of the fourth question, also helps define the kinds of materials incorporated by authors. The majority of citations are to recent materials. Seventy-seven percent (2,835) of them are to works 10 years old or less. Table 4 illustrates the dependence on recent, as opposed to older, materials.

The dependence on recent materials is slightly more pronounced within citations to journals. A total of 54.9% of the citations are to journal issues 0 to 5 years old. Thereafter, there is little diversion from the overall age dispersion. Data gathered by Sellen also demonstrate reliance on recently published materials.⁶ With regard to age dispersion, the literature on academic libraries is somewhat

similar to that on sociology (where nearly 70% of the citations are to items 10 years old or less) and to that on microbiology (where just over 82% of the citations are to items 15 years old or less).⁷

Which titles are most frequently cited? Not surprisingly, *College & Research Libraries* and *Journal of Academic Librarianship* receive substantial numbers of citations. These titles rank first and third, respectively, with *Library Journal* ranking second. The most frequently cited journals appear in table 5.

The results of this analysis can be compared to a previous study by Robert Swisher and Peggy C. Smith.⁸ They surveyed ACRL members in 1978 and derived a list of the 26 most frequently read journals. Fourteen titles are common to both lists, including 13 of the top 15 identified by Swisher and Smith.

TABLE 6
MOST FREQUENTLY
CITED INDIVIDUALS

Name	No.
Patricia Battin	19
F. W. Lancaster	16
William E. McGrath	15
Barbara B. Moran	14
Evan Ira Farber	13
Kathleen M. Heim	13
Maurice P. Marchant	13
Charles R. McClure	13
Herbert S. White	13
Maurice B. Line	12
Anita R. Schiller	12
Richard DeGennaro	11
Peter Hernon	10
Edward G. Holley	10
Ching-Chih Cheng	9
Elizabeth Frick	9
Allen Kent	9
Anne K. Beaubien	8
Richard M. Dougherty	8
Mary Jo Lynch	8
John Naisbitt	8
John N. Olsgaard	8

The list in table 5 exhibits a preference on the part of authors for citations to journals in library and information science. Only two titles, *American Archivist* and *Chronicle of Higher Education*, can be considered outside the field, but their subjects are related to librarianship, especially academic librarianship. While the most frequently cited titles tend to be within the field, some journals in other disciplines receive citations. In fact, of the 401 different journals cited, 220 (54%) lie outside of library and information science. The most frequently represented subjects are general education, management, social science research, and higher education. Although a number of titles are cited, these nonlibrary journals account for only 22% (471) of the total number of citations to journals. The degree of interdisciplinarity in the literature of academic libraries can be interpreted as broad, but not necessarily deep.

One other area for analysis is that of most frequently cited authors. Because the most frequently cited journals are primarily in the field of library and information science, it might be expected that the most frequently cited individuals work in this field as well. The list of such individuals in table 6 reveals that only trend analyst John Naisbitt works outside the field.

The data set is too narrowly focused and the coverage of journals on the part of ERIC not extensive enough to allow exhaustive analysis, such as adherence to Lotka's law.

SUMMARY

The analysis presented here illustrates certain characteristics of the literature pertaining to academic libraries and of the materials incorporated into the literature by the author. For instance, the dispersion of authorship of articles on the subject is very broad, with few individuals making multiple contributions. The related descriptors point out that subjects of the published works are solidly in the field of library and information science. Citation analysis reveals the

heaviest use of the periodical literature for documentary support and a reliance on the internal literature of the field. Authors draw predominantly from recently published materials, with 77% of cited works being 10 years old or less. This brings up two questions for further investigation: Is the literature of this field cumulative? Is the bulk of the body of knowledge in the discipline incorporated into the current literature? The most frequently cited journal titles also show a dependency on the literature of librarianship.

While the interests of academic librarians may, perforce, be broad, analysis of

the literature exhibits a vision that is less interdisciplinary than might be expected. This is not to imply that the literature is failing the profession, but discussions of inter- or multidisciplinary are not reflected to any great extent in the cited works in the literature of academic libraries. Such areas as systems and computer science, organization theory, sociology, and even information science are not heavily represented. The question remains: Should they be? A more pertinent question may be: To what extent should they be represented? Seeking an answer to that question could be fertile ground for future research.

REFERENCES AND NOTES

1. Margaret F. Stieg and Joan L. Atkinson, "Librarianship Online: Old Problems, No New Solutions," *Library Journal* 113:54 (Oct. 1, 1988).
2. Mary K. Sellen, "Bibliometrics in Information Science: A Citation Analysis of Two Academic Library Journals," *College & Research Libraries* 45:129-32 (Mar. 1984).
3. *Ibid.*, p.129.
4. Charles Avery Bolles, "Characteristics of the Literature of American Studies as Indicated by Bibliographic Citations" (Ph.D. diss., Univ. of Minnesota, 1975); James C. Baughman, "A Structural Analysis of the Literature of Sociology," *Library Quarterly* 44:296 (Oct. 1974); John M. Budd, "Characteristics of Written Scholarship in American Literature: A Citation Study," *Library & Information Science Research* 8:203 (Apr.-June 1986); Richard Heinzkill, "Characteristics of References in Selected Scholarly English Literary Journals," *Library Quarterly* 50:352-65 (July 1980).
5. Herman H. Fussler, "Characteristics of the Research Literature Used by Chemists and Physicists in the United States," *Library Quarterly* 19:19-35 (Jan. 1949); Herman H. Fussler, "Characteristics of the Research Literature Used by Chemists and Physicists in the United States. Part II," *Library Quarterly* 19:119-43 (Apr. 1949); J. E. G. Craig, Jr., "Characteristics of Use of Geology Literature," *College & Research Libraries* 30:230-36 (May 1969); and James E. Kanasy, "Citation Characteristics and Bibliographic Control of the Literature of Microbiology," (Ph.D. diss., University of Pittsburgh, 1971).
6. Sellen, "Bibliometrics in Information Science," p.130-31.
7. Robert N. Broadus, "Analysis of Literature Cited in the *American Sociological Review*," *American Sociological Review* 17:355-57 (June 1952); Robert N. Broadus, "A Citation Study for Sociology," *American Sociologist* 2:19-20 (Feb. 1967); Kanasy, "Citation Characteristics."
8. Robert Swisher and Peggy C. Smith, "Journals Read by ACRL Academic Librarians, 1973 and 1978," *College & Research Libraries* 43:56 (Jan. 1982).