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Sources for Determining Citation Practice for Court Reports throughout the World

Phyllis C. Marion

This bibliographic essay points out major differences in court reporting and citation practices and suggests reference tools to assist in ascertaining the accepted citation practice in a country.

ONE SIGNIFICANT CHANGE in the cataloging of legal materials under AACR2 concerns the choice of entry for reports of a single court. Under AACR1 the rule (26A.1) was simple: "Enter law reports of a particular court under the court as author. Make added entries under reporters or annotators."¹ The corresponding rule in AACR2 (21.36A1) no longer provides for such an easy resolution.

Enter law reports of one court that are not ascribed to a reporter or reporters by name under:

- a) the heading for the court if the reports are issued by or under the authority of the court
- or b) title if they are not . . .

Enter reports of one court that are ascribed to a reporter or to reporters by name under the heading for the court or under the heading for the reporter or first named reporter according to whichever is used as the basis for accepted legal citation practice in the country where the court is located. If that practice is unknown or cannot be determined, enter under:

- a) the heading for the court if the reports are issued by or under the authority of the court
- or b) the heading for the reporter or first named reporter if they are not.²

Why the change? The change reflects the intention of the framers of AACR2 to provide a code that could be applied on an international basis. In particular, it reflects the concern among law librarians in Great Britain, Canada, and Australia that the rules for cataloging legal

To aid catalogers in applying the new AACR2 rule for court reports, the editor invited Phyllis Marion to prepare this paper. Phyllis Marion, head cataloger, University of Minnesota Law Library, wishes to thank Thomas Reynolds, University of California School of Law Library, Berkeley, for his invaluable assistance in preparing the paper. Invitational paper received and accepted for publication January 1981.

materials adequately describe the types of primary legal publications issued within those jurisdictions. This view was put rather succinctly by the Subcommittee on Cataloguing and Classification of the Library Association of Great Britain when it reported that "we have noted a recurring American bias in both the terminology and the content of these rules [i.e. AACR rules for legal materials]."³ The subcommittee then goes on to explain the problem inherent in the rule for court reports.

This rule appears to have been influenced solely by American practice, although two examples are drawn from English materials. No statutory obligation exists in the U.K. to publish court decisions and none are published under official authority. That all series of reports and decisions of cases are published solely to serve the interest of the legal profession may be less well known, although it is evident from the technical composition of the reports themselves.

The provisions in this rule that the court is deemed to be the author of its reports, and that reports of two or three courts should be entered under the court named first, are unhappily misguided since almost all law reports are known and referred to either:

- (i) by the names of the reporter(s) or editor(s) as in the case of the nominate reports issued before 1865 in England (and various dates elsewhere), or
- (ii) by their title, as is the case with most post 1865 reports in the U.K. and elsewhere.

In practice all such reports are referred to by the profession (which, with its student members, forms almost the entire audience for this class of material) by their citation. This is in turn always an abbreviation of the name of the reporter(s) or of the title.

We recommend that law reports should be entered under the unabbreviated form of the citation: the name of the reporter or the title, as the case may be.⁴

American law librarians preferred entry under the court involved, particularly for official reports, i.e., those issued under the authority of the court for which the opinions were being reported. They were, however, willing to accept entry under reporter or title for certain unofficial reports.⁵

Without going into the complicated give and take that resulted in the AACR2 rule for court reports, it is sufficient to say that it represents a compromise between the two positions presented by the various groups of law catalogers. (This is an oversimplification, of course. The rule when analyzed, can be seen to fit neatly within the framework of AACR2. AACR2, while allowing for the principle of corporate emanation for certain selected materials (21.1B2), shows a marked preference for entry under personal author if one is involved.)

This paper will concern itself with the second part of the rule and in particular the phrase, "according to whichever is used as the basis for accepted legal citation practice in the country where the court is located." If, as the rule states, a cataloger is to choose the point of entry according to accepted legal citation practice in a given country,

how is that practice to be determined? What source materials may be used to make such an evaluation?

To provide this information the following steps have been taken. For each country covered there is at least one bibliographic citation to an authoritative work that lists and/or discusses the court reports of that country in a manner that indicates how existing court reports are cited. Every attempt has been made to list works in which the text is in English with the citation given in the language of the court reports as published. No attempt has been made to list all the possible works that might give the needed information. If several works are available, those that give the most complete information and/or those that are most likely to be available to the cataloger are listed. This approach is of significant value for reports published prior to the publication of the given source book. It has limited, but rather important, value for reports now being published in that it provides insight into past and present practice. This information will enable the cataloger to make a reasoned judgment as to the trend in court report citation practice within a given country. Unfortunately, there are very few source materials that baldly state that "such-and-such" is the citation practice applicable to a given country. Some of the sources given below provide better insight into this problem than others; all give information of value to the cataloger.

The attempt to cover every country in the world was not successful because of the many countries, particularly in the Third World, for which there are few, if any, authoritative discussions of their legal publications. Extensive research in substantive legal treatises would be necessary to determine the kinds of reports that have been or are now being published. The researcher would then have to rely on the citation practice followed by the author of the treatise, which may, or may not, follow the accepted practice.⁶

COURT REPORTING SYSTEMS

When making the decision as to citation practice in a given country, the cataloger should keep in mind that the publication practices concerning court reports, and even the very fact of publication itself, vary from country to country. This is due to differences in the preeminence accorded case law among the countries of the world. Traditionally, the world has been divided into two legal systems: the common-law system, which exists in the United States and Great Britain and in those countries colonized or heavily influenced by them, and the civil-law system which is found in Western Europe (excluding Great Britain), most of Latin America, and in many of the countries of Asia and Africa. A third system has lately been recognized: the law of socialist countries. This latter system is heavily influenced by the civil-law tradition, and its legal publications are quite similar to those found in most civil-law countries.⁷ It should be recognized, that while the dichotomy above is useful, the practices that have evolved in each country within a given sphere, while sharing common characteristics, may differ greatly.

From the standpoint of applying rule 21.36A1, the crucial difference between the common-law and civil-law countries is the emphasis put on case law. In common-law countries, such as the United States and Great Britain, a great deal of emphasis is put on case law. These legal systems rely heavily on judicial decisions to define what the law actually is. What has been decided in a previous case is highly persuasive, indeed often binding, in subsequent cases. In civil-law countries, case law is less important. Judicial decisions, while they may be persuasive in some cases, are nonbinding. This difference in emphasis on case law has influenced the publication of court reports. In those countries following the common-law tradition, highly developed systems of court reporting have evolved with the decisions of many courts rigorously recorded and published. In civil-law countries, reporting has been much less systematic and thorough.

As regards the reporting of judicial decisions, there is no uniformity among civil-law systems. Decisions of intermediate appellate courts as a rule are not officially reported. Even with respect to the decisions of courts of last resort, most of those countries leave the reporter's task wholly or partly to private enterprise; where official reports exist, they may be selective or limited to abstract, headnote-like summaries of the court's legal reasoning.⁸

It is this difference that makes determining citation practice for court reports difficult, at best, outside the common-law countries.

SOURCES FOR COMMON-LAW COUNTRIES

As mentioned above, the common-law countries have a long tradition of reporting court cases. The publication of such reports has been well documented in materials that discuss the legal source material of the countries involved.

UNITED STATES

For United States law, the best source is Miles O. Price and Harry Bitner's *Effective Legal Research: A Practical Manual of Law Books and Their Use* (New York: Prentice-Hall, 1953). This edition of Price and Bitner contains an appendix that lists all U.S. reports, federal and state. This listing is not found in later editions. For a discussion of developments since 1953 it is useful to turn to either J. Myron Jacobstein and Roy M. Mersky's *Fundamentals of Legal Research* (Mineola, N.Y.: Foundation Pr., 1977), or *How to Find the Law*, Morris L. Cohen, editor (7th ed.; St. Paul: West Pub., 1976), or Miles O. Price, Harry Bitner, and Shirley Raissi Bysiewicz' *Effective Legal Research* (4th ed.; Boston: Little, Brown, 1979).

It should be pointed out that it is in the United States that one will find the greatest variety of court reports. For some courts there are both official and nonofficial sets of reports. Some have reporters named, some do not. Reports from lower and special-interest courts are often published as well as those from the higher courts. The sources given above will give the cataloger the needed information as to which part of 21.36A1 should be applied.

GREAT BRITAIN

In Great Britain circumstances are similar to those in the United States. There are a multitude of reports for many levels of courts. One great difference is that there are no official reports issued in Great Britain. Court reporting has been left to individuals and groups outside of the government structure. A complete listing of British court reports can be found in W. Harold Maxwell and Leslie F. Maxwell's *Legal Bibliography of the British Commonwealth of Nations* (2d ed.; London: Sweet & Maxwell, 1955-1964). This seven-volume set, often referred to as *Sweet and Maxwell*, covers the court reports of the British Commonwealth for the period indicated. For ease of access each volume is described below.

- Vol. 1. English Law to 1800; Including Wales, the Channel Islands, and the Isle of Man.
- Vol. 2. English Law from 1801 to 1954; Including Wales, the Channel Islands, and the Isle of Man.
- Vol. 3. Canadian and British-American Colonial Law; from Earliest Times to December 1956.
- Vol. 4. Irish Law to 1956.
- Vol. 5. Scottish Law to 1956; Together with a List of Roman Law Books in the English Language.
- Vol. 6. Australia, New Zealand, and Their Dependencies; from Earliest Times to June, 1958.
- Vol. 7. The British Commonwealth Excluding the United Kingdom, Australia, New Zealand, Canada, India, and Pakistan.

An eighth volume covering India and Pakistan, listed as in preparation in 1964, has never been published. In addition to these volumes, two other publications by Sweet & Maxwell cover law reports for various parts of the British Commonwealth. *Sweet & Maxwell's Guide to Law Reports and Statutes* (4th ed.; London: Sweet & Maxwell, 1962) covers GREAT BRITAIN and the UNITED KINGDOM, but does not include the other British Commonwealth countries. W. Harold Maxwell and C. R. Brown's *Complete List of British and Colonial Law Reports and Legal Periodicals* (3d ed.; London: Sweet & Maxwell, 1937) and its 1946 supplement, within the obvious limitation of publication dates, cover the BRITISH COMMONWEALTH countries, including INDIA. Miles O. Price, Harry Bitner, and Shirley Raissi Bysiewicz' *Effective Legal Research* (4th ed.; Boston: Little, Brown., 1979) contains a short, but comprehensive, discussion of the law reports of the UNITED KINGDOM and CANADA. It also covers AUSTRALIA, NEW ZEALAND, and SOUTH AFRICA.

SOURCES FOR CIVIL-LAW COUNTRIES

When investigating the court report citation practices of the various civil-law countries, it was found that although there are several guides to abbreviation practices, there are no general guides to citation practice. One has to turn to treatises on various systems of law or to rely on authoritative bibliographies on the legal systems of the countries involved.

WESTERN EUROPE

One of the best English-language sources that contains information on the court reports of EUROPE is a series of books sponsored by the Parker School of Foreign and Comparative Law of Columbia University, all of which have titles beginning *Guide to Foreign Legal Materials* For FRANCE, GERMANY, and SWITZERLAND consult Charles Szladits' *Guide to Foreign Legal Materials: French, German, Swiss* (Dobbs Ferry, N.Y.: Published for the Parker School of Foreign and Comparative Law by Oceana Publications, 1959). The court reports of ITALY are discussed in Angelo Grisoli's *Guide to Foreign Legal Materials: Italian* (Dobbs Ferry, N.Y.: Published for the Parker School of Foreign and Comparative Law by Oceana Publications, 1965). For BELGIUM, LUXEMBOURG, and the NETHERLANDS see Paul Graulich and others' *Guide to Foreign Legal Materials: Belgium, Luxembourg, Netherlands* (Dobbs Ferry, N.Y.: Published for the Parker School of Foreign and Comparative Law by Oceana Publications, 1968). A German work, Georg Leistner's *Über die Veröffentlichungspraxis oberster und höherer Gerichte in Westeuropa* (Tübingen: Arbeitsgemeinschaft für Juristisches Bibliotheks- und Dokumentationswesen, 1975) contains descriptions of the court reports of GERMANY, AUSTRIA, FRANCE, SPAIN, SWITZERLAND, and PORTUGAL. Another German work, Helmut Coing's *Handbuch der Quellen und Literatur der neueren Europäischen Privatrechtsgeschichte* (Munich: Beck, 1973—) describes the source materials for the nations of Western Europe in Bd. II, *Neure Zeit (1500–1800)*, 2. Teilbd., *Gesetzgebung und Rechtsprechung*. This work, which is quite detailed and requires a knowledge of German to use effectively, should prove invaluable for handling works within its scope. The court reports of the Scandinavian countries, including DENMARK, NORWAY, ICELAND, SWEDEN, and FINLAND, are discussed in Stig Iuul, Åke Malmström, and Jen Søndergaard's *Scandinavian Legal Bibliography* (Stockholm: Almqvist & Wiksell, 1961).

EASTERN EUROPE

The countries of Eastern Europe fall into the socialist tradition of law, which produces legal materials similar to those of the civil-law countries. However, published collections of court reports are few. There is a series of publications that, although somewhat dated, covers court reports. These studies done by the Mid-European Law Project of the Library of Congress were published for the Free Europe Committee by Praeger (New York). The countries and titles included are:

- | | |
|-----------------|--|
| BALTIC STATES: | <i>Legal Sources and Bibliography of the Baltic States (Estonia, Latvia, Lithuania)</i> by Johannes Klesment and others (1963) |
| BULGARIA: | <i>Legal Sources and Bibliography of Bulgaria</i> by Ivan Sipkov (1956) |
| CZECHOSLOVAKIA: | <i>Legal Sources and Bibliography of Czechoslovakia</i> by Alois Bohmer and others (1959) |
| HUNGARY: | <i>Legal Sources and Bibliography of Hungary</i> by |

- Alexander Kalnoki Bedo and George Torzsay-Biber (1959)
 POLAND: *Legal Sources and Bibliography of Poland* by Peter Siekanowicz (1964)
 ROMANIA: *Legal Sources and Bibliography of Romania* by Virgiliu Stoicoiu (1964)
 YUGOSLAVIA: *Legal Sources and Bibliography of Yugoslavia* by Fran Gjupanovich and Alexander Adamovitch (1964)

For RUSSIA, one may turn to William E. Butler's *Russian and Soviet Law; An Annotated Catalogue of Reference Works, Legislation, Court Reports, Serials, and Monographs on Russian and Soviet Law (including International Law)* (Zug, Switzerland: Inter Documentation Co., 1976).

LATIN AMERICA

As with the Eastern European countries, there is a series of publications that, although quite dated, covers the area fairly well. The "Latin American Series," published by the Library of Congress (Washington, D.C.), includes:

- ARGENTINA: *Guide to the Law and Legal Literature of Argentina, Brazil and Chile* by Edwin M. Borchard (1917) and its successor *A Guide to the Law and Legal Literature of Argentina, 1917-1946* by Helen L. Clagett (1948)
 BRAZIL: *Guide to the Law and Legal Literature of Argentina, Brazil and Chile* by Edwin M. Borchard (1917). No update has been done.
 BOLIVIA: *A Guide to the Law and Legal Literature of Bolivia* by Helen L. Clagett (1947)
 CHILE: *Guide to the Law and Legal Literature of Argentina, Brazil and Chile* by Edwin M. Borchard (1917) and its successor *A Guide to the Law and Legal Literature of Chile, 1917-1946* by Helen L. Clagett (1947)
 COLOMBIA: *A Guide to the Law and Legal Literature of Colombia* by Richard C. Backus and Phanor J. Eder (1943)
 CUBA: *A Guide to the Law and Legal Literature of Cuba, the Dominican Republic and Haiti* by Crawford M. Bishop and Anyda Marchant (1944)
 DOMINICAN REPUBLIC: *A Guide to the Law and Legal Literature of Cuba, the Dominican Republic and Haiti* by Crawford M. Bishop and Anyda Marchant (1944)

ECUADOR:	<i>A Guide to the Law and Legal Literature of Ecuador</i> by Helen L. Clagett (1947)
HAITI:	<i>A Guide to the Law and Legal Literature of Cuba, the Dominican Republic and Haiti</i> by Crawford M. Bishop and Anyda Marchant (1944)
MEXICO:	<i>A Revised Guide to the Law & Legal Literature of Mexico</i> by Helen L. Clagett and David M. Valderrama (1973) and <i>A Guide to the Law and Legal Literature of the Mexican States</i> by Helen L. Clagett (1947)
PARAGUAY:	<i>A Guide to the Law and Legal Literature of Paraguay</i> by Helen L. Clagett (1947)
PERU:	<i>Law & Legal Literature of Peru; a Revised Guide</i> by David M. Valderrama (1976)
URUGUAY:	<i>A Guide to the Law and Legal Literature of Uruguay</i> by Helen L. Clagett (1947)
VENEZUELA:	<i>A Guide to the Law and Legal Literature of Venezuela</i> by Helen L. Clagett (1947)

As has been noted, most of these guides are out of date. They do, however, give useful information about the legal literature of the countries for the dates covered. It is a hopeful sign that two, Mexico and Peru, have recently been revised. A more recent publication, although it is useful to identify the court reports of a given country, lists the works by the court concerned, not citation title. It is Richard Rank's *Criminal Justice Systems of the Latin-American Nations: A Bibliography of the Primary and Secondary Literature* (South Hackensack, N.J.: Rothman, 1974).

AFRICA

African countries that are former British possessions are covered in the section dealing with Great Britain and its possessions. For the other African nations the compiler has not been able to identify any works that list court reports in citation form. In these cases it might be best to turn to authoritative treatises on the jurisdiction involved and follow the author's practice.

ASIA

As with Africa, former British possessions in Asia are covered in the section dealing with Great Britain and its possessions. For other jurisdictions there are few tools available. For a discussion of the court reports of JAPAN, consult Yosiyuki Noda's *Introduction to Japanese Law*, translated and edited by Anthony H. Angelo (Tokyo: University of Tokyo Press, 1976) or *The Japanese Legal System; Introductory Cases and*

Materials, edited by Hideo Tanaka (Tokyo: University of Tokyo Press, 1976). For CHINA, there are very few published primary legal materials, and bibliographies consulted do not seem to indicate any collections of court reports.

There are two general works covering the legal materials of the world that may be consulted if there are no other sources available. The *International Encyclopedia of Comparative Law*, under the auspices of the International Association of Legal Science (New York: Oceana, in progress) has issued its first volume, "National Reports," which contains short, signed reports on the legal systems of each country of the world. Some of the summaries mention the court reports issued within the countries, others do not. There is also the International Association of Legal Science's *Catalogue des sources de documentation juridique dans le monde—A Register of Legal Documentation in the World* (2d ed., rev. and enl.; Paris: Unesco, 1957). This publication lists the main sources of legal documentation for most countries. This list can no longer be regarded as comprehensive; most citations for court reports are to the current materials and many earlier materials are not included.

One work should be mentioned because, although it does an admirable job of listing legal source materials, it does not reflect the citation practices of the countries. It is the Association of American Law School's *Law Books Recommended for Libraries* (South Hackensack, N.J.: Rothman, 1967-). This loose-leaf publication contains many sections of foreign law but, since it is based on library holdings and reproduces catalog card copy, its entries reflect past cataloging practices under pre-AACR2 rules. (For the purposes of interpreting this rule, one must be leery of all bibliographies based on library holdings.)

CONCLUSION

Although no attempt has been made to determine the citation practice for each country listed above, cursory examination proved the British and Australian catalogers to be correct. Most law reports are cited under the reporter or the title. Thus the preference for this type of entry is warranted. However, the same examination showed that most court reports are now cited by title, particularly outside of the common-law countries. Since AACR2 rule 21.36A1 says, in effect, that a cataloger should enter court reports with a named reporter under reporter (if that is the citation practice of the country involved), and under court if citation under reporter is not the practice, the entry for the court reports of most countries will be under the court (the American preference). (One wonders why the rule does not send the cataloger back to the distinction based on the authority of the work when citation practice does not dictate entry under reporter. This alternative would result in entering at least some of the court reports under title or accepted citation practice.)

The works listed above should provide the answers needed to catalog many of the court reports acquired by American libraries. In addition, it should be noted that these same source materials provide the

information needed to determine some of the uniform titles prescribed by Chapter 25 of AACR2 and thus are of value to the cataloger for cataloging works other than court reports.

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1. *Anglo-American Cataloging Rules*, North American Text, gen. ed.: C. Sumner Spalding (Chicago: American Library Assn., 1967), p.59.
2. *Anglo-American Cataloging Rules*, 2d ed., ed. by Michael Gorman and Paul W. Winkler (Chicago: American Library Assn., 1978), p.336-37.
3. "Memorandum to the Library Association Cataloguing Rules Committee on the Revision of the AACR, 1967," *Law Librarian* 5:9-13 (April-July 1974), p.9.
4. *Ibid.*, p.12.
5. "Summary of Discussion on Rule Changes at the 1977 Meeting of the Cataloging and Classification Committee, June 27, 1977," documents held in the archives of the American Association of Law Libraries Cataloging and Classification Committee.
6. Many of the citations to authoritative sources for the countries discussed have been garnered from the following sources: René David and John C. Brierley, *Major Legal Systems in the World Today: An Introduction to the Comparative Study of Law*, 2d ed. (London: Stevens & Sons, 1978) and Morris L. Cohen, ed., *How to Find the Law*, 7th ed. (St. Paul: West Pub., 1976).
7. For a brief discussion of the differences between the civil-law and common-law systems, see Cohen, *How to Find the Law*, p.391-94.
8. Rudolf B. Schlesinger, *Comparative Law: Cases, Text, Materials*, 4th ed. (Mineola, N.Y.: Foundation Pr., 1980), p.426.

A Comparison of Library Tools for Monograph Verification

Elizabeth H. Groot

Six commonly used library tools were compared as to their effectiveness for verification of monographs before acquisition. The tools compared were the following: American Book Publishing Record, Books in Print, Cumulative Book Index, Micrographic Catalog Retrieval Systems, National Union Catalog, and the OCLC online service. Although costly, the OCLC online service took the least time to use and gave the highest retrieval percentages. Surprisingly, during the imprint year of the monographs, the inexpensive Books in Print gave retrieval percentages equal to OCLC. A computer program, written in BASIC, was used to calculate the retrieval percentages for all possible combinations of the reference tools, over three periods of time. A cost-analysis method was developed that will permit a library of any size to determine which of the reference tools will be best for its purposes.

LIBRARIANS KNOW VERY WELL the frustration of being unable to verify that monographs, deemed vitally important by their patrons, exist and can, in fact, be purchased. Library acquisitions work depends upon careful verification; time expended for verification at the beginning of the process will prevent mistakes and lost time later. However, it is also important for a library to keep verification expenses to a minimum.

Acquisitions librarians, lacking knowledge of the relative efficiency of the traditional verification tools, generally try to have all four: *American Book Publishing Record (BPR)*, *Books in Print (BIP)*, *Cumulative Book Index (CBI)*, and the *National Union Catalog (NUC)*—despite their great overlap in coverage. This article presents an analysis of the effectiveness of these four tools, as well as the OCLC online service (OCLC), and the microfiche set of LC catalog data, entitled at the time of this study *Micrographic Catalog Retrieval Systems (MCRS)* but subsequently changed to *Bibliographic Control Systems*. Coverage, currency, and ease of use are the aspects considered, and suggestions are offered for the optimum search sequence for the most efficient use of

Elizabeth H. Groot is manager, Technical Information Services, Schenectady Chemicals, Inc., Schenectady, New York. For assistance with this project the author wishes to thank William Saffady and other members of his 1978 summer seminar at the School of Library and Information Science, State University of New York at Albany. Manuscript received December 1978; accepted for publication December 1979.

the tools. A method of cost analysis has been devised to assist librarians in determining which of these tools will best fit their needs.

LITERATURE REVIEW

The relative effectiveness of library tools for verification is a generally neglected topic. In March 1964 Lazorick and Minder studied the acquisitions process at Pennsylvania State University as it applied to books other than out-of-print or foreign items.¹ On the basis of two small samples of monographs (twenty-five English-language titles on order slips and fifty order forms chosen randomly) they concluded that searching sequences using five library tools could be found for "least time used" and for "most success" and that these could be combined to give an optimum search sequence for verification of monographs.

Fristoe at the University of North Carolina Library also undertook to find a least-cost searching sequence, in order not to search "to the bitter end."² Working from a randomly selected sample of 100 order cards for current American imprints, he obtained a search sequence that cost only one-fourth as much as the least effective search. He studied *BPR*, *CBI*, *NUC*, *Publishers Weekly*, *Publishers Weekly Announcements*, and *LC* proof slips.

Ayres of the University of Bradford in England carried out a twelve-month survey to assess the microfiche tool *Books in English*.³ Using a sample of 509 randomly chosen items (books and pamphlets), Ayres concluded that *Books in English* had the highest success rate (55 percent) when compared with more conventional tools. However, it took twice as long per item checked. Furthermore, 9.8 percent of the items could not be verified in any of the nine tools, which Ayres grouped into the following seven groups: *Books in English*; *British National Bibliography*; *British Books in Print*; *CBI*; *NUC*; *BIP* and *Forthcoming Books*; *Books of the Month* and *Whitakers Cumulative Book List*.

Hewitt, in his general discussion of OCLC, included a short section on its use in acquisitions work.⁴ He noted the value of OCLC's extended search capability using title, title/author combination, or *LC* card number, as well as by the conventional author main entry. Of the forty-seven libraries he surveyed, only half were routinely using OCLC for verification. Their preorder find rate averaged 71 percent. Hewitt concluded that acquisitions librarians should make much more use of this valuable tool for verification, since processing and staff times for book orders decreased when OCLC was used.

The most pertinent article found was the report of a study by Reid of the Louisiana State University Library at Baton Rouge, comparing the effectiveness of OCLC and four printed tools: *BPR*, *CBI*, *NUC*, and the *LC* depository file.⁵ She calculated a time-effectiveness ratio by dividing the average search time per title (in minutes) by the percentage (actually the decimal fraction) verified with each tool. She concluded that OCLC was the most productive of the five tools studied and that *BPR* was a more effective tool than *CBI*. However, Reid did not concern herself with cost analysis.

METHODOLOGY OF THE PRESENT STUDY

The present study differs from those just described in the following ways: (1) Nine subject areas were examined, from each of which forty monographs were selected for verification. (2) A small number of foreign imprints was included to make the study correspond more fully to a "real life" situation (seventy-nine titles, of which fifteen were in foreign languages, primarily French and German). (3) Monographs to be verified were selected through a controlled process closely resembling the ordinary situation in which suggestions for book purchases are brought to the attention of the acquisitions librarian by a library patron. (4) A relatively new tool, *Micrographic Catalog Retrieval Systems (MCRS)*, was included. (5) A computer analysis was made to discover the combinations of search tools that were most effective and the extent of overlap among the verification tools. The computer analysis was applied to the nine subject areas separately as well as to the entire group of 360 monographs. (6) A method of cost analysis was devised that should permit a library of any size to determine which of the several verification tools would be cost effective for its volume of acquisitions work.

The nine subject areas selected were literature, history, art, psychology, economics, chemistry, biology, environmental science, and computer science. Each searcher was assigned the subject with which he or she was most familiar. To insure uniformity in the selection of the sample and approximate a "real life" situation, each searcher was instructed to select forty monographs from favorable book reviews appearing in no more than ten prestigious journals in each subject field. The searcher was to select the appropriate number of favorable reviews in the order in which they appeared, beginning with the January 1976 issue. No more than 20 percent were to be foreign imprints including titles in English published in countries other than the United States. Detailed instructions were given the searchers for selecting the reviews, especially if fewer than ten prestigious journals were available in a field.

The verification tools to be studied were selected with these three objectives in mind: (1) to obtain results that could apply to libraries of various sizes; (2) to compare the *National Union Catalog* with its online equivalent, the OCLC data base; and (3) to examine one of the new microform services. The microform service selected, *Micrographic Catalog Retrieval Systems*, has been described in detail by Knight.⁶ Briefly, *MCRS* consists of LC catalog entries (beginning in 1970) reproduced on microfiche, with both a title index and a main-entry index, also on microfiche. These indexes contain sufficient information for most verifications to be accomplished without having to look up the complete catalog card on another fiche. The fact that the indexes are cumulated for several years makes this tool handier than *NUC* for recent material.

General rules were devised for searching the verification tools, although each searcher was permitted to keep records in his or her own manner, at least during the early stages of the project. The

searchers were asked to record the time required for verification in each tool, the imprint year for each monograph verified, and, for each tool, the earliest issue date in which the monograph was listed. The searchers were also asked to note inaccuracies found, or discrepancies from one tool to the next. Each searcher verified his or her own list of forty monographs in *NUC*, *CBI*, *BIP*, and *BPR*, completing the entire search in one tool before beginning the next. A small team verified all 360 monograph titles during slack periods at the OCLC terminals, located at the State University of New York at Albany. Another small team verified all titles with the *MCRS*, as it can best be used by no more than two persons at a time.

The searchers soon noted that some of the tools were much more current than others and decided to study the performance of each for three time periods: (1) imprint year; (2) imprint year plus the following year; and (3) imprint year plus all succeeding years. The data were recorded so as to permit easy analysis by computer. Computer programs in BASIC calculated the percentages retrieved by each individual tool, and for each possible combination of tools, for each of the three time periods.

COST ANALYSIS

To permit the data collected to be used by libraries of varying size, an easy method of cost analysis was devised. It is possible to calculate the *break-even point* between any two tools that might be used for verification, using any labor cost, expressed in dollars per minute.

The first step is to determine the cost of owning and maintaining each tool. To that is added the labor cost of verifying monographs, calculated as follows:

$$(\text{number of items}) \times (\text{minutes/item}) \times (\text{labor cost/minute})$$

For example, if 10,000 monographs are to be verified in a year, if the average time to verify an item is two minutes, and if labor costs six dollars per hour (i.e., ten cents per minute), then the labor cost is:

$$10,000 \times 2 \times \$0.10 = \$2,000$$

Now suppose there are two services, one costing \$500 per year to own and maintain and taking four minutes per verification and the other costing \$2,900 per year to own and maintain but requiring only one minute per verification. It can be shown that it would be cheaper to use the \$500 tool up to a certain number of verifications per year but that for a greater number it would be cheaper to use the tool costing \$2,900 per year. For large differences in cost of owning and maintaining different tools, the break-even point can be dramatically shown by a graph (figure 1).

For any case, however, the algebraic solution is available. To calculate the break-even point, let N represent the unknown number of verifications at the time when the costs become equal for the two services. Then set up the equation so that the cost of using the \$500 tool for N verifications is equal to the cost of using the \$2,900 tool for N verifications, as follows:

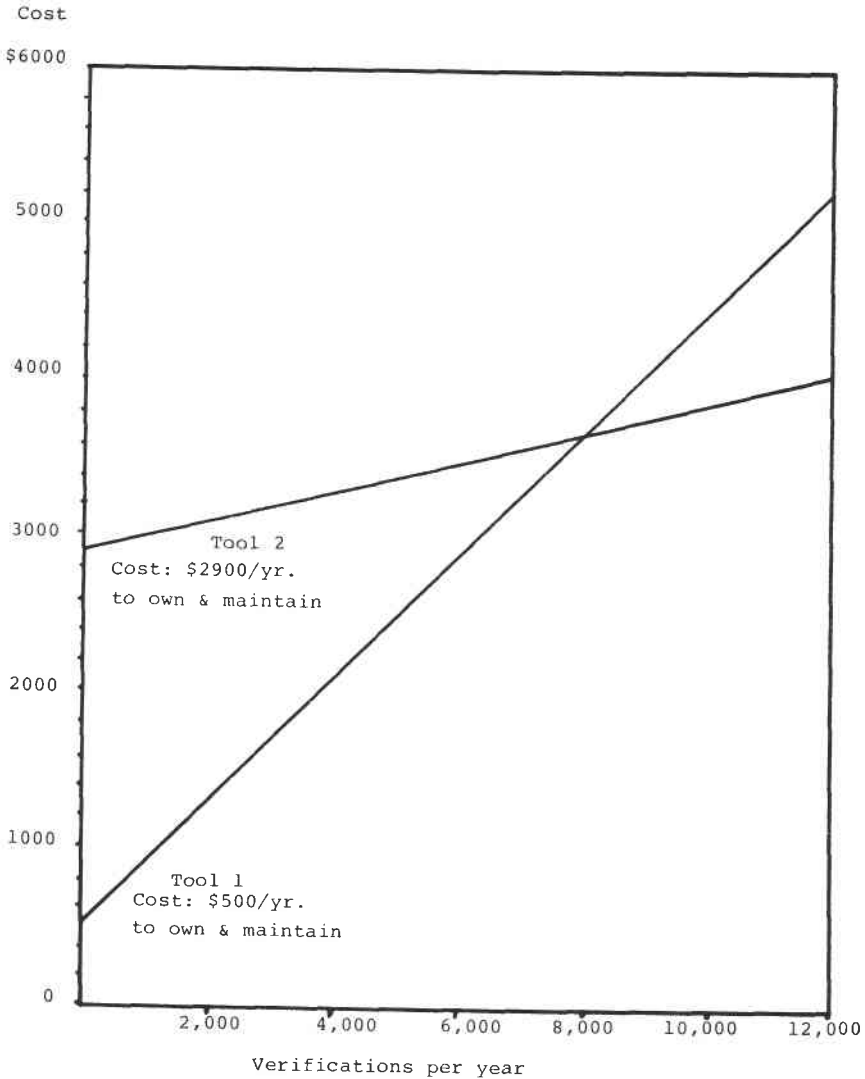


Figure 1
Graphical Representation of Break-Even Point

$$\$500 + (N \times 4 \times \$0.10) = \$2,900 + (N \times 1 \times \$0.10)$$

Solving this equation for N gives a break-even point of 8,000 between these two hypothetical tools. If more than 8,000 verifications are to be done in a year, the tool costing \$2,900 per year will save money in this hypothetical case because of the lower labor costs to use it.

RESULTS OF THE STUDY

Six bibliographic tools used for verification of monographs were studied from the standpoint of their coverage, currency, and costs.

The tools were the OCLC online data base, the *Micrographic Catalog Retrieval System*, *National Union Catalog*, *Cumulative Book Index*, *Books in Print*, and *American Book Publishing Record*.

COVERAGE

The tools based upon MARC records gave much better coverage than the others. Certain of the tools do not include foreign imprints, a factor that lessens their usefulness for verification purposes. As shown in figure 2, OCLC could retrieve 97.5 percent of the monographs, followed closely by *MCRS* (94.4 percent) and *NUC* (93.0 percent).

The computer analysis made it possible to determine the degree of overlap of the various services. For example, the *NUC* alone yielded

Percent

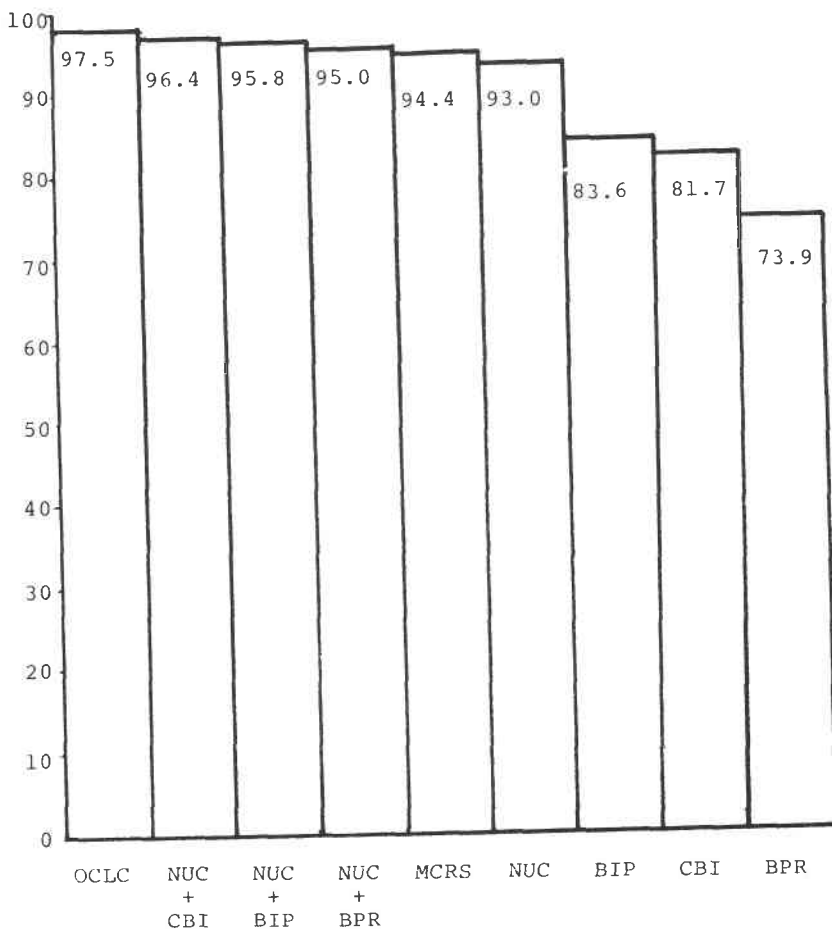


Figure 2
Percent Success in Verifying Monographs (Raw Scores; No Adjustments Made for Lack of Foreign Imprints)

93 percent retrieval, while the other three printed tools had lower percentages: *BPR*, 73.9 percent; *CBI*, 81.7 percent; and *BIP*, 83.6 percent. However, the combinations of *NUC* with the others gave these interesting results:

NUC + *CBI*—96.4 percent

NUC + *BIP*—95.8 percent

NUC + *BPR*—95.0 percent

Thus, a searcher starting the verifications with *NUC* should be able to find an additional 2 to 3.4 percent by continuing with any of the other three printed tools.

By this process it can be determined whether or not the addition of another tool to any one of the six tools will increase the retrieval percentage and, if so, by how much. Table 1 combines the computer runs for all searches over the three periods of time under study. Note that for combinations of *two* tools the highest retrieval rate was 98.9 percent, using *CBI* and *OCLC*. The combination of *three* tools increased the total retrieved to 99.4 percent, using *BIP*, *OCLC*, and *MCRS*. Searching "to the bitter end," using all six tools, did not increase the total; that last 0.6 percent could not be found in any of the verification tools.

TABLE 1
PERCENTAGE OF TITLES VERIFIED
WITH DIFFERENT REFERENCE TOOLS

Tool	Imprint Year Alone	Imprint Year Plus Following Year	Imprint Year Plus All Succeeding Years
<i>NUC</i>	53.3	88.9	93.0
<i>BPR</i>	56.9	73.6	73.9
<i>CBI</i>	40.8	77.5	81.7
<i>BIP</i>	70.0	80.8	83.6
<i>OCLC</i>	70.8	92.5	97.5
<i>MCRS</i>	57.2	90.6	94.4
<i>NUC, BPR</i>	65.6	92.5	95.0
<i>NUC, CBI</i>	60.3	93.6	96.4
<i>NUC, BIP</i>	79.2	94.7	95.8
<i>NUC, OCLC</i>	83.3	95.6	98.6
<i>NUC, MCRS</i>	63.9	93.9	96.7
<i>BPR, CBI</i>	63.6	85.3	87.5
<i>BPR, BIP</i>	77.5	86.1	87.7
<i>BPR, OCLC</i>	75.8	95.0	98.6
<i>BPR, MCRS</i>	68.1	93.6	96.1
<i>CBI, BIP</i>	76.9	88.9	90.3
<i>CBI, OCLC</i>	75.3	95.8	98.9
<i>CBI, MCRS</i>	63.9	93.6	96.7
<i>BIP, OCLC</i>	83.3	95.6	98.6
<i>BIP, MCRS</i>	80.8	95.3	97.5
<i>OCLC, MCRS</i>	74.7	95.3	98.3
<i>NUC, BPR, CBI</i>	69.2	94.2	96.7
<i>NUC, BPR, BIP</i>	81.7	95.0	96.1

TABLE 1 (cont.)

Tool	Imprint Year Alone	Imprint Year Plus Following Year	Imprint Year Plus All Succeeding Years
<i>NUC,BPR,OCLC</i>	77.2	96.1	98.6
<i>NUC,BPR,MCRS</i>	70.3	94.7	97.2
<i>NUC,CBI,BIP</i>	81.9	95.8	97.2
<i>NUC,CBI,OCLC</i>	77.8	96.9	98.9
<i>NUC,CBI,MCRS</i>	68.6	95.3	98.1
<i>NUC,BIP,OCLC</i>	85.0	97.5	99.2
<i>NUC,BIP,MCRS</i>	82.2	96.7	98.3
<i>NUC,OCLC,MCRS</i>	77.5	95.8	98.6
<i>BPR,CBI,BIP</i>	80.0	90.3	91.4
<i>BPR,CBI,OCLC</i>	78.1	95.8	98.9
<i>BPR,CBI,MCRS</i>	70.8	94.4	97.2
<i>BPR,BIP,OCLC</i>	84.4	96.4	99.2
<i>BPR,BIP,MCRS</i>	82.5	95.8	97.5
<i>BPR,OCLC,MCRS</i>	77.5	96.1	98.9
<i>CBI,BIP,OCLC</i>	85.0	96.7	99.2
<i>CBI,BIP,MCRS</i>	82.8	95.8	97.8
<i>CBI,OCLC,MCRS</i>	77.8	96.7	99.2
<i>BIP,OCLC,MCRS</i>	85.0	96.9	99.4
<i>NUC,BPR,CBI,BIP</i>	83.3	95.8	97.2
<i>NUC,BPR,CBI,OCLC</i>	79.2	96.9	98.9
<i>NUC,BPR,CBI,MCRS</i>	72.8	95.3	98.1
<i>NUC,BPR,BIP,OCLC</i>	85.6	97.5	99.2
<i>NUC,BPR,BIP,MCRS</i>	83.6	96.7	98.3
<i>NUC,BPR,OCLC,MCRS</i>	78.3	96.4	98.9
<i>NUC,CBI,BIP,OCLC</i>	86.4	97.8	99.2
<i>NUC,CBI,BIP,MCRS</i>	84.2	96.9	98.6
<i>NUC,CBI,OCLC,MCRS</i>	79.4	96.9	99.2
<i>NUC,BIP,OCLC,MCRS</i>	85.8	97.5	99.4
<i>BPR,CBI,BIP,OCLC</i>	85.8	96.7	99.2
<i>BPR,CBI,BIP,MCRS</i>	83.6	96.1	97.8
<i>BPR,CBI,OCLC,MCRS</i>	79.2	96.7	99.2
<i>BPR,BIP,OCLC,MCRS</i>	85.3	97.2	99.4
<i>CBI,BIP,OCLC,MCRS</i>	86.1	97.5	99.4
<i>NUC,BPR,CBI,BIP,OCLC</i>	86.7	97.8	99.2
<i>NUC,BPR,CBI,BIP,MCRS</i>	84.7	96.9	98.6
<i>NUC,BPR,CBI,OCLC,MCRS</i>	80.0	96.9	99.2
<i>NUC,BPR,BIP,OCLC,MCRS</i>	85.8	97.5	99.4
<i>NUC,CBI,BIP,OCLC,MCRS</i>	86.9	97.8	99.4
<i>BPR,CBI,BIP,OCLC,MCRS</i>	86.4	97.5	99.4
<i>NUC,BPR,CBI,BIP,OCLC,MCRS</i>	86.9	97.8	99.4
NOT FOUND	13.1	2.2	0.6

The analysis was extended to each subject area, with the result that certain tools were found to be weak in particular subject areas. The results are reported in table 2, which should be used cautiously because of the small sample sizes used in this study. The three most troublesome subjects were art, chemistry, and computer science. Any library specializing in certain subjects needs to identify the verification

TABLE 2
PERCENT COVERAGE BY SUBJECT, ALL YEARS

Subject	OCLC	MCRS	NUC	BIP	CBI	BPR
Literature	100.0	100.0	97.5	92.5	95.0	85.0
History	100.0	100.0	100.0	90.0	85.0	82.5
Art	97.5	97.5	92.5	82.5	65.0	65.0
Psychology	97.5	97.5	90.0	97.5	90.0	72.5
Economics	100.0	97.5	97.5	80.0	82.5	77.5
Chemistry	92.5	80.0	87.5	67.5	72.5	62.5
Biology	100.0	100.0	100.0	95.0	92.5	85.0
Environmental						
Science	97.5	90.0	90.0	75.0	82.5	77.5
Computer						
Science	92.5	87.5	82.5	72.5	70.0	57.5
All Subjects	97.5	94.4	93.0	83.6	81.7	73.9

tools that are strong and those that are weak in its subjects. The information in this report can be considered a starting place, but a library specializing in any of the subjects not included (e.g., banking, medicine) may need to conduct its own survey to discover the most suitable verification tools.

CURRENCY

The Imprint Year. The most important year from the standpoint of the acquisitions librarian is the imprint year. It is then that book reviews are most apt to appear; it is then that verifications are the most difficult because of the time required for the information to appear in the verification tools.

From an examination of the percentages retrieved during the imprint year, a different picture emerges from that found for total coverage. The currency of information in these tools varies greatly. The acquisitions librarian needs to know which tools perform best during the imprint year.

The computer analysis clearly showed that the inexpensive *Books in Print* gave just as good results for the imprint year as OCLC (70 percent verified).

An examination of the percentages retrieved by different combinations of tools in the imprint year revealed less overlap. For example, the combination of BIP and OCLC gave 83.3 percent verified, although each tool alone gave 70 percent. Moreover, it was possible for two relatively inexpensive printed tools in combination to exceed the retrieval percentage of OCLC for the imprint year. For the 360 books under study, such combinations were

NUC + BIP—79.2 percent

BPR + BIP—77.5 percent

It was interesting to note that 13.1 percent of the sample could not be verified in any of the six tools during the imprint year. The lesson to be learned would seem to be: *Search in no more than three tools during the imprint year.* Otherwise you are probably wasting time and money

and you probably will not find what you seek.

Imprint Year Plus Following Year. For the imprint year and the following year, OCLC retrieved the highest percentage (92.5 percent). This rate is only 5 percent less than the total found through OCLC over the longer time period of three to four years.

OCLC was closely followed by *MCRS* at 90.6 percent and *NUC* at 88.9 percent. There was a clear gap between these three tools, which are based on the MARC data base, and the other tools under study. The next highest retrieval rate was 80.8 percent for *BIP*.

However, several combinations of printed tools gave retrievals equal to, or slightly exceeding, that of OCLC.

NUC + *BIP*—94.7 percent

NUC + *CBI*—93.6 percent

NUC + *BPR*—92.5 percent

Imprint Year Plus All Years After. Only a small increase in the percentages retrieved was found when searching was extended past the imprint year plus the following year. For each tool the percentage increased slightly—from 0.3 percent for *BPR* to 5.0 percent for OCLC (table 3).

A large number of additional items is found in each tool in the second year, but only a very small number in subsequent years. Obviously, prolonged searching yields very little extra information, and may be expensive because of the time it takes to search multiple issues.

TABLE 3
PERCENTAGE OF TITLES VERIFIED
IN EACH OF THREE TIME PERIODS

Time Period	OCLC	MCRS	NUC	BIP	CBI	BPR
Imprint yr.	70.8	57.2	53.3	70.0	40.8	56.9
+ Next yr.	+ 21.7	+ 33.4	+ 35.6	+ 10.8	+ 36.7	+ 16.7
2 yr. total	92.5	90.6	88.9	80.8	77.5	73.6
+ All after	+ 5.0	+ 3.8	+ 4.1	+ 2.8	+ 4.2	+ 0.3
Grand total	97.5	94.4	93.0	83.6	81.7	73.9

SPEED OF SEARCHING

As might be expected, the automated source (OCLC) and the compact microfiche source (*MCRS*) enjoyed a clear advantage over the conventional manual tools in the time required for verification of monographs. Records kept by the search teams yielded the following average times to conduct an exhaustive verification search.

Tool	Minutes per Item
OCLC	1.15
MCRS	1.31
BPR	2.10
CBI	2.17
BIP	2.25
NUC	2.94

The *NUC*, perhaps because of its sheer bulk, takes the longest time to use. Both the online service and the microfiche service were faster than any of the printed tools. However, the rate for OCLC varies, depending upon the time of day. Speeds of one minute per item could be achieved at night, while daytime speeds were nearer 1.5 minutes per item.

COST ANALYSIS

To attempt a simple cost analysis let us assume that the labor cost is twelve dollars per hour, including overhead. Then each minute of labor costs twenty cents and the costs per item searched can be calculated by multiplying the time in minutes by the cost per minute. However, the percent verified in each tool should be taken into account. If a tool were very cheap to use, but permitted verification of only 20 percent of the items, it would not be a good choice no matter how inexpensive. So the figures calculated for cost per item searched must be divided by the fraction verified to arrive at a cost per item found. Table 4 summarizes the calculations.

TABLE 4
CALCULATED LABOR COST/ITEM ACTUALLY VERIFIED

Tool	Min./Item	×	Cost/Min.	=	Cost/Item Searched	÷	Fraction Verified	=	Cost/Item Found
OCLC	1.15		\$.20		\$.230		.975		\$.236
MCRS	1.31		.20		.262		.944		.277
BPR	2.10		.20		.420		.739		.568
CBI	2.17		.20		.434		.817		.531
BIP	2.25		.20		.450		.836		.538
NUC	2.94		.20		.588		.930		.632

When the cost of owning and maintaining each tool is known, total costs of using each tool can be calculated. More importantly, the same figures can be used to calculate the break-even point, or the point at which the cost of using one tool becomes equal to the cost of using another, expressed as a number of verifications per year. It is apparent that one tool will be cheaper than another until the higher labor costs for using it offset its lower cost.

For example, the 1978 costs for *BPR* total \$66.00 (\$21.00 for the subscription plus \$45.00 for the annual cumulation). For *BIP* the supplement for 1977/78 cost \$45.00 and the 1978/79 volume cost \$92.50, making a total of \$137.50. The yearly costs for a certain number of verifications (e.g., 5,000 per year) can be calculated by adding the cost of owning the tool and the cost of using it.

$$BPR: \$66.00 + (5,000 \times \$0.568) = \$2,906.00$$

$$BIP: \$137.50 + (5,000 \times \$0.538) = \$2,827.50$$

To determine the number of verifications at which the break-even point will occur, let *N* represent the number of verifications per year when the cost of using one tool equals the cost of using the other.

$$\begin{aligned}
 \$66.00 + (N \times \$0.568) &= \$137.50 + (N \times \$0.538) \\
 66.00 + 0.568 N &= 137.50 + 0.538 N \\
 0.568 N - 0.538 N &= 137.50 - 66.00 \\
 0.03 N &= 71.50 \\
 N &= 2,383.
 \end{aligned}$$

BPR costs less initially, but costs more for each use than *BIP*. When the number of verifications reaches 2,383, the costs are exactly the same (break-even point), after which it becomes cheaper overall to use *BIP*. Thus, if hard choices are necessary, a library can determine whether it should buy *BPR* or *BIP* if it cannot afford both.

Such calculations can be made for each of the tools, and can prove informative for the library director. A library that has very many verifications to make per year would like to know whether or not such services as OCLC and *MCRS* are more cost-effective than the conventional printed tools.

In calculating the costs of the tools, factors that should be taken into account are the following:

1. *CBI* is sold on a "service basis," in proportion to the library's average annual fund for English-language books.
2. *NUC* is sold in separate parts, so that each library may purchase only those parts it needs.
3. *MCRS* (now called *Bibliographic Control Systems*) is sold in separate parts by subscription. It requires a microfiche reader or reader/prINTER that will accommodate five-by-eight-inch fiche. Maintenance costs and supplies should be included in the calculations.
4. OCLC requires a dedicated computer terminal of a special kind plus a modem to connect it to the telephone lines. There will be initial installation costs for both the terminal and the modem, plus annual maintenance costs. In addition, an institution that owns any OCLC terminals is required to join a network to which it must pay considerable monthly fees. Finally, there must be considered the "connect charges" for communications, to be paid for each hour or fraction thereof that each terminal is in use.

CONCLUSIONS

Six reference tools used for verification of monographs before acquisition were compared for ease of use, coverage, and currency of information. A computer analysis helped determine the degree of overlap among the tools. A method of cost analysis was developed to aid acquisitions librarians determine which reference tools would be cost-effective in their situations.

In this test the OCLC service gave the quickest results and, over a period of time, had the highest retrieval rate. However, during the imprint year of the monographs, only 70 percent could be found through OCLC; likewise 70 percent could be found in *BIP*. All of the other tools were much less current. By the end of the second year, nearly all of the monographs that would eventually be covered by any tool had been included; thus, searching beyond the second year will become quite expensive since little more will be found.

Relatively poor showings were made by the three reference tools not based on the MARC records. *CBI* did not permit retrieval of foreign imprints and both *BPR* and *BIP* are heavily oriented towards American publishers.

The computer analysis showed that there is much overlap among the references. To cut down on unnecessary searching in additional tools and lower searching costs, a searcher should begin with the tool that performs best in a particular subject area.

All of the reference tools were considered accurate. Typographical errors were not a problem, although a few were noted. OCLC sometimes had two or more versions of a record.

The *NUC* was cumbersome to shelve and to use. Its retrieval rate after the imprint year, however, was only slightly less than the rates for OCLC and *MCRS*. These two newer services offer all of the material contained in *NUC*, take much less space, and have the information available more quickly. The enhanced searchability of both OCLC and *MCRS* in comparison with *NUC* was noted. Both permit searching by title, a valuable capability for certain types of material, like symposia, not easily found by a main-entry search. In addition, the combined author/title search, available with OCLC, is most useful when author search alone would yield many items.

In summary, two automated tools used for verification of monographs proved superior to four traditional tools for currency and retrieval rates, but may be more expensive to install and use. A library considering the selection of reference tools for verification should make a cost analysis to determine the break-even point between alternative tools and should avoid purchasing tools that essentially duplicate one another. The cost analysis should permit a library to purchase only the tools that are most cost-effective.

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An Evaluation of an Oregon School District's Centralized Ordering and Processing System

Leslie Hendrickson and Marie Celestre

This evaluation of a medium-sized school district's centralized ordering and processing system was undertaken to investigate complaints about time lags in the operation of the system. Data were collected through interviews, questionnaires, and a random sample search of ordering and processing records. The authors discovered a pattern of time lags at each stage of the operation. There are indications these delays are no longer than those in the earlier decentralized system.

THE USE OF centralized processing systems for school libraries grew very rapidly during the late 1950s and 1960s, and especially between 1966 and 1970 when many centralized processing centers were established with federal support.¹ Despite the extensive growth, there are relatively few detailed case studies of the operations of such systems.

The first and only really detailed study of a school centralized processing center was done by Wiese and Whitehorn.² They studied five years of operation, 1956-61, in the Baltimore City schools. The literature on centralized processing systems more typically contains the results of mailed surveys from selected samples of school districts.³

The Eugene public schools, in Eugene, Oregon, began a centralized processing system in 1974. This article describes the results of an evaluation of that system conducted by the district's evaluation department in 1976. The evaluation was prompted by complaints from numerous school personnel about time lags in receiving books, loss of control of ordering and processing at the school level, and processing errors.

This case study of centralized processing systems is illuminating for three reasons: (1) it exemplifies Aceto's findings in 1964 about the lack of planning and cost analysis and the "slim amount of empirical evidence" used to establish the program;⁴ (2) it systematically links com-

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plaints about time lags in the system's operation to actual data on the time lags; and (3) the context in which the program operates is described so that readers can see the pressures and administrative styles affecting its operation. This evaluation shows the wide range of procedural difficulties encountered in analyzing institutional acquisition systems.

HISTORY

The centralized system under evaluation had been established in 1974 as part of a district-wide reorganization plan of a new superintendent. In 1975, the Eugene public schools had approximately twenty thousand students, eleven hundred teachers, and forty-five schools. The new system took staff from schools and centralized them in a single department in the administrative headquarters. This department was called Media Services and placed under the jurisdiction of the assistant superintendent of business services. The department head, called the coordinator of media services, had previously been in charge of the smaller ordering and processing department handling elementary and junior high school library books.

Centralized ordering and processing of library material began in the elementary schools about twenty-five years ago, and in 1965 was expanded to include the junior high schools. In 1974 the decision was made to further expand this program to include senior high library materials, senior high bindery, junior and senior high audiovisual materials, and textbooks for all grade levels.

The expansion of the centralized ordering and processing system was undertaken for two reasons according to the superintendent and the assistant superintendent for business services. It was thought that centralized ordering and processing would be cheaper and more efficient and would free school librarians for readers' services.

In January 1974, the superintendent asked the coordinator of media services to write a proposed two-year budget for a centralized ordering and processing system to cover all library materials and textbooks as well as staff. The first budget she prepared totaled \$99,500. The superintendent and his staff considered this too high, since one of the advantages of the centralization should be reduced cost. The revised estimate was \$78,000. Most of this decrease was in the amount requested for staff.

According to the superintendent, no cost estimates had been made of the amount the decentralized system had cost the district. The superintendent and some members of his staff reviewed school personnel figures, but no other steps were taken to estimate the cost of the decentralized system.

While many other school districts in Oregon order and process library books centrally, only the Portland school district has had a centralized system for processing textbooks for the kindergarten through eighth grade. However, Portland has never centrally processed textbooks for secondary schools. Therefore, data were not available from similar systems for comparison.

CLAIMS AND COUNTERCLAIMS ABOUT THE NEW SYSTEM

In her six-month review, the coordinator of media services said that a centralized processing system had the following advantages: (1) it relieved the school library staff of clerical work and freed them to extend and refine their services to the faculty and students. It also allowed the librarian to develop and teach library skill programs, thereby substantiating and reemphasizing the need for professional, certified library personnel; (2) the cataloging done by professional catalogers was of better quality; (3) centralized processing offered district-wide uniformity and contributed to facility and economy in production; (4) cost analyses indicated that it was economically sound to avoid, whenever possible, the duplication of effort apparent when each school provided its own technical services; (5) some savings to a district resulted through a reduction in the need for multiple purchases of many supply and equipment items. For example, a processing center can lease automated equipment to speed up processing.

Those school personnel who had complaints about the expanded centralized system claimed the level of service they were able to provide for students and staff had decreased since the expansion of centralized ordering and processing. They claimed that the expansion of the centralized system had the following disadvantages: (1) the lag between the time a school ordered a book and the time it was ready for use by students and teachers increased substantially; (2) there was a loss of control of ordering and processing procedures at the school level; (3) the quality of cataloging and processing was inferior to that done by the individual school; and (4) centralized processing had not resulted in a savings of either money or staff time.

Evaluators were thus faced with contrary claims.

METHODOLOGY OF THE EVALUATION

The evaluation team consisted of a professional researcher from the Research, Development, and Evaluation Department of the school district and a librarian from another state hired for the project. Additional temporary staff was hired for selecting and coding the random sample data.

Three data sources were used to evaluate the competing claims: (1) a 5 percent random sample was taken from the order cards in the Media Services Department; (2) questionnaires were sent to all district schools; (3) forty-three interviews with school district employees and book distributors were conducted. These interviews included school personnel in other Oregon school districts.

A problem encountered in this study was the limited amount of verifiable data. With the exception of Media Services' permanent order files and work-load statistics, no operating records were available, and many of the complaints were not open to verification.

Since no cost analyses or staffing studies were done prior to the expansion of centralized ordering/processing, it was not possible to make

detailed comparisons between the costs and performance of the new centralized system versus the costs and performance of the old system. It was possible to establish the amount of time book orders spent at each stage of the ordering and processing system, but because Media Services staff only began keeping these records after its expansion and many schools maintained no dated records of their processing time, it was not possible to make any accurate comparison between past and present performance.

When looking at the history of the expansion of centralized ordering/processing, the evaluators were hampered by conflicting information and lack of documentation. The only documents that exist relating to this period are the budget proposals prepared by the coordinator of media services. No record at all exists of the decision-making process that created the new system of centralized ordering/processing. It did not appear on the agenda of any administrative staff meetings. The superintendent, when interviewed, said that he thought his decision was made as part of the budget committee's deliberations. The lack of records made this claim unverifiable.

TIME LAG IN RECEIVING BOOKS

The amount of time between the date a school sent an order to Media Services and the date of receipt of the material was identified as the most serious complaint about the centralized ordering/processing system during interviews and in responses to questionnaires. Thirty-three schools, including all four of the senior high schools—or 79 percent of the schools responding to the questionnaire—answered that the length of time for receipt of material had increased. The time lag was considered to be a major problem by eleven of the fourteen school staff members interviewed. It is reasonable to infer that comments made by the staff interviewed were reflective of the views of many other school staff.

With exceptions, time lags in the ordering of books are not systematically reported in the professional literature.⁵ To measure the time lags in the Media Services system, a 5 percent random sample was taken from the permanent order files, which contain an estimated thirty-six thousand cards. The sample of 430 textbook cards and 1,389 cards for library materials provided information on the amount of time elapsed at each stage of the ordering and processing system. Four transaction dates are supposed to be placed on each card: the date Media Services received the order from the school; the date Media Services sent the order to the vendor; the date the book was received; and the date the book was sent to the school. For each item in the random sample, the number of calendar days that had elapsed between each date was recorded, as were the school type (elementary, junior or senior high) and the book type (library or textbook).

Table 1 shows the results of the record search for textbook ordering and processing. Table 2 shows the results for library books. Both tables present the average number of days elapsed for each school level and the four time periods studied. These tables show the num-

TABLE 1
TIME REQUIRED FOR THE CENTRALIZED ORDERING AND PROCESSING OF TEXTBOOKS
FOR THE EUGENE, OREGON, PUBLIC SCHOOLS (SAMPLE SIZE = 430)

Number of Days	Elementary Transaction Times*				Junior High Transaction Times				Senior High Transaction Times			
	1	2	3	4	1	2	3	4	1	2	3	4
Average	14.35	34.25	3.10	50.89	9.76	34.44	4.78	47.10	11.08	52.89	5.26	64.77
Same Day	5 2.7%	0 0%	89 56.7%	—	7 7.9%	1 1.4%	28 38.9%	—	14 14.4%	2 2.2%	30 30.9%	1 1.5%
1-5	68 37%	1 0.6%	41 26.1%	—	40 44.9%	1 1.4%	24 33.3%	—	28 28.9%	—	35 36.1%	—
6-10	10 54%	3 1.8%	17 10.8%	—	9 10.1%	4 5.6%	9 12.5%	1 1.4%	10 10.3%	—	16 16.5%	—
11-15	26 14.1%	3 1.8%	2 1.3%	4 2.6%	10 11.27%	1 1.4%	6 8.3%	3 4.3%	5 5.2%	6 6.7%	5 5.2%	1 1.5%
16-30	53 28.8%	68 40.7%	5 3.2%	26 17%	19 21.3%	25 32.2%	3 4.2%	3 4.3%	40 41.2%	26 28.9%	10 10.3%	8 12.1%
31-45	20 10.9%	69 41.3%	3 1.9%	36 23.5%	4 4.5%	27 38.0%	2 2.8%	31 44.3%	—	23 25.6%	—	13 19.7%
46-60	2 1.19%	13 7.8%	—	36 23.5%	—	7 9.9%	—	14 20.0%	—	11 12.2%	1 1%	12 18.2%
61-75	—	8 4.8%	—	27 17.6%	—	4 5.6%	—	14 20.0%	—	7 7.8%	—	13 19.7%

76-90	—	1 0.6%	—	19 12.4%	—	—	2 2.9%	—	1 1.1%	—	6 9.1%
91-120	—	—	—	4 2.6%	1 1.4%	—	1 1.4%	—	6 6.7%	—	4 6.1%
121-150	—	1 0.6%	—	1 0.7%	—	—	1 1.4%	—	5 5.6%	—	3 4.5%
150 +	—	—	—	—	—	—	—	—	3 3.3%	—	5 7.6%
Totals for cards with dates	184 100%	167 100%	157 100%	153 100%	89 100%	70 98.7%	72 100%	70 100%	88 97.8%	97 100%	65 98.5%
Number of cards with missing dates	5	22	32	36	4	22	21	23	58	51	82
Percent of all cards with missing dates	3%	12%	17%	19%	4%	24%	23%	25%	39%	34%	55%

*Transaction times are defined as follows:

Time 1 = number of calendar days required to prepare an order to be sent to the vendor.

Time 2 = number of calendar days required for vendor to fill order.

Time 3 = number of calendar days required by Media Services to process the book.

Time 4 = total ordering and processing time.

TABLE 2
TIME REQUIRED FOR THE CENTRALIZED ORDERING AND PROCESSING OF LIBRARY BOOKS
FOR THE EUGENE, OREGON, PUBLIC SCHOOLS (SAMPLE SIZE = 1389)

Number of Days	Elementary Transaction Times*				Junior High Transaction Times				Senior High Transaction Times			
	1	2	3	4	1	2	3	4	1	2	3	4
Average	17.28	53.20	34.59	86.71	17.28	48.47	28.05	77.85	14.00	44.05	27.05	75.41
Same Day	3 3.2%	—	—	—	3 3.2%	—	5 2.2%	—	1 1%	—	—	—
1-5	24 25.5%	1 0.5%	8 3.5%	—	24 25.5%	—	30 13.3%	—	33 32%	—	17 7.2%	—
6-10	13 13.8%	—	17 7.4%	—	13 13.8%	—	15 6.7%	—	8 7.8%	1 0.6%	35 14.9%	—
11-15	7 7.4%	—	23 10%	—	7 7.4%	1 0.6%	25 11.1%	—	22 21.4%	—	38 16.2%	—
16-30	26 27.7%	38 18.7%	92 39.8%	—	26 27.7%	43 25.7%	69 30.7%	2 1.8%	28 27.2%	47 29.6%	57 24.3%	1 1.0%
31-45	17 18.1%	37 18.2%	27 11.7%	17 18.5%	17 18.1%	56 33.5%	38 16.9%	9 8.0%	11 10.7%	66 41.5%	45 19.1%	19 18.4%
46-60	3 3.2%	97 47.8%	28 12.1%	6 6.5%	3 3.2%	34 20.4%	16 7.1%	21 18.6%	—	27 17%	33 14.0%	17 16.5%
61-75	—	5 2.5%	24 10.4%	12 13.0%	—	8 4.8%	13 5.8%	20 17.7%	—	5 3.1%	8 3.4%	19 18.4%

76-90	—	1	2	18	—	1	8	31	—	2	1	17
		0.5%	0.9%	19.6%		0.6%	3.6%	27.4%		1.3%	0.4%	16.5%
91-120	—	8	9	23	—	17	6	20	—	4	—	23
		3.9%	3.9%	25.0%		10.2%	2.7%	17.7%		1.3%		22.3%
121-150	1	16	1	15	1	7	—	10	—	2	—	5
	1.1%	7.9%	0.4%	16.3%	1.1%	4.2%		8.8%		1.3%		4.9%
150 +	—	—	—	1	—	—	—	—	—	5	1	2
				1.1%						3.1%	0.4%	1.9%
Totals for cards with dates	93	203	231	92	114	167	225	113	103	159	235	103
	98.9%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of cards with missing dates	451	342	314	453	338	285	227	339	289	233	157	289
Percent of all cards with missing dates	83%	63%	58%	83%	75%	63%	50%	75%	74%	59%	40%	74%

*Transaction times are defined as follows:

Time 1 = number of calendar days required to prepare an order to be sent to the vendor.

Time 2 = number of calendar days required for vendor to fill order.

Time 3 = number of calendar days required by Media Services to process the book.

Time 4 = total ordering and processing time.

ber and percent of books received by the number of days elapsed by school type and book type.

These time groupings compare the length of time it took Media Services to handle the book orders with the length of time it took the vendors to handle the book orders. Because of the large number of missing dates, comparisons were computed entirely on the basis of available data.

Time 2 reflects not only the time taken by the vendor to fill an order but also the mail and shipping time, and the time taken by the district's business office to generate a purchase order. Business staff said that normally a purchase order would take no more than two or three days to produce.

Schools may not receive the book until several additional steps have been taken. Textbooks not on the approved list go to another district office for approval before going to Media Services. This procedure is not followed for textbooks on the approved list or for library books.

Also, there can be a delay before the books are delivered to the schools. Warehouse employees pick up books from Media Services daily, but deliver them to the schools only once a week. Therefore, a book can spend up to a week in the district's warehouse after processing is completed.

As the tables show, transaction dates did not appear on the cards in a substantial number of cases. A code was used for those instances where dates were missing. Dates were missing on far more of the library book cards than the textbook cards. The percent of textbook cards without dates never went above 55 percent and occasionally was as low as 3 or 4 percent. In two categories, as table 2 shows, 83 percent of the library book cards were without transaction dates. The percent of library book cards without dates never went below 40 percent.

Generally speaking, those categories of books with the greatest number of missing dates were also the categories that had the longest average time taken to order and process the books. A Pearson correlation coefficient was computed on this relationship, and the correlation was almost perfect.

When questioned about missing data, Media Services staff said that several factors contributed to the large number of cards without dates. Media Services did not begin dating textbook cards until six months after it began maintaining the files. It began dating library book records a few months later. At one time, cards for out-of-print books were left in the permanent order file even though these books were never received from the vendor and the transaction never completed. One summer and fall, when Media Services was overwhelmed by the number of textbook orders, dating of cards was erratic for that period. Staff from other departments were helping then and more clerical errors occurred.

The time 1 data show that library books took longer on the average to order than textbooks, while textbooks for elementary schools took longer than those for high schools. The length of time taken to order

books varies substantially. For example, the range is from same day to sixty days for elementary textbooks, but from same day to thirty days for senior high school textbooks. All senior high school textbooks were ordered within thirty days, but 12.09 percent of the elementary textbooks took longer than thirty days to order. The analysis of library book ordering is difficult because of the high proportions of missing transaction dates.

The time 2 data show that elementary and junior high textbooks took a shorter time and senior high library books and textbooks took the longest time. Although the distributor should fill orders within five days, the amount of time had recently increased to seven to fourteen days. A representative of a major Northwest textbook distributor explained that greater diversity in senior high textbooks may be responsible for the delay. In senior high schools there is greater use of experimental books, which are less likely to be part of the normal inventory of the wholesaler and must be "special-ordered" from the publisher.

Elementary and junior high library books took longer to come from the vendor than did textbooks for these grade levels. Representatives from two distributors said that the greater diversity in library books accounts for this situation. In general, the average time elapsed for each step was longer for library books than for textbooks. The one exception is the time between ordering and receiving senior high books from the vendor, which is 52.89 days for textbooks and 44.05 for library books.

The time 3 data show the average number of days between the time a book was received and the time it was sent to the school. The processing of junior and senior high textbooks averaged about two days more than the processing of elementary textbooks. The fact that more processing was done on senior high books than on junior high and elementary books probably accounted for the longer processing time for senior high books. It is not known why junior high books had a longer average processing time than elementary books. There was a marked difference between the processing of textbooks and library books. On the average, less than a week elapsed before the processing of textbooks was completed, while approximately a month could elapse before library book processing was completed.

There are two reasons for the longer time lag for library books. First, when Media Services is deluged with textbook orders as happened one summer, the processing of library books is slowed, since Media Services gave textbook processing a higher priority. Textbook processing was also given first priority when processing was done by the individual schools. Secondly, more processing generally was done on library books than on textbooks. Elementary and junior high school textbooks were just stamped and given an inventory number. Senior high textbooks, in addition, had a book card and pocket. Approximately 25 percent of the library books received needed to have original cataloging done. The other 75 percent either (a) came with commercially cataloged, prepared cards, or (b) already had the

necessary cataloging information in Media Services' union files, since the district owns copies of the book. After library books were cataloged, catalog cards and book pockets and cards were made, and the Dewey decimal number was put on the spine. For the elementary library books, pockets and plastic jackets were prepared and cards were arranged for filing. Local school staff took care of these procedures for junior and senior high school library materials. While processing time for textbooks averaged three to five days, the processing of library books averaged twenty-seven to thirty-four days, depending on school type.

The average time required for a school to receive a textbook was 50.89 days for elementary schools, 47.10 days for junior high schools, and 64.77 days for senior high schools, a difference attributable to the time between ordering and receiving books from the vendor. The average total time for library books was 86.71 days for elementary schools, 77.85 days for junior high schools, and 75.41 for senior high.

The range of total time varies by type of book. The minimum times between date ordered and date sent to schools were shorter for textbooks and shortest for junior high textbooks.

In the questionnaire sent to schools, school personnel were asked to estimate the average total time they thought it took for them to receive textbooks and library books. A number of schools estimated the average time required to get a textbook as considerably shorter than it actually was. Twelve elementary schools thought the average time was thirty days or less. One senior high estimated the average time to receive textbooks as forty-seven days. Evaluators found that school staff were not generally aware of what the actual time lags were.

Table 3 compares the time taken to order and process a book in contrast to the time the vendor took to supply the book. Three comparisons are presented. The first compares time 1, the ordering, with time 2, the vendor's time. The second compares time 3, the processing of the book after its arrival, with time 2. The third comparison adds times 1 and 3 together and compares them to time 2, the vendor's time. In this way, the time taken by Media Services can be compared to the time taken by the vendors. The data are the percentages of books for which one time was greater than another.

Although these comparisons are based only on those cards with transaction dates, evaluators assumed that these percentages represent a minimum time estimate. Since an almost perfect correlation exists between missing transaction dates and a longer time lag in ordering and processing books, it is likely that if more data were available, the percentage of items for which the time at Media Services is greater than the time at the vendor would be even larger than those shown in table 3.

Table 3 shows that the number of days between the date an order was received by Media Services and the date it was sent to the vendor (time 1) was longer than the number of days between ordering and receiving the book from the vendor (time 2) for 1.5 percent of senior high textbooks, 7.0 percent of junior high textbooks, and 9.8 percent

TABLE 3
THE TIME TAKEN BY MEDIA SERVICES TO ORDER AND PROCESS
BOOKS COMPARED TO THE TIME TAKEN BY VENDOR
(DATA REPORTED AS PERCENTAGE OF BOOKS)

	Textbooks			Library Books		
	Elementary	Junior High	Senior High	Elementary	Junior High	Senior High
Time 1 (Ordering) greater than Time 2 (Vendor)	9.8%	7.0%	1.5%	10.6%	11.5%	16.5%
Time 3 (Processing) greater than Time 2 (Vendor)	1.9%	2.9%	2.9%	20.4%	29.9%	28.5%
Time 1 & 3 (Ordering) and Processing greater than Time 2 (Vendor)	13.1%	12.9%	6.1%	51.1%	44.2%	49.5%

of elementary school textbooks. The percentages were somewhat higher for library books.

The disparity between textbooks and library books was greater when the length of time spent in processing (time 3) was compared to time 2: 2.9 percent of the senior high textbooks, 2.9 percent of the junior high textbooks, and 1.9 percent of the elementary school textbooks took longer to be processed than to come from the vendor. The percentages for library books are 28.5 percent of senior high books, 29.9 percent of junior high books, and 20.4 percent of elementary books. This reflects the much longer processing time of library books.

Finally, time 1 and time 3 were added together and compared to time 2. Again, a much higher percentage of library books than textbooks spent more time at Media Services than they did coming from the vendor. Senior high textbooks, 6.1 percent, junior high textbooks, 12.9 percent, and elementary textbooks, 13.1 percent, spent more time in Media Services than coming from the vendor, compared to 49.5 percent of senior high library books, 44.2 percent of junior high library books, and 51.1 percent of elementary library books.

The question of acceptable operating performance is subjective since it presupposes a standard of acceptability. A review of professional library literature was done to establish the delays acceptable in centralized processing operations. No studies have been done in this area, and standards apparently do not exist. For example none of the studies cited by West and Baxter⁶ and Tesovnik and DeHart⁷ present data on time lag or standards.

Evaluators concluded that the following criteria could apply to the Eugene system. First, there should be no items for which time 1 is greater than time 2, and there certainly should not be percentages greater than 10 percent. For example, as table 1 shows, for 12 percent of the elementary textbook orders more than thirty days elapsed before a requisition was typed. Media Services staff said it should take

no more than ten days to prepare a requisition, yet all but one of the six average times in table 1 and 2 were longer.

Second, as table 3 shows, for approximately 50 percent of the library books ordering and processing required more time than handling by the vendor. Even when the number of processing steps is considered, the amount of time seems excessive.

Third, as table 3 shows for 20 to 30 percent of all library books processing alone required more time than vendor handling. In fact, 17 to 22 percent of all library books took more than thirty days to be processed. Approximately 6 percent of the elementary books and 6 percent of the junior high books took longer than sixty days. These proportions seemed excessive to evaluators.

Finally, given that some schools have complained about delays, and given that the actual number of days between the time a school orders a book and the time it receives it was greater than the subjective estimates of school staff, evaluators generally concluded that the time lags described above are unacceptable to many district personnel.

WORK LOAD AND STAFFING

One of the most important factors contributing to problems with the new system was the staffing of Media Services. Four of the people interviewed and nine of those completing the questionnaire said they felt that Media Services did not have adequate staff for the volume of work involved. This finding echoes Aceto's conclusions: "It is ironic that the problem of inadequate staffing—which caused many school districts in the study to adopt central processing—still remains."⁸ Several of the people interviewed added that it is only because of the dedication and hard work of Media Services staff that there have not been more problems with the expansion of this department.

In another budget proposal submitted in January 1975, for the expansion of centralized ordering and processing, the coordinator of media services requested an additional \$52,400 for staff, an amount that would have provided salaries for two catalogers, a part-time coordinator, one acquisitions paraprofessional, three typists, and one textbook clerk. Again, the superintendent considered this budget too high, since it was thought that savings should be one of the advantages of centralized ordering and processing. In the second proposed budget, two weeks later, the request for additional salaries was reduced to \$38,500, one cataloger and one typist less than the original request.

Even though this budget was accepted, funds were not provided for all of the staff requested. Media Services still had the equivalent of one less staff member than requested in the budget proposal. Those hired included one cataloger, a half-time acquisitions paraprofessional, two typists, and a half-time textbook clerk. Each of the four high schools lost the salary for a full-time clerk when the responsibility for processing their books had been transferred to Media Services. The money was used to offset some of the increase in salaries at Media Services.

Before the expansion of the centralized system, Media Services had

5 clerical employees and 1.5 professionals. With the money taken from the high schools and the new budget money, three clerical employees and one professional were added. However, in the opinion of evaluators, the work load added was greater than the capacity of the additional four positions. If only high school library book ordering and processing had been added, then the four clerk salaries taken from the high schools' budget would have offset the additional work. However, textbook ordering and processing were also added, and no additional staffing was provided to offset the increased textbook work.

In 1974-75, a total of 38,091 items were processed, including library materials and texts. This is half the number of items estimated in the budget proposals prepared by the media coordinator's office. Yet the department was overwhelmed by the volume of work.

Textbook ordering and processing was formerly done largely by secretaries, students, and volunteers. For example, the questionnaires returned from the schools estimated that 63 to 76 percent of the textbook processing in the junior and senior high was done by volunteers.

The new system transferred many invisible costs incurred by a large number of people to a single, visible, centralized cost center. Since no documentation exists discussing the rationale or cost analysis for the new system, evaluators concluded that costs of the old system were probably underestimated. This estimation and the necessity to have a smaller budget for the new system to justify its cost-effectiveness led to a situation in which staffing levels were not made commensurate with actual work loads. The explicit decision to staff Media Services at the lower levels of the revised budget was also an implicit decision to incur longer time periods in the ordering and processing of books. This original imbalance was further skewed by an increase in the work load of Media Services. Between 1973-74, when only elementary and junior high library books and elementary audiovisual materials were centrally ordered and processed, and between 1974-75, when Media Services was expanded to include all library and textbooks, the clerical staff increased from five to eight and the professional staff increased from 1.5 to 2.5, an increase of 37.5 percent and 40 percent respectively. During this same period, the number of items processed rose from 14,605 in 1973-74 to 38,091 in 1974-75, a 160 percent increase. A similarly sized increase from 38,091 to 66,287 occurred in 1975-76.

In addition to staffing and work-load levels, evaluators also reviewed inventory control and discovered that it was not possible to determine readily the value and number of books owned by the various schools because only rudimentary property inventory procedures were used. Moreover, even though the school district ordered more than seventy thousand books in 1977-78, it is difficult to determine if necessary books are being ordered because the number of unused books has never been studied.

CONCLUDING COMMENTS

The authors conclude that: (1) the program was begun without adequate planning and documentation; unacceptably long time lags

existed in certain categories of book ordering and processing; consistent recording of transaction dates was not done; (2) actual delays in receiving books were typically longer than the perceived delays that school staff complain about; (3) no apparent economies in staff personnel costs resulted from the new program; (4) Media Services was understaffed when the program was expanded and was understaffed when evaluated; and (5) the understaffing affected Media Services' operation and undoubtedly contributed to the length of time taken to order and process books.

The authors' survey of the literature indicates that unfortunately these results are not atypical. This study reflects especially the need for long-range planning and budget studies prior to major changes in programs. In this particular case the lack of planning was exacerbated since the decision making took place solely on an administrative level. Input from the library staff charged with carrying out the program was discouraged and ignored.

The success of any change is more likely when the costs of the present system are known and can be compared to those of the proposed program. Detailed evaluations may be hampered by the same lack of record keeping that was encountered in trying to reconstruct the history of this system. However, if any study had been done prior to centralizing the processing system, the many hidden costs of the decentralized system would not have been underestimated. The decision whether or not to centralize the program could have been based on a true comparison of costs rather than the feeling that centralization is cheaper. While it is never possible to take all variables into account, planning and staff input should produce more realistic goals and expectations and provide for the budgeting and staffing levels to meet them.

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The King Research Project: Design for a Library Catalog Cost Model

Angela G. Mullikin

The Association of Research Libraries sponsored the development of a library catalog cost model by King Research, Inc. over a period of several months in 1979. The seventy-two participating libraries considered alternate forms of catalogs, including various combinations of card, COM, and online, in unified or split forms and prepared input data for computer runs to arrive at costs. Although definite conclusions were impossible because of many variables, card catalogs appear to be less costly than other forms. It is possible that results might be different if costs were spread over a ten-year period instead of the five years used in the model.

THE DECISION of the Library of Congress (LC) to close its card catalog and start a new online catalog when it adopted the *Anglo-American Cataloguing Rules (AACR2)* on January 2, 1981, will affect all libraries that rely on LC cataloging. Technological developments have made possible automated catalogs in addition to the traditional card catalog. How will AACR2, rising labor costs, and the availability of computer catalogs such as COM and online affect the position of the card catalog? This situation prompted the Association of Research Libraries (ARL) to initiate a study of library catalog costs. "To assist directors and staffs of research libraries in choosing a future catalog format, ARL sponsored the development of a computer model designed to identify and estimate the costs of producing and maintaining alternative catalog formats."¹ ARL contracted with King Research, Inc. (KRI) to produce a library catalog cost model to be used to arrive at cost estimates for libraries participating in the project. KRI subcontracted with Information Systems Consultants to provide background information.

BACKGROUND AND THE TASKS OF THE PROJECT

In February 1979, directors of ARL libraries and library directors of Ph.D.-granting institutions received letters from John G. Lorenz,

Angela G. Mullikin, assistant professor, Catalog Department, Memphis State University Libraries, participated in the Library Catalog Cost Model Project as the representative of the Memphis State University Libraries. Manuscript received September 1980; accepted for publication December 1980.

executive director of ARL, concerning a proposed study on library catalog costs to help academic libraries in their choices of forms of library catalogs with the implementation of AACR2.

The plan included the development of cost models to be tested at several academic libraries before the participants submitted their data. The timetable provided that the project begin in April 1979 and be completed in the fall of 1979.

Ten tasks were identified by ARL and KRI in their contracts with participants.

1. Definition of the problem. This task included review of related background materials. Present card catalog practices and the problems associated with each one (physical, bibliographic, and financial) were to be explored in the light of the implications of AACR2.
2. Identification of the alternatives. These are discussed below.
3. Development of cost model. The participants indicated alternatives of interest and specified the cataloging practices used at present to derive comparable costs.
4. Identification of noncost factors.
5. Preparation of a user manual or model. Guidelines for describing the inputs required were provided with worksheets.
6. Conduct of the first workshop. This workshop, held in Washington, D.C., served to acquaint the participating librarians with the concepts and the model. The inputs, their calculation, and the worksheets to be used were discussed.
7. Refinement of the cost model. Modifications were made on the model incorporating suggestions made at the workshop.
8. Field contacts with selected participants. While the participating libraries were collecting input data for their specific choices of alternatives, a selected group of ten libraries were contacted by KRI for information on their progress of input preparation.
9. Processing of computer runs for individual libraries. The participating libraries mailed their input data on the alternatives selected to KRI for computer runs.
10. Final two-day workshop. The second workshop was held in Arlington, Virginia in September to review and discuss results of the individual computer runs and their implications.

In the course of the project, another task was added: preparation of a final report to be made available as soon as possible after the fall meeting.

ALTERNATIVES FOR THE COST MODEL PROJECT

The many alternatives identified as possibilities for the cost model may be divided into two basic groups: (1) a unified catalog, and (2) a split catalog.*

*Throughout this paper, the assumption was made that the split would be made as of January 2, 1981 with the adoption of AACR2.

There are four possible alternatives under a unified catalog.

1. Card catalog: modify headings and records as needed to conform to AACR2.
2. Card catalog: follow the old cataloging rules at least temporarily.
3. COM catalog: modify headings and records as needed to conform to AACR2 and change existing card catalog records as needed.
4. Online catalog: modify headings with an online authority system and convert existing card catalog and/or COM records.

If a form of split catalog is chosen, a decision must be made on whether the old catalog is to be frozen or closed. A catalog that has been frozen would cease to have any work done on its entries. All cataloging done after the chosen date, regardless of the date of publication, would be filed in the new catalog. When a catalog is closed in accordance with the cataloging date, all materials cataloged after the chosen date would be in the new catalog. However, changes and modifications to entries in the old catalog would continue as needed. A catalog may also be closed by imprint date of publications. This method would mean that the old catalog would remain active and be maintained indefinitely for the addition of works issued before the closing date.

Many alternatives are possible for the two catalogs of a split system. The most popular possibilities are listed below.

- 1-2. Freeze or close the existing card catalog and start a new card catalog.
- 3-4. Freeze or close the existing card catalog and start a new COM catalog.
- 5-6. Freeze or close the existing card catalog and start a new online catalog.
- 7-8. Freeze or close the existing card catalog, convert it to COM and start a new card catalog.
- 9-10. Freeze or close the existing card catalog, convert it to COM, and start a new COM catalog.
- 11-12. Freeze or close the existing card catalog, convert it to COM, and start a new online catalog.

FIRST WORKSHOP, JUNE 4-5, 1979

At the June workshop, the participants were given details, descriptions, and a general overview of the project by Robert R. V. Wiederkehr and Vernon E. Palmour, senior vice presidents of KRI, and Richard W. Boss, management consultant at Information Consultants, Inc. Cost elements and parameters used in designing the model were discussed. Libraries that had made cost studies were urged to share these with KRI to help establish standards and default figures. Procedures for collecting data were also discussed. Participants contributed to the development and design of the model by asking for definitions for many of the proposed input parameters, by identifying additional parameters needed, and by describing situations, such as combinations of alternatives for different types of materials and branch libraries.

REMARC DATABASE

NEWS

VOLUME I, NUMBER 1

MARCH, 1981

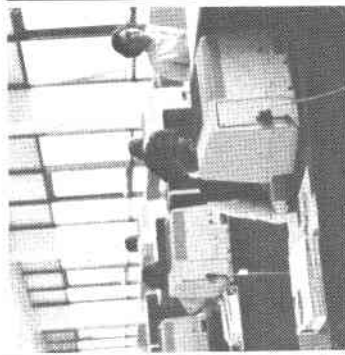
NEGOTIATIONS ADVANCE TOWARD NETWORK DISTRIBUTION PACTS

**But Individual Libraries that
Sign-up Now Get the Guaranteed
Low-Price-per Hit plus a "Most
Favored Nation" Clause**

Proposed online and offline distribution agreements between Carrollton Press and major library systems, utilities, and database vendors are in various stages of negotiation.

Meanwhile, individual library systems are negotiating directly with Carrollton for custom retrospective conversion projects. (Details of how these will work are described in the "Question & Answer" column on page 2 of this issue.) The advantages to libraries that sign these four or five-year contracts are that the low price of 50 cents per hit will remain firm during the life of the contract and that, in case the records are later made available for less per hit by one of the organizations with whom Carrollton signs an agreement, Carrollton will match that price (this is the "most favored nation" clause).

Meanwhile, these libraries would be



Data entry at the Carrollton Press office in Irvine, Scotland.

THE DON'T-BELIEVE- EVERYTHING-YOU- HEAR DEPARTMENT

**Six Rejects from the REMARC
Rumor Factory**

Have you heard that 1) the REMARC project is being fully funded by the Library of Congress, 2) the REMARC records are in the public domain and will eventually be distributed by the MARC Distribution

THE REMARC RECORD — AND HOW IT GREW

**Coverage Now Includes All Major MARC Fields Except Dewey
Numbers and Notes, Collation Data Latest Added.**

The REMARC records which are available to libraries online and offline contain important items which are not called for in the Carrollton Press contract to supply copies of these records to the Library of Congress.

Longer titles, edition statements, full imprints, and most recently, collation data, have been added to the content of the original REMARC records. These enhancements, are being supplied to LC at no additional charge.

Addition of the collation data was announced following conversion with a large number of libraries attending ALA Midwinter meeting in Washington. These additions however, apply only to the estimated 5 million records that have not yet been added to the system at that time (96% of the collection).

COMPLETE

RETROSPECTIVE

CONVERSION

PACKAGES OFFERED

TO LIBRARIES

MARC and Non-LC Records

Can Now Be Acquired Along with REMARC

In the beginning . . .

. . . the original machine language record was to be limited to the information appearing in the entries of the 132-volume *Cumulative Title Index to the Classified Collections of the Library of Congress*.

(TLC); namely, title, author, date of publication, LC Class Number, LC Card Number, and indications as to whether or not the record was in MARC and had been transliterated.

Gradually, Carrollton accumulated suggestions of items that should be added

Continued on page 4

In spite of the impression that "everybody and his brother" offers MARC records, those libraries which have not yet acquired them in machine language can buy them along with REMARC records as

Carrollton. This means that they can begin their retrospective conversion projects now and not be concerned that they will conflict with future arrangements that might be negotiated between Carrollton and their networks.

Proposed distribution agreements are now in the most advanced stages with UTLAS, WLN, and Lockheed. Carrollton has also offered to make REMARC records available to OCLC and some of its brokers under different plans which are still under discussion.

On the Inside Pages

- Q&A — Answers to Questions Most Asked by Librarians The REMARC Project at a Glance Page 2
- 6 Ways to Match Holdings to the REMARC Database Illustration: of REMARC Record and its LC Card Page 3
- Summary of the REMARC Record Production Cycle MARCRONYM Contest Winners Page 4

ONLINE AT ALA MIDWINTER

Workshop Set for San Francisco

Librarians attending ALA's Midwinter meeting in Washington were able to inspect REMARC records displayed online at a terminal connected to UCLA's Technical Processing Center.

Because of the fact that the REMARC project was discussed in various retrospective-conversion workshops at the meeting, a large and steady flow of interested librarians visited the Carrollton Press booths in the Exhibit Area.

Meanwhile, Carrollton has scheduled a REMARC workshop during the ALA Annual Meeting in San Francisco. It will be held on Monday afternoon, June 29th from 4:15 until 5:30 and will be immediately followed by the semi-annual Carrollton/HDI cocktail reception.

Representatives from libraries, networks, vendors, and consulting firms are expected to appear on the program or in panel discussions. Space will be limited, so interested librarians should call or write Carrollton Press for invitations.

MARC tapes in order to merge them with REMARC records to produce its Title Index.

Meanwhile, for those non-MARC records which also register as non-hits when matched against REMARC, Carrollton will create new REMARC records

Continued on page 4

UCLA & ENOCH PRATT NEGOTIATING CUSTOM CONVERSION PROJECTS

Probably the first two major libraries to contract for retrospective conversion projects using REMARC will be one of the nation's largest university research libraries and one of its major public library systems.

The Enoch Pratt Free Library of Baltimore, Maryland has signed a letter of intent to purchase REMARC records for its system-wide retrospective conversion program, while UCLA and Carrollton are in advance stages of negotiating an agreement which would make REMARC

Continued on page 3

Note:

This is a slightly reduced copy of page one of the first issue of our new newsletter. It will appear irregularly and will attempt to keep you informed on developments related to the massive REMARC Database Project. If you have not received a copy by mail, or would like to make certain that you're on our mailing list for this free publication, please call or write Carrollton Press, Inc., 1911 Ft. Myer Drive, Arlington, Virginia 22209, (703) 525-5940.

STATUS REPORT ON THE COST MODEL PROJECT

Early in July participants received the following: a background paper written by Boss with descriptions of catalog alternatives as well as information on technical aspects and costs, detailed worksheets for providing input data, a revised list of parameters with definitions, standard figures for many of the parameters that could be used by libraries that had not made studies, and instructions for collecting data and for completing the worksheets.

The worksheets were completed and returned early in August to enable KRI to complete the computer runs and return them to the participants at the September workshop. Participants were encouraged to send input data on more than one alternative so that individual libraries could compare costs for their own operations.

SECOND WORKSHOP, SEPTEMBER 10-11, 1979

At the second workshop, the participating libraries received their computer runs for the alternatives selected. Sixty-eight out of the seventy-two participating libraries submitted data for computer runs, ranging from 1 to 22 per institution, making a total of 326 runs. However, due to the lack of time not all the runs were completed. KRI established a limit of 3 per institution, with the remainder to be completed later and to be returned by mail.

An analysis of frequency of alternatives indicated that the top ten choices in order of frequency were:²

1. unified card catalog
2. split catalog: card/COM
3. split catalog: card/card
4. split catalog: card/online
5. unified online catalog
6. split catalog: card/online, card backup
7. unified COM catalog
8. split catalog: COM/COM
9. split catalog: card/COM, card backup
10. split catalog: card/online, COM backup

In addition to general meetings, small group meetings were held in which the participants compared and discussed the results of their computer runs. A summary of the comments made by the group participants was reported by the group leaders at a general session as follows:

1. Even among the largest libraries, the card catalog, either unified or split, was found to be the least expensive. AACR2 conversion costs appeared to be less than predicted. Most libraries will have to keep some kind of manual file. Most of the very large libraries plan to maintain some form of card catalog no matter which alternate form is adopted. Questions were raised on whether costs for such manual files had been included.
2. The unified card catalog was chosen most frequently by the participating libraries with the goal of adopting the online catalog in the future.
3. The cost of COM catalogs appeared to be higher than expected.

Costs varied with the frequency of supplements and cumulations desired and length of entry.

4. Most libraries agreed that in deciding on the form of catalog, other factors besides costs should be considered.
5. Most of the participants felt that the summer months were inopportune for gathering information, especially on card catalog usage, and commented that the default figures needed further evaluation and refinement. Boss responded that the default figures would be adjusted for the final report. He urged libraries that have made studies to send him their results.
6. The lack of definitions was also criticized. For example, there was some discussion on the definition of a "record," interpreted as a title by some and as a catalog card by others. Boss responded that a record is a card.

Additional pertinent information was given at the general meetings. In his talks with many of the bibliographic utilities on the development of online catalogs, Boss learned that development schedules had slowed down and that the possibilities for the adoption of online catalogs were more realistic by 1983. One advantage of this delay is that libraries will have additional time for retrospective conversion.

A progress report received October 1979 indicated the following:

In the preliminary data analysis prepared by King Research, Inc., the most economical of the twelve alternatives for catalog formats considered by the Project participants for the five-year projections appeared to be a unified card catalog. While on-line catalogs were costly, as anticipated, the use of split catalogs with cards for old and COM for new—generally considered to be the most economical solution for libraries—was surprisingly more costly than expected.³

ALTERNATIVES FOR A HYPOTHETICAL LIBRARY

In the final report, the directors of the project focused attention on an individual hypothetical library to compare the costs of different alternatives more precisely. Thus the influences of different library sizes, different cost philosophies, and different interpretations of cost parameters would be removed.

An attempt was made to characterize a hypothetical library that was representative of the libraries participating in this project. This was done by constructing a set of input parameters for each alternative that characterize the hypothetical library. For those input parameters that characterize a particular library and do not vary with the alternative, values were set approximately equal to the mean value of the parameter. . . . For example in the representative library the number of titles is 825,000, the number of titles newly cataloged each year is 34,000, and the average cost of cataloging a title is \$13.21; those numbers are approximately equal to the mean values of these parameters.⁴

The split card catalog was found to be the least costly for the hypothetical library and the unified card catalog next, followed by the split card/COM catalog. The online catalogs were the most costly with the split card/online somewhat less costly than the unified online catalog.⁵

One must realize that the study of the hypothetical library was

made for illustrative purposes only and that general conclusions cannot be drawn that will hold for all libraries as there are too many variables. Costs based on a five-year period were used to conform to the computer runs of the participating libraries. It is suggested that cost comparisons might be different if spread over a longer period such as ten years.⁶

CONCLUSION

The most astonishing observation made at the second workshop following all the discussion on the library catalog cost model was that the card catalog does not appear to be the "dinosaur" that had been predicted by many.

Another unexpected result of the study was that the cost of implementing AACR2 was much less than had been anticipated by the library community. "Costs of implementing AACR2 were estimated to be of the order of 4 to 7 percent of the total cost of developing and maintaining a catalog."⁷

According to a preliminary study by OCLC, the changes in headings for persons seem to be less involved than those for corporate entries. Since there is only a single entry for 65 to 70 percent of the personal names in the OCLC database, the majority of personal names will remain unchanged. The study also indicates that "only 10,000 names may have multiple titles associated with them."⁸ It can be assumed that since few libraries would have all these titles, changes necessary for personal names will be below this number.

The most recent estimate of conflicts made by LC is about 11 to 13 percent of the headings.⁹ Johns Hopkins University made a study and found that 11 percent of the headings were substantially different according to AACR2.¹⁰ Duke University in a random sampling found conflicts for 10.8 percent of the personal headings and 22.6 percent of the corporate headings.¹¹ Originally LC had stated that the adoption of AACR2 would require changing about 37 percent of all headings, and affect about 50 percent of the bibliographic records.¹²

It appears that since costs are of primary importance and since the bibliographic utilities are still developing their products, many libraries will probably maintain card catalogs of some kind in the immediate future or as an interim tool during the period of transition. Incompleteness of holdings in machine-readable form will also delay many libraries in their adoption of either COM or online catalogs. Most libraries are still in some stage of retrospective conversion. Economic factors as well as time are crucial here.

The Association of Research Libraries has published a final report on the project: *Alternatives for Future Library Catalogs: A Cost Model; Final Report of the Library Catalog Cost Model Project*.¹³ In their final analysis of costs, KRI found a high degree of variability, but observed that the following statements seem to be applicable to all libraries.¹⁴

1. The cost of preparing catalog records is the dominant cost in developing and maintaining a catalog, regardless of its form.
2. The estimated cost of AACR2 implementation is in general less

than 10 percent of the cost of developing and maintaining a catalog.

The project directors suggest in their report that the library catalog cost model can be improved. The short time schedule under which the model was developed accounts for some of its weaknesses. The following improvements are recommended:

1. incorporate more research on costs of online catalogs and the implementation of AACR2 in the model;
2. incorporate more flexibility in the planning and changeover, using as long as a ten-year period instead of the five years used in the model.¹⁵

The time element and monetary considerations made it necessary to limit the scope of the project so that only economic factors were included in selecting a catalog format. However, the project directors acknowledge the importance of other elements with the statement:

Considerations, such as user services, are of utmost importance and, in any decision process, would be weighed against the cost information computed by the model.¹⁶

Although limited budgets, incompleteness of machine-readable records, and other conditions may hinder libraries from making certain choices, planning and preparation for the future are essential. How soon card catalogs do indeed become "dinosaurs" of the library world is unpredictable.

Whether or not one agrees with the conclusions of the King Research Project and the methods used, the final report: *Alternatives for Future Library Catalogs: A Cost Model* should be widely read and used by libraries as part of their study of their individual situations in making plans for the future.

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3. Lorenz to Directors of Libraries Participating in Library Cost Model Project, Oct. 10, 1979, p.1.
4. Wiederkehr, *Alternatives for Future Library Catalogs*, p.51.
5. Ibid., p.56.
6. Ibid.
7. Ibid., p.vi.
8. Ibid., p.A-5 (Reported by Richard W. Boss as a result of a personal interview with Fred Kilgour, May 7, 1979).
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10. Ibid.
11. Ibid.
12. Ibid., p.A-7.
13. Copies of the report are available from: King Research, Inc., 6000 Executive Blvd., Rockville, MD 20852, \$15.00.
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16. Ibid., p.2.

The Effect of Closed Catalogs on Public Access

James R. Dwyer

Microcatalog use studies conducted at the University of Oregon have demonstrated that users encounter difficulties with multiple-file microfiche catalogs. This research supports theories by Mooers and others which suggest that closed catalogs with supplements will not be fully understood or utilized by the public. The University of Oregon survey results are compared to other studies which indicate that the problem is multiple lookups, not catalog format. Retrospective conversion strategies and the costs of converting records into machine-readable form are considered.

THE PAST FEW YEARS have seen some potentially revolutionary changes in approaches to bibliographic access. In an era of tight funds, lack of space, changing catalog codes and subject headings, and uncertainty about the future, many research libraries are planning to follow LC's lead and close existing catalogs. To some, the card catalog is an unwieldy white elephant whose passage will not be mourned. To others the prospect is more traumatic.

Some libraries, such as the Milton Eisenhower Library at Johns Hopkins University, and Ohio State University, are opting for online systems. Elsewhere there is interest in microform catalogs, either as an interim step toward going online or as the "permanent" catalog form. Catalogs derived from computerized databases offer distribution, flexibility, and cost-of-personnel advantages over card catalogs, capabilities that may make card catalog closure the first step toward truly making our collections available to the public.

In the foreseeable future it seems safe to assume that many libraries will maintain both a frozen card or filmed catalog and Computer Output Microfiche (COM) supplements, preferably for only a limited period of time. More than five years ago the University of Oregon headed in this direction by filming the existing card catalog. Since then all new bibliographic records have been entered into the Blackwell North America (BNA) database. BNA sends card sets as well as COM supplements to the filmed basic catalog.

Edited version of a paper presented at the Library Research Round Table Research Forum, ALA Annual Conference, June 24, 1979, and at the Annual Meeting of the Pacific Northwest Chapter of the American Society for Information Science, July 21, 1979, by James R. Dwyer, assistant professor, University of Oregon. Manuscript received July 1979; accepted for publication October 1979. Earlier version available from the ERIC Clearinghouse on Information Resources (ED 190 142).

In September 1976, microcatalog viewing stations were provided at seven locations in the main and branch libraries. Since then the card catalog in the Architecture and Allied Arts branch has been replaced by microfiche, and the subject catalog closed.

How would readers react to the new system? A literature search revealed that much research had been done on economic aspects of microcatalogs but relatively little on the interface between the microcatalog and the library user. McElderry has noted that "little attention has been given directly to a systematic appraisal of user requirements."¹

Such an appraisal seemed to be in order at the University of Oregon, and a user survey was conducted in 1976 and 1977. The responses of 800 participants were analyzed via an SPSS crosstabs program. A full account of this survey including the literature search, methodology, and detailed results was published in a previous report.² The purpose of this follow-up article is to summarize the major findings, report 1979 survey results, discuss the implications of this research, and suggest some strategies for improving future catalogs and other library access systems.

First, it is important to consider the physical nature of microforms. We know from previous research that such environmental factors as overcrowding, lack of writing space, poor illumination, and inadequate indexing of fiche have a negative impact on public acceptance.³⁻⁶ Eyestrain, nausea, headaches, and pains in various parts of the anatomy were encountered by nearly one-fifth of those participating in the University of Oregon survey. Although such a negative response is at least partially a reflection on the sometimes fuzzily filmed pre-1975 section of the microcatalog, it would be overoptimistic to assume that even a relatively perfect system would not create some difficulties for some catalog users.

Microcatalogs, however, involve a trade-off between this nuisance factor and the convenience of having the catalog available in a variety of locations around the library, the campus, and the nation. The nuisance factor can be reduced by careful planning; standardized fiche, fiche placement and viewers, advance testing of the system, advance training of staff, and an adequate number of well-lit, roomy viewing stations all contribute to success. Problems involved with selecting the proper fiche, loading it in the reader, and refiling it can be circumvented if the library is prepared to purchase mechanized roll-film viewers in place of fiche systems.

SURVEY RESULTS

The University of Oregon microfiche catalog consists of two major sections comprising three separate files: the filmed basic catalog and two COM supplements. Although the supplements are uniformly clear and legible, the same claim cannot be made for the filmed retrospective file (figure 1).

Between 1976 and 1977 dissatisfaction with the basic file increased sharply; the percentage of those considering it highly legible dropped from 38 to 15 percent as unfavorable responses rose from 16 to 38 percent. In a 1979 survey of 100 users in the Architecture and Allied Arts branch where the card catalog has been totally supplanted by microfiche,

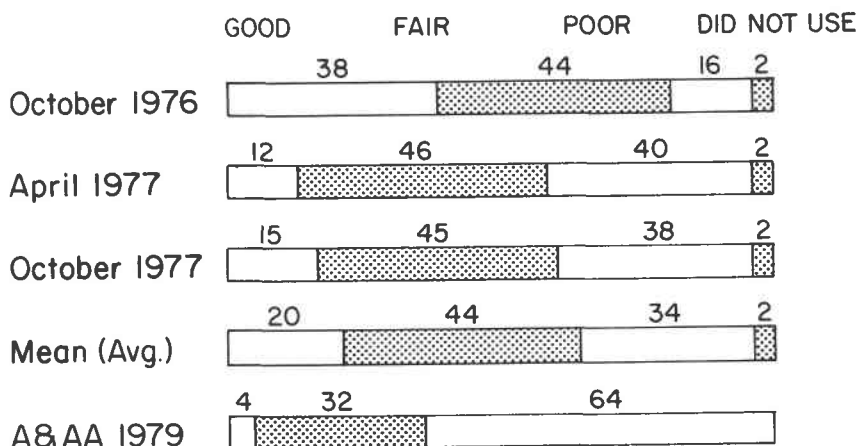


Figure 1
"How would you rate the legibility of the Basic Catalog?"

the unfavorable response skyrocketed to 64 percent. Familiarity with the filmed catalog has bred considerable contempt and had a negative impact on public acceptance of the microcatalog as a whole.

Besides the legibility factor, there is a second reason to avoid filmed catalogs; unlike card files, which allow the removal of superseded and inaccurate records, a filmed catalog is truly "frozen" and thus becomes a greater source of misinformation and confusion over time. It would be prudent for libraries to retain their old card catalogs after closure, rather than filming and discarding them, until a totally machine-readable catalog is realized. At the University of Oregon we are planning not only to retain our card catalog but to keep the title section open even after the author section is closed.

Although legibility was not a serious problem with the COM supplements, nonuse was (figure 2). Nearly twice as many respondents gave high marks to the supplement than they did to the basic catalog, and only a quarter as many considered the supplements "poor," but more than a third of the sample never used the supplements, relying exclusively on the flawed retrospective section. This finding supports a University of Toronto study in which only 8 percent of the students were frequent users while 40 percent never used the supplements at all.⁷

Considering that the filmed section of the microcatalog was then four years out of date, complete nonuse of the supplements by a third of the public and only occasional use by another half is rather alarming. Reliance on a frozen catalog can lead to decreased satisfaction with the library because (1) apparently the library has no current materials, (2) recataloged or reclassified materials can be "lost" under the old call number, or (3) new forms of entries or subject headings cannot be found in the frozen file. As Hickey has observed, "One of the unfortunate facts of library life is the user's tendency to walk away from the catalog when it appears not to have performed well—no complaints, no objections, just an acceptance of defeat."⁸

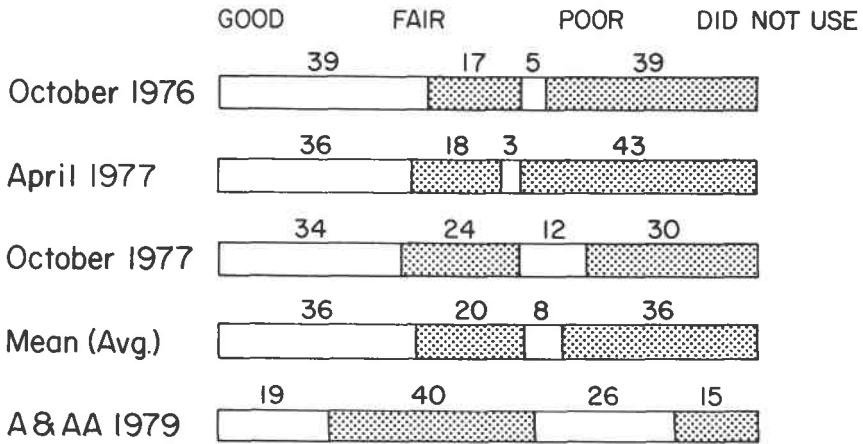


Figure 2
"How would you rate the legibility of the Supplements?"

A RETROSPECTIVE ON INFORMATION SEEKING AND A PLEA FOR RETROSPECTIVE CONVERSION

Three theories should be considered if we wish to produce catalogs that can be used easily by the public: the "principle of least effort,"⁹ "Mooers' law,"¹⁰ and the "principle of information processing parsimony,"¹¹ also known as "Zipf's law."

In a library, "more than fifty percent . . . will look up only one entry and then stop—REGARDLESS of whether or not they have found what they are looking for."¹² This is an example of the "principle of least effort" at work. Ideally, we might like to think of supplements as additional access points, but in practice multiple files are rarely consulted and the existence of a complex (COMplex?) system may confuse and discourage users. This brings us to Mooers' law, which posits that "an information retrieval system will tend not to be used whenever it is more painful and troublesome for a customer to have information than for him not to have it."

Mooers would not be surprised to read the following comments elicited during the University of Oregon survey: "Too many places to look which is frustrating and time consuming" or "The fiche is one of the few work saving devices I've used. After using it once it cures you of all desire to use it again, thus decreasing the amount of work you do."

Zipf's law maintains that people not only minimize search efforts, but neither need nor want all the information available on a given subject. Therefore, they cannot be expected to check supplements if they get a few citations from the basic file, even if those citations are less current, specific, or relevant than what they might encounter in a more exhaustive search.

Lubetzky has noted a flaw in closed catalogs and multiple file systems that presents difficulties for even the most conscientious searcher: the syndetic and collocation functions of the catalog are destroyed by split files thus causing the catalog to "fail its purpose."¹³

Considering how people approach information, and the value of the

syndetic structure of the catalog, it is hard not to consider frozen or closed catalogs that do not accurately reflect current library holdings as a form of professional irresponsibility. Hewitt and Gleim recommend "a gradual supplanting of the card catalog by COM. . . . In order to avoid a fragmented combination of old card catalog, add-on catalog, and COM catalog, it would be preferable to maintain a single card catalog after 1981."¹⁴

Librarians who do close their catalogs are advised to do everything possible to call attention to the new catalog and encourage patrons to begin their searches there. This suggestion is particularly important if the new catalog is in a different form, such as COM. At the University of Oregon we are relabeling the basic catalog and the supplements. The filmed basic catalog will become the "old catalog" and the supplements will be the "new catalog" and the "newest catalog" in the hope that this will increase supplement use. Librarians planning to film and then discard their card catalogs are advised that such a practice is more likely to contribute to their problems than it is to solve them.

Vervliet has observed the problems inherent in multiple files and believes that "there is no solution to the problem of closing the old catalogue unless a library is prepared to convert it into machine readable form or to continue to produce cards and file them manually."¹⁵ Given such a dilemma, librarians should consider microcatalogs to be a viable option only if they might reasonably expect to enter all bibliographic records eventually into a single database from which a single, fully manipulatable, up-to-date catalog can be generated in a variety of forms; fiche, film, book, or online.

Perhaps the most important finding of the University of Oregon survey is that frozen multiple file catalogs exacerbate existing access problems. Less than a quarter of those surveyed reported that the microcatalog was easier to use than the card catalog, 29 percent considered the two forms comparable, and nearly half reported that the fiche catalog was harder to use (figure 3).

Meanwhile, studies at the University of Toronto,¹⁶ Brighton Polytechnic,¹⁷ Amigos,¹⁸ Los Angeles County Public Library,¹⁹ Western Kentucky University,²⁰ and the New York State Library²¹ have reported widespread acceptance of microcatalogs. It is important to note that these institutions have incorporated retrospective records into their databases, thus reducing or eliminating the multiple-file problem. At Los Angeles County Public Library, where all records are available in a single file loaded into mechanized ROM viewers, three-quarters of the respondents reported that they favored the new system, and catalog use has gone up sharply. The problem is clearly not one of the medium chosen (card, film, fiche, or online) but of multiple files. As Freedman has warned, "The headlong rush to close the catalog . . . must be tempered by a concern for library users who will be ravaged by the multiple lookups forced on them by cost—but not service-oriented administrators."²²

NETWORKING: RELIEF FOR SPLITTING HEADACHES

What has happened at libraries that have attempted to close or split their catalogs in the past? At the University of Nebraska—Lincoln the card

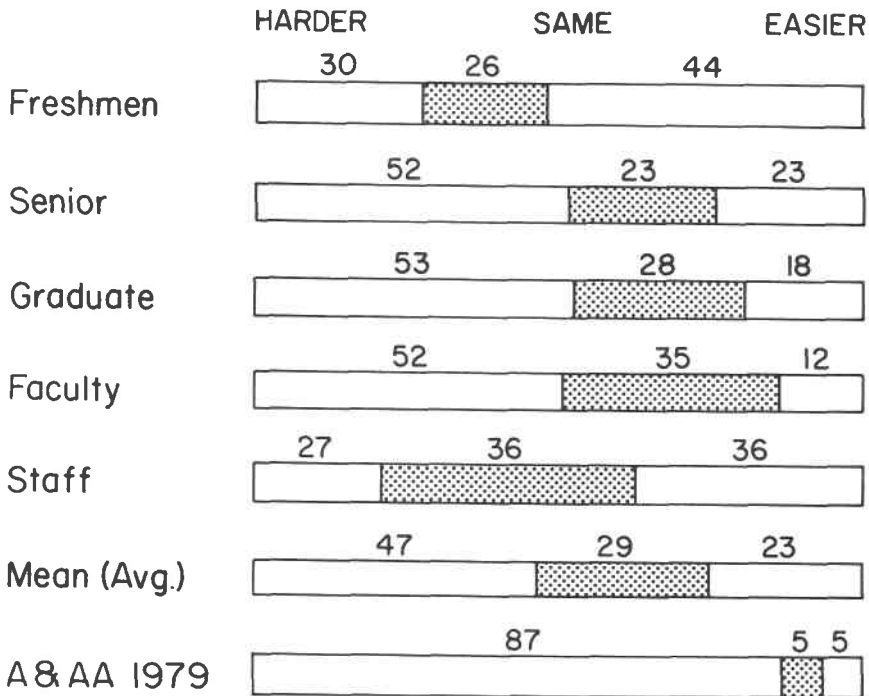


Figure 3
"Is the Microcatalog easier to use than the Card Catalog?"

catalog was split in 1965 with the old Dewey books in one sequence and the new LC books in another. Swanson reports that "it was a miserable failure, and the best evidence for the fact is the librarians' reference to the catalog and reference areas as 'the combat zone' I can personally attest to clenched patron fists and at least one sheet of citations being thrown at me after I communicated the dimensions of catalog searching to patrons. Further evidence is the legislature's willingness to fund a special project to integrate the divided catalogs"²³

Reports from the National Library of Medicine,²⁴ University of Toronto,²⁵ New York State Library,²⁶ Glasgow University,²⁷ the Scottish National Library,²⁸ and elsewhere, while less dramatic, indicate that catalog closures result in substantial dissatisfaction, lower rates of catalog use and success, unexpected expenses, and an increase in the amount of public service time spent explaining the catalogs. From the standpoint of public relations and support, let alone our professional responsibility to make our resources as accessible as possible, it is essential that closed catalogs be considered a transitional phase at best, a mere stumbling step between the inflexible card and book catalogs of the past and the client-oriented online systems of the very near future.

For libraries to take full advantage of multiplanar records, broader searching options, automated authority control, and the other capabilities of automated systems, it is essential that retrospective conversion of catalog

records not now in machine-readable form be given the highest priority. Batch-mode processing of retrospective records is cheaper than the creation of original cataloging, conceptually simple, and well described in the March–April 1978 *Library Technology Reports*.²⁹

Research libraries with collections of more than three-quarter million titles face two problems that cause some to balk at the idea of a massive retrospective conversion effort: the sheer size of the collection, and a lower percentage of database matches than might be achieved in a smaller library. Additionally, a defeatist attitude by administrators is another impediment to such projects, projects that can be more easily accomplished if we are willing to work cooperatively on them.

Major retrospective conversion projects have already taken place on the national level; the British National Bibliography, CONSER, and RECON, for example. LC MARC tapes have been produced for over a decade and are a rich data source, central to virtually all major cataloging efforts, current or retrospective.

Ohio State University, one of the largest libraries in the U.S. with 3.4 million volumes, is well on the way to a fully automated catalog. They have a partial catalog online now and are loading retrospective records.

Likewise, the New York State Library has a fully automated system, having converted some six hundred fifty thousand records in ten months at the cost of only \$0.47 per record, this during the New York State fiscal crisis.³⁰ Peter Paulson, director of NYSL, reports that the conversion effort is paying for itself in terms of efficient bibliographic, reference, and interlibrary-loan searching. An additional payoff is better service and a catalog available throughout the state. By making an investment now we can hope to save money later.

Following the lead of the University of Toronto and with the full support of their federal and provincial governments, the British Columbia Union Catalog is now being created. Twenty-four member libraries, including the University of British Columbia, Simon Fraser University, and the University of Victoria, are creating machine-readable records for more than three million titles over a five-year period.

OCLC has a gigantic database: more than six million records, three-quarters of which are contributed copy not available on MARC tapes. The Washington Library Network (WLN) contains more than two hundred thousand unique contributed records and an automated name authority system second to none. RLIN, the Research Library Information Network, has more than a million contributed records and many more will be created if they adopt a proposed plan which would divide responsibility for conversion to member libraries according to subject areas. All these networks have policies and pricing structures that encourage retrospective conversion of records and, in a most salutary development, WLN and RLIN have agreed to cooperative name-authority and database sharing.³¹

A nationwide bibliographic database is in the planning stage at this time. According to a report of the Network Advisory Committee, "the pros and cons of including retrospective bibliographic records . . . are being analyzed."³² A RLIN report has noted that "first and most important is the need for a national network . . . to enhance the scholar's ability

to locate information."³³ Many scholars are concerned with both current and historical documents, and if the main goal of the committee is to serve them efficiently, then retrospective conversion is absolutely essential. Those concerned that we create the best, most complete, easiest-to-use catalogs possible in the public interest are urged to contact their network or Henriette Avram, director for processing systems, networks, and automation planning at the Library of Congress. This may be the best opportunity we will have to deal with this truly national problem on a national level rather than in a piecemeal fashion.

But what if the national network never comes into being and your library is not a member of an existing network? Try a vendor or other type of bibliographic utility. As an example of what's available in the private sector, Blackwell North America has well over two million records in their database, a quarter of which are contributed copy. Batch-mode conversion projects are possible for special low rates, and as more records are added to the system, hit rates go up and prices go down. Retrospective conversion is not some remote goal; the expertise and technology are available from a variety of sources.

Suppose that a library runs its shelflist against a database and encounters a 75 percent hit rate. After accepting those records, it can do one of two things: key all remaining records into the database immediately or convert them over time. Clearly, the first course is the more desirable, but suppose current funding doesn't allow for such a major one-shot project. What should be converted first?

Gorman has sagely noted that one should not just start with the letter A.³⁴ One could argue that reference materials and serials should go first. Thanks to MARC, CONSER, and other projects, the vast majority of such items already have machine-readable cataloging available. One thus begins with a relatively small project with two big payoffs: all these heavily used materials will be in the current main catalog and separate serials and reference catalogs can be generated as well.

Other items may be input on the fly as they return from circulation. Thus heavily used materials will select themselves for retrospective conversion. When new works of established authors or new editions are cataloged, the entire file for that author or title may also be fed into the system at that time, thus maintaining the collocation function of the catalog. Until all records are in the database, however, library staff and users must search at least two catalogs, a current COM or online catalog and an atrophying closed card catalog.

There is no use in pretending that full retrospective conversion will be quick, simple, and cheap, although it may be less costly than the naysayers would have us believe. The quick survey, just presented, reveals that we are moving in the right direction, although perhaps not quite fast enough.

Conversion may be costly, but it can be argued that the cumulative costs of not converting are actually far greater. First, consider the cost of maintaining even a frozen catalog while simultaneously paying for the automated model. Although it appears that we are getting out of the maintenance business with the universal fix, the computer can't fix the card files. Consider the cost of order searching, verification, and other

types of searching in both manual and automated files; the huge waste of staff time on staffs that may be shrinking while the demands placed on their time are growing. Does one change headings in the closed catalog as they are changed in the database, or allow grave inconsistencies to develop between them? Clearly, neither of these options is desirable. It's not only pound-foolish not to convert, it's not even penny-wise, only penny-pinching.

The real costs of not converting will be borne by our already underserved public. We have the opportunity to provide them with access systems which are quicker and easier to use than card catalogs, provide more flexible search options, and are current and accurate. It's one thing to waste our own time and money on dual systems and closed catalogs, but what right do we have to foist our folly on them? Have we forgotten Ranganathan's directive to save the time of the reader; or do we care?

While we await the next budget cut, the mass media and other information specialists are actively improving and promoting their services. Allowing our public position to erode by not bucking the downward spiral of less money—less service is an example of what Berman calls "libricide."³⁵ If we don't support the public, how can we expect them to support us? It's not just idealism to provide easy access to our collections; it's enlightened self-interest and in the public interest.

At this point it is essential for the library community to take a more active role in the political budget process and push for adequate funding on the local, state, and national levels. Consider for a moment that the "error" in projecting the cost of using the Minuteman missile in the proposed MX missile system was \$12 billion while federal aid to libraries in 1979 was a mere two-tenths of a billion. Our best argument may be that by spending a little money now we can save a lot of money later and provide better service.

For theoretical, practical, and political reasons it is important that retrospective conversion leading to efficient catalogs be given a high priority by our libraries, networks, and government.

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Language of the Library of Congress Subject Headings Pertaining to Society

Jan Wepsiec

Existing headings are grouped into twenty-two types, using the syntactic structure of the modifier of the focal noun as the criterion of differentiation. Some semantic types are found to have been expressed by more than one syntactic type. Reasons are given for eliminating certain syntactic types, reducing the total from twenty-two to fifteen, without loss of specificity of the headings.

THIS PAPER EXAMINES the syntactic structures of Library of Congress subject headings pertaining to society.¹ The analysis centers upon the use of grammatical categories in modifiers of the focal nouns in the headings. The semantic content, or concept, of each syntactic type is then determined, and in some cases it is found that more than one syntactic type corresponds to a given semantic type. This finding raises the question of whether or not certain syntactic types may be eliminated without impairment of the basic requirement, specificity of the headings.

Among studies dealing with aspects of this problem, the following recent works should be mentioned: Steinweg's two papers, one dealing with punctuation² and the other with specificity,³ and Chan's paper on the principle of uniform heading.⁴ By limiting the present study to one subject field, that of society, it is possible to attempt a more detailed examination of the syntactic-semantic relationship.

Linguistically, a subject heading is a nominal group including at least one noun. In the majority of cases the noun is modified—by another noun or nouns, by a phrase, by adjective(s), or by another nominal group used as a subdivision. Using the presence or absence of a modifier, and the type of modifier as criteria, one can identify four groups of headings as follows:

- A. Without modifier
- B. With the principal or focal noun modified by a modifier in parentheses, or by a noun or nouns, occasionally with a preposition or conjunction
- C. With the principal noun modified by an adjective or adjectives, or by a word or words of some other grammatical category

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- D. With a nominal group modified by a second nominal group, the latter forming a subdivision

Within each of these four groups more specific types can be discerned, mainly on the basis of the form of modifier. These types are listed below.

1. Headings in group A, e.g., **Sociology**, do not require comment and represent only a small portion of the total body of headings.

Headings within the other three groups are categorized further, according to the structure of the modifier. The types are numbered in one sequence throughout this paper. Turning to group B, in which the modifier is in the form of a noun, or noun as part of a phrase, we recognize:

2. A two-noun heading, e.g., **Mass society**, in which the noun modifier occasionally performs the function of an adjective. The term *mass* in this example limits the meaning of the term *society* to a particular type of modern industrialized society, one characteristic of which is the role of the mass media.
3. A heading consisting of two nouns connected by *and*, e.g., **Religion and sociology**, the first noun denoting a social institution, and the second denoting the study of this institution within a sociological framework.
4. A heading syntactically similar to, but semantically differing from type 3, although it consists of two nouns connected by *and*, e.g., **Art and society**. This heading denotes a relationship between a social institution and society as a whole. Depending upon its application, this relationship, as will be seen later, denotes the impact of art on society or the study of a social institution. In the latter, the sociological perspective, this type of heading resembles type 3.
5. A compound heading consisting of two nouns denoting social categories of comparable conceptual range, connected by *and*, e.g., **Master and servant**. Headings of types 3 and 4 are of the same syntactic structure but they differ in the conceptual range of the focal noun and the modifier. In type 5 there are two nouns of comparable semantic range connected by *and*; the meaning of the heading is the relationship (ascribed or contractual) between two categories of people of different social status.
6. A phrase heading consisting of two nouns related by the preposition *in*, e.g., **Information theory in sociology**, and **Social classes in literature**. Despite the syntactic similarity, there is a considerable difference in semantic type. The first heading denotes the application of a certain method to the study of society; the second relates a social unit to images created by literary means (broadly, aesthetic means, since headings referring to the visual or other arts may be similarly established).
7. A phrase heading consisting of two nouns related by the preposition *of*, e.g., **Conflict of generations**.
8. The same syntactic structure as 7 but in inverted form, e.g., **Knowledge, sociology of**.
9. A heading in which the focal noun is modified by either a single noun or a compound modifier, placed in parentheses, e.g., **Assimilation (Sociology)**; **Polarization (Social sciences)**. The modifier is

necessary because a social meaning is not implicit in the focal noun.

10. A noun modified by another noun in a phrase employing an adverb, e.g., **Women as authors.**
11. A nominal group that includes an idiomatic phrase, e.g., **Parents-in-law**, denoting an affinal rather than a conjugal kinship.

Turning to group C, in which adjectives are employed as modifiers, we identify:

12. The focal term denoting the concept of sociology, preceded by an adjective that limits the meaning of the focal term to a specific subfield, e.g., **Industrial sociology.**
13. The same syntactic structure as 12 but in inverted form, e.g., **Sociology, Rural.**
14. The same syntactic structure as 12 and 13 but the focal term is followed by two adjectives, of which the second is placed in parentheses, in order to achieve a higher degree of specificity, e.g., **Sociology, Christian (Baptist); Sociology, Rural (Lutheran).**
15. The focal term preceded by the adjective *social* to supply the social meaning not carried by the noun, e.g., **Social stability.** One notes that in type 9 the modifier in parentheses performs a similar function.
16. The same syntactic structure as 15 but in inverted form, e.g., **Marginality, Social.**
17. The same syntactic structure as 15 but the adjective *sociological* replaces *social*, e.g., **Sociological jurisprudence.**
18. The focal noun modified by an adverb or participle assuming the function of an adjective, e.g., **Only child; Middle-aged women.**

In group D we discern four types of heading based upon the meaning of the subdivision. In addition to the form subdivisions, one should note the geographic subdivisions introduced in the scope note to **Sociology** (not discussed here).

19. A heading consisting of two nominal groups. The first term denotes the study of society and the second, forming a subdivision, denotes an aspect of this study, e.g., **Sociology—Methodology.**
20. A heading modified by the compound nominal group **Sociological aspects**, e.g., **Hospitals—Sociological aspects.**
21. A heading syntactically similar to type 20 modified by the compound nominal group **Social aspects**, e.g., **Industry—Social aspects.**
22. A one-noun or compound heading subdivided by a compound nominal group other than those mentioned in 19, 20, and 21, e.g., **Family—Caricatures and cartoons.**

This breakdown of headings into twenty-two syntactic types, more detailed than that discussed by Haykin, stems in part from the more detailed analysis of modifiers and in part from inconsistencies that have occurred in the phrasing of the Library of Congress subject headings (LCSH) over the years.⁵

ANALYSIS OF SUBJECT HEADING TYPES

A basic difficulty in attempting to analyze the types of headings is the lack of a general, detail code for LCSH. The foundations laid by Cutter in

his *Rules for a Dictionary Catalogue*⁶ were not developed into a detailed, comprehensive, and consistent code, and, although the LCSH system is the most extensive system for a large, general library, Haykin's *Subject Headings* is far from being a comprehensive code. The individual attempts by Pettee⁷ and Prevost⁸ provide valuable insights based on differing assumptions, but neither develops a comprehensive code. On the other hand, some studies of selected aspects of LCSH have made useful contributions by opening the way to improvements in that system.⁹

Using present-day knowledge about headings, we now examine the listed syntactic types in relation to the types of concepts they express. The question is whether all the existing syntactic types are necessary, to maintain the all-important conceptual specificity of headings.

Before investigating syntactic structure, one must decide whether to apply the old rule of assigning first place in the heading to the most significant term, or to adopt the natural language. Natural language is now widely accepted by various indexes and by PRECIS, and has been followed by LC in structuring some types of headings. The decision here, therefore, is in favor of natural language and headings using subdivisions.¹⁰

The types of headings listed above that do not invite questions are not discussed. We begin the analysis, then, with types 3 and 4 and clarify the meaning of the phrases *and sociology* and *and society*. Scope notes do not exist for these headings, so for some indication of the meaning we consult the *see* references from unused terms. There we find one *see* reference from *Sociology and religion* to **Religion and sociology**, and thus must assume that the heading stands for the sociological perspective in the study of religion. But no other heading is provided for the particular aspect of the impact of religion on society, so that in fact the heading **Religion and sociology** is used to denote literature on this aspect also.

The heading **Art and society** (4), judging by its *see from* references *Art and sociology*, *Art and society*, and *Sociology and art*, denotes both a sociological perspective and the impact of art on society. One may ask why two aspects are denoted by one heading here, and by separate headings elsewhere, e.g., **Sociology, Military** (13) and **War and society** (4); **Industrial sociology** (12) and **Industry—Social aspects** (21). It is clear that literature on two aspects of a subject requires that two separate headings be provided.

When considering the syntactic structure of a heading denoting the impact of a social unit on society, we may follow LC practice and give precedence to the term denoting society or personality which is the subject of the impact, e.g., **Personality and culture**. Following such a practice, the heading denoting the impact of art on society would be *Society and art*. There is, however, the alternative of using a heading with subdivision, a method that will be discussed further during the analysis of types 20 and 21.

Headings of type 8, **Knowledge, Sociology of**, could be phrased in a manner similar to type 3, **Religion and sociology**, or by applying the subdivision **Sociological aspects** (which has a corresponding equivalent, *Sociological perspectives*, in PRECIS). The heading with subdivision seems preferable.

Headings with the modifier placed in parentheses (9) may achieve the

natural language structure if the present modifier is eliminated and the adjective *social* is placed before the focal noun, e.g., the present heading **Polarization (Social sciences)** would be changed to *Social polarization* and its meaning would not be changed. This is not to imply that the modifier placed in parentheses would necessarily be eliminated from the entire LCSH system.

Headings employing the inverted form (13) may be rephrased to follow the natural language, e.g., *Rural sociology* as in **Industrial sociology**. Headings with a large part of the nominal group inverted (14) may at first appear resistant to this type of change but in fact do not present difficulties. The headings **Sociology, Christian (Baptist)** requires only the one modifier, *Baptist*, in which *Christian* is implicit, in the rephrased heading, *Baptist sociology*. The heading **Sociology, Rural (Lutheran)**, because the two adjectives belong to two different semantic sets (one community, the other social institution), would retain both adjectives in the rephrased heading *Lutheran rural sociology*. The heading **Marginality, Social** (16) could be changed to *Social marginality*, consistent with **Social structure** (15).

Sociological jurisprudence (17), according to its *see from* references *Law and society*, *Law—Sociology*, *Society and law*, and *Sociology and law*, denotes both the study of law applying sociological methods, and the impact of law on society. It could be rephrased in the forms *Jurisprudence (or law) and sociology* and *Society and jurisprudence (or law)*; or preferably *Jurisprudence (or law)—Sociological aspects* and *Jurisprudence (or law)—Social aspects*.

The type of heading described in 19 applies subdivisions that pertain to essential aspects of the study of society. Geographic subdivisions introduced in the scope note to **Sociology**, and form subdivisions, are excluded from this discussion. The subdivision **History** is not considered, as it was by Haykin, to be a form subdivision but rather a subdivision denoting an aspect of the subject of the study itself.¹¹ A similar method of structuring could be applied to any subfield of the study, e.g., **Industrial sociology**. It offers the advantage of proximity of all aspects of the study. Employing a phrase heading such as *Methodology of sociology* would not offer such an advantage.

The meaning of the subdivision in headings of type 20 may be deduced from the references leading to them. The heading **Psychiatric clinics—Sociological aspects** is related to two superordinate headings, **Sociology** and **Social medicine** (the latter with *see from* reference *Sociology of medicine*). Thus, the subdivision **Sociological aspects** is clearly justified and the same reasoning is valid in regard to other existing headings that apply this subdivision.

This is an appropriate moment to resume discussion of the type 3 headings. The heading **Religion and sociology** also denotes sociological aspects of religion; thus it would be rational to rephrase it in accordance with type 20. It is desirable to have only one syntactic type for a given semantic type; hence the heading **Religion and sociology** may be eliminated in favor of *Religion—Sociological aspects*.

Headings with the subdivision **Social aspects** (21) require a more detailed analysis. Implicit in this subdivision are two meanings: (a) socio-

logical aspects (implied by the scope note for **Science—Social aspects** and the *see* reference from *Sociology of science*); and (b) the impact of social institutions on society (implied by the scope note for **Technology—Social aspects**). The *see* references to other headings imply that this subdivision generally denotes the impact of a social unit on society. In order to achieve clarity, the duality of meaning should be eliminated and the meaning of this subdivision should be confined to the concept of the impact on society. Assuming that, as suggested above, headings of the type **Religion and sociology** are eliminated in favor of headings with the subdivision **—Sociological aspects**, headings of the type **Art and society** (4) should be rephrased to follow type 21 and apply the subdivision **—Social aspects**. The heading **Art and society** and other headings of this type may need to be replaced (if the existing literature so requires) by two headings, one denoting sociological aspects and the other the impact of a social unit on society. The heading would then be replaced by **Art—Sociological aspects** and **Art—Social aspects**. A check of LCSH reveals a significant number of headings with these two subdivisions. This fact points to the need for clear delineation of the semantic distinction between the two subdivisions.

Type 22 headings, e.g., **Family—Caricatures and cartoons**, may be retained in their present form or, preferably, converted to headings without subdivision, as in **Social classes in literature** (6).

RECOMMENDATIONS

On the basis of this analysis, it is recommended that headings of two major types be retained without change: those employing subdivisions such as **Sociology—Methodology** (19), and those expressed in natural language, as illustrated in the following examples: **Sociology** (1), **Mass society** (2), **Master and servant** (5), **Information theory in sociology** (6), **Conflict of generations** (7), **Women as authors** (10), **Parents-in-law** (11), **Industrial sociology** (12), **Social stability** (15), and **Only child** (18). A second recommendation is that headings of the type: **Assimilation (Sociology)** (9), **Sociology, Rural** (13), **Sociology, Christian (Baptist)** (14), and **Marginality, Social** (16) conform to type 15, exemplified by the heading **Social stability**; and **Family—Caricatures and cartoons** (22) conform to type 6, exemplified by the heading **Social classes in literature**. A third recommendation concerns the following six types of headings: **Religion and sociology** (3), **Art and society** (4), **Knowledge, sociology of** (8), **Sociological jurisprudence** (17), **Hospitals—Sociological aspects** (20), and **Industry—Social aspects** (21). Here, there is a choice. These headings could conform to the type consisting of a focal noun followed by subdivisions as needed: **—Sociological aspects** (denoting the sociological study of an institution), and **—Social aspects** (denoting the impact of an institution on society), exemplified by the headings just listed. Alternatively, they could conform to the types: **Religion and sociology** (denoting the sociological study of religion) and **Society and religion** (denoting the impact of religion on society). The headings with subdivisions are preferred because the meaning is more clearly brought out; another advantage is that the headings denoting social aspects and sociological aspects would be brought close together in the card or printed catalog.

<i>Present Heading</i>	<i>First Preference</i>	<i>Second Preference</i>
Religion and sociology ———	Religion—Sociological aspects (Religion—Social aspects)	Religion and sociology (Society and religion)
Art and society (in LC, this heading denotes both aspects)	Art—Sociological aspects	Art and sociology
Knowledge, Sociology of ———	Art—Social aspects Knowledge—Sociological aspects (Knowledge—Social aspects)	Society and art Knowledge and sociology (Society and knowledge)
Sociological jurisprudence (in LC, this heading denotes both aspects)	Jurisprudence—Sociological aspects (The term "law" is now commonly used)	Jurisprudence and sociology
Hospitals—Sociological aspects ———	Jurisprudence—Social aspects Hospitals—Sociological aspects (Hospitals—Social aspects)	Society and jurisprudence Hospitals and sociology (Society and hospitals)
Industry—Social aspects*	Industry—Social aspects	Society and industry
*This heading has its counterpart in:		
Industrial sociology	Industry—Sociological aspects	Industry and sociology

which is one of the retained headings. If and when a separate heading is established for society, and **Sociology** is limited to the study of society, this heading should be changed in accordance with the preference.

Existing headings in the matrix above appear in boldface type; proposed headings (when differing from existing ones) appear in normal type. Where there is no existing equivalent heading for one of the aspects discussed, "———" appears in column one, and headings in columns two and three appear in parentheses.

From this matrix, it may be seen how rules for providing semantic and syntactic consistency should be formulated and so provide the framework of a code for establishing and applying headings.

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The Concise AACR2

Frances Hinton

The Concise AACR2: Being a Rewritten and Simplified Version of Anglo-American Cataloguing Rules, Second Edition, by Michael Gorman, is scheduled for publication in North America by the American Library Association and the Canadian Library Association, and in Great Britain by the Library Association. As its title indicates, The Concise AACR2 is not an abridged edition. Instead, it presents the essence and basic principles of the second edition of the Anglo-American Cataloguing Rules for the use of small general libraries and for teachers of general cataloging courses. Because it is designed for small libraries, it omits specific rules for describing materials unlikely to be included in their collections, such as machine-readable data files. It also omits many of the more complex rules for choice of entry and form of heading on the theory that small libraries acquire primarily current, book-trade publications by authors with conventional names, for which the general rules will provide satisfactory access points.

WHEN REVISION OF THE *Anglo-American Cataloguing Rules* was undertaken in 1974, another project was nearing completion. The result of this project was to be an edition of the 1967 British text, abridged by Michael Gorman with the assistance of Philip Escreet and Geoffrey Hamilton. The project was a response to the need expressed by librarians from a number of Third World countries for a simpler set of basic rules, which could be used by relatively untrained personnel. They also wanted these rules to be compatible with AACR so that, as cataloging expertise developed and catalogs increased in size and complexity, libraries could begin to use the full code.

The Joint Steering Committee for Revision of AACR acknowledged the fact that an abridged edition of the 1967 British text was no longer practicable. The committee did, however, believe that there would be a need and a market for an abridged edition of AACR2 and recommended it to the publishers. Although the Joint Steering Committee functioned throughout its preparation as an advisory group and approved the final text for publication, *The Concise AACR2* is a work of single personal authorship.

The author and the Joint Steering Committee anticipate that *The Concise AACR2* will have a variety of uses. Catalogers in small libraries, especially "one-person" libraries; students who may want to learn about cataloging without wanting to become catalogers; and public service librarians

Frances Hinton, chief, Processing Division, The Free Library of Philadelphia, was recently elected chairperson of the Joint Steering Committee for Revision of AACR. Manuscript received and accepted for publication January 1981.

who must use catalogs and need to understand the principles upon which they are based are the intended audience.

By intention, the provisions of the *The Concise AACR2* should result in descriptions and access points that are recognizably the same as those provided by AACR2. Nevertheless, there are some variations from the provisions of the full text. These variations and their rationale will be addressed in the next few paragraphs.

The rule for chief sources of information omits the more specific provision in the full text of a prescribed source of information for each area of the description. As a result, a description formulated according to *The Concise AACR2* may omit some of the brackets that would appear in a description based on the full text rule provisions. Inasmuch as information taken from outside the item or supplied by the cataloger will appear in brackets, the Joint Steering Committee was of the opinion that this loss of precision would not materially affect identification of the item.

By deliberate choice, the ISBD abbreviations "s.l." and "s.n." are not prescribed. If the place of publication or the name of the publisher is not known, these elements are simply omitted in accordance with the general instruction to omit any area or element that does not apply to the item being described. A statement of responsibility that is an integral part of the title proper is not repeated even if the chief source of information repeats the statement. Both of these variations may well be welcomed by the type of library for which these rules are intended.

In general, descriptions based on *The Concise AACR2* may be more consistent with each other than those based on the full text. This effect is in part a result of arranging the rules for all types of material in a single sequence, and partly a result of offering the cataloger fewer options and fewer possible decisions.

The chapter on choice of entry omits many of the specific rules of AACR2, chapter 21, notably those for certain legal publications, creeds, and liturgical works. Because most of these more specialized rules are based on the same principles as the general rules, it is likely that a cataloger using *The Concise AACR2* will apply the general rule and select the same main entry as would a cataloger using the full text and one of the more specific rules. It is also likely that a library using *The Concise AACR2* will acquire very few of those legal publications for which the choice of entry does not conform to the general rules.

The rules for personal name headings do not contain specific provisions for names originally in a nonroman script, including the "Special rules for names in certain languages." Since catalogers in many Third World countries will certainly need to establish headings for such names and catalogers in other environments also encounter at least a few Russian and Hebrew names, they will need to consult the complete AACR2 for guidance. The Library of Congress use of the alternative rule 22.3C2 does, however, mean that nonroman script name headings established on the basis of works in the English language will most probably match the headings established by LC.

The rules for geographic names lack the options in AACR2, rule 23.4B, which might result in the addition of qualifiers not used by the Library of

Congress. However, the pattern of additions displayed in the examples follows LC practice, so it is not really likely that a cataloger using *The Concise AACR2* would establish, for example, Vancouver (Washington, U.S.) instead of Vancouver (Washington).

The rules for corporate body name headings have been greatly compacted and many specific rules omitted. It is likely that the results will be the same for most names. One exception is the rule for corporate bodies whose names appear in more than one language. In this case, *The Concise AACR2* uses alternative AACR2 rule 24.3A and gives preference to the English form, or the name "in a language familiar to users of your catalogue."

The rules for subordinate entry have been reduced to basic principles. Rule 48, which corresponds to rule 24.13 in AACR2, includes only two types, "a name which is not specific or not unique" and a name which "includes the whole name of the higher body." The first three types found in rule 24.18A in AACR2 are combined in rule 49 to "a name which does not identify the body specifically." The Joint Steering Committee believes that these straightforward instructions will usually result in the same headings as the more detailed rules in the full text.

The simplified rules for uniform titles, in addition to omitting specific provision for laws, treaties, and music, omit the more detailed AACR2 provision of additions, such as language, date, and versions of Bible texts, that are needed to organize lengthy files but are an unnecessary refinement in a small catalog.

Obviously, *The Concise AACR2* is not a true abridgment in the sense that its text consists of a selection of the rules in the full text. Instead, it attempts to distill the essence and the basic principles of AACR2, while omitting the rules for unusual types of material and seldom encountered problems. The rules selected for retention have been rewritten in an even more direct and simplified style, many groups of rules have been compacted into single rules, and most of the examples are new. The user of *The Concise AACR2* is referred to the full text for guidance on problems not covered and, to aid the user, the full text rule numbers are given in brackets beside their equivalents in the concise text.

Six Auxiliary Texts to AACR2: A Review Article

Arnold Hirshon and Barbara Branson

THE PUBLICATION of the second edition of the *Anglo-American Cataloguing Rules (AACR2)* in 1978 has been followed by a stream of auxiliary texts intended to shed light upon the mysteries of the code. The efforts vary greatly in their coverage, content, and presentation. This review article will examine six monographs: three general texts, two on nonbook materials, and one concerned with serials cataloging. Obviously, to pare our list down to six required some selection. We decided to limit our examination to books that would be used by experienced catalogers primarily as reference tools. We have therefore omitted works chiefly intended for use in the classroom or as instructional texts and workbooks, explorations into the general principles underlying AACR2, works that have received sufficient attention in other reviews, and noncataloging texts that deal with the implementation of AACR2 from a managerial perspective. A short selected bibliography of monographs concerned with AACR2 is included at the end of this article.

GENERAL TEXTS

The three general texts take somewhat different approaches in their presentations of AACR2, and they are not uniformly successful. One point that should be made at the outset concerns the inclusion (or lack thereof) of information on the cataloging practices of the Library of Congress. Only Margaret Maxwell's *Handbook for AACR2* presents with any consistency LC's cataloging practices (as they were known at the time of publication). At the opposite extreme, the introduction to Eric J. Hunter and Nicholas J. Fox' *Examples Illustrating AACR2*, published in London by the Library Association, states that "there is no intention in this work of presenting an official view of how particular rules in AACR2 are to be interpreted" (p.vii). Christa F. B. Hoffmann's *Getting Ready for AACR2* rides a middle course, sometimes noting LC practice but oftentimes not.

The lack of information about LC's application of a rule could be justified on the grounds that all that needs to be presented is an explana-

In response to a suggestion that *Library Resources & Technical Services* review some of the many manuals and handbooks for AACR2, the editor invited Arnold Hirshon and Barbara Branson to prepare this article. Arnold Hirshon is assistant head, and Barbara Branson is principal cataloger, Cataloging Department, Duke University Library. Manuscript received and accepted for publication February 1981.

tion of the rule as written, not one national cataloging agency's interpretation. It seems important, however, to present LC's practices because the majority of cataloging done in the United States is at least based on LC, and catalogers and managers alike attempt to follow LC to the best of their understanding and to the greatest degree possible. Further, while LC's practices have been publicized elsewhere (e.g., *Cataloging Service Bulletin*, the RTSD/LC AACR2 institutes, and the *RTSD Newsletter*), it is helpful when discussing a specific rule to provide the information about LC practice there rather than to send the cataloger to another source.

Examples Illustrating AACR2 is largely a book of cataloging examples, with each example accompanied by a summary statement of the AACR2 rules that the example is intended to illustrate. There are 383 examples in all, with cataloging done at the third, or most complete, level of description. The entire cataloging record for each title is included, and some of the examples are accompanied by facsimiles of their chief sources of information. The examples are arranged in alphabetical order according to the main entry, rather than topically. Therefore, one must approach the text through the indexes to obtain optimal value. There are as many as five examples per page, and since there are minimal margins, the layout appears quite cramped.

The book does have its limitations. Most of the examples are for printed materials; although other formats are represented, some choices are a bit unusual, such as the cataloging of a shoe horn, an exerciser, or a souvenir tankard. Some of the most problematic chapters in AACR2 receive the least attention. There are only three examples covering chapter 23 (geographic names). While chapter 23 is admittedly short in AACR2, the interest in the chapter may well be in inverse proportion to its length, especially with respect to the application of the options for qualifiers.

The arrangement of *Examples Illustrating AACR2* also presents some problems. There are two indexes, one a general index and the other organized by rule number. The latter is useful when attempting to find an example to illuminate a particular rule. However, those who are used to manuals and example books arranged in a fashion parallel to that of cataloging codes or bibliographic records may find this book frustrating to use at first. It is not possible, for example, to open the book to a section on series statements to scan the problems and solutions.

The book is conditionally recommended; since it is intentionally not a source of official rule interpretations, catalogers should not use the book as a definitive guide in daily cataloging. For example, *United Kingdom* appears in headings instead of *Great Britain*; dates do not appear with personal names in many cases where LC would include them (this is a problem with several of the texts reviewed here); and titles of honor appear before the forename rather than after.

Christa F. B. Hoffmann's *Getting Reading for AACR2: The Cataloger's Guide* has an intriguing title, but we wish that a greater sense of focus had been found. As it stands, the book is a hodgepodge of some cataloging rules and examples mixed with AACR2 implementation strategies that a library might consider in local planning. The book appears in Knowledge Industry Publication's Professional Librarian Series, and it is typical of

that series in many respects. The page format is large (measuring eight by eleven inches), there are very wide borders (a significant portion of each page is white space), there are relatively few pages (a total of 225), the book is paperbound, and it is expensive (\$24.50). For that price we would expect a wealth of new information, but this provides little that is not available elsewhere. Given the late publication date (it was issued in the last quarter of 1980) it would be anticipated that the book would have the latest information; in fact, it seems there was little effort to include some of LC's most recent announcements of its cataloging practices.

The book includes a number of features of dubious value. There is a glossary that, for the most part, includes terms already covered in the AACR2 glossary. The definitions shed no new light, and in some cases are misleading or inaccurate. Under "statement of responsibility," for example, we find that "this term takes the place of 'authorship'" (p.7). Indeed it does not. The concept of authorship is retained in AACR2 for personal authors, but it has been replaced by corporate responsibility for works emanating from corporate bodies. The glossary is followed by a list of acronyms that defines such terms as *ISBN* and *LC*. There is a summary of "New Concepts in AACR2," which does little more than repeat those summaries of the code that have been printed elsewhere in the library literature.

The items of most questionable worth are the tables. Table III-3 (p.21-30) lists, by rule number, all of the options in AACR2; half the page is left as white space so a library can insert the decision as to whether that option is to be followed locally. Noticeably missing on the table is a column listing the LC decision, since, for this information, the reader is referred back to "issues of the *Cataloging Service Bulletin*" (p.19). There is another table (table III-4, p.31-35) to help libraries decide what levels of bibliographic description should be used for each format. The table shows whether or not the descriptive area (such as edition) is required, not applicable, or optional under the rules. The choice of "optional" is denoted by a blank line, with the result that much of the chart consists of blank lines on which a cataloger can record local decisions.

The least useful table, however, is table V-1 (p.46-53), which describes punctuation symbols and how they are to be used in each area of the bibliographic description. There are columns that indicate if the punctuation has a space or no space before and after it, and whether it is prescribed punctuation. This table and its index cover eight pages. We wonder whether all of this structuring of basic information is truly helpful.

A substantial amount of the text is devoted to AACR2 cataloging examples. The examples are grouped into five main categories: monographs, music scores, sound recordings, microforms, and serials. Within each group, the chief sources of information are printed together, followed by the cataloging data. The separation of all of the chief sources from the cataloging necessitates flipping back and forth. The cataloging data provides not only the AACR2 cataloging for each title, but also the pre-AACR2 cataloging. The pre-AACR2 cataloging has not been prepared by any consistent set of rules; for example, some monographs are cataloged by

unrevised AACR1 chapter 6 and others by revised chapter 6 (compare examples M2 and M3 with M7 and M9). There does not seem to be any particular purpose in including pre-AACR2 cataloging in every case; one or two examples would have sufficed.

In addition to the cataloging records, there is also a discussion of the description and the access points for the cataloging data. Some care should be exercised when applying these examples. The first example uses an incorrect heading for the main entry. The title of the work is *The Journals and Letters of Fanny Burney (Madame d'Arblay)*, yet without explanation the pre-AACR2 LC heading of "Arblay, Frances (Burney) d', 1752-1840" has simply been changed to "Burney, Frances, 1752-1840." The Library of Congress has established the name under AACR2 with the forename "Fanny." The fact that other examples in the text illustrate relatively simple cataloging problems raises the question of why these examples have been included at all.

Getting Ready for AACR2 is a book that seems to be looking for a purpose. It is neither a book of solid cataloging examples nor a manager's planning guide to AACR2 implementation. As for the latter, AACR2 implementation is covered by a long account of how a library can interfile old and new forms of headings, correct or line-out portions of headings, and create temporary files to record the changes made. There is only a passing reference to the option of closing the catalog, and never in the section "Short Term Solutions" (p.193-96) (there is no section on long-term solutions) are the relative advantages and disadvantages of closing a catalog and those of leaving it open discussed. The open catalog seems to be taken for granted, at least until a library can have a computer output microform or online catalog. For many reasons, this book cannot be recommended.

Maxwell's *Handbook for AACR2* is quite another matter. The *Handbook* is intended as an elucidation of the cataloging rules. Each chapter in the *Handbook* corresponds to a chapter in AACR2 (though some AACR2 chapters are not represented). Rules are sometimes compared with their pre-AACR2 predecessors for the benefit of experienced catalogers. With approximately four hundred examples, each having a full cataloging record, as well as extensive commentary, the book is valuable as a reference work for both the beginning and the experienced cataloger. The examples for printed materials are accompanied by transcriptions of chief sources of information.

LC's cataloging practices are cited in the *Handbook*, both through the examples and the commentary. The *Handbook*, however, was published in early 1980 and therefore some of the LC rule interpretations or decisions on rule options may not be covered, or, if included, may not be definitive.

This work surpasses the other general texts reviewed here in its comprehensiveness and accuracy. The *Handbook* is intended to be used in conjunction with the code, and while it may not answer all of the esoteric questions of an advanced or specialized cataloger, it is nonetheless valuable. Care should be taken since the *Handbook* is not a substitute for the code and occasionally some nuances of the rules seem to have been lost in their simplification.

One quibble we do have with the *Handbook* concerns the price and the binding. At \$20 for the paperbound edition (the only way it is issued), the cost is greater than the clothbound AACR2 it is intended to accompany. Since it is paperbound, those who use the book frequently may need to spend additional money to have the book bound. The inside margins have been cut with little room to spare, making commercial class A binding just barely possible. In all, however, the *Handbook* is definitely recommended for all types of libraries.

SPECIALIZED TEXTS

SERIALS

Judith Proctor Cannan's *Serial Cataloging: A Comparison of AACR1 and 2* was originally prepared for presentation at two sessions of the 1979 METRO Serial Librarians' Discussion Group, and at the RTSD Serials Section Program meeting at the 1979 ALA Annual Conference in Dallas. Since then, the text has been expanded and approved by LC, where the author is the head of the English Language Serials Cataloging Section. While the subtitle suggests that the emphasis is on a comparison of AACR1 and AACR2, happily the weight of the message is upon that which is new and different in AACR2, and on how LC will interpret and apply the rules to serials.

The fifty pages of text intentionally do not cover all of the AACR2 rules on serials, nor do they give in-depth discussions of any of the rules. This is a basic text, and it is written in a straightforward manner. The new rules and interpretations are presented concisely. While the imprint date is December 1980, some of the LC interpretations and decisions are not so current. For example, the level of description is still listed as under discussion, and the recently issued LC decision on uniform titles for serials is not included.

For those serials catalogers who have not attended serials workshops such as the RTSD/LC AACR2 institutes, this book will be particularly helpful. Those who have attended such sessions will not find startling or new information, though they will find it a useful desk reference item. The book contains basic information that will not only answer some implementation questions, but will also help provide more focus to the rules. Though the copy is camera-ready from a typewriter, it is clear and double-spaced. The facsimiles of the chief sources of information are particularly readable. The book is recommended for those who do serials cataloging, particularly those who already have some knowledge of AACR2.

AUDIOVISUAL/NONBOOK MATERIALS

Two texts on the cataloging of nonbook materials that are intended primarily as reference guides have appeared. Nancy Olson's *Cataloging of Audiovisual Materials* and Jean Weihs' (et al.) *Nonbook Materials: The Organization of Integrated Collections* share some similarities in purpose and approach, but each offers distinctive contributions as well. Both books present some general information concerning the care and organization of audiovisual collections, and both present AACR2 cataloging examples.

While both books pay some attention to illustrating the problems in determining the choice of access points (particularly for sound recordings), there is less attention to the construction of the headings. Neither book is particularly strong in following LC's practices for headings, and there is a pronounced emphasis in both books on demonstrating problems in preparing the bibliographic description.

Cataloging of Audiovisual Materials presents illustrations of the chief sources of information, complete cataloging records for each title, and explanations on specific problems in applying the rules. The reproductions of the chief sources are generally good, though some of the photographs are taken from such a distance from the physical piece that vital information is unreadable. The cataloging problems selected for inclusion are generally at the medium-to-advanced level of difficulty, though some are definitely at the beginning level. The notes about the cataloging are concise, and are presented by rule number rather than in a long narrative. This makes the notes easy to skim and rule numbers easy to find. Some notes could stand to be made fuller.

The book has some interesting appendixes, though they are not all uniformly valuable. The short list of "OCLC Changes for AACR2" (p.104-5) is really a list of MARC format changes for audiovisual formats. Prepared from MARBI proposals dated January 1980, the summary does omit some later additions, and the information is presented without comment. There are also examples of fixed field data (illustrating type of material) and the 007 field (physical description) of the MARC format. These examples are handwritten and hard to read.

Of particular interest is the part of appendix B in which all of the cataloging examples have been completely coded with the MARC tags. Again, some of the information is not as legible as we would like. It is ironic that a book on audiovisual materials would treat the machine-readable record as a second-class item by relegating the tagged examples to an appendix. The tagged examples should be examined carefully as there are some errors. In the 260 (place of publication, publisher, etc.) area, the examples all show first and second indicator positions with values of zero or one; both indicators should always be blank.

Cataloging of Audiovisual Materials is recommended primarily to those who catalog even a small amount of audiovisual materials. There is little information here for general cataloging application. The text should prove useful to both experienced as well as novice catalogers.

Nonbook Materials is a second edition, and the updating of the first edition comes largely in the adaptation of the cataloging examples and explanatory matter to AACR2. Where the first edition had to take into account the array of cataloging codes and practices to cover the many types of material, this second edition takes full advantage of the cohesiveness of AACR2. There is a general summary of the provisions of the cataloging rules for all types of nonbook materials, followed by separate sections for a number of individual formats. The types of materials covered are organized alphabetically. Each section has a statement of the provisions for cataloging a specific type of material and how it may diverge from the general principles for cataloging nonbook materials.

The book is intended for catalogers who already have a knowledge of monographic cataloging. Most examples are presented either with level one or level two descriptions. Most of the text consists of AACR2 cataloging examples, but unlike the other items reviewed here, no chief sources of information are provided. While the reproduction of the chief sources often is superfluous, there are definite instances where inclusion would lead to better understanding of the cataloging problems.

The cataloging examples are accompanied by little explanation, and the rule numbers are never cited with the examples. A bothersome practice was to place some of the cataloging and AACR2 information with the examples, and other information in footnotes at the end of the text. Obliging the reader to jump from the example to the footnote and back again seems an unnecessary imposition.

Of the books under present review, this one more than the others seems more a learning than a reference text. While the alphabetic organization does allow for quick reference to the rules, the lack of commentary and the lack of an index organized by rule number, along with the fact that many of the examples illustrate simple cataloging problems, limit the book's value. *Nonbook Materials*, therefore, is recommended, but more as an introductory text than as an item having lasting importance to the experienced cataloger.

SUMMARY RECOMMENDATIONS

Of the general texts reviewed, Maxwell's *Handbook for AACR2* is considered the most valuable for catalogers. It is well organized, thorough, and amply illustrated. Hunter and Fox' *Examples Illustrating AACR2* is useful as a quick guide to cataloging problems and solutions, but it is only conditionally recommended for catalogers in this country since the cataloging examples are based solely on the code and do not take the national cataloging practices in the United States into account. Hoffman's *Getting Ready for AACR2* cannot be recommended; the book is diffuse, and the presentation includes solutions to situations that are not really problems.

Cannan's *Serial Cataloging* is recommended as a useful desk reference tool for serial catalogers, particularly those who have not attended many workshops. Olson's *Cataloging of Audiovisual Materials* has some interesting features, and should prove helpful even to the experienced cataloger. Weihs' *Nonbook Materials* is also recommended, though more as an introductory text than to catalogers with a great deal of experience working with this type of material.

SELECT BIBLIOGRAPHY OF MONOGRAPHS ON AACR2

Titles reviewed in this article are identified with an asterisk.

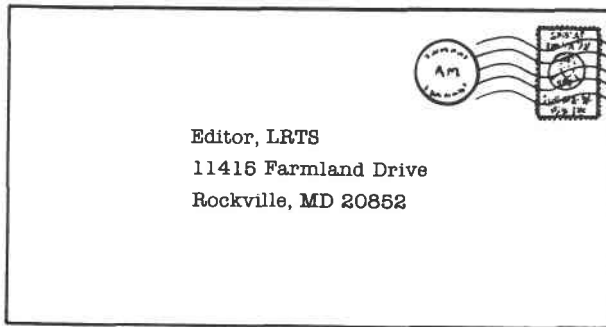
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From: J. McKinlay, associate librarian, Readers Services Division, La Trobe University Library, Victoria, Australia, and editor LASH.—I noted in the review of the year's work in subject analysis for 1979 in the Summer 1980 issue of LRTS by Doris Hargrett Clack a reference to my article "List of Australian subject headings: Too little? Too late?" As the author misinterprets the substance of the article, I thought that your readers might be interested in a correction to it.

The List of Australian subject headings (nicknamed LASH) is designed to supplement, and to be used in conjunction with, the current edition of the *Library of Congress subject headings* (LCSH). It is the result of a project initiated by the Cataloguers' Section of the Library Association of Australia. The aim of the project was, in the short term, to produce a preliminary edition of a list of Australian subject headings as a basis for comment and discussion by librarians.

The Preliminary Edition was published in October 1978 and, as was hoped, has generated a great deal of interest, discussion and activity. The article to which the Review referred was my thoughts on completing that stage of the project. Work is now actively under way to produce a definitive First Edition, which should be published in 1981. If any of your readers wish to obtain copies of the Preliminary Edition, they are still available from the Library Association of Australia (35 Clarence Street, Sydney, N.S.W. Australia 2000) at a cost of \$Aust.6.50.

From: David L. Weisbrod, head, Systems Office and Suzanna Lengyel, associate library systems analyst, Yale University Library—J. Michael Bruer in his article, "Management Information Aspects of Automated Acquisitions Systems," (LRTS 24:339-42, Fall 1980) assumes that batch (acquisitions) systems are "incapable of providing the right information in the right format at the right time." (p.340)

We would like to take exception to this statement and to the explanation following it. Mr. Bruer's explanation implies that batch systems are limited to listing all the data as a by-product of record-by-record sequential batch processing, and that batch systems by definition are unable to select records, to analyze the selected records, and to tabulate the results of the analysis.

Nothing could be farther from the truth. Batch systems are eminently capable of selecting records by any combination of criteria, provided that the criteria can be matched with data included in the computer records. (This proviso applies, of

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course, to on-line systems as well). The usefulness to management of statistical or summary reporting depends on the scope of the system, on the contents of the computer records, on the sophistication of the programs, and on the precise definition of the selection criteria, but not on the batch or on-line characteristic of the system.

The only aspect in which a batch system's management reporting may not be able to compete with an on-line system is that of timeliness. An on-line system can, at least in theory, supply an instantaneous reply (subject to sometimes stringent system design and economic constraints), whereas in the case of a batch system, the user has to wait a few hours or until the next morning, or until the completion of the current processing cycle. However, there is no doubt that both summary and exception reporting can be performed much more economically by a batch system. It is worth while to note that even existing on-line acquisitions systems (as well as those being developed) perform the claiming of overdue orders (a good example of exception reporting) in batch mode.

We would not deny the fact that a well-designed on-line system is superior to any batch system in its ability to facilitate user modification of records, in its ability to provide the terminal operator with instantaneous feedback, and in its flexibility in permitting the operator to take appropriate action. These are all general system performance characteristics and bear no necessary relationship to the ability or inability of a system to provide useful management reports.

From: *Dorothy J. Comins, Detroit*.—It is probably not a matter of great importance, but I cannot resist the temptation to call attention to an error in the "In Memoriam" on Wyllis Wright which appears in the Summer 1980 issue of *LRTS* (page 297). I can understand Ben Custer's confusion.

In the third paragraph he refers to the first of Bill Wright's activities as "Secretary of the American Book Center for War-Devastated Libraries." This is incorrect. He was Chairman of the ALA Committee on Aid to Libraries in War Areas, and had no connection with the ABC which existed simultaneously, and also had offices in the Library of Congress. I was Executive Assistant to the ALA Committee, headquartered in the International Relations Office in the LC Annex, working under the Committee's direction. This can be verified by reference to *Who's Who in Library Service*.

[B. Custer agrees that the information above is correct.]

From: *William E. Woods, associate professor, Richard J. Daley College, Chicago*. [Abridged].—The findings reported by Thomas Schadlich in "Changing from Sears to LC Subject Headings" (*LRTS*, Fall 1980) should encourage Sears users to recognize their good fortune. He found only a twelve per cent conflict in heading language when comparing Sears with LC. Because of the highly specific nature of LC headings this figure is likely smaller . . .

Schadlich doesn't mention the cost of changing over to the patron or to the library. It is the writer's experience that the Sears headings assigned by the catalogers who work for the *Wilson Standard Catalog Series*, Brodart's *Elementary School Library Collection*, the Catalog Card Corporation, and the jobbers who provide cataloging are more plentiful and more useful to the patron . . .

. . . the library using Sears is more apt to provide patrons with that basic library service, cross reference cards, as Sears only up-dates every six or seven years. The smaller library using LC has neither the staff nor the inclination to keep up with the four-times-a-year changes and cancellations . . .

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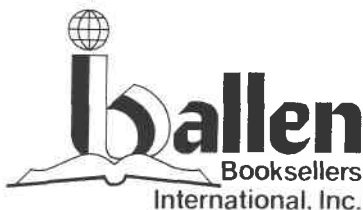
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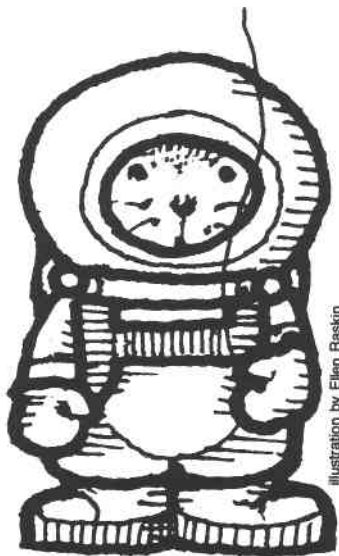
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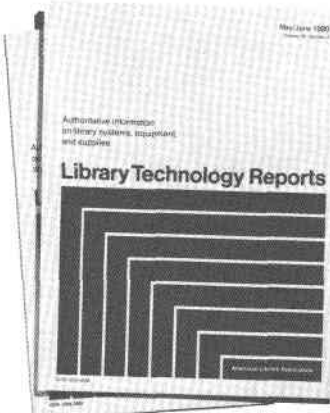
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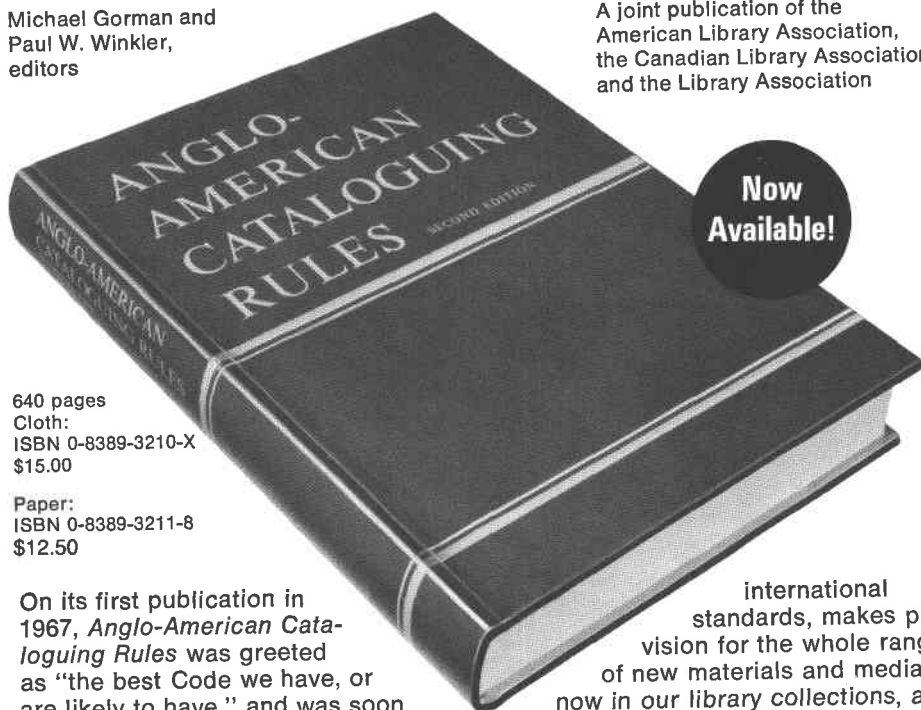
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