PRODUCTION NOTE

University of Illinois at Urbana-Champaign Library
Library Trends

Current Trends in Cataloging and Classification

MAURICE F. TAUBER, Issue Editor

October, 1953
Library Trends
A Publication of the University of Illinois Library School

Managing Editor
ERNEST J. REECE

Editorial Assistant
ANNIE LAURIE BASS

Publications Board
ROBERT B. DOWNS
LESLEY W. DUNLAP
THELMA EATON
ERNST J. REECE
ARNOLD H. TROTIER
WAYNE S. YENAWINE

Library Trends, a quarterly journal in librarianship, provides a medium for evaluative recapitulation of current thought and practice, searching for those ideas and procedures which hold the greatest potentialities for the future.

Each issue is concerned with one aspect of librarianship. Each is planned by an invited Guest Editor. All articles are by invitation. Suggestions for future issues are welcomed and should be sent to the Managing Editor.

Published four times a year, in July, October, January, and April. Office of Publication: University of Illinois Library School, Urbana, Illinois. Entered as second-class matter June 25, 1952, at the Post Office at Urbana, Illinois, under the act of August 24, 1912. Copyright 1953 by the University of Illinois. All rights reserved.

Subscription price is $5.00 a year. Individual issues are priced at $2.00. Address orders to Subscription Department, University of Illinois Press, 358 Administration West, Urbana, Illinois. Editorial correspondence should be sent to LIBRARY TRENDS, University of Illinois Library School, Urbana, Illinois.
Introduction

MAURICE F. TAUBER

In this series of papers on cataloging and classification and related matters, the authors have tried to adhere to the purpose of Library Trends, to recapitulate evaluatively current thought and practice, and to single out ideas and procedures which hold potentialities for future improvement. Some have been more historical than others, but since this is the first issue of the journal devoted exclusively to the topic in question, the editor has encouraged a backward look. Because cataloging and classification result in large and complex records and systems, which are expensive to change, it is difficult for many librarians to move rapidly in the acceptance of proposals which modify drastically current rules or practice. The historical background, therefore, is pivotal.

In earlier issues of Library Trends, some attention has been given to the technical services, including cataloging and classification. This is especially true of the first number, dealing with college and university libraries, which contains not only the paper by Wyllis E. Wright but also observations by other contributors on the relation of card catalogs to library service. Among the questions raised by the editor, Robert B. Downs, were several directly related to catalogs and their use. While earlier numbers of Library Trends were concerned with types of libraries, emphasis in the present issue is on certain functions and activities which appear in all.

Cataloging and classification aim at access to the resources for which vast sums are spent and which highly trained personnel are employed to administer, hence they deserve the continuous study members of the profession have given them. One cannot but be impressed with the literature on the subjects, as evident in the bibliographies included in the present set of papers. The catalogers themselves have been articulate, and administrators and others have also seen fit to put on

Mr. Tauber is Professor of Library Service at the Columbia University School of Library Service.
record their ideas of catalogs and classification systems. There has been in the various publications of the American Library Association's Division of Cataloging and Classification, and particularly in its *Journal of Cataloging and Classification*, a determined effort to come to grips with problems of importance to the library profession. While there may be considerable repetition in the literature, there are sufficient glimmers of imagination to suggest that resolution of some of the questions is not too distant. Also, the Division's Board on Cataloging Policy and Research has endeavored to initiate and stimulate pertinent investigations.¹

The papers included in this issue are concerned with eight areas: (1) rules of entry, (2) handling of complex materials, (3) subject headings, (4) classification, (5) organization and management, (6) relation to bibliographic aids, (7) training of personnel, and (8) cooperation and centralization. Together, they cover most aspects of the field.

One of the principal characteristics of cataloging practice is its reliance on rules. Despite the fact that cataloging has been referred to as an art these rules, as Seymour Lubetzky points out, have shaped our catalogs and determined their usefulness. Lubetzky has traced the development of rules of entry and has shown how the multiplication of books and publications in various other forms has had a direct effect upon the proliferation of the rules. His important document, *Cataloging Rules and Principles*, issued by the Library of Congress in May 1953, provides a basis for discussing possible revision of the rules. The trend is definitely to prepare a code which will be better suited to meet the modern needs of catalogers. Knowledge of principles and the exercise of judgment are the earmarks of professional practice; and in descriptive cataloging generally, as well as in the establishment of entries, the implication in simplifying rules is to allow the cataloger to exercise discretion.

Although Lubetzky's paper points to the need for reconsideration of the rules and principles of cataloging generally, the urgency of handling special types of materials has prompted librarians to set up certain guides for organizing archives, manuscripts, and audio-visual items. Evelyn Hensel has traced the development of the several approaches and the compilation of codes for the cataloging of nonbook materials. The recent publication by the Library of Congress of rules for the descriptive cataloging of phonorecords and motion pictures and filmstrips is particularly noteworthy in this connection. Another devel-
opment which is beginning to receive systematic attention is the re-
cording and organizing of technical reports. Violet Cabeen and Donald
Cook discuss this problem. A workshop on technical reports was held
at the Catholic University of America during the week of April 13–18,
1953. Questions of security control likewise have placed new responsi-
bilities on librarians.

Matters of entry and organization have also been a concern of those
who work with serials and published documents. Mrs. Cabeen and
Mr. Cook have carefully reviewed and described the growth and
nature of collections of serials and government publications in libraries,
in their relations to technical problems of record and arrangement.
In the field of serials, the appearance of *Serial Slants* as a guide and
outlet for discussion should be noted. Various publications issued by
the Library of Congress, such as *Serial Titles Newly Received*, are
helpful in dealing with serials. Documents, including those issued by
the United Nations, continue to present problems because of their
multiplicity and complexity. The expansion of the number of titles
issued through microfilming, microprinting, and microcarding has
added special questions in processing.

American librarians have always taken pride in their development of
subject cataloging as an aid to users. Whether subject entries appear
in a dictionary, divided, or classified catalog, they have been assembled,
at considerable expense, in order to be used. Carlyle Frarey has di-
rected attention to several recent discussions of subject heading prac-
tice. The field is currently wide open; and academic, public, special,
and school librarians have a stake in the solutions to the many prob-
lems which are referred to by Frarey. Attention is especially called to
the volume, *The Subject Analysis of Library Materials*, issued earlier
this year, which contains discussions on the various problem areas.

Subject headings represent one way of revealing the contents of
library resources. Another instrument is classification. Bernard Palmer
has presented the readers of *Library Trends* with a consideration of
fundamentals of classification. His point of view, and particularly his
discussion of the Colon Classification, should be particularly interest-
ing, since it differs from that of many American librarians. While class-
ification probably does not occupy the place it once held in American
librarianship, the development of special classifications continues.
Moreover, efforts at coordinating classification with use (as at the
John Crerar Library, the Detroit Public Library, and the Lamont Li-
library) suggest that it still is a live issue, requiring the attention of students.

This interest is revealed to some extent in the paper by Dale M. Bentz and Thera P. Cavender. Librarians have not ceased reclassifying and recataloging their collections, even though major operations which might well frighten off less adventurous souls are involved. Mr. Bentz and Miss Cavender indicate that the direction in reclassification, for the most part, is towards introduction of the Library of Congress system. Their paper is also useful in bringing up to date some of the primary considerations of policy and procedure in reorganizational projects.

Three papers which follow are concerned with matters of organization and administration. Arnold Trotier's review of the patterns of catalog departments reveals efforts to establish approaches which will result in efficiency and accuracy. Trotier also sketches developments in centralization within a library system, storage libraries and attendant problems in cataloging and classification, and programs to clear arrears.

How a large catalog can develop flaws over the years is described in a paper on catalog maintenance by Andrew D. Osborn and Susan M. Haskins. These authors clearly show, with the Harvard catalog as an example, the importance of a regular program if the catalog is to be an effective instrument. In addition to the imperfections which develop as a result of changes in policies, rules, and procedures, the problems of wear and tear on the cards, lack of guide cards, filing errors, and missing cards have not been faced squarely always by librarians. Usually, catalog departments have not had sufficient personnel; and budgetary allotments for the systematic editing of catalogs are relatively rare, despite the fact that such tools frequently represent investments of millions of dollars. Mr. Osborn and Miss Haskins demonstrate that such matters as filing, weeding, and editing are as essential as the original work which went into the preparation of the cards.

Related to the papers by Trotier and Osborn and Miss Haskins is the study of the cost of cataloging by Felix Reichmann. The nature of the personnel, the kind of cataloging done, the type of catalog produced—these factors are directly involved in cataloging cost. Reichmann traces the many efforts to investigate costs, and because he found in them certain shortcomings has contributed a study of his own. Instead of working specifically in terms of dollars and cents, however, Reichmann's focus is the time factor. Undoubtedly, there will be a lively discussion of his procedure and findings, but he has introduced
Introduction

an approach which has received little attention. His listing of specific elements in a cost study, as well as his comprehensive bibliography, should provide readers with a useful body of information.

Should the card catalog be retained? C. D. Gull provides us with a review of the discussions which have been concerned with its possible replacement. His comparison of suggested alternatives in terms of physical form, possible arrangements, flexibility, currency and completeness, ease of consultation, widespread availability, and speed of searches in subject arrangements also is a contribution to the understanding of the major factors involved in evaluating records.

In several of the papers, particularly those by Lubetzky, Trotier, and Reichmann, reference is made to the personnel concerned with cataloging and classifying. The paper on the training of catalogers and classifiers is designed to point up the nature of the current programs in library schools. It may be noted here, however, that in any plan of instruction for cataloging and classification, the essential objectives to be emphasized are: (1) inculcating basic knowledge in the fields, and the competence to use this knowledge; (2) developing ability in orderly, analytical thinking on a professional level, so that sound conclusions will be reached in situations requiring decisions; (3) conveying concepts which will provide the professional worker with the desire to grow in knowledge and keep abreast of the changing current of his work; (4) adjusting the philosophical viewpoint, basic knowledge, and feeling for values, so that the professional cataloger will understand and recognize the economic and service aspects of his problems; and (5) nurturing an understanding that will bring into play his professional background when dealing with problems that are library-wide.

It is appropriate to close this series of papers with a discussion of possibilities in centralization and cooperation. The hope that collaborative and centralized cataloging and classification would be extended so far that many of the local problems of librarians would be minimized has not yet been fulfilled. Lucile Morsch has reviewed the efforts at cooperation in both the United States and foreign countries. In the United States, the suggestions for enlarging the program of the Library of Congress so that there can be prompter and greater coverage of titles through its printed cards remain to be materialized. Some success has been achieved in getting American publishers to collaborate with the national library. It seems clear, however, that the problem of cooperative and centralized cataloging will not be resolved.
except as the libraries of the country work together. It has been said before, and it bears repeating, that it makes little sense for a number of libraries to do original cataloging simultaneously of the same titles.

One subject which is not treated in any detail concerns union catalogs and bibliographical centers. These instruments of service present cataloging problems which are important in the national framework. A number of relevant articles have been published since Downs's volume, *Union Catalogs in the United States*, was issued in 1942. Several of these appeared in the January and July 1947 and July 1948 issues of *College and Research Libraries*. Janice W. Sherwood and Eleanor E. Campion provide a résumé of services up to 1950. Trotier discusses some of the problems of the Midwest Inter-Library Center in the present pages.

Finally, it may be observed that some attention is being given to the manifolding of cards. Cards have been produced by letterpress, multigraph, multilith, mimeograph, hectograph, photostat, and other photographic methods. At the present time a few libraries are experimenting with Xerography. Only the smaller libraries continue to use the typewriter as the principal device for preparing catalog cards.

The following papers as a group raise many unsolved problems of cataloging and classification. Administrators of large libraries particularly, since they face more complicated situations than occur in smaller units, are beginning to take stock of current conditions so that plans may be worked out for the future. Temporary solutions to remove momentary pressures in a local library situation may be one way of proceeding, but they might well be studied in relation to the national problem of cataloging. This area of librarianship requires the attention of all thinking members of the profession.

References


Development of Cataloging Rules

SEYMOUR LUBETZKY

The growth of the rules which shape library catalogs and determine their character and usefulness is susceptible of much more extended treatment than is possible here. What is attempted in the following pages is to point out present trends and to indicate their significance.

Evidently the year 1941 marked the beginning of a new phase in the evolution of cataloging rules. The publication then of the preliminary American second edition of the A.L.A. Catalog Rules appears as the culmination of a movement inspired exactly one hundred years earlier by the issue of Panizzi’s rules. The latter followed a very long period in which rudimentary methods of cataloging slowly evolved and the need of rules to systematize the work gradually came to be recognized. As long as libraries were small and few books were published, the contents of a library could be recorded in any fashion that struck the fancy of the one in charge. Catalogs were made by librarians largely for their own use and had one simple function, that of an inventory or a collection of lists showing the holdings. The form and arrangement of the entries were arbitrary.

As the holdings increased and the production of books rose, new functions were imposed and the old improvised methods became inadequate. When Sir Thomas Bodley set out to buy for the Oxford University Library, and sought to find from its catalog whether certain books were already on the shelves, he soon discovered that the entries were often vague in their descriptions and sometimes could not be found at all. It was well for inventory purposes, for example, to list a book bound with another book under the title of its companion; but when Bodley failed to find it under its own author’s name he could escape buying another copy only by recollecting that it was already on hand. His letters to the librarian on the failings of the Ox-

The author is Consultant on Bibliographic and Cataloging Policy at the Library of Congress.
ford catalog of that time were probably among the earliest practical lessons in cataloging from the viewpoint of the user other than the librarian. They demonstrated also the need of well-considered methods for the preparation of a library catalog.

By the middle of the nineteenth century the time was ripe for formulation of rules prescribing how the books of a library should be systematically cataloged, and Panizzi's effort came as an answer to that need. Although some of his colleagues and many of the users of the British Museum clung to the idea that the catalog was for the librarian not the reader, and objected vehemently to Panizzi's ideas, his rules were widely applauded by the library profession and inspired the development of cataloging codes in various countries.

As the growth of libraries and of the production of books continued, new types of publications and novel problems of cataloging were encountered, and fresh regulations had to be designed. Every successive edition of Cutter's Rules was more extensive than the preceding one, and the Catalog Rules of 1908 was larger than the preceding editions of the American Library Association code. The expansion of the rules for a while after 1908 aroused little notice, although some were published separately from time to time. It was not until the appearance of the preliminary American second edition in 1941 that the result was fully realized. Then the multiplicity and variety seemed bewildering. What happened was analogous to that which took place when libraries were confronted with rising collections of books. While the number of cataloging rules was small there was no problem in application; but when their number and variety increased greatly, the need arose for general principles to guide the catalogers.

Of course, recognition of the need for cataloging principles did not spring forth any more suddenly after 1941 than that of the necessity for cataloging rules came before 1841. The hearings held by a Royal Commission on Panizzi's proposals revealed that he had contemplated essentially the same objectives which have been pursued in later codes. But these were not set down as the basis of his rules and would not readily be inferred from them. In fact, some of Panizzi's rules appear to be inconsistent with the aims which he advanced in defense of other rules.

The first edition of Cutter's Rules, published in 1876, presents the first conscious effort "to set forth the rules in a systematic way" and "to investigate what might be called the first principles of cata-
Development of Cataloging Rules

loguing." These Rules are systematically organized, and appropriately begin with a statement of the objectives which presumably they were designed to serve. But the attempt to consider “first principles” produced only a number of miscellaneous explanatory notes, stating the reasons for some of the rules or exceptions to them. It never brought formulation of general governing principles, to be detailed in the rules.

The Catalog Rules of 1908, which superseded Cutter’s fourth and last edition of the Rules, appeared without a declaration of objectives, and without explanation of reasons, except for a few prefatory remarks implying that the rules were designed to provide for the entry of books in the way readers were expected to look for them. It elucidated very little, and the rules were bound to drift. In the absence of general guiding principles there was a mounting need and demand for more and more rules and detailed specifications, to provide for variant cases not covered specifically by the compilation. The cumulative result was embodied in the preliminary American second edition of the A.L.A. Catalog Rules, published in 1941.

The widespread discussion precipitated by the issue of this tentative edition indicated that a considerable segment of the profession was earnestly perturbed when confronted with the trend, and thought that the time had come to re-evaluate the rules in the light of objectives and principles. The defenders of the code pointed out that what the profession wanted was an expanded and more complete statement, not a revised code, and that the new edition gave them what they needed most. The critics thought that the exigencies of cataloging might better be served by a re-examination of purposes and methods. The result was a Solomonic division. The critics were awarded the rules of description for revision, and the defenders of the code retained custody of the rules of entry.

The revision of the descriptive cataloging rules was started in the Library of Congress in the spring of 1943. It began with an examination of the printed catalog cards, the product of the rules. These presented two questions: (1) What information or data should be given on the card? (2) How should the information be organized? It was assumed as axiomatic that everything appearing on the card must be necessary or useful for some purpose of the catalog, and that the arrangement of the data must be related to some desired pattern. But what were those purposes, and what was that pattern? In the absence of any stated objectives it was assumed that the information must be essential for the
identification of a specific work and its particular edition, or for its characterization, and that the pattern of arrangement desired would display under the author’s name his various writings, and under each the several editions, so that the reader would be helped to find the item he wanted and to select the edition most suitable.

In the light of these assumptions, which none have challenged so far, the cards appeared to be inadequate in both respects. In content they were found to be weighted with repetitions—for instance, giving the author’s name before and after the title, the issuing body in the headings and imprint and sometimes also in the series note, the illustrations in the title and then in the collation. It was suggested, therefore, that avoidance of such repetitions would not reduce the informational value of the card and would make it clearer and more intelligible.

In organization of the data, it was noted that while some elements of the entry always were in accordance with a certain pattern (e.g., author heading, title . . . place, publisher, date, collation, series note), others did not always appear in the same order. For example, the author or edition statement on the title page was transcribed on the card after the title of the book if it was so found on the title page; but if found at the head of the title page or elsewhere in the book, it was cited in a note. It was suggested, therefore, that such basic elements should always occupy the same relative position, between the title and the imprint of the work, regardless of where derived. It was pointed out that this would improve the integrability of the entry in the catalog, and would show more clearly the relation of the entry to the other works or editions in the catalog. There were some other suggestions of lesser importance designed to simplify the entry and make it more intelligible, including the proposal that omissions in transcribing the title page should not be indicated on the entry by ellipses.

This was a radical approach, and the suggestions were equally radical. When the suggestions were circulated in a statement setting forth the objectives and principles for a revision of the descriptive cataloging rules, they met with considerable opposition. This rested on the traditional “principle of transcription,” maintaining that the transcription of the title page is the easiest and safest method to describe and identify a book, and that the new proposals would complicate matters for catalogers and impair identification of the book.

The proponents of the new principles pointed out that the principle of transcription was not being followed, since the title, place, publisher,
date, and series commonly were given in a certain order even if found otherwise on the title page; they could see no logical reason, therefore, for assuming that if the author and edition statements were similarly treated the dire predictions of the opponents would come to pass. They decided, however, to test the claim that the proposals would impair identification. Accordingly they selected a considerable number of entries from the Library of Congress catalog, for a variety of works issued in several editions, and edited the entries in accordance with the proposals. No evidence appeared that the proposals would impair the identification of the book or of its edition.

These studies, which had been carried out with the inspiring support and encouragement of Herman H. Henkle, then Director of the Processing Department, were later incorporated by him in a report to the Librarian of Congress recommending adoption of the proposed principles as the basis for a revision of the descriptive cataloging rules. An advisory committee appointed by the Librarian of Congress warmly supported the report, and the objectives and principles advocated in it were incorporated eventually in the amended descriptive cataloging rules and approved by the profession.

Adoption of the recommended principles was an important victory for progressive cataloging, for it marked a change in the philosophy of cataloging from a degenerating formalism to a vitalizing functionalism. The old rules represented a growing collection of bibliographical forms which the cataloger had to fit to the books in hand; the selection of the forms appeared as the end of cataloging. The new rules began with a statement of the functions which they were to serve; the bibliographical forms were no longer an end in themselves, but a means to specified ends. In the light of the specified aims the accumulated forms could be re-evaluated, obsolete or unnecessary ones discarded, imperfect ones redesigned, and the revised rules themselves constantly improved, since no sanctity would attach to the forms except as they might best serve the ends of cataloging.

The significance of the studies of descriptive cataloging was noted by students of cataloging at home and abroad. In a report to the International Library Committee on cataloging developments in the United States Andrew D. Osborn, who had himself called for such a change in dealing with the problems of cataloging, characterized Henkle's report as one which "represented a new and original approach to cataloging theory" and which "had put new life and meaning into descriptive cataloging," and expressed regret that the "vexed prob-
lems of author entry” had not received such attention. Three years later, after the second edition of the A.L.A. Cataloging Rules for Author and Title Entries was published, Leonard Jolley described it as “a great pity” that the rules for entry had not been subjected to “a thorough reassessment of the function and principles of cataloguing,” as had been the rules for description in the Library of Congress. He observed strikingly that “The two new codes are the abiding results of the ten years’ discussion amongst American librarians, though it is possible to suggest that the A.L.A. Rules do not so much reflect as ignore the greater part of that discussion.” He recognized, however, that they did represent the demands of the profession at that time.

In 1951 the Board on Cataloging Policy and Research of the A.L.A. Division of Cataloging and Classification asked the Library of Congress to have an intensive study made of the rules for entry which would provide a foundation for their revision. Thoroughly in sympathy with the need, the Library of Congress readily responded to the request and assigned the present writer to carry out the project requested. The first phase was analytical examination of the rules, which sought to determine whether they were all necessary, whether they were properly related to one another, and whether they were consistent in purpose and principle. It showed defects in all these regards. The second aspect was an etiological study of the rules for corporate entry, which demonstrated that the foundation for the complex of corporate rules was unsound. The third phase was an attempt to identify and discuss the objectives at which the rules of entry should be aimed and the basic principles on which they should rest.

The report of this undertaking, entitled Cataloging Rules and Principles and published in May 1953, was put on the program for discussion at one of the meetings of the Division of Cataloging and Classification at the A.L.A. conference in Los Angeles. Judging from the comments on the report after circulation to a considerable number of catalogers throughout the country, the profession may be ready to complete the change from formalism to functionalism which began with the revision of the descriptive cataloging rules. It may be anticipated that the future code will be designed to achieve specific and well-considered objectives, and evolve from basic and well-considered principles. Such a code would be consistent in aim and method, and would be better suited to meet the modern needs of catalogers than numerous detailed and specific rules unrelated to unifying principles. It also would make
Development of Cataloging Rules

the work of catalogers more interesting and satisfying, because it would be rational in application and purposeful in function.

There is a school of thought which maintains that economy in cataloging requires a code of rules which could be applied without the exercise of judgment by the cataloger. Judgment, they say, is expensive because it requires highly paid people and takes much time. It is questionable whether this theory was ever valid in large and scholarly libraries. It certainly cannot be so where catalogers are confronted with a vast and mounting variety of publications on the one hand and a growing maze of rules on the other. It also is detrimental to the future of a profession which will require a generation of catalogers able to cope with greater cataloging problems than their predecessors have faced. Such a generation could not be brought up on a cataloging diet rich in rules and poor in principles, and on a preparation in cataloging which involved the use of rules without the exercise of discretion and reason.

References

4. Ibid., pp. 142-146.

ADDITIONAL REFERENCES

Treatment of Nonbook Materials

EVELYN HENSEL

While the cataloging and classification of books have followed more or less standard procedures in libraries, the treatment of nonbook materials has only recently received systematic consideration. The pressure for organizing has come with the development of large collections of such materials. When a catalog is needed, rules for it inevitably are developed. The formulation of rules by individual libraries is the first step, and gradually uniform or commonly acceptable operations are incorporated into codes. This evolution is observable in tracing the history, growth, and trends in the cataloging and classification of nonbook items, and specifically of archives, manuscripts, and audio-visual materials. The last-named are considered as including maps, pictures, phonorecords, and motion pictures. Excluded from this discussion are microreproductions of printed matter, since, with relatively minor additions to provide for physical form, the rules for cataloging books can be applied to them.

Archives and Manuscripts. The terms "archives" and "manuscripts" mean different things to different people. Some maintain that "archives" should refer only to records of government agencies, and others that it should comprise those of societies, churches, universities, business firms, and even individuals, thus limiting the term "manuscripts" to one or more unrelated documents, historical or modern. A broader concept of "manuscript" is included in the Historical Records Survey's definition of it as "a handwritten or typed document (including letter-press and carbon copies) or a photographic reproduction of such a document."

In the nineteenth century and the early part of the twentieth, responsibility for preservation of archives and manuscripts in this country was largely assumed by historical societies and a few state and large research libraries. During this period greater emphasis was placed upon collecting and protecting them than upon organizing...
them for use. The Public Archives Commission of the American Historical Association, established in 1899, was instrumental in bringing about significant legislation leading to the preservation and custody of state archival collections. The work of the Historical Records Survey stimulated interest in the guarding of public and private records.

Whether collections of private records are categorized as archives or manuscripts, the technique of cataloging them is similar to that for public records. In both cases, it treats the files of an agency as a group and employs such finding media as check lists, inventories, indexes, calendars, and to a lesser extent card catalogs, and maintains the integrity of the original arrangement whenever possible. The chief difference is that certain additions are necessary for public records, because they are interrelated and complex, whereas private ones are made up of unrelated series. The cataloging of single documents, such as letters, or the analyzing of isolated documents, likewise is similar. Where possible the cataloging of a single manuscript follows the rules and principles for printed books. This paper does not consider the cataloging of medieval and renaissance manuscripts, other than to note that American Library Association rule 9 for entry of manuscripts is “based on the cataloging of manuscripts occurring most frequently in the average library in the form of facsimiles.”

Although the fourth edition of C. A. Cutter’s Rules for a Dictionary Catalog (1904) contains a section on the cataloging of both private and public manuscripts, prepared by Worthington Ford, the first systematic handbook was J. C. Fitzpatrick’s Notes on the Care, Cataloguing, Calendarizing and Arranging of Manuscripts, issued by the Library of Congress in 1913 and appearing in a third edition in 1928. In this work the author warns that the first handling of a mass of manuscripts is often crucial, since it reveals hints of value in the final archival plan and the dating and identifying of the miscellany of the collection. Chronological arrangement within groups is recommended.

In 1936 a useful handbook on the care of manuscripts was issued by the Minnesota Historical Society, setting forth the treatment of materials in its collection. In that library manuscripts are divided into nine main groups, as follows: (1) personal papers; (2) records of organizations; (3) miscellaneous records; (4) transcripts and photostatic copies; (5) calendars and field reports; (6) secondary material; (7) broadsides; (8) autographs; and (9) manuscript maps. The arrangement of each group varies. Catalog cards are made for each col-
Treatment of Nonbook Materials

lection, and calendar cards for personal papers. Later accounts of this collection have appeared in professional literature.

About the same time, the Historical Records Survey, originally established in 1935 to survey local public records, produced manuals of instruction on the preparation of guides, inventories, and calendars which also serve as helpful aids to the cataloging and classifying of manuscripts. When the H.R.S. was abolished, in 1942, more than 1,200 inventories, calendars, transcripts, and other publications had been issued.6

The opinions concerning the treatment of manuscripts differ considerably. Calendars, for example, are thought by some to be desirable only in exceptional cases. Certain librarians have preferred printed guides, rather than detailed card catalogs or calendars. Chronological arrangement within a collection appears essential for easy use.

Although references to individual library procedures have been largely omitted from this review, since they are available in Library Literature, mention should be made of Harvard’s recent approach. When the Manuscripts Department was created there in 1948 it was found that manuscripts cataloged before 1940 were treated according to a variety of methods, while those acquired after 1940 were listed but not cataloged. Since the old catalogs could not be consolidated, it was decided to start a new one. In it descriptions of the collections are expressed in simplest terms, in the belief that the reader will prefer to be guided to, not told all about, the materials. The original arrangement by linguistic and geographic areas has been retained, but some new categories, such as music and graphic arts, have been added. Within each class, arrangement is by serial number.7

The Library of Congress has been currently engaged in drafting tentative rules for the cataloging of single manuscripts and manuscript collections. These have been sent out for criticism, and when in final form will be submitted to the A.L.A. Division of Cataloging and Classification for its approval. In England, J. L. Hobbs8 has recommended that manuscript cataloging conform as closely as possible to the Anglo-American code.

European interest in archival control is older than American. In the discussion of classification and arrangement of archives at the first meeting of the Conference of Archivists called by the Public Archives Commission in 1909, it was advocated that the principle of respect des fonds, or principe de la provenance, be observed.9 Prior to the nineteenth century the materials in European archives were arranged in
accordance with some predetermined scheme of subject matter. When the principle of respect des fonds was adopted in France in 1841, the records of each political unit or fond were thereafter to be segregated, but those of the agencies within each political unit were to be arranged by subject. In 1874 the Prussians went further, providing that not only records of each political division but also those of each subordinate one were to be kept separate. The extension of respect des fonds has come to be known as Provenienzprinzip, or principle of provenance. Within each agency the “original organization” given to its records in the registry office is to be maintained, under the principle known as Registraturprinzip. Such methods were immediately accepted in the Netherlands and given theoretical justification in a manual issued by three Dutch archivists—Muller, Feith, and Fruin—which became the modern archivists’ bible. A translation into English of the second edition was published in 1940. The principle developed by the Prussian and Dutch archivists appears to have mainly an academic interest for American archivists, since public records in the United States are not organized by registry offices before being transferred to the National Archives.10

In 1936 tentative catalog rules of the Archives Division of the Illinois State Library, representing the result of several years’ experimentation in adapting Library of Congress rules to the cataloging of archives, were issued. The types of records made were an inventory shelf list on sheets, a dictionary catalog on cards, and a name index. Calendars were made for each volume or unit but not for each piece. In actual practice, however, it was found that subject reference to classification groups was more useful.11

Perhaps the most important single event in American archival history was the establishment of the National Archives in 1934. This created problems in archival organization on a large scale. In a paper on cataloging at the National Archives, J. R. Russell12 described the card catalog, which was planned as a guide to groups of records and not to single pieces, and made with main entry under the name of the agency whose archives were listed. According to him the catalog card resembled in form that for printed books, and a card list of subject headings was started. Accession cataloging was the first step; division cataloging or series cataloging, the second. Division cataloging grouped all records of a government subdivision together. The items were given series cataloging rather than division cataloging if the division contained documents on a variety of subjects.
R. R. Hill, writing about classification at the National Archives, observed that it was still in the experimental stage, there being no precedents of sufficiently universal application to offer guidance. He indicated that the practice for European archives was kept in mind and its limitations recognized. The classification reflects the government organization, though the picture cannot be complete because of governmental changes. The steps in classifying archives are an examination of the materials, a study of the history of the agency and of its records, and a determination and analysis of each unit. The basic unit of classification is a group or series of records.

It was decided at the National Archives in 1940 that the card catalog was not a useful finding medium and it was therefore discontinued. The Catalog Division then devoted its time to the preparation of indexes to records. In 1941 a new program of finding media was begun. The work of preparing them was transferred to the custodial divisions, and the divisions of cataloging and classification were abolished.

The Committee on Archives and Libraries established by the A.L.A. in 1937 arranged programs on archives at annual conferences from 1937 to 1940. Papers on cataloging and classification were presented, and are available in the published proceedings of the sessions. It was brought out that a manual of cataloging and classification for archives was needed, but that more experience in the handling of such records was necessary before a standard handbook could be compiled.

A recent development in archival work is concern for records management, with a view to eliminating unnecessary record-making and filing of papers. Articles on this subject by E. T. Leahy and Helen Chatfield appeared in 1949 and 1950. A comprehensive program for the management of federal records was authorized by the Federal Property and Administration Services Act of 1949. It established the National Archives and Records Service under the newly created General Services Administration to administer the National Archives and a Records Management Division.

Another recent development is the inauguration of training courses for archives administration. The first of these was given at Columbia University in 1938/39. Courses have been offered since at other institutions.

Audio-Visual Materials. In the field of audio-visual materials, the growing emphasis upon their applications to education has brought establishment of audio-visual centers and increased attention to cataloging and classifying such items. Margaret Rufsvold includes a
chapter on the indexing and processing of all types of nonbook materials in her *Audio-Visual School Library Service*. Problems such as selection of a classification scheme (Dewey decimal, accession order, etc.), decision as to consolidating the cards for books and nonbooks in one file or maintaining separate catalogs, and the inclusion of subject entries, require consideration. Apparently separate catalogs are most common where the collections of audio-visual materials are extensive. Certain items, such as pictures, lend themselves to a self-indexing arrangement which may not require a catalog.

The processing in schools of nonbook materials is also covered briefly in Mary P. Douglas’ *The Teacher-Librarian’s Handbook*; in special libraries, in Hobb’s *Libraries and the Materials of Local History* and R. L. Collison’s *The Cataloguing, Arranging and Filing of Special Materials in Special Libraries*; and in colleges, in G. R. Lyle’s *The Administration of the College Library*. A committee on audio-visual work recently appointed by the Association of College and Reference Libraries has undertaken as its first project a survey of the audio-visual programs in colleges and universities.

In addition to the increased emphasis growing from the educational use of audio-visual materials, the movement to preserve those of historical importance has also focused attention on cataloging and classification. Separate divisions have been set up in the National Archives for motion pictures and sound recordings, maps and charts, and photographic records in the form of prints and slides. The movement for the preservation of films of lasting importance began in 1927, with a proposal by the Motion Picture Producers and Distributors of America to President Coolidge that the government allot space in the new archives building in Washington not only for government films but for great feature pictures as well.

Films.—The Film Library of the Museum of Modern Art was established in 1935 with the aid of a grant from the Rockefeller Foundation. Methods of cataloging in this library were described by J. E. Abbott in 1938. They resulted in a master or inventory file on 4 x 6-inch cards, and a card catalog on 5 x 7 cards with main entry under title.

J. G. Bradley in 1945 reported on the cataloging of films at the National Archives. He stated that at first each film received was reviewed and a summary was prepared on sheets and filed in a case history folder. In later years this was typed on cards. Bradley recommended that the language and form of the entry be kept simple.

The classification of film undoubtedly has been influenced by that
Treatment of Nonbook Materials

in the Educational Film Catalog,\textsuperscript{28} which first appeared in 1936. Since the Dewey Decimal Classification is used in this compilation, many librarians have found it adaptable in arranging films.

In September 1951 the Library of Congress began to issue printed cards for motion pictures and filmstrips cataloged by it and by cooperating libraries and institutions. Among such other agencies issuing cards for motion pictures in the United States are the Educational Film Library Association, Coronet, and Ver Halen Publishing Company. In 1952 the Library of Congress published its rules for the descriptive cataloging of motion pictures and filmstrips in a preliminary edition. A revised edition appeared in April 1953.\textsuperscript{29} These rules were designed for cataloging theatrical and nontheatrical films of the most common kind. They provide for main entry under title, and for recording information which will reduce to a minimum the occasions for handling the films, since access to them necessarily must be limited.

International standards for film cataloging, evaluation, and data as to availability were discussed at a series of meetings held by the United Kingdom National Commission for Unesco in England in February 1953 and at a Conference on International Standards for Film Cataloguing convened by the United States National Commission for Unesco in Washington, May 11–12, 1953. The conference in Washington recommended that the rules of the Library of Congress and the British Film Institute form the basis for world-wide standards for descriptive catalog entries. The Unesco Secretariat is to study the recommendations of both conferences, and attempt to develop standards that will be internationally acceptable.\textsuperscript{30}

Phonorecords.—A survey of the literature on cataloging phonorecords reveals great diversity of treatment. Four arrangements are found to be in use, viz., by composer, form or medium, record number, and accession number. The advantages and disadvantages of each were noted by the Music Library Association in its Code for Cataloging Phonographic Records.\textsuperscript{31} Margaret Dean-Smith,\textsuperscript{32} cataloger for the British Broadcasting Company’s Gramophone Library, observed that “Many record-libraries in their infancy, including the B.B.C., disregarded ‘make, prefix and number’ and tried place-numbers, accession-numbers, or even classification by Dewey and other systems; the B.B.C. abandoned an impractical first-thought some time before the library began to be built up on its present scale, and though the suggestion of ‘make, prefix and number’ met with polite mistrust at a Library Association conference in 1944 it is now almost a commonplace.” Ar-

[193]
rangement by accession number is considered by some to be most satisfactory, since it eliminates shifting.

The literature contains references to varying practices of individual libraries. A summary as of 1945 appears in an article by Inez Haskell. In 1946 the Music Library Association and the A.L.A. Division of Cataloging and Classification established a joint committee to revise the Association’s Code for Cataloging Music. When the Library of Congress began the preparation of rules for cataloging records the joint committee’s tentative draft was made available to L.C. A preliminary form of the Rules for Descriptive Cataloging in the Library of Congress; Phonorecords was issued in 1952. “The rules are designed to cover the several physical types of recordings and are regarded as applicable to all kinds of recorded sound, i.e., speech, music, etc.” Included are regulations for the cataloging of cylinders, wire and tape recordings, sound film, and music rolls, the term “phonorecord” having been coined to fill the need for something to comprehend these various types. The rules have been accepted by the joint committee for incorporation in the revised edition of the M.L.A. code.

With the issue of the phonorecord rules, uniformity in the descriptive cataloging of sound recordings is much nearer to being achieved. Classification, however, probably will continue to vary among libraries according to their needs.

Maps.—Because of their physical format and the difficulty of applying established classification systems and cataloging rules to them, maps have been regarded as “step-children” by some librarians. S. W. Boggs and Dorothy C. Lewis, who prepared a manual on map processing, did not consider maps simply as books in another form. However, they observed that the general objectives in the classification of books and maps were the same, and in their manual they tried to restrict divergency from the practices for books to cases in which it is necessary.

The idea that the same rules can be applied to books and maps, which so long influenced map cataloging, springs from the statement by Lee Phillips in 1904 that “The cataloging of maps and atlases differs very little from the cataloging of ordinary books.” A number of librarians regarded this as satisfactory, and it was not surprising that when the Boggs and Lewis manual was submitted to the A.L.A. Cataloging and Classification Committee in 1939 it was rejected because in the committee’s opinion it did not conform to standard cataloging practices, especially with respect to entry.
Treatment of Nonbook Materials

Articles on the processing of maps published since 1900 show a wide variation in the treatment of such materials among libraries, particularly with regard to classification. The methods include arrangement by using the Dewey decimal history numbers preceded by M, the Cutter geographic system, index maps, and other notational schemes developed for particular libraries. The plan developed by Boggs and Lewis is set forth in their manual. The Library of Congress issued its map schedules (Class G) first in 1946, and at the time of writing a second edition is in press. It may be noted that there has been some question as to the effectiveness of classifying maps.

Main entry is another phase of map cataloging about which there is a difference of opinion. Rule 10 of the A.L.A. code provides for entry under the name of the cartographer, editor, publisher, government bureau, society, or institution. Main entry under area is recommended by Boggs and Lewis because the section portrayed is the most obvious and significant characteristic of maps. Main entry, however, does not imply a unit card, since the unit card for maps is "only the base to which must be added the headings for the different entries. For most maps the unit card does not appear in the catalog in unaltered form. . ." 37 Here there appears a concept of the main entry different from that in the A.L.A. code.

The number and kinds of catalogs or indexes also vary among libraries, as does the form of card. Some libraries use a printed form card. The number of catalogs runs from none, arrangement being an geographical basis, to the nine separate catalogs maintained at the Army Map Service Library.38 An extensive bibliographical summary of literature relating to maps was made by W. R. Ristow in 1946.39

To remedy the lack of well-organized map collections made apparent during World War II, the Army Map Service in 1945 invited a number of libraries to become depositories for 25,000 maps to be supplied in duplicate. This depository program was suspended in 1951. On May 15, 1946, the Library of Congress announced a plan to print catalog cards for the A.M.S. maps. According to the Manual of the L.C. Map Division, only selected categories of other maps are cataloged in full and have printed cards. At one time the Division hoped that a uniform system might be developed, and anticipated cooperative cataloging and a union catalog. When this did not seem immediately attainable, it proceeded to revise its classification.40 In 1949, it issued a handbook on the care of maps.41

Picture Collections.—As with maps and phonorecords, the literature
EVELYN HENSEL

on picture collections provides a variety of processing practices. Norma O. Ireland has discussed picture collections in different types of libraries, and Marcelle Frebault, in a revised edition of J. C. Dana's monograph, has described in detail the well-organized picture collection of the Art Department in the Newark, New Jersey, Free Public Library. This collection includes postcards, lantern slides, framed pictures, and fine prints.

Generally, picture collections are arranged by subject. In her 1942 survey of fourteen representative photographic collections in colleges, universities, and museums, Eleanor Mitchel found that several organized their materials according to the methods used by the Metropolitan Museum of Art.

As in their treatment of other stock, libraries vary in their approach to the cataloging of picture collections. Some allow systematic arrangement to answer requests of users, while there are several instances of full-scale cataloging. Collison expressed the opinion that such material is usually "too ephemeral to warrant the expense and delay of catalogue entries."

This would not be true, however, of a collection of fine prints. The Library of Congress has introduced a useful feature in its catalog of prints, a microfilm contact copy of the original being mounted on the catalog card. This facilitates the search for a given picture, and in many cases eliminates the need to examine the original. It probably would be feasible or economically possible only in a large library.

With the increase in the number and size of collections of nonbook materials and the attention being paid to their organization for use, the development of adequate rules will soon catch up with those for book cataloging. There is need, however, for sound manuals for each of the special types of material, covering not only cataloging and classification, but physical handling and servicing as well.

References

Treatment of Nonbook Materials


37. Boggs and Lewis, op. cit., p. 27.
Organization of Serials and Documents

VIOLET ABBOTT CABEEN and C. DONALD COOK

During the postwar period several trends in the organization of serials and documents have been discernible. The most noticeable point toward the study and adoption of procedures designed to eliminate wasteful duplication in records pertaining to serials; a continuing search for practical means of giving collections of government publications maximum effectiveness; the increasing use of bibliographic controls as aids in acquisition as well as means to implement and supplement existing records; the revival and extension of cooperative movements leading to the acquisition of serials and documents by exchange; and the growing acceptance of microphotography to meet problems connected with the storage of certain categories of material which must be preserved, and with the securing of publications not readily obtainable in printed form.

The challenge to maintain essential library services in the face of rapidly rising costs has made some of these trends evident internationally. The policies and procedures adopted to attain the maximum service at the least operating expense have been greatly influenced by recognition of the important place which the increasing numbers of publications of governments, societies, and institutions occupy in the collections of contemporary libraries.

Consolidation of Records for Serials. The concept of the central serial record is not a new one. In the years immediately preceding World War II experiments in the central registering of such materials had been made in the United States. Much of the current development of central serial records has its background in statements made and programs of action outlined by J. H. Gable, A. F. Kuhlman, and F. B. Rothman and Sidney Ditzion during the period 1937 through 1940. In 1951, G. N. Hartje reported on the general status of central recording as follows: “There is no general agreement among writers

Mrs. Cabeen is Chief of the Acquisition Unit of the United Nations Library. Mr. Cook is Faculty Assistant at the Columbia University School of Library Service.
VIOLET ABBOTT C Abeen and C. Donald Cook

on the assignment of the responsibility for ordering serials, the location of records, types of records or distribution of serials. However, practically all agree with Gable on the desirability and feasibility of setting up a separate serials department and upon the general principles involved. There is also virtual unanimity of opinion that four records should be kept—holdings, current receipts, payment, and binding—and that they should be kept together. . . .

While it is possible to trace a current movement to establish central serial records in libraries, particularly in the United States, it has not been characterized by concerted action. The reasons lie chiefly in hesitancy to abandon long established procedures, shortages of funds and staff to make the necessary change-over, lack of space in which to accommodate new operating units, and most of all, scarcity of experience sufficiently impressive to provide the necessary guidance.

At present this final reason is less compelling than it was, in view of what has been written during the last five years concerning the organization and success of consolidated records, notably at West Virginia University, the United Kingdom Department of Scientific and Industrial Research, the Linda Hall Library of Science and Technology, the Library of Congress, and the Ohio State University. These accounts range from the description of the relatively simple operation put into effect in the newly organized Linda Hall Library, to the highly complex procedures made necessary at the Library of Congress when the work of consolidating and reorganizing its decentralized serial records was begun in 1941. There is no doubt that, for some time to come, the experience of the Library of Congress in establishing its new system of serial recording will serve as a unique aid to administrators and staff seeking to meet the needs of their respective institutions.

Those who are responsible for setting up the operation of serial records have been faced with two major policy decisions. One concerns the type of equipment in which they are to be housed, and the other the form of entry to be used on the cards and slips which comprise them. Until 1952 the consensus was that the visible file was the best container. Hartje gave a detailed report on the details of visible and nonvisible equipment, stressing the strong and weak points of each kind. The case for the use of nonvisible equipment is strengthened by an account of recent experimentation at the library of the United States Department of Agriculture. The results indicate a rising trend in productivity on the part of the serial checkers work-
Organization of Serials and Documents

As for the form of entry to be adopted in central serial records, it is difficult to judge whether the interest expressed has been aroused in part by current trends in thinking about cataloging, or whether it has grown out of actual difficulties encountered. The problems connected with the use of simplified entries are especially challenging to those libraries which do not maintain separate document collections, and which accordingly have integrated the records for document serials under country and corporate author with those issued by non-official bodies.

It seems evident that, in the beginning, those who advocated the exclusive use of simplified forms for checking entries of corporate bodies had in mind the principles of the German code of cataloging. The differences between the Anglo-American and the German codes on this point have been stated by Marga Franck in the following terms: “While the Anglo-American code agrees on recognizing societies, institutions, etc. as authors of their publications, the German code adheres to the thesis that only persons may be regarded as authors and that publications of societies, institutions, etc. are to be classed with anonyma and therefore to be entered under title.” Since the majority of personnel attached to serial checking units for operational purposes is not professionally trained, some administrators and supervisors have advocated simplification of entry for the publications of corporate bodies in line with the principles of the German code, to the end that the checkers would be able to identify more readily the items in the record from the piece in hand.

In 1951, when the United Nations Library undertook the organization of its permanent central serial checking record, every effort was made to benefit from the advantages of the simplified check-list entry, while at the same time there were combined with it the elements of the catalog entry to insure rapid identification. Thus, official serials are entered under geographic or political area, followed by the title on the visible part of the cover card; while the place name is repeated on the under side, and after it comes that of the issuing agency. Unofficial serials, including government periodicals, appear under title, followed by indication of issuing agency if appropriate.

However, the case for simplified entries in general has been reopened by the decision at the Library of Congress in 1952 to abandon the policy it had adopted two years previously, and to return to the
forms of entry prescribed by the American Library Association rules. The reason for the reversal defines what seems to be the basic problem of many libraries in this respect. "These entries did not produce the economies predicted, but, on the contrary, resulted in time-consuming confusion and conflict with other records of the Library." 14

Organization and Implementation of Document Collections. The question whether a document collection not subject to security measures can be most effectively used where it is kept together and administered as a unit, or, on the other hand, where its contents are classed with unofficial works dealing with the same subject, has never been fully answered. In the area of United States government publications, this matter was discussed with inconclusive results in a group of four papers presented at a meeting of the Public Documents Committee of the American Library Association in the summer of 1950.15

Since the records of a document collection maintained as a unit are relatively uncomplicated, the difficulties of its organization inhere chiefly in devising a classification scheme sufficiently flexible to accommodate the publications of issuing bodies on various levels, and representing more than one government or international organization.16 In 1952 such a system, purely alphabetic in plan, based entirely on standard corporate author headings, using a notation consisting of several Cutter numbers for each item, and compounded to express the alphabetic arrangement, was put into successful operation in the library of the University of New Mexico.17

The organization, administration, and use of document collections kept together as units and consisting of the publications of more than one government have been outlined and discussed in monographs by Anne E. Markley and Ellen Jackson.18 Both have emphasized the current tendencies toward the limited cataloging of such collections and the use of existing bibliographies to implement the necessary control records. Earlier discussions of these trends are to be found in papers sponsored by the Public Documents Committee of the American Library Association in 1950.19

In the postwar era two groups of documents have been brought forcibly to the attention of the library world. They are those commonly known as technical research reports and those pertaining to the work of international governmental organizations. The contents of these documents, the conditions of their use, and in some instances their actual physical form, have often made it expedient, if not ac-
Organization of Serials and Documents

tually obligatory, to maintain them in collections entirely distinct from
the other holdings of the libraries possessing them.

Of technical research reports it is said “A new and important body
of technical literature is arising parallel to an existing body in the
fields of science and engineering. This new literature is largely sep-
arate because of mode of origin and security restrictions, and much
of it has not yet been absorbed into university libraries.” The main-
tenance of adequate records and control procedures on security classi-
fied reports is an operational problem of the greatest importance.
The bibliographical services for the collection and dissemination of
information on technical and scientific research in the United States
have been substantially strengthened and increased in recent years
through the efforts of agencies within the federal government.

The trends in the acquisition, processing, and reference use of
report literature were sufficiently evident in 1952 to make welcome
the sessions of an Institute on the Administration and Use of Technical
Research Reports of the Science-Technology Division of the Special
Libraries Association in New York in May of that year. The papers
presented constitute a contribution to knowledge in a relatively new
field of documentation.

The limiting of the use of most report literature to a necessarily
restricted clientele has made its organization in collections the pre-
occupation of a relatively small group of librarians. The reverse is
ture true of the unrestricted documents and publications of the United
Nations and its specialized agencies, the distribution of which is on
a world-wide basis.

The need for bibliographical controls over the documentation of
the United Nations was recognized by the Organization at a very early
stage. The interest was intensified because the League of Nations had
never established such controls except through the catalogs of sales
publications. Although perfected by Marie J. Carroll, these still are
incomplete as a bibliographical aid, since the voluminous League
documentation not intended for sales purposes is omitted.

The need for means whereby United Nations documents could be
acquired and organized effectively was also expressed by outside
institutions and groups. During 1947 three conferences devoted to
the distribution of documentary material were held in New York at
the Woodrow Wilson Foundation, under the sponsorship of the
Carnegie Endowment for International Peace and the World Peace
Foundation. Matters relating to documents of the United Nations and

[ 203 ]
specialized agencies were discussed at each of the meetings. In 1948, during the sessions of the United Nations Third General Assembly in Paris, a conference attended by delegates from ten European countries, together with officials of the United Nations, was held at the Paris office of the Carnegie Endowment for International Peace. At that session a series of recommendations on the distribution of United Nations documents and about their servicing and bibliographical implications was formulated.

In the years named and those following, persons having access to the complete documentation of the United Nations were making every effort to provide bibliographical and other aids to implement it both retrospectively and currently. The first major tangible result is the check list of United Nations documents undertaken by the United Nations Library in 1948. The first four fascicles were published in 1949. The project involves a retrospective bibliography by organs and sessions, covering the years 1946 to 1949, inclusive. At the time of writing seventeen sections of this series have been published. When completed the entire project will contain nineteen parts in thirty-three fascicles. The United Nations Documents Index, published monthly since 1950, lists, describes, and indexes by subjects all of the unrestricted documents and publications of the specialized agencies received in the United Nations Library.

In 1951, on the basis of experience, the United Nations Library found itself in a position to give constructive advice as to the most effective and economical means whereby the documents of the Organization could be of the maximum use where they were assembled in a separate collection. This was done in the form of papers written by Fernando Caballero-Marsal, Harry N. M. Winton, and Jorgen K. Nielsen, three members of the library staff. One year later, in 1952, Carol C. Moor and Waldo Chamberlin of New York University issued their manual on the use of United Nations documents by research scholars and librarians having charge of full collections. Its most valuable feature is a bibliography containing references to complete works and periodical articles, intended to orient and guide those concerned with the organization and reference use of documents in the international field.

While it is true that a considerable number of libraries throughout the world find need for full sets of unrestricted United Nations documents and publications, as well as those of the specialized agencies, there also is a group of institutions desiring to acquire such material
on a highly selective basis. In many instances it is their practice to add
the publications to already established collections of official and non-
official works.

In the spring of 1953 the United Nations Library and the Library of
Congress initiated together an enterprise whereby the former will
select United Nations printed and processed documents and publica-
tions in all language versions that are believed to be of substantial and
lasting interest, and the latter will catalog the materials promptly and
will sell the printed cards at the usual card prices. Such a service
should assist those interested in acquiring materials from the United
Nations on a basis of selectivity, and at the same time "will provide
many libraries with an economical solution to the problem of catalog-
ing essential UN documents." 35

Bibliographical Controls as Aids to the Acquisition and Organization
of Serials and Documents. Attention to the potential use of bibli-
ographical controls as aids to the acquisition and organization of serials
and documents is apparent in areas other than those pertaining to col-
lections of material previously noted in this paper. The Conference on
International Cultural, Educational, and Scientific Exchanges held at
Princeton, New Jersey, in November of 1946 recommended "that
UNESCO and other suitable agencies and groups, governmental and
genongovernmental, encourage national governments, national library
associations, and other agencies in every country to see to it that there
is published for each country a current national bibliography. . . ." 36
It was advised further that such bibliographies should include govern-
ment documents at all levels, as well as nongovernment periodicals
and newspapers.

Although this much desired objective has not as yet been fully real-
ized, the resurgence of activity in the over-all field of bibliography
since the close of World War II is a movement of the greatest signifi-
cance to the world of scholarship and research. A portion of the bib-
liographical output is of unique importance as a means of control in
the acquisition and processing of recently issued official and non-
official serials. To be of value in their restricted capacity such aids must
be current, since timeliness is essential. One noticeable trend is the
increase in the number of what are sometimes described in general
terms as handlists. They are variously compiled according to regional
holdings, place of origin, issuing body, language, subject, and
form. 37-39 In addition to being distinguished by one or more of the
foregoing, they may be the accessions lists of libraries of individual
institutions or government agencies. The nature of their format permits wide circulation, and when they are issued in serial form their value is cumulative. At present they constitute one of the best sources of current information regarding contemporary serials and documents. The recognition of the value of timeliness in compilations of this sort is to be seen in the decision to enlarge the scope of the *Serial Titles Newly Received*, published by the Library of Congress, thus making it possible for the successive issues and cumulations of this periodical to serve as a current supplement to the *Union List of Serials*.40

On a long term basis, current developments in the organization of union lists contribute material bibliographical assistance to the organization of serials. E. J. Carter41 reports the development of such lists in card, book, and microfilm form in Canada, India, the Philippines, Egypt, and Uruguay. R. L. Collison42 states that the growth of the union catalog in Britain has proved so much of a success that many attempts have been made at such compilations, notably in the field of periodicals. One of the important developments of the postwar period has been the *British Union Catalogue of Periodicals*. Another great enterprise—the third edition of the *World List of Scientific Periodicals*—has been completed. It is also known that government libraries in England privately maintain a union catalog of rare and unusual files of periodicals for the use of their readers. In June of 1952 the Joint Committee on the Union List of Serials met with representatives of the Library of Congress to consider a proposal for a National Union Catalog of Serials on cards at the Library of Congress, as a part of the National Union Catalog apparatus.40

In the field of bibliography devoted exclusively to the publications of governments, the retrospective list of bibliographies of official publications issued by Unesco in 1950 is a logical starting point from which to note current developments.43 It is disappointing that so far in the postwar era so few governments have taken measures to improve the form and extent of the bibliographical coverage for their documents. Notable exceptions are those of Canada44 and France.45, 46 Criticism of His Majesty's Stationery Office lists from the point of view of reference use has been expressed by Sidney Horrocks.47 Useful information regarding the current official bibliographies, as well as the documents of several Western European countries and of the United States, is to be found in the transactions of the Conference de Documentation held in Paris in 1951.48

In accordance with past practices those concerned with document
Organization of Serials and Documents

acquisition and organization continue to seek out and to collect informative articles and monographs on the subject as a whole to use for their special purposes. For the United States the third edition of Anne M. Boyd’s *United States Government Publications*, revised by Rae E. Rips, is the standard text, although portions are out of date. E. S. Brown has covered the ground for the United States and some foreign materials in a manual intended primarily for students. M. I. Turnbull has reported on Canadian document acquisition. An article by A. D. Roberts and Fernande P. Wojewodski is the outgrowth of their experience with the use of contemporary French parliamentary documents gained during late 1951 and early 1952 at the time that the United Nations Sixth General Assembly met in Paris. In these same years the official publications of the United Kingdom were the subject of articles written by W. H. Glasscock, Horrocks, and others; and the Library Association has rendered a service by publishing lectures given in 1951 by librarians, archivists, and information specialists from the major ministries of the British government at the School of Librarianship and Archives of the University of London.

Revival and Extension of Cooperative Movements Leading to the Acquisition of Serials and Documents by Exchange. The organized exchange of official documents and scientific and literary publications on an international level has existed ever since the middle of the nineteenth century. The arrangements for such exchanges imply that only certain categories of material regularly available will be transmitted. Thus the movement of unwanted duplicates, as such, is precluded. L. J. Kipp, in his report of programs within the United States government for exchange with Latin America, has presented much of the historical background, as well as the current status of many aspects of international exchange.

The Report on the Programme proposed to the first general conference of Unesco in 1947 stated that Unesco’s clearinghouse for publications should not be merely an organization to hand out spare copies of books to applicant libraries; but that it should be the main center for the promotion of direct exchanges throughout the world. This, it was foreseen, would probably be its most important duty. The *Unesco Bulletin for Libraries* has been the means of aiding in the setting up of new exchanges and in reviving older ones which had lapsed during the war period. The Unesco *Handbook on International Exchange of Publications* is an inclusive manual on the subject indicated by its title.
On the national level Unesco has encouraged the establishment of centers such as the United States Book Exchange. This agency, which had as its forerunner the American Book Center for War-Devastated Libraries, has grown steadily in importance and scope of operation since 1949. In 1951–52 the United States Book Exchange took an important step towards its goal of becoming a completely self-supporting service by requiring the payment of service charges by foreign libraries as well as by those in this country. From the beginning one of the unique attractions of U.S.B.E. for the member libraries has been the fact that they could send in their duplicates to a central handling agency, and indicate their needs on specially prepared lists. This aspect of exchange, namely, the moving of duplicates and the receipt of needed items in return, has up until the postwar period been a costly operation for the individual library attempting to dispose of its own material, where the work was undertaken at all. Such successful programs of exchange exist at present among organizations belonging to the special libraries group and the Medical Library Exchange chiefly because of the common interests of the member institutions.

Microreproduction of Serials and Documents. Microreproduction has become a part of “standard operating procedure” for libraries, although its utilization, both in extent and in intent, varies widely. The use has concerned directly the field of serials and documents, and the acceptance of the new medium is one of the important recent movements in librarianship. The changing pattern of research—current rather than historical—referred to by E. B. Power, is perhaps one of the major factors contributing to adoption of microtext.

The reasons for microreproduction have been discussed widely in the literature, and it will suffice here to summarize them briefly. First, microreproduction promotes security. This includes preservation from deterioration and eventual loss, and the provision of multiple copies of unique material as insurance against destruction through accident, war, political action, and the like. Second, microreproduction has merit as a means of acquiring material which is rare for any reason, which is located at some distance, or which has gone out of print and consequently is unavailable. Third, microreproduction provides administrative economy through reducing the amount of space needed for housing and storage and permitting the adding of material which may be obtained more inexpensively through microreproduction than through traditional channels. Fourth, microreproduction may serve as a means of original publication.
Organization of Serials and Documents

To enumerate completely the serial and document material which has been microreproduced commercially, cooperatively, or by individual libraries, is both unnecessary, due to the existence of numerous lists of various kinds,\textsuperscript{69-70} and impossible, owing to a lack of coordination in the recording of work done. Certain outstanding projects, however, may be mentioned as examples. The Library of Congress undertakings abroad\textsuperscript{64} to secure documentary material, and in this country, in cooperation with the University of North Carolina, to secure microcopy of state records, are of primary importance. The Harvard University newspaper microfilming project is an example of cooperative work in securing and preserving foreign newspaper material.\textsuperscript{71} Among the publications of the United States government available in microreproduction are the \textit{Congressional Record}, the \textit{Federal Register}, decennial census reports, congressional hearings, declassified technical reports, and Supreme Court reports.\textsuperscript{72} A commercial firm has undertaken the microprinting of nondepository government publications, beginning with those of January 1953. A similar project is planned for the documentation of the United Nations. American libraries are able to take advantage of microreproduction carried out in other countries in cases such as the microfilming of Swedish newspapers,\textsuperscript{73} Canadian parliamentary debates,\textsuperscript{74} and current West German newspapers.\textsuperscript{75}

Although microreproduction has come into relatively wide use, and is welcomed as a solution to certain problems related to serials and documents, there are few points on which general agreement has been reached. Foremost is the fact that librarians seem not to be certain of what they wish microreproduction to do.\textsuperscript{76} To what uses is it to be put? Certain applications are obvious and are being pursued, but are its possibilities being fully realized? What else can it do? No person or committee can sit down to think of all the possible utilizations, but it is essential that the purposes of microreproduction and its potentialities, known and unknown, be kept in mind and studied, and that new avenues be examined. We need the positive "why" approach in addition to the negative one—not otherwise available, not otherwise publishable—which largely has been of interest up to the present. The latter considerations may suggest good reasons, but they do not necessarily indicate good purposes.

The need for cooperation in microreproduction development has repeatedly been stressed,\textsuperscript{77, 78} and many of the outstanding projects have been cooperative. Yet there are only the beginnings of coordination, as
distinct from cooperation; and much of the effort at coordination, particularly in Europe and in the international organizations, has been concerned with methods rather than with materials. There are individual library undertakings which for various reasons may not lend themselves to cooperation, but many of the activities carried on by separate libraries could more profitably be conducted on a cooperative basis. Even many of the commercial enterprises have been cooperative in certain of their aspects. The coordination of this activity in microreproduction should first be local or regional, then national, and finally, international. Its essential is planning. Many of the existing schemes (such as the Microfilm Clearing House at the Library of Congress), however valuable, are at least partially post facto coordination, chiefly concerned with recording what is planned and what has been done, and not with directing it. One of the first evidences of coordination and planning has come from the Committee on Cooperative Microfilm Projects in its "Statement of Principles," and this kind of activity should be extended further. Both content and method are involved.

What, then, is to be reproduced? What is content to be? A fine balance will need to be struck among the various reasons for microreproduction. For example, need for preservation must be weighed against potential usefulness. Priorities may have to be set up to assure that material of first importance is that first reproduced. It may be necessary to work out various "assignments," nationally and internationally, for distributing equitably the effort and expense involved, and for coordination.

The relation of reproduction to original issue should be evaluated. Can the original publication scheme now in use for many doctoral dissertations and other material be extended further? It has been suggested, for example, that scholarly articles first be put on microcards rather than into journals. What effect would this "disappearance" of some serials have on a library's serials department?

How is the technical side, or method, to be coordinated? There are rolls, strips, and sheets, and they can be either transparent or opaque; all can come in any one of numerous sizes and shapes. The need for correlation of forms of microreproduction, and the apparatus for using them, has been pointed out. What are the real advantages and limitations of microfilm, microcard, and microprint? What are the relations among sizes of editions, frequency and kinds of use, and the forms of microreproduction to be utilized? Too little objective study
Organization of Serials and Documents

has been made of such points. New forms of reproduction such as Ultrafax and Thermofax, should be investigated, and their possibilities examined and correlated with those of microfilm, microcard, and microprint.

Technical standardization has received considerable attention, although further work needs to be done, particularly on an international basis. The International Federation for Documentation, Unesco, the International Standards Organization, as well as various national groups, have worked on the problem and are continuing their activities. The published FID-Unesco Survey of Microfilm Use and Directory of Microfilm and Photocopying Services, and the forthcoming Manuel de reproduction documentaire et sélection, are examples of what should lead to further technical coordination. In the United States work has been carried on by the American Standards Association, the Association of Research Libraries, and the Center for Scientific Aids to Learning at Massachusetts Institute of Technology, as well as by other agencies. Study needs to be pursued to overcome the current handicap of all microreproduction processes in matters of color, certain kinds of illustrations, and tables.

The administration of microreproduction in a library raises further problems. The Library of Congress in its Rules for Descriptive Cataloging has furnished a guide to the technical details of cataloging. It is possible to incorporate cards for microreproductions in the general catalog, or to maintain a separate file. It is possible to classify microtext with the general collection, or to keep it apart, which raises the question of what classification and location is best for the “split” periodical set where microreproduction in some form replaces unobtainable volumes of the original edition. It is possible to have cataloging information directly on the microtext, as with microcards, or laminated to it—catalog card and microtext back to back. For many serials it is now possible to subscribe to the original edition and to a microcopy. Administrative decisions need, therefore, to be made as to whether to acquire and keep the original, and, if kept, for how long. The same is true of a project such as that for the nondepository government publications.

One of the notable features of this project is that the microprint is keyed to the entry numbers of the Monthly Catalog of government publications, and consequently is “self-indexing” to the extent that the Monthly Catalog adequately covers the content of the documents. Would it be useful to consider a similar plan for periodicals? The titles
in a Wilson index could be microreproduced, and if the entries in the
printed index could have serial numbers added, further cataloging and
indexing might be dispensed with. Or could these printed tools be
eliminated and the indexing be done by a mechanical or electronic
tool, such as the Rapid Selector? Interlibrary loan of microtext on much
the same basis as for traditional material has been provided for in the
new interlibrary loan code, and is considered further in the “Statement
of Principles” of the Committee on Cooperative Microfilm Projects.87

There is little information concerning reader reaction, which seems
generally unfavorable to microreproduction in cases where there is a
choice between that and the original. Experience from one organization
suggests that the library clientele might be more generously dis-
posed to microtext if reading apparatus were to be on an “every man
can have his own” basis.86 The form of the microreproduction may
have an important effect on the reader, and it has been suggested that
“in France microfilm is used much more by the reference librarian, the
working scientists, the information officer than by their opposite num-
bers in the U.S.” 88 The more extensive use in Europe of the easily
handled microfilm strip may be the basis for this, and may hold a hint
for the profession here.

The microtext of serials may be retrospective or current, and that of
documents may represent manuscript or print. Both may be either
original publication or reproduction. In any case satisfactory and profit-
able integration in a library’s collection through cataloging and classi-
fication depends to a large extent on the successful pursuit of answers
to the problems summarized above.

References

ation, 1937.

2. Kuhlman, A. F.: Administration of Serial and Document Acquisition and
(University of Chicago Studies in Library Science) Chicago, University of Chicago
Press, 1940, pp. 95-116.

College and Research Libraries, 1:165-169, March 1940.

4. Hartje, G. N.: Centralized Serial Records in University Libraries. (Univer-
sity of Illinois Library School Occasional Papers No. 24) Urbana, Ill., The Library
School, 1951.

5. Bennett, Fleming: A Multi-Purpose Serials Record. College and Research
Organization of Serials and Documents


[ 213 ]
31. Ibid., p. 4.
34. Ibid., p. 22.
58. Unesco, op. cit., p. 93.
59. Ibid., p. 107.
60. Kipp, op. cit., ref. 57, p. 74.
VIOLET ABBOTT CABEEN AND C. DONALD COOK

Developments in Subject Cataloging

CARLYLE J. FRAREY

IT WILL BE DESIRABLE at the outset to define the limits of this discussion. Subject cataloging, in the present article, is intended to embrace only that cataloging activity which provides a verbal subject approach to materials added to library collections. It does not include classification, for that aspect of the cataloging process is discussed elsewhere. This restriction contracts with the common use of the term to denote the organizational unit which, in many libraries, both classifies books and establishes subject headings for them. The justification for the limitation is in part practical, since there is need for a term less awkward than "the assignment of subject headings." It is logical in that "subject cataloging," as here used, refers to the determination and assignment of suitable entries for use in the subject component of a library's catalog.

Seymour Taine has observed that there are three themes running through the literature relating to subject headings. They are (1) the assertion that subject headings should be designed to meet the specific requirements of a given bibliographical function, (2) the principle that subject headings should be as specific as possible, and (3) the argument that subject catalogs, subject heading lists, and subject indexes should not attempt to be all things to all men. The rest of the literature, he says, is largely devoted to discussions of detail—whether headings should be singular or plural in form, directly specific or indirectly so, and how subject headings have been misused. That the first theme which Taine mentions pertains to a definition of the function of subject headings is particularly significant. Many writings begin or end on the note that the development of theoretical principles to govern subject cataloging techniques is our most compelling need.

On the surface, the plea for a theory of subject headings appears not so much a request for principles, as an expression of hope that someone will work out a manual to guide subject catalogers in the techniques of their art. The kinds of questions raised—how specific

Mr. Frarey is Assistant Librarian of the Duke University Library.

[217]
shall subject headings be? when is it proper to invert a heading? shall entry be made under topic subdivided by place or under place subdivided by topic? is the proper form an inverted heading or a subdivided one? how and when may chronological arrangements be introduced into the subject file? is it proper to file explanatory notes in the public catalog? where shall see also references be filed, at the beginning or end of a subject group or somewhere in between?—are not all questions of principle; some have to do with method. It is perhaps the failure to distinguish clearly between theory and technique that has contributed to seventy-five years of discussion on how particular problems in subject cataloging should be handled.

If we examine the principles of descriptive cataloging, we find that they are concerned first with objectives: (1) to distinguish an item from all other items and to describe its scope, content, and bibliographic relation to others, and (2) to present these data in a form which permits integration with the descriptions of other items and which will respond best to the interests of most users of catalogs. Second, they state certain generalizations about how the objectives are to be achieved: (1) that a physically complete copy shall be described, (2) that the description shall be no more extensive than necessary, (3) that the terms used in the item itself shall form the basis of the description, (4) that the data shall be organized in a manner most useful to patrons and best suited to integration with other catalog entries, (5) that documentation shall be given only in unusual cases, and (6) that a uniform style shall be adopted for all entries.

The principles of subject cataloging ought to be similar in structure, though, of course, not in detail. They should be concerned with such questions as (1) what is the purpose of subject cataloging? (2) what form is the subject catalog to take? (3) to what depth shall subject analysis ordinarily be attempted? (4) what shall be the form of entry for the subject catalog? and (5) what ought the language and terminology of the subject catalog to be?

As we assess the current situation in subject cataloging, it is apparent that some of these principles have already been established by common practice, if not by common agreement. For instance, the alphabetic subject catalog, either alone or as an integral component of the dictionary catalog, has come to be the most general form in this country if not abroad. Library of Congress subject heading forms are virtually standard. And, in general, there is wide agreement in this country, even among specialists, that the English language and com-
mon and popular terminology shall be used for the subject headings in our catalogs. These principles are well stated and discussed by David J. Haykin.4

It should be apparent, however, that each of these principles which has come to be widely accepted is dependent upon the purpose of the subject catalog. Yet this is a point upon which we have not yet reached wide concurrence. We are in the somewhat curious position then of having agreed to generalizations about something whose aim is not yet clearly determined. It is this failure to define the objective with sufficient precision which has contributed to the long, still unsettled controversy over the most suitable form for the subject catalog to take. It is this same failure which has led in our time to some confusion between the functions of subject cataloging and subject indexing, and to criticisms of the subject catalog because it does not provide the sufficiently deep analysis of the contents of our libraries required or sought by some users of library materials.

Haykin has stated that "the primary purpose of the subject catalog is to show which books on a specific subject the library possesses."5 This presumes that subject entries will be made for specific concepts, and that the reference structure of the catalog will be designed to facilitate the isolation of specific subject, and for no other end. In contrast, Charles A. Cutter speaks of cross references (his "syndetic connectives") as correspondents to and substitutions for the arrangement in a systematic catalog.6 Since it is an accepted function of the systematic catalog through its arrangement and its index to reveal all of the relevant material on a subject which is recorded within it, it is apparent that we have here two diametrically opposed objectives. The first aim is to facilitate the identification of a particular reference or a few selected references; the second is to present a bibliography of all there is to be found on a particular subject within a specific collection. Obviously the techniques required to achieve selectivity on the one hand and comprehensive coverage on the other will be different.

Julia Pettee,7 S. C. Bradford,8 and B. C. Vickery,9 as well as others, have asserted the dependence of the alphabetic subject catalog upon classification. According to their point of view a logical structure of cross references within the subject catalog is essential to its effectiveness, so that at whatever point a user enters it, he will be led to all of the entries relevant to his goal. It is not surprising that most of the group referred to, including Bradford,8 Vickery,9 H. E. Bliss,10 and S. R. Ranganathan,11 to mention but a few, prefer the classified catalog
as an economical approach, since references are not scattered so widely within the framework of a classification scheme as they are in an artificial alphabetic arrangement. They insist upon the need for logical integrity in the subject catalog, since they conceive that its function is to identify all of the references within the system which are related to the topic under investigation.

Opponents minimize this need and adopt a more pragmatic approach. Their attitude is perhaps best expressed by Jerrold Orne, who denies the need to coordinate every related subject heading with cross references, and asserts that subject cataloging problems stem, in large measure, from failure to distinguish between indexing, as he calls it, and classifying. If the function of the subject catalog is to facilitate the identification of selected items on some specific subject, its reference structure should be no more complex than necessary for the purpose. This is not a new point of view by any means, for W. W. Bishop raised questions about the need for see also references as long ago as 1906.

Implicit in both arguments is concern for the user of catalogs, for both parties seek to provide a subject approach to library materials which will have the greatest utility. The habits of catalog users ought, then, to furnish definitive evidence to eliminate the disagreement. Unfortunately, our catalogs have long been constructed upon untested assumptions as to how they are employed. It is only within recent years that attempts have been made to describe the habits of catalog users, and what evidence is available seems too limited to settle the dispute with any finality. Such evidence as is available tends to support the pragmatists, indicating that most people utilize a subject catalog either as a guide to shelf location or as an aid to the selection of a few good references. There is no evidence to suggest that there is any significant use of the subject catalog to locate all of the material on a particular subject which the library may own.

As a matter of fact, there are serious limitations upon the ability of the subject catalog to do this. Obvious omissions include discussions in non-monographic publications which are not analyzed in the catalog, and shorter treatments which may be incidental to a monographic discussion of another topic. But there are others as well. Jennette Hitchcock has enumerated over ninety groups of material, of four general types, for which subject entries are not ordinarily found in typical subject catalogs.

Until there is more evidence to show why subject catalogs are con-
Developments in Subject Cataloging

sulted there can be no final answer to the question of function. Until catalog function is defined with some precision, it is not possible to propose final answers to questions either of theory or of method, and answers which are suggested must be considered tentative and subject to change. There are hopeful signs, however. Modern discussions of the subject catalog show increasing awareness of the inability of the subject catalog to exhibit a logical and wholly consistent structure, and at the same time be receptive promptly to such new terms and new references as may be required to direct users to the materials they want. (At least these features cannot be achieved if subject cataloging is to be kept up to date and if its costs are to be held within reasonable limits.) As Alex Ladenson points out, we must decide whether the catalog is to be an alphabetical quick-reference-finding tool, a scholarly and exhaustive bibliography, or a logical and systematic arrangement of the fields of knowledge.

Insofar as a trend can be discerned, it appears that the pragmatic approach is in the ascendant. There are suggestions, more in the air than on paper, that subject catalogs are destined to be freed from their logical framework and developed along more utilitarian lines in the future. And the substance of the discussions at the institute on subject analysis held at Columbia University in the summer of 1952 suggests that there is wide recognition of the urgent need to define objectives and principles in the immediate future.

Orne’s insistence that subject cataloging is really indexing has already been noted. While this may be a valid generalization, it may also be a deterrent to the determination of true catalog function. For just as the subject catalog is relatively inefficient in comparison with subject bibliography in assembling all of the materials which deal with a particular subject, neither does it compete with the subject index in isolating units of information which relate to a topic, unless its scope is expanded far beyond what seems presently to be practicable. There is need to recognize different levels of subject control, and within the hierarchy the bibliography serves one purpose, the subject catalog another, and the subject index still a third. This distinction in purpose implies that we cannot substitute the bibliography for the catalog, however attractive that possibility may seem. A corollary is obvious—neither can we substitute the catalog for the bibliography, for to do so will obscure its real function and reduce its efficiency.

But the need to identify units of information is particularly acute in a society which has come to be dependent upon scientific and technical
research. Science and technology require this, as is evident from the variety of indexing and abstracting services which have been developed to serve workers in these subject fields. S. V. Larkey has observed that Chemical Abstracts attempts to provide a subject entry for every important topic considered in each article it indexes. During and since World War II the need to isolate specific units of information has been felt more acutely than ever before, and the frustrating experiences of workers in scientific and technological disciplines has led to an insistence that subject controls be improved. In recent years there have been various attempts to develop techniques for subject analysis which will be competent to isolate minute topics, yet capable of easy manipulation in order to relocate units of information surely and economically when they are needed.

One phase of this development has been the proliferation of special lists of headings designed to reveal the subject content of the technical report literature which has been a by-product of the war and of continued governmental support to applied research projects. Another has been the attempts to exploit a variety of mechanical, electronic, and photographic machines and gadgets, in the hope that they might speed up the process of locating and identifying relevant units of information. This latter, in turn, has led to a renewed interest in systems of classification, for there was early recognition of the need for a competent code to organize information so that automatic subject searches might be made mechanically or electrically. Ralph R. Shaw has described and assessed the place of machine techniques in subject bibliography. It is now apparent that while mechanized methods of one kind or another have a legitimate place in subject analysis in its broadest sense, they do not appear to offer any direct assistance in solving the problems of the subject catalog. And there seems also to be a general awareness that the limitations of the subject catalog prevent its becoming an efficient device for identifying and locating units of information.

There is another aspect to this introduction of machine techniques in subject analysis which must be mentioned, lest such techniques become confused with the purposes of the subject catalog and postpone further the definition of its true function. J. W. Perry has observed that human understanding of phenomena and events is based upon analysis in terms of who and what participated, what happened under what conditions, and with what results. Thus any device intended to facilitate understanding—and we may accept the subject catalog as
Developments in Subject Cataloging

one—must attempt to show interrelationships among the concepts and ideas with which it operates. It will be evident that subject headings do this, for almost any one which consists of more than a single term shows some relation, as, for example, “Radioisotopes—Physiological Effect.” The relationship here suggested is a more specific concept than “Radioisotopes” alone. Mortimer Taube\(^2\) has shown how the introduction of a second subdivision, thereby refining the expression of relation, may produce a still more specific concept; thus “Liver—Radiation Injuries—Gamma Rays” is more specific than the combination of two separate subject entries: “Liver—Radiation Injuries,” and “Gamma Rays—Pathological Effects.” Without laboring the argument, however, it will be realized that there are limits beyond which the subject catalog cannot express complex relations directly and intelligibly, since the high degree of subordination of terms required can result in an overwhelming variety of approaches, thus necessitating an unwieldy cross reference structure.

Machine techniques for sorting, Perry points out\(^2\), have been developed to a point where searches can be made quickly and efficiently for highly complex relationships, and particularly for those which may not have been anticipated at the time the original index references were made. In the ordinary subject catalog such relations can only be sought, if at all, through laborious rearrangements of the entries in order to bring into juxtaposition the separate components.

In connection with the development of machine techniques it has been observed that there is need to weigh carefully the terminology and form of subject heading terms employed, since effectiveness depends upon the precision with which particular concepts can be described and identified.\(^2\) A machine is incapable of making semantic differentiations. Thus subject heading terms used in machine sorting must be precisely and exactly defined. While reasonably precise terminologies are characteristic of the sciences and of law, they are not typical of other fields. The nature of the problem in the social sciences has been suggested by C. A. Beard and Sidney Hook\(^2\) and by C. J. Friedrich and Mary C. Trackett.\(^2\) In any case subject cataloging techniques which use compound, phrase, and subdivided headings introduce semantic problems.

Taube has considered this matter of terminology in several papers, and has suggested that a “coordinate” system of indexing which uses single terms as subject entries makes it possible to identify necessary relationships at the same time that it eliminates the need for complex
subject heading terms and an elaborate cross reference structure. Relations are identified by comparing the entry cards for as many specific concepts as may be involved, and by isolating the items which are common to all of the entries. Since individual entries are unit terms only, there is no theoretical limit to the complexity of relationships which can be sought through this system. A particular advantage cited by Taube is the ability of the unit system to absorb subject terms and headings from different authorities or standard lists, since a separate entry under each term of the heading eliminates the necessity of considering the particular form in which the heading may be expressed. This hospitality of the unit system recommends its usefulness in any cooperative indexing project. Taube’s scheme is provocative, even though it has not yet been tested fully nor had its applications to subject cataloging practices defined clearly.

Since we have come no closer to realizing a precise statement of objectives for the subject catalog than the foregoing account indicates, it is evident that there can have been no revolutionary changes in subject cataloging methods. Thus the basic code for subject cataloging is still largely the same as that formulated by Cutter in 1876. A comparison of Cutter’s rules with those contained in the Vatican Library’s Norme, now available in English translation, reveals only a multiplication of rules to cover specific cases, and no significant differences in method. Two other publications in recent years have served to crystallize the method. Miss Pettee’s somewhat brief account of the development of the alphabetic subject catalog identifies origins and clarifies relationships among the varied forms of subject catalogs. And her exposition of the technique of analyzing specific headings and their interrelationships is the classic account of how integrity of the logical structure of the catalog is to be obtained. More recently, Haykin’s manual on subject headings outlines the body of subject cataloging principles insofar as they have been developed, and describes in detail the particulars of L.C. practices in handling some of the more vexing problems, such as those of reference structure, subdivisions, geographic headings, and filing arrangements. A recent announcement looks to the early publication of a subject heading code which, presumably, will have the same purpose and usefulness in subject cataloging as W. S. Merrill’s Code for Classifiers has for classification.

There have, of course, been other changes. The major general lists of subject headings have been altered in detail and content, but not in any fundamental way. The L.C. list, now in its fifth edition, has
Developments in Subject Cataloging
grown to larger size through the addition of new headings, and it has
taken over the general plan of arrangement used by Minnie E. Sears,32
so that all see also and refer from references are listed with the head-
ings to which they are related. Thus the list has become easier to use
as an aid in subject cataloging. Moreover, its monthly and cumulated
lists of changes and revisions represent a highly-developed expert tech-
nique for acquainting using libraries promptly, and on a current basis,
with modifications made by L.C. Haykin33 has announced that the
sixth edition will be a thoroughly revised and pruned list calculated to
eliminate a maximum number of obsolete terms and to correct in-
consistencies which have crept in through the years.

The Sears list, originally designed for use in small libraries, has
enlarged its scope so that it now comes nearer to meeting the require-
ments of medium-sized libraries. Though it lacks an effective method
for being kept up to date, completely new editions have been pub-
lished with relative frequency. Except for its use of less specific ter-
mnology and fewer subdivisions, the Sears list resembles the L.C.
compilation in conception and in major detail, so that shifting from
the use of one to the other is not a particularly burdensome change.

Neither list is wholly satisfactory, however—L.C. because it is too
comprehensive, and Sears because it seems not to be comprehensive
enough. Jennette Hitchcock34 and Edith Scott35 have both spoken to
this point; and Miss Scott, in particular, has suggested the need to
develop a new subject heading list less comprehensive than L.C., but
still more detailed than Sears, for use in college libraries. In spite of
the criticisms of these lists, both have come to be widely accepted as
standard.

Both have grown in size. Since 1944, for example, nearly 14,000 new
subject headings have been added to the L.C. compilation, while only
1,100 have been canceled and changed.36 Undoubtedly the alterations
represent an attempt to keep the L.C. subject list as specific and up to
date as possible. An earlier study by the present writer37 demonstrates
that the changes in question also increase the specificity of L.C. subject
headings. This finding is in keeping with Margaret Egan’s observation
that one trend in subject analysis has been a shift in emphasis from
abstract to concrete and highly specific terminology.38

The question of particularity looms large in most discussions of sub-
ject cataloging, for while the principle of specific entry has been
widely accepted, the auxiliary problem of how specific is specific is
still not solved. Haykin has observed that the question is not one to

[ 225 ]
which an absolute answer can be given, since the need will vary from
subject field to subject field and from library to library.\textsuperscript{28} Apparently
in some circles, however, there is feeling that we have allowed head-
ings to develop which are too distinctive for greatest utility.\textsuperscript{39}

Focusing interest upon the principle of specific entry has raised other
questions about the form of subject headings represented in the gen-
eral lists. Haykin \textsuperscript{28} has pointed out that if this principle is accepted,
headings must be \textit{direct} as well as specific in order to keep practices
consistent. Not only do direct-specific headings imply a minimum of
inversion and subordination, but they also avoid the pitfalls of alpha-
betico-classed subject headings which found their way into the first
edition of the L.C. subject heading list because, according to J. C. M.
Hanson,\textsuperscript{40} L.C. catalogers assumed that such headings reflected the
typical approach of readers. There is not universal agreement on the
need for direct and specific entry, however. Marie L. Prevost\textsuperscript{41} has sug-
gested that wide adoption of a form of heading putting the prominent
noun first would produce subject headings which could be explained
more easily, and which would require fewer and less complicated cross
references. Though this approach would lead to a prevalence of alpha-
betico-classed headings, it is not clear whether the user would find
them easier to handle. The evidence from studies of use points to
widespread failure to comprehend the principle of specific entry, at
the same time that it suggests preference on the part of users for it.\textsuperscript{14}
While further studies of the question are essential to understanding of
the problem, it may be that no clear-cut pattern can be identified, and
that the makers of future lists can adopt an arbitrary but consistent
scheme of subject heading forms which users will be expected to
master, even as they now have to adapt their personal preferences to
conventions in many human relationships.

Other questions regarding the form of subject entries have been
raised from time to time and are still under discussion. The perennial
problem of deciding when to subordinate place to topic, and vice
versa, has never been settled, and Haykin suggests that it may never
be.\textsuperscript{28} Studies by Patricia B. Knapp\textsuperscript{42} and Eloise Rue\textsuperscript{43} indicate that
present practices are not precisely in agreement with habits of cata-
log users. Mrs. Knapp has observed that people tend to look under
subject for materials having a local or national focus, but under place
for those with a nonlocal or foreign focus. The implication in this ob-
servation is that standard lists must be so constructed as to allow for
this variation from library to library. Thus a catalog in Greensboro,
Developments in Subject Cataloging

North Carolina, would use the entries "Education—Greensboro, N.C." and "Cleveland, O.—Education," while the Cleveland Public Library would simply reverse them.

Another feature of general subject heading lists about which there has been extended discussion is the defining of terms. Bishop calls attention to its essentiality in his manual, and Haykin suggests that it is required when general dictionaries and dictionaries in special subject fields do not agree and when usage does not offer a sufficiently precise definition of a subject. Many lists, both general and special, include definitions, and M. J. Voigt's list of headings for physics provides a good demonstration of their value. From the attention devoted to the need for more of them it appears that the practice in supplying them has not been in line with Haykin's statement as to when they should be given.

One of the assumptions in subject cataloging has always been that a special library which concentrates on a particular subject field, or which tries to render more specialized services than a general library does, will require a particular list of subject headings, and perhaps even a special classification system, in order to meet the needs of its clientele. Doris Bolef's study of subject cataloging practices in a number of special libraries in the New York City area, and her evaluation of a number of special subject heading lists, has led her to the conclusion that a special library ordinarily does need a subject heading list incorporating more specific and detailed headings than those employed in a general library. H. T. Black, in turn, has pointed to the need for more special lists and has attested to their usefulness even in general libraries.

Some indication of the number of special subject heading schemes available may be derived from the following statistics. In 1940, Black enumerated forty-four in his checklist; in 1952, the Committee on Subject Headings of the A.L.A. Division of Cataloging and Classification identified forty-eight compiled between 1938 and 1952. Of these forty-

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Black, 1940</th>
<th>A.L.A., 1952</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science</td>
<td>32</td>
<td>16</td>
<td>48</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>6</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Art, Music, Theology</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>
eight, only two appeared in the previous count. Thus at least ninety special lists have been developed, mostly since 1916. Table 1 compares their distribution by broad subjects. While the social sciences still boast the largest number, the increase for scientific and technological subjects during the past fourteen years testifies to the greater interest in these areas in the war and postwar periods.

Another indication of the need for special subject heading schemes is the interest shown by various groups of specialists. In particular that of the medical profession should be noted. Since 1948 the Welch Medical Library at John Hopkins University has been making an intensive study of medical indexing under the terms of a research project sponsored by the Armed Forces Medical Library. Established to examine the problems in indexing medical literature, to explore the theory and practice of subject headings and classification as they relate to medical literature, and to consider existing and projected machine methods applicable to medical bibliography, the undertaking has made considerable review of various lists of subject headings pertaining to medical literature. Of particular interest is the technique of category analysis, which has been used to rationalize the content and structure of alphabetic subject heading lists. Through this method, as described by Taine and F. B. Rogers, all of the headings and references which relate to a particular category are assembled in a single enumeration, so that it becomes possible to observe whether there is any overlapping in terms, any inconsistency in form, or any defect in the reference structure. Hilda Steinweg has demonstrated the value of the same technique for rationalizing subject headings and references in political science. Superficially, at least, it appears that it should be valuable in improving any subject heading plan.

In her New York study referred to above, Mrs. Bolef suggests certain standards for subject headings in special library catalogs. She suggests that (1) the heading should be as specific as the subject matter of the material to which it is being applied, (2) new headings should be introduced as rapidly as the need for them is recognized, (3) headings should be defined as necessary and distinctions between terms clearly described, (4) headings should reflect the use habits of the clientele served and popular or scientific terms chosen according to the preference of the clientele, (5) headings should be consistent in form, (6) inverted and subdivided headings should be held to a minimum, (7) every cross reference should serve a specific function, (8) standard subdivisions should be utilized where they are appro-
Developments in Subject Cataloging

appropriate, and (9) large blocks of headings should not begin with the noun or nouns representing the chief subject interest of the library.

The similarity of these standards to those outlined by Haykin suggests that when we have succeeded in defining the objectives of subject cataloging, we shall find little variation in objective between subject cataloging in general libraries and in special libraries, but rather a variable need for specificity, and a practical requirement that there be certain options in the form of heading in order to avoid a concentration of subject entries under, for example, “Education” in a teachers’ college library. Moreover, as Black has pointed out, many general libraries have special collections which require unusual subject treatment in order to make them most helpful. Thus it seems that special subject heading lists will have greatest value when they are designed to dovetail with standard lists, so that they prescribe optional expansions for a variety of subject fields. A norm for subject cataloging techniques will then have been established. This should make it easier for the public to understand and to use subject catalogs, since there will be fewer variant practices. It should also open up new avenues to cooperative subject cataloging.

The A.L.A. Division of Cataloging and Classification, through its Board on Cataloging Policy and Research, is preparing to study the problem of integrating general and special subject heading lists, and some progress in this direction may be anticipated. That it can be hoped for is evident from Hazel C. Benjamin’s account of the compilation of the new standard list of subject headings for industrial relations libraries. This list, in its final form, is so constructed that it can be used with the L.C. list without disrupting the pattern or the applications of L.C. headings.

It is premature to suggest the directions integration may take, assuming that study of the problems involved shows it to be possible. But the development of present subject cataloging procedures, and existing evidence of the ways in which subject catalogs are used, make it possible to state some tentative assumptions. First, the tendency of subject headings found in the general lists to become more specific, when taken with the expressed needs of special libraries for specific subject approaches to their materials, suggests that the plan for integration will look toward an increasing number of direct and specific headings, with a minimum of inversion, fewer subdivided forms, and more phrase-type headings. Second, since it may prove difficult to accommodate the varieties of verbal and terminological pat-
terns likely to be found among the diverse classes of users and different groups of specialists, some agreement upon a common standard representing the habits and preferences of a cross-section of those who consult subject catalogs is likely to be necessary. Intensified efforts to acquaint users with this standard will be required. Third, since some subdivision of headings will be unavoidable, particularly that by form, a standard list of subdivisions to be applied as desired will be a feature of the integrated lists. Fourth, conventions for such techniques as the subdivision of place by topic and topic by place will be flexible, so as to permit each library to select that approach which seems most serviceable for its clientele. Fifth, some option in utilizing particular terms as independent headings or as subdivisions will be necessary. Sixth, greater emphasis will be given to providing definitions and scope notes, both in the general and the special lists, in order to make the distinctions in meaning and in use which probably will be essential. And seventh, the development of special lists as optional extensions of general ones, together with the need to provide for alternative approaches in both general and special lists, will result in the disappearance of the systematic reference structure of the catalog which Miss Pettee and others have held to be necessary. In its place will be substituted a purely utilitarian framework, designed to provide no more than essential correlation between particular specific headings, and of course, needed references from terms not employed to those which are.

In other words, a workable plan for integration of general and special subject heading lists will recognize at the outset that if the reader is to be the focus, standards must take formal notice of individual differences. Such differences may mean that the subject catalog requirements in one library or in one community will be quite unlike those in another, though R. R. Irwin has suggested that the variations in approach to the catalog we have assumed do not exist. His evidence is limited, however, and until corroborative information is available from a more extended study, we must accept the subjective opinions of librarians that there are discrete local needs for which provision must be made.

In this assessment of current developments in subject cataloging it will be noted that relatively few references have been made to developments in foreign countries. In general, other countries have not evolved subject catalogs which correspond to our own in any large numbers, so that the problems of American and foreign libraries
Developments in Subject Cataloging

are not precisely the same. Few standard lists of subject headings have been devised in other countries, and when they have, they show strong influence of American practice. It may be said in general that where the alphabetical subject catalog is adopted, the problems to be solved will resemble those which have been noted in this paper. If the classed catalog is the form accepted, other questions beyond the scope of this discussion will have to be considered. K. L. Taylor and Harry Dewey have suggested some of these. The catchword subject on the other hand is a hybrid animal, whose permutations are not susceptible either of orderly discussion or codification, and need not concern us here. Since classed and catchword subject catalogs are more common in other countries than alphabetic ones, it is not surprising that most foreign discussions of subject cataloging problems relate to these types. We must not forget, however, that the only comprehensive code for modern subject cataloging practice prior to the appearance of Haykin’s manual was in the Vatican rules.

It has not been possible within the confines of this paper to refer to all of the topics which have been discussed in the literature of subject cataloging. Rather an attempt has been made to select those issues which appear to be basic to the future of subject cataloging, and to indicate the present state of thinking about them. What does it all add up to? What are the implications for the future?

Two main questions run through discussions of the total cataloging process, viz.: (1) How may the effectiveness of the techniques for organizing library materials be improved? (2) How may these techniques be managed so that their cost will not require an excessive portion of library budgets? Too many cataloging procedures are based upon tradition, and for too many years these traditions have gone unchallenged. It has now become necessary to inquire into the real purposes of the various cataloging activities, to assess the appropriateness of the methods to serve them, and to seek alternative means which will serve them better.

In particular, concern for the user of libraries has been given renewed emphasis. Subject cataloging, like rules for author and title entry and conventions for descriptive cataloging, has developed in a haphazard way and, as this paper attempts to show, without any clear understanding of what its true function in libraries might be. Rationalization of the descriptive cataloging code and of the rules for author and title entry has been given first attention. And while study of these phases of cataloging is not yet complete, the subject cataloging process
CARLYLE J. FRADEY

is beginning to receive its share of scrutiny. To effect the improvement sought in subject cataloging will require (1) that we find out more about who uses the subject catalog, for what purpose, and in what way; (2) that we define the function of the subject catalog in the light of this knowledge, and spell out a code of practice to facilitate the construction of subject catalogs for all types and sizes of libraries; (3) that we develop both standard and specialized lists of subject headings in accord with this function and code; and (4) that we make use of our code and our lists to exploit the possibilities of cooperative cataloging in obtaining more complete and more effective subject control of library materials at less cost.

It is not likely that subject catalogs will disappear. For we are beginning again to recognize, as Bishop did in 1906, that “Our aim as librarians is not merely to accumulate books. It is to help the reader to the books he wants—or ought to want. In a large library the only tool which accomplishes this result is the catalog, and of this the subject catalog is the part most difficult to make, most useful when well made.”

References

5. Ibid., p. 1.
Developments in Subject Cataloging


16. Ladenson, Alex: Application and Limitations of Subject Headings; the Social Sciences, in Tauber, op. cit., ref. 14, pp. 64-72.


Developments in Subject Cataloging


Classification

BERNARD I. PALMER

Criticism of the Decimal Classification, and particularly discussion of its drawbacks, has proceeded for nearly half a century. The arguments have gone round and round—mainly superficial in content, and all stemming ultimately from a few tentative suggestions from W. C. B. Sayers and a full-dress discussion by H. E. Bliss! Much of the debate was valuable in early years, but as time has passed, and the scheme has been shown to work in spite of its drawbacks, we ought to be able to draw one of two conclusions. Either the volume of criticism has been wrongly focused, or classification is such a powerful tool that even so bad a scheme as the critics would have us believe D.C. to be is of considerable value in organizing knowledge.

The Library of Congress Classification, on the other hand, has been approached with a certain measure of restraint. In the first place, it did not demand any action by the rank and file of librarians; it was of concern only to its operators in Washington, and to young students who, like the foreign pupil of Shakespeare, "anaphrased, paralyzed and pulverized" it. Sayers' criticism amounted to little more than a questioning of the "inconstant repetition" of common subdivisions and geographical divisions, leading to great bulk, and to the charge that there appears to be no natural or philosophical order in the main classes. Bliss gave extensive criticism to this scheme also.

The writer, however, would be inclined to find fault with both systems for a more fundamental reason, and would include in his strictures also both the Bibliographic Classification of Bliss and the Universal Decimal Classification. All of these schemes are enumerative. That is to say, they set out to list specific subjects as they existed, or seemed likely to exist in some cases, at the time of their construction. But it is demonstrably impossible to list all existing subjects even to the moment the author lays down his pen; and the anticipation of future subjects is beyond the power of men. In certain respects

Mr. Palmer is Education Officer of the Library Association, London.
this was recognized at various stages in the progress of the Decimal Classification; and provision was made to divide geographically by the subdivisions of class 900, or subjectively by appropriate schedules from other parts of the classification, or even by the main scheme itself, and thus to avoid infinite enumeration. Such devices were introduced in successive editions, with the grafting of new ideas onto the old stock, and without rethinking the whole according to the new patterns of knowledge.

Bliss, coming later in the field, was able to take advantage of many new devices, and with his second book \(^2\) introduced the conception of synthetic classification, at least in respect of certain recurrent features of knowledge. Nevertheless, he still adhered fundamentally to the enumerative form, and the praise that was accorded his work echoes the pronouncement "scholarly."

In all these schemes, any considerable advance in knowledge demands revision of the basic schedules by the author. None of them grows by itself, save insofar as the tables of constants, i.e., geographical tables, linguistic tables, and common subdivisions, provide for this. Yet the recognition of the need for such tables ranging over wider fields than place, time, language, and form is growing—except, in a limited way, in the Library of Congress scheme. This is evidenced by the provision for interrelation between subjects provided for in the Universal Decimal Classification, and by the new Metallurgy schedules,\(^3\) which are built on the principles of allotting numbers to certain processes wherever they appear.

This greater preoccupation with the thoroughgoing control of knowledge springs from the demands of scientific and technological libraries which are concerned with that part of knowledge which is growing most rapidly. Classification as a library tool sprung up with the development of the public library movement; but what was an adequate tool for the small public libraries of the early twentieth century has proved quite unable to cope with the demands of research and industrial libraries of later years. The Universal Decimal Classification, which set out to meet their requirements, falls deeper and deeper into the morass of involved construction, extravagant use of notation, and ambiguity. As for the Decimal Classification itself, the fifteenth edition \(^4\) seems to indicate that it has quite given up the struggle to control knowledge. It seems to be settling comfortably back into the routine of meeting the comparatively simple demands of the small-town American library, leaving the real task of organizing knowledge
to the dictionary catalog, and contenting itself with providing a means of assembling books on the shelves.\(^5\)

This leads to an enunciation of the three levels at which a librarian may use classification in his daily work:

1. As a convenient method of assembling books on shelves, and for arranging pamphlets and clippings in vertical files.
2. As a basis for systematic organization of knowledge in catalogs and bibliographies, classification being employed to show the more permanent relations between subjects, alphabetical arrangements to indicate others, including authorship.
3. As a discipline in reference service, to enable the librarian to sort the wheat from the chaff in a subject inquiry, and to handle a question with maximum efficiency.

In the United States the concept of classification seems, in the main, to halt at the first stage, due doubtless to the numerical preponderance of small-town libraries there, and also to the failure of Decimal Classification to measure up to the demands of large libraries in universities and colleges. In Great Britain the greater interest of the profession in classified catalogs has led to a fairly general acceptance of the second stage. This is reflected in the demand of the national scheme of certification, conducted by the Library Association, for an understanding of the construction of the classified catalog by "competent practising librarians."\(^6\) It is significant that when the Library Association, in collaboration with the British Museum and other institutions, promoted the \textit{British National Bibliography},\(^7\) it went without saying that the bibliography should take the form of a classified catalog. The third stage of classification is only glimpsed here and there, although all good librarians use it intuitively. S. R. Ranganathan refers to it in his \textit{Classification and Communication}, while D. J. Foskett\(^8\)\(^-\)\(^10\) of the Metal Box Company, England, has touched upon it as an important bibliographical discipline.

As long as discussion of classification continues to be based only upon an appreciation of its use at the first stage, it will remain largely abortive. There are no more problems to discuss in respect of "books-on-the-shelves," and not sufficient demonstrably solid advantages to make it worth all the trouble of overcoming inbred prejudices. There even seems to be a school of thought arising in the United States which favors a return to \textit{numerous currens}, plus bigger and better dictionary catalogs! This, of course, only passes on the problem of
Classification

organization of knowledge to the catalog; for readers must have the benefit of systematic order, and this is achieved or sought through the "pyramid of references," which itself derives from a hidden classification of knowledge. In the case of Sears' list of subject headings, the hidden classification is an early edition of Decimal Classification, as comparative examination will show.

If the use of classification is to advance from the primary to the secondary or tertiary stage, a far more advanced type of classification scheme is required. All indexing must refer to something, if only the pages of a book. The smaller the unit to which reference can be made, obviously the more detailed the indexing will be. When indexing the subjects in a catalog, it is necessary to have every major aspect of a subject represented in the notation, in order that the alphabetical index, by picking up each digit of the notation, may overlook nothing of importance. Any attempt, therefore, to set arbitrary limits to the number of symbols to be used in a classified catalog necessarily restricts the penetration of the alphabetical index. This is a warning against trying to organize knowledge through any simplified arrangement, whether of classification or of subject headings.

In this brief review of criticism of the major schemes, no attempt has been made to rehearse the familiar arguments. As can be seen from Library Literature too many papers have already been devoted to the failings of Decimal Classification, which is the most widely used plan. Indeed, it has been said that to many librarians classification and Decimal Classification are synonymous. The more fundamental work of Ranganathan, to which an attempt has been made to provide a simple introduction recently, supplies a sharper set of criteria upon which to base criticism of any scheme of classification.

Having taken cognizance of the great volume of criticism which has been expended upon the Decimal Classification over the last half century, one is naturally led to wonder what the effect has been on the widespread use of the plan. The answer is, as far as public libraries are concerned, very little. There is small evidence that criticism has resulted in action, except in American university and college libraries, which have swung over to the Library of Congress Classification in the last quarter century. Out of 6,000 libraries in the United States, only 213 were classified in 1940 on the Library of Congress plan, and it is fairly safe to assume that no other scheme has been favored in this way, so that Decimal Classification still holds the field.

Yet one must not be too hard. Admittedly it is possible for the
captious critic to refer to the "vested interest of sloth"; but few librarians are in the happy state of having more staff than immediate needs demand, and, though the task of reclassifying is not itself insuperable, the burden of consequential revision of the catalog is sufficient to daunt the bravest innovator. The only workable method is to fix a deadline when the new scheme will come into effect, classifying and cataloging all new books in accordance with it, and reclassifying and recataloging the live older books on their way back from reader to shelf.¹⁴ To what an unendurable age of manipulating two sequences this would condemn a library staff! In the writer's own experience, with quite a small bookstock (some 35,000 volumes) the task spread out over years, despite hours of voluntary overtime worked by a library staff on standby for air raid precautions from 1939 to 1941.

The picture remains much as it was in 1938, when over 90 per cent of American and British libraries used Decimal Classification. There is one new feature to be observed, namely, the growing use of the Bibliographic Classification of H. E. Bliss. In the newer countries, where no entrenchment of the Decimal Classification existed to bedevil the new librarians, the more modern approach of the Bibliographic Classification has attracted a number of adherents. In New Zealand, Otago University has adopted the scheme, and in Africa it is in use at Ibadan University College, and at the Gordon College in Khartoum; Kumasi College of Technology also employs it, as does the Public Library Service of the Northern Region of Nigeria. Note that these are mostly university and allied libraries. Here the scholarly approach of Bliss, whose work is claimed to be based upon educational and scientific consensus, as reflected in the university syllabus, proves very attractive, and not unnaturally. It is significant too that in Great Britain, where the Institutes of Education (often attached to the universities) are late-comers in the field of provision for libraries, this scheme has been chosen in a number of instances. Certain British polytechnics and other training colleges have succumbed to its lure, and at least one British government library—Ministry of Health—has adopted it.

Why the Bibliographic Classification? Probably because the cumulated criticism of many years has led librarians to look elsewhere than to Decimal Classification when forming new libraries, or classifying old ones for the first time. Because, too, the basic plan of the Bibliographic Classification is more in line with modern thought than
that of Decimal Classification. And because basically it is similar in design to Decimal Classification.

The Library of Congress Classification also has had its conquests in Britain, notably among governmental libraries (e.g., Board of Trade, Ministry of Transport). Here the reason is not far to seek. The extremely detailed schedules, and their sectional revision and publication, make this scheme relatively easy to apply, once the decision to do so has been taken. Such a decision may be influenced, too, by the availability of the Library of Congress catalog cards.

The main schedules of both of the foregoing plans are enumerative in form, and do not demand the fundamentally different approach required by the Colon Classification, which is the only other contemporary general scheme. One should add, however, that awareness of the Bibliographic and Congress schemes has been a long time growing, while knowledge of Ranganathan's work is a postwar, and still rare, phenomenon in the West. It is too much to expect it to have met with wide adoption yet.

Nevertheless, the underlying concept of Colon is more in line with the needs of a changing society than is the case with any other library classification. It steadfastly refuses to "fix" at any stage the specific subjects that together make up knowledge. Beyond listing the fundamental constituent parts of each major subject, and providing geographical tables and common subdivisions, it enumerates nothing—except Indian literature, which is "worked out" as an example. It implicitly recognizes that in enumeration lie the seeds of decay of any classification, and that as far as there can be a truly permanent scheme, it must be one which is potential, and never reaches finality. Colon Classification does not accept the permanence of any piece of knowledge, but gives hospitality to all theories, hypotheses, or guesses at the answers to problems, without elevating any of them to a more lasting place than is justified by the output of literature concerning it. If there is no literature there is no number.

The particular contribution of Ranganathan has been his idea of fundamental categories. He contends that if one goes beneath the surface of specific subjects he finds them made up of parts which correspond to the five fundamental divisions of Personality, Matter, Energy, Space, and Time. Certainly, choosing a simple example of human activity such as "Furniture Making," one can say that in order to fashion a certain item or part of an item of furniture, one must take raw materials and work upon them in a given place at a given time.
One might also claim that in describing such activity one would necessarily write about the parts or kinds of furniture, the materials of which it is made, the manufacturing operations, the place or the time of production, or about complexes of any two or more of these. If this is so, a classification which is to reflect knowledge accurately would need to allow for these categories. Colon Classification follows such a pattern, each of its main classes being considered to have five compulsory facets corresponding with the five fundamental groups.

It is debatable whether this pattern can be traced through the natural sciences without postulating a “quarry” of entities upon which man works by study or analysis, to produce the “personalities” of the various pure sciences. But that is beyond the scope of the present paper.

This is fundamentally the same idea as occurs in the work of Mortimer Taube in the United States. He writes of coordinate classification in Jesse Shera’s and Margaret Egan’s Bibliographic Organization. It is the idea that specific subjects can be broken down into simpler terms, which are susceptible of more detailed indexing, and which themselves fall into various categories. B. C. Vickery, in Great Britain, has dealt specifically with this point in an unpublished paper.

Depth-classification, which is the name given by Ranganathan to the very minute kind of classification needed for documentary work, often demands subsidiary divisions in any given category in addition to those normally provided. Hence we find Colon Classification allowing “optional” facets for documentation, in addition to the compulsory ones provided for book-level classification. Thus an effort is made to meet the special librarian’s needs by placing the development of any class or subject in his hands. In the major schemes, the special librarian finds the subdivision far too minute everywhere except in his own field; there it is never sufficiently minute. Colon Classification seeks to provide a general scheme which can be developed by the user at any point and to any degree desired. In this way its author aims to match the exact requirements of every library for close classification.

Indeed, the major contribution of Colon to classificatory science is its demonstration that the autonomy which Decimal Classification and the Bibliographic Classification give in their tables of geographic constants can be extended to other areas of subject division, via the faceting method of construction. Such a method demands a notation which matches it in flexibility, and this, too, is provided. The research of Ranganathan in this connection has been considerable.

Apart from the recognition of internal relations between the parts
of subjects, Colon provides ample means for taking into account external relations between different branches of knowledge. These Ranganathan calls “phase-relations,” and he is at present pursuing inquiries into their different kinds, and into methods of controlling the records of them. They form an increasing part of monograph literature in an age of rapidly expanding knowledge, for more and more we find the research in one field of human activity throwing light on work in a hitherto unrelated field.

There is no pretense on the part of Ranganathan and his followers that classification ever can represent knowledge wholly and in all its complexity. The multidimensional nature of it cannot be fixed, because we can only cope with it item by item—that is to say, in a unidirectional manner. The problem of classification is, therefore, to reduce many dimensions to one, and yet to make any part of each truly accessible. The trellis-work of Colon imposes a pattern on knowledge, just as any other scheme does; but the pattern is a communicable one, not the private process of one mind. Once the scheme has been learned, the day-to-day classifier takes on the constructive function of the maker, and can build a plan for his own private area of interest which will use the same type of notation and same mode of construction as the general one. This coordination with a general scheme frees the “local man” from the task of having to devise properly helpful numbers ranging over the whole field of knowledge for his fringe-topics, since the general plan is available to him as a quarry from which appropriate numbers can easily be drawn.

If Colon is not, in its present published form, ready for early adoption in the West, as some declare, it nevertheless has earned its passage by the light it has thrown on classification. No longer can the skeptical claim that classification theory is a few odd and unrelated pieces culled from ancient logic and modern makeshift. Today there is a well-reasoned hypothesis, which takes account of all the facts known, but which can be adjusted if experimentation and new facts throw it out of gear. Today there can truly be said to be a science of classification on which research is proceeding in India, Britain, the United States, and possibly elsewhere.

In India, Ranganathan himself conducts the research work at Delhi University, aided by a group of enthusiastic young fellow countrymen. The results of his work reach us from time to time in tentative typescripts circulated among friends, and, later on, as published articles in Abgila. This periodical, published by the Indian Library Associa-
tion, is an assemblage of research and news; and it is a goldmine for advanced classification students.

In Britain, too, there is some interest in such research, largely inspired by Ranganathan's work. Led by Vickery and A. J. Wells, a small group of librarians meets for occasional discussion and circulates papers. Perhaps it soon will get beyond the discussion stage and proceed to practical proposals.

In the United States, interest in classification is active. Certain names spring to mind in connection with the subject. There are Jesse Shera,19,20 of the School of Library Science, Western Reserve University; Maurice F. Tauber, of the School of Library Service at Columbia University; and Mortimer Taube,21 formerly of the U.S. Atomic Energy Commission, and now of Documentation, Incorporated. Doubtless there are others who are thinking and experimenting in classification, but have not yet committed themselves to print. The challenge of advancing technical and scientific knowledge is probably felt more in America than any other country, with the possible exception of the U.S.S.R. Some of the papers presented at the institute held in June 1952 at Columbia University give an excellent reflection of the interest this subject is provoking in the United States.

Colon, however, is not the only scheme which now uses faceting as a means for achieving a closer relationship between classification and knowledge. As has been mentioned earlier, Universal Decimal Classification has introduced the principle into its Metallurgy schedules, published in 1949. Here there are two facets provided for, Metals and Processes. In Ranganathan's terminology these represent the Personality and Energy categories. It is highly probable that the introduction of this method of division was quite independent of Colon. The idea of "categories" is in the air.

Recognition of the advantages of faceting is likely to grow in the coming years. Within a week of the present writing, a review of a new classification in a specialized field had appeared in the Library Journal. Examination of the scheme shows that its schedules fall quite clearly into the five fundamental categories enunciated by Ranganathan, although at first this is obscured by the notation. The main divisions are given alphabetical symbols, and divide into three distinct groups, the second and third of which correspond with Energy and Personality. The author has obviously been influenced by Ranganathan's ideas, even if he has not followed his practice. His preface indicates his indebtedness.

[244]
Classification

Wherein lies the peculiar advantage of a faceted classification? Possibly it is in the fact that the enumeration is restricted to more fundamental and, therefore, possibly more permanent concepts than the complexes of activities and things that make up specific subjects. In Packaging, for example, the Material facet lists kinds of materials used, and the Energy facet lists operations, unrelated to any particular material; thus at no time are the lists out of date, because no subject gets a number until the library has some material about it, and, equally, the number drops out of existence when the subject ceases to attract literature.

We come now to consideration of a new phenomenon in the field of research: the introduction of coding devices to make possible the use of punched card and other searching machinery. Basically, the idea is to represent a piece of information by the position of a hole punched in a card, the card being endorsed with that information. A machine which "feels" a series of cards and picks out those with a given punching recaptures the recorded information at will. Accurate and sensitive mechanisms enable the searching to be done at very high speed, as indeed is essential, since the whole series of cards has to be gone over for each inquiry. There are also electronic devices, but fundamentally the process is the same—storing and rapid finding by some coding device.

Now if an enumerative scheme of classification is employed for coding purposes, it registers information only under its dominant facet, and provides no automatic method of selecting further data scattered under distributed facets. An example might make this clearer.

In Agriculture, Propagation Methods is a focus in the Energy facet, while Potatoes, Tomatoes, and Onions are foci in the Personality facet. A general work on propagation methods offers no problem in classification, for it goes with the Energy facet numbers; but works on methods of propagating potatoes, methods of propagating tomatoes and methods of propagating onions all offer two possible placings—under the crop concerned, or under the operation. Good practice would put these under the crop; but this results in distributing some specialized material about propagation methods up and down the crop schedules. Equally, placing under propagation methods would result in scattering all except the most general information about any crop up and down the farming operation schedules. In either case, an enumerative scheme cannot exhaustively provide for all such dis-
tributed facets, and if it does not provide for them it cannot ex-
haustively code them. What is not coded in the searching machinery
cannot be selected by the machine, so that whichever way an enumer-
ative plan displays its information, its distributed facets get obscured.

The faceted type of classification, however, being built upon the
principle of separate facets bound together in a predetermined man-
ner, is able to code the foci of each facet separately. Thereafter, no
matter where a focus turns up, it can be found by the searching
apparatus, because its design meets the needs of such apparatus. Here
is an example of a distributed facet drawn from the index of the
British National Bibliography.7

<table>
<thead>
<tr>
<th>Timber: Building construction</th>
<th>694</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building materials</td>
<td>691.1</td>
</tr>
<tr>
<td>Forestry</td>
<td>634.98</td>
</tr>
<tr>
<td>Manufactures</td>
<td>674</td>
</tr>
<tr>
<td>Manufactures: Economics</td>
<td>338.47674</td>
</tr>
<tr>
<td>Trade: Management</td>
<td>658.974</td>
</tr>
</tbody>
</table>

This gathers under Timber all the works scattered in various parts of
the classification by the more dominant subject relation. Only a faceted
scheme gives the fullest facility to an index for doing this, and the
same facility is required for coding. A monograph on classification
and coding for search has been published by Unesco.24

Rereading this essay, the writer finds that Colon comes out of it
better than all the other devices. This was not intended when the
essay was planned, but it undoubtedly reflects the writer’s outlook.
It is not suggested that Colon is a finished scheme ready to go into
action at the drop of a hat; no one is more aware of its inadequacies
than its author. Nevertheless, its enormous value in making possible
an advance in critical understanding of classification, and of revealing
ways of improving even existing schemes (cf. the adoption by Uni-
versal Decimal Classification of octave notation in 1948) would alone
justify its existence. This, however, is not its only recommendation; it
definitely goes much nearer to the control of recorded knowledge than
anything yet.16 The western world has not paid enough attention to
the analytico-synthetic kind of classification, of which Colon is the
prototype, and we still get systematic tabulations of specific subjects
offered as classifications.

Perhaps the most useful valedictory for a paper of this nature is
to urge that the groups working on classification in the various coun-

[246]
Classification

tries should come closer together. An international circulation of the many unpublished papers, which at present are exchanged among friends, might be organized. Possibly, when we are all a little further advanced and know more clearly where we are going, we might even get some personal contacts on an international basis. Would it be too much to hope that an American specialist in classification should come to Britain on a Fulbright scholarship when the time is ripe? One of the most valuable products of the Anglo-American library alliance was the Rules for Author and Title Entry. This standardized practice throughout the English-speaking world. It is time we pooled our resources in classification theory.

References


23. Foskett, D. J.: Schedules for a Scheme of Classification for Packaging. (Unpublished).

Reclassification and Recataloging

DALE M. BENTZ and THERA P. CAVENDER

Reclassification has existed in some form since the beginning of cataloging and classification itself. However, the term as we use it today means the complete reorganization of a book collection from one scheme of classification to another. Such change of classification systems has taken place in all kinds of libraries—public, school, special, government, college and university—but in the last it has predominated. In the past thirty years many institutions have made conversions, and for the most part this has meant a shift from the Dewey Decimal or Cutter to the Library of Congress Classification.

Professional literature tells little about the efforts of early libraries to find a desirable classification. Because collections were small, the librarians possibly were not confronted with the difficulties facing us today, and the classification in use was one that sufficed. However, by the early 1920’s, when the national library in Washington made available in printed form its classification schedules, many librarians began to see the adaptability of that system for large, fast-growing collections, and the wave of reclassification began.

Some of the libraries that became interested in this change in the twenties and early thirties have seen the job through to completion. Others began but were unable to carry out their programs because of discouragement and insufficient funds. However, in the last ten years a new surge of interest has developed, and more libraries are feeling the need for an expansive system of classification, as necessitated by the changing nature of society and the new developments in most areas of learning. This not only has meant the influx of large quantities of new materials, but also great growth of knowledge, especially in the fields of science and technology. Productive research in social science and the humanities likewise has increased book collections.

Mr. Bentz is Assistant Director of the State University of Iowa Libraries. Miss Cavender is Senior Cataloger at the University of Tennessee Libraries.
to the extent that the problems of organization and management have become acute.

The enhanced interest in reclassification has become especially apparent in colleges and universities. In the following institutions libraries now are changing from the Dewey Decimal Classification to that of the Library of Congress, the dates being those at which they began the process: Washington University, St. Louis, 1946; the University of Tennessee, March 1950; the State University of Iowa, September 1950; the University of Miami, March 1952; and the University of Mississippi, September 1952. Another, that at Alabama Polytechnic Institute, is considering such a move, as recommended by a survey made in 1948-49. There are undoubtedly other libraries, including special and public, in the process of conversion. The literature cites only a few, but contributions by K. A. Baer, Rosamond Danielson, and Dora Pearson attest that libraries other than college and university are reorganizing their book collections. There is also evidence of the reclassification of special collections, resulting in the modifications of some standard classification schemes.

Because of the growing interest in reclassification, there is need for a review of the recent trends in libraries with particular reference to the organization and functioning of such projects. Many libraries have suffered during the period of conversion, either because needed information has not been available in the literature or through misunderstanding of the problems evolving from the change. Until recent years, when N. L. Kilpatrick and Anna O'Donnell published their article on the special reclassification project at the State University of Iowa, little has been written on this subject since the important contributions of Maurice Tauber in the early forties.

Since reclassification usually implies recataloging, the terms are used here somewhat synonymously. In most libraries a lack of uniformity in records has developed through the years, and the mere purchase of new Library of Congress printed cards to replace the old and soiled ones means recataloging in a broader sense. In reclassification the opportunity exists to weed the card catalog of needless and outdated cross references, to eliminate the extra analytics rendered unnecessary by the accessibility of printed bibliographies, and to accept a more logical system of bibliographical organization. All of this means recataloging in one sense of the word, and therefore any reference to reclassification means recataloging as well.

Many reasons for reclassification of book collections are given in
Reclassification and Recataloging

the literature. Tauber, as a result of his doctoral research at the University of Chicago, has summarized them in his writings. Twenty-five years ago R. H. Gjelsness expressed the following philosophy, which still applies today:

The perfect classification, even to meet all contemporary requirements, has never been devised; it is much less to be hoped that any one scheme of arrangement will find acceptance in its entirety, over a long period of time. Books remain in libraries, materially unchanged, for centuries, but readers' use of them, and attitude toward them, changes, as external aspects of human activities change from one generation to the next. This shift in the relation of books and readers recurs more frequently in a rapidly moving age such as the present, and in library service, is met more promptly in a country such as ours where the emphasis is on the use of books. To some degree, this explains the extent of reclassification now under way in American libraries.  

Some of the obvious reasons for the current trend toward reclassification are:

1. Recent publication in the fields of science and technology has forced many libraries to use a broader, more expansive, and up-to-date system of classification. This is especially true when the librarian understands that "the water-tight compartments, into which scientific knowledge used to be divided, have broken down completely, and now the different branches of science and technology are inseparably intermingled."  

2. The trend today is to get books and users together, and hence there is an emphasis on "wide-open" libraries. This is evident in the growth and use of divisional libraries, such as those at the universities of Colorado and Nebraska; in the special undergraduate collections designed for a specific clientele, such as Harvard's Lamont Library and the Undergraduate Library at the University of Illinois; and in the unique experiment at Iowa, where books are arranged by historical divisions and where the whole collection is open to direct student use. If library users are to browse and live with books, there is definite need for a fairly logical arrangement that will allocate literature adequately.

3. Economy in processing materials may be promoted by reclassification. Most libraries today use the Library of Congress printed cards, in buying which they are subscribing to a service backed by some of the best professionally trained personnel and specialists in
subject areas. Furthermore, most large libraries are using the L.C. Rules for Descriptive Cataloging and the L.C. List of Subject Headings. An acceptance of such work already performed materially lessens the time spent on cataloging and classification. A change to the Library of Congress system seems to be the nearest libraries can attain to centralized cataloging and classification as it is available today.

4. The appearance of the fifteenth edition of the Dewey Decimal Classification has prompted some libraries to consider reclassification under a system which is constantly being revised and kept up to date. Too, large libraries using the fourteenth edition of Dewey with the modified expansions have found that much reclassification would be necessary if the fifteenth edition were to be used.

5. An increasing number of faculty and research members of institutions throughout the country have become familiar with and have recognized the merits of the Library of Congress Classification. Their interest in the arrangement of books has developed through study in other research libraries. Tauber, speaking before a group of faculty members at the University of Tennessee in 1949 on the subject “Book Classification in University Libraries,” found this concern in such a group to be amazing. As a result, the faculty became interested in the problems of book organization and a thorough study was made, with the resulting decision to reclassify the library’s holdings.

The University of Mississippi exemplifies further the interest in book organization by members of an institution’s administration and faculty. As part of a planned liberal arts development program partially financed by one of the foundations, a sum of $45,000 was set aside to reclassify the university library over a period of three years, beginning in 1952. This proposal came first from the administration, particularly the dean of the College of Liberal Arts, and from different department heads in the College, and not from the librarians on the campus. Further, there had been a collection of some twenty thousand volumes in the library that was classified only by the broad classes in Dewey. This group of books had been weeded by representatives of the various departments, and the remaining volumes were to be assimilated into the collection. Most of the periodicals had never been classified and were arranged alphabetically by title, and hence caused constant irritation to members of the faculty doing research in subject areas. The chairman of the Library Council, who was head of the Department of Psychology, was much interested in having the journals in his field
Reclassification and Recataloging

grouped with the books. Because of these factors, the decision was made in the late spring of 1952 to reclassify the book collection according to the Library of Congress system.

The following excerpt of a letter from A. L. McNeal, Director of the University of Miami libraries, further reveals interest in reclassification by an administrator of an institution of higher education:

When the Vice President raised the question of reclassification, I was not unprepared to discuss it. His reaction was to the effect “If it is desirable and is something we will eventually come to, let’s begin on it now.” I pointed out the difficulties involved, the expense, and the handicaps to service. On the other hand, as a result of the purchase of a major library about two years prior to my coming here, there was a backlog of 20,000 to 30,000 volumes to be cataloged. It seemed to me an opportune time to undertake reclassification, even though no extra funds were available for it either from foundations or from our own institution.17

After a decision has been made to reclassify a collection, a careful study of methods and organization is extremely important. The literature on reclassification reveals most of the problems. However, it takes a careful analysis to select the answers most applicable to an individual situation. Some help can be found in studies of the literature and of current practices that have not yet found a way into print. Too little has been written on the solutions individual libraries have found to the problems. The general process of reclassification is, in its essentials, much the same for all libraries. It is rather the details of organizational procedure that vary.

The preliminary phases of a reclassification program involve existing administrative relationships, especially in a college or university. Institutional officers to whom the librarian is responsible should understand the problems and needs and give approval of the project. The faculty as a whole should be informed of the contemplated undertaking, and their cooperation should be solicited. The library committee should be in sympathy with the change and give its approval. Heads of departments and faculty members having charge of office or departmental collections should be consulted, as books in these collections have to be called in for reclassification. Students, especially graduate students, should be informed.

Frequent consultations should enlist the close cooperation and coordination of all departments in the library. "Reclassification and recataloging are not isolated intellectual or clerical processes carried
out by a few specially trained workers in the confines of the Cataloging Department.” Department heads and assistants throughout the library system must have an understanding of the problems and the part each may be expected to play. Cooperative planning well in advance of the actual beginning of the work can do much to insure the efficient functioning of the operation as a unit in which all are involved and to which all may contribute in one way or another.

Libraries that have carried through reclassification programs have found some preliminary activities most useful. An inventory of holdings, by locating lost books, setting the stacks in order, and clearing the records, saves time later. Because of size or lack of adequate personnel, some libraries do not find it practical to maintain systematic inventories. Others have established inventory processes as a regular routine that goes on continually. Such a practice can be carried out quite well in conjunction with reclassification. Special collections or sections of the stacks can be covered in units ahead of the reclassification project. If the catalog department makes the inventory, it is least complicated to have it completed before reclassification begins.

A program of weeding the collection can be staggered ahead of reclassification, since it is not the responsibility of the catalog department. The possible procedures vary. The Providence Public Library began systematic weeding over a year before starting reclassification, with an experienced reference assistant recommending titles for withdrawal. The prevailing practice seems to be for staff members thoroughly familiar with the collection, local conditions, and the use and demands upon the library, to do the preliminary work, with such aid as they may require from the librarian and from faculty members or specialists in the field, and with an adequate group of bibliographical tools to consult. A series of time studies on costs of discarding reported from the State Teachers College, Milwaukee, Wisconsin, is applicable where one may be considering the cost of reclassifying.

Reclassification gives an added impetus to the current trend of using storage space or reservoir libraries for little-used titles and duplicates. Old editions, duplicate copies, serial sets rarely used, and other items may well be put in storage without reclassification. The Providence Public Library reported in 1949 that “Quantities of infrequently called-for books and old files of bound periodicals have been cleared from the central library shelves but remain within reach of the occasional reader and research worker.” Not only is time saved by not reclassifying storage collections, or in deferring it to a later date, but
Reclassification and Recataloging

also additional shelving space, which may be needed in reclassification, is provided.

The period before beginning reclassification is an appropriate time for critical examination of circulation procedures and the routines of technical processes. Unnecessary and cumbersome details in circulation can hinder the progress of the work immeasurably. Some librarians have found after starting that they could have proceeded much more efficiently had this problem been presented to the head of the circulation department for careful consideration. An over-all view of technical processes needs likewise to be taken. Some routines may need to be changed or eliminated. In reclassifying, careful organization and strict economy are imperative. If any necessary reorganization is effected before the operation begins, arrears can be more nearly brought under control or eliminated, and the department prepared for the accelerated program usually necessary in making the change.

Any major revision in library procedures calls for examination of the physical and financial resources, and of the personnel to accomplish the change. The size and arrangement of the main building, the number of outlying collections and their distance from the main library, and the plan of the stacks cause variations in procedure. One can scarcely overemphasize the necessity for a careful survey of the entire situation, since weaknesses in the physical arrangement are bound to be intensified in a reclassifying project, where a rapid flow of work is desired. Tauber reports three recent surveys that were “general examinations of all facilities and services of the libraries involved. In all three instances, reclassification or reorganization of the materials was presented as a major consideration.” 15 The State University of Iowa made a “detailed study of the cataloging practices currently in use”7 in its preliminary study prior to reclassification. The Chemists Club Library in New York preceded reclassification by a survey of the library.2 Such preliminary studies are incalculable aids in establishing policies that will not have to be changed later, and in avoiding mistakes that could make the end-product of reclassification of questionable value.

The amount of reclassification and the speed with which the project operates is in most cases determined by the funds available for the purpose. Some libraries have been the recipients of special grants. Columbia University was given special appropriations by the Board of Trustees at different times.16 The State University of Iowa, which reclassified a part of its collection in 1950/51, was allowed a special
budget of $27,000.7 William and Mary College received a grant from the General Education Board in 1943–45 to continue its project.20

Some libraries have begun a reclassification program without additional money by carrying the expenses on the library budget, the work being performed by the regular staff. The Indianapolis Public Library used a special fund for part of its juvenile collection in order to make the change more rapidly, but the adult books were done without an added appropriation.21 The District of Columbia Public Library did not request unusual finances. Its project was undertaken "without disruption of the library budget or additions to the library staff. This meant careful organization and strict economy." 4 The University of Tennessee is carrying on a reclassification program begun in 1950 without a special appropriation. Libraries have found that a survey of the processing department may increase efficiency and allow extra time and money for reclassification. This may mean at first little more than the processing of new material in the new classification. However, by planning the work carefully, a cataloger may soon be devoting full time to reclassification. Saving can be effected by accepting the classification number on the printed cards and making full use of the cataloging entry as given. Additional time can be found by delaying the processing of some types of material, such as maps, films, and older less-used titles, although cataloging should be kept up to date for current acquisitions and those in particular demand.

The rate at which the task proceeds is dependent on the number of personnel and of the professional and nonprofessional members that may be added. A staff that can hardly process current accessions or that has accumulated a large backlog of material should hesitate to undertake reclassification without additional help. Incumbents may contribute to the classification project by adding all new accessions, by reclassifying old editions when new ones are received, by reclassifying titles when extra copies or new volumes are added, and by reclassifying titles which also require recataloging. However, work can go ahead much more rapidly and satisfactorily if there is a special staff. A large amount of routine duty must be performed by clerical or non-technical workers, who must be closely supervised. A head of processing who can coordinate all operations can secure a more efficient and uniform result.

Before beginning reclassification, some general policies must be formulated. The first question is the extent of the undertaking. Practices have varied with local conditions. Some collections have been
Reclassification and Recataloging

completely reclassified while others have minor areas that will never be reclassified. Because of size, money available, or some special nature of the collection, some libraries have found partial reclassification feasible. This may be practical for sections badly in need of attention, such as science and technology or literature, groups most used, or open-shelf collections. In university and college libraries, special or departmental collections may be maintained very easily in classifications different from that used in the main library.

Libraries have found by experience that reclassification involves a considerable amount of recataloging. Older libraries and libraries reclassifying several years ago found that problem most acute. The advent of Library of Congress cards and their widely accepted use has brought a marked improvement in card catalogs in recent years. Nevertheless, most libraries still have old cards with incorrect or incomplete entries, in outdated or improper forms, and with inconsistencies in added entries and subject headings. A catalog badly in need of revision slows the process of reclassification and adds considerably to the cost. Some decision must be made as to the amount of recataloging that will be done. Princeton adopted a policy of reclassifying with a minimum attention to the catalog, but the results were not wholly satisfactory. The University of Michigan found that recataloging needed as much attention as reclassifying. W. W. Bishop concludes from these experiences: "... reclassification alone, with no recataloging at all, is an impossibility. And unless the catalog has been exceptionally well made, the recataloging will be a much more serious job than the reclassification. The result, however, of the two processes should be a remarkable increase in efficiency of the library as a whole."

Every library arrives at its own decisions as to how much it will deviate from the Library of Congress Classification and descriptive cataloging. Most libraries make some changes, but the general consensus seems to be expressed by Miss Pearson in describing the practices followed at the District of Columbia Public Library:

An attempt is made to make the fullest possible use of printed cards and other aids commensurate with the requirements of good service. ... They are not accepted blindly, but, with a minimum of checking and of changing, they prove, of course, to be thoroughly adequate in a large proportion of the cases. Their main entries, their subject headings, and the Dewey classification are adopted, with some corrections, some adjustments and some simplifications, but with few variations from their established policies and practices. The basic assumption is
that individual library variations are seldom necessary and that in a project such as this, their omission is a definite timesaver. In original cataloging for titles without L.C. cards, the new A.L.A. Rules for Entry and the new L.C. Descriptive Cataloging Rules are used, [and] the L.C. List of Subject Headings is the basic list. . . .

Library literature indicates a general accord on policy regarding acquisitions. It is to begin at a set date to put all incoming material in the new classification, except for those areas not to be reclassified at all. The decisions on where to start and the order of procedure vary somewhat, but the general trend is toward beginning with open-shelf and special collections, and then proceeding to the stacks by areas of subject matter, working from the shelf list. The Chemists Club Library in New York commenced with a general reading collection of eight hundred volumes. The University of Tennessee started with the branch libraries, proceeded to the reference collection, and then to the stacks. The Providence Public Library began with the open-shelf collection in the circulation department and moved then to specialized fields.

Decisions on methods of handling special types of material must be made by individual libraries on the basis of their own needs and interests. Probable methods were thoroughly investigated in the Tauber studies. Since that time scarcely anything in library literature indicates what libraries engaged in reclassifying actually are doing. The University of Tennessee did not reclassify fiction, preferring not to group it with literature, whereas a PZ arrangement in the L.C. scheme did not seem enough of an improvement over the F plan to warrant a change. The District of Columbia Public Library also did not reclassify fiction. Again, utilizing L.C., biography at the University of Tennessee was placed with the subject, when possible, otherwise in CT; and collective biography went into CT. Bibliography was classified in Z, whereas the Chemists Club Library placed it with the subject. Periodicals in subject areas at the University of Tennessee were reclassified in the L.C. number, but many libraries, especially public and small college libraries, prefer an alphabetical arrangement, unclassified. Additional studies on the processing of all continuations, including government and United Nations documents, could well be made. The cost of handling, particularly in the duplication of records, is a problem many libraries have not worked out effectively.

Every library has minor groups of special materials. Juvenile collections, textbooks and courses of study in a university library, theses
Reclassification and Recataloging

and archival material, and local history, present problems that could well be worked out by standard and uniform methods, if current practices were more fully presented in the literature. Changes in existing procedures come most logically at the time a regular reclassification project is under way.

Libraries may need to examine various forms of records and statistics in beginning reclassification. Some, such as that at William and Mary College, have formed a new catalog in the process; others have interfiled the cards. Departmental catalogs often need to be made or old ones improved. Some libraries add shelf lists for departmental collections; others eliminate them. The use of temporary author cards does not seem to be widely recommended. If a routine is worked out by which cards are pulled and changed one day and returned to a preliminary tray for filing the next day, the time spent on temporary cards is largely wasted.

The value of a staff manual for reclassification is as debatable as that of one for regular use in a library. A few policies and practices must be formulated, and if deemed advisable they may be put in writing. The cost and time spent in devising a manual and in keeping it up to date, however, as well as the efficacy of its use, should be carefully explored before one is worked out.

In the final analysis, the success of any reclassification project depends on its organization and administration. Properly organized, no library should suffer during transition. Some libraries have experienced a period of chaotic confusion; others have undergone only minor interruption of service. Harriet MacPherson, in reporting a study of some twenty libraries using the Library of Congress Classification, quotes as follows a reply received from one of the institutions in which reclassification has been going on for twenty-five years: “We believe that reclassification can be so organized that a so-called ‘general upheaval’ is not necessary.” The increasing number of libraries that are reclassifying is some evidence that the change can be made smoothly and effectively.

In planning any program of reclassification proper attention should be given to the kind of equipment necessary and the additional supplies needed. The problem is not so great as it may appear, however, and the actual expenditure of funds for this phase of the program is negligible in relation to personnel costs. Too, the amount and kind of equipment and supplies necessary will depend largely on how the organization is set up and the speed with which the project is carried on.
Extra typewriters will be needed, and hand erasers to remove old call numbers from the cards. Some system needs to be devised for expunging the call numbers from the books. The difficulty of this rests primarily on the kind of marking that has been done through the years, whether with white ink, electric stylus, or labels. Kilpatrick and Miss O'Donnell found that black automobile paint could be used in covering the old call number. Other libraries are employing electric machines, designed to run continuously, with flexible shafts into which eraser plugs can be inserted. This way of treating the call numbers seems to be the most desirable in removing old white ink and shellac. In the case of books marked with the electric stylus, the number is easily taken off by certain chemical solutions. Labels can be removed most effectively by moistening and scraping with a knife. Additional catalog cases are unnecessary unless the decision is made to separate the card catalog during the process, although space should be provided to allow for normal growth.

Card reproduction is unavoidable in most libraries, and this will be true especially during any reclassification program. Many of the present catalog cards will need to be replaced because of soiled condition and poor cataloging. If the Library of Congress printed cards are used, many titles will not be available or will be reported out of stock, with indication that they will not be reprinted. The multilith machine has grown in popularity for manifolding in recent years, although many libraries are still using mimeograph devices. Funds must be provided for the purchase of new Library of Congress printed cards and for plain catalog cards needed in reproduction of entries. Many libraries carry these items along on the regular budget for supplies.

One main objection to reclassification in libraries has been the difficulty of maintaining the collections. Constant references are made in the literature to the excessive shifting of books and to the evil of having to look in two locations for materials desired. The problem of shelving depends first on space allotments within the library. The solution is not so difficult in a new building where one has room to begin expanding in the new classification while the older classification gradually diminishes in size. In libraries less fortunate, the old classification may be closed in and the new classification started in the space accumulated. If storage shelving is available the lesser-used volumes in the old classification may be put away, allowing space for growth of the new collection. The problem becomes less serious in a small library. An interesting experiment has been to place the volumes in the new
Reclassification and Recataloging

classification on the same shelves from which the books came originally.

In a closed-stack collection, where access to material is by call number, the problem of arranging the book collection in two different places is not so great. Here graduate students and faculty members and others having direct access to materials soon learn that their books can be found in one of two places. If the dual arrangement exists on the same stack level, users may be willing to cooperate until the project is finished. In open-shelf collections the problem is somewhat more acute; however, it is those collections which are usually reclassified first, so that the period of time in which it is necessary to confront two different arrangements of the books is brief.

The cost of reclassification varies with the kind of program established. At the State University of Iowa, where a special sum of money was made available, the operation was planned on an assembly line basis. Close statistics were kept and the cost was estimated at forty-five cents per volume. At the University of Mississippi a separate reclassification unit has been set up, but some of the processes, such as the refiling of the cards, are being performed by the regular cataloging staff. This university determined that it takes between 1½ to 3 minutes to erase the number on a book and about 1½ to 2 minutes to reletter it. With these indicating a part of the total cost, an approximate figure can be derived for the collection. However, personnel, supplies and equipment, and time consumed in pulling and refiling cards all need to be considered. Further, the spending of additional time by other library staff members in helping with the project makes it impossible to determine the exact cost of reclassification. At best it can be only an estimate.

Results of reclassification depend somewhat on the reasons for reclassifying in the first place. The nature of the collection, new demands of the clientele, changing concepts of the organization of library materials, the economy of processing and efficiency in servicing—these necessitate changes in the placing of materials to fit new needs and interests. There are those who believe that no classification plan can assure systematic arrangement of collections. However, until the thinking on proper bibliographical control and documentation brings fruitful, practical results, librarians need to house and service the vast quantity of material at their disposal. Then why not choose that scheme which seems most logical, systematic, and economical, even though it means reclassification?
References


[262]
Reclassification and Recataloging

Organization and Administration of Cataloging Processes

ARNOLD H. TROTIER

The catalog department’s primary function is to incorporate books and other materials into a library’s cataloged collections in such a fashion that the reader may readily ascertain what the library’s holdings are and get hold efficiently of the particular item he wants to use. Classifying, shelf-listing, descriptive cataloging, and subject cataloging are the principal processes involved in accomplishing this function. Traditionally, in libraries large enough for departmentation, these are the minimum duties assigned to a catalog department, although it is frequently made responsible also for certain others more or less closely related to these major functions. Examples are accessioning, physical preparation of books for the shelves, and maintaining location records for books shelved more or less permanently in branches, departmental libraries, or other special readers’ service units.

Study of the organizational structure of large catalog departments reveals a surprising lack of uniformity even in libraries of a single type which are comparable in size. Moreover, because of the number and diversity of the elements on which organization of cataloging work may be based, the pattern of individual departments is usually complex. A casual examination of organization charts shows that among these elements the following are considered to be especially important: function, subject, language, form or type of material, degree of difficulty of material, and level of treatment to be accorded various categories of material.

Theoretically, the organization of work in catalog departments along strictly functional lines seems both natural and logical. Yet few departments have set up separate divisions for classifying, descriptive cataloging, and subject cataloging. A stronger preference has been

Mr. Trotier is Associate Director for Technical Departments, University of Illinois Library.

[264]
shown for a scheme whereby one group does the descriptive cataloging and a second the classifying and subject cataloging, the logic for combining the latter two processes being that both require subject analysis. But in most libraries each cataloger performs all three of the basic operations, and the organization patterns in their catalog departments therefore follow other lines.

Particularly in libraries where organization of readers’ services by subject fields is emphasized, for example, in public and university libraries set up on the subject-divisional plan, and in university libraries with college and departmental libraries serving special subject areas, the division of work in catalog departments is likely to be primarily according to subject. The important advantage this kind of organization holds over one developed along functional lines is that, since it involves most, if not all, of the cataloging staff, a higher degree of subject specialization can be achieved than in a special subject cataloging unit made up of a relatively small number of workers. Although there appears to be no common agreement as to the level in the departmental structure where subject specialization should occur, the importance of making definite provision for it is increasingly recognized. Not only have library survey reports generally urged the management of cataloging with reference to subject, but reorganization plans of catalog departments indicate that more libraries are accepting the idea.

The outstanding example illustrating this trend is the reorganized Preparation Division in the Reference Department of the New York Public Library, which, prior to a survey by a firm of management engineers, had been set up primarily around form of material. The Preparation Division now is divided into a Cataloging Branch and a Preparation Branch. On the recommendation of the surveyors, the Cataloging Branch was organized around subjects rather than forms of material. According to R. E. Kingery, Chief of the Preparation Division, the recommendation was based on the view “that the cataloging job is a whole job of planning approaches between a piece of material and its potential users, that the job should not be broken up as it had been on the basis of subject analysis vs. description, and that the significant differences among materials, in terms of use, lie in differences in subject and not differences of form.” In line with this theory, Kingery reports, catalogers now handle materials within a subject area “regardless of form of material, and . . . do the whole
job of catalog planning for that material, including subject analysis and description.”

Libraries acquiring much material in foreign languages must have on their staffs catalogers with a knowledge of these languages. Some catalog departments set up special units to handle all foreign publications. Both the Chicago Public Library and the Los Angeles Public Library have such units in their catalog departments, and the Descriptive Cataloging Division of the Library of Congress contains a Foreign Language Section and a Slavic Language Section.

Although in the cataloging of foreign materials language facility is more useful than subject specialization, in the catalog departments of university libraries the formal unit for cataloging all foreign language publications is the exception rather than the rule. The explanation may be that in these libraries, where increasing emphasis is given to subject specialization, catalogers generally have a working knowledge of two or more of the principal foreign languages and so can handle the bulk of such material without particular difficulty. Moreover, they may go to a language specialist of the department for assistance whenever necessary. The cataloging of most materials in the minor or dead languages, however, is usually assigned to catalogers with the special language facilities required.

With respect to form or type of library materials, the organizational structure of catalog departments most commonly includes a special unit for the cataloging of serials. The fact that in the larger departments the serial cataloging section is commonly one of the principal units is due both to the phenomenal growth in importance and mass of serial publications, and to realization that the physical and bibliographical peculiarities of serials make specialization with them sound administrative practice.

The use of the degree of difficulty of material as an element in determining basic organization of cataloging work is excellently demonstrated by the reorganization some years ago of the catalog department of the Harvard College Library. In this department, Susan M. Haskins\textsuperscript{2} reports, the staff was organized into two major groups. One handles material which can move along rapidly, such as titles for which Library of Congress cards are available, nonfiction which presents no special difficulties, other editions, second copies, and books which are to be sent directly to the New England Depository Library. The other group catalogs the more difficult material involving research
Organization and Administration of Cataloging Processes

problems, unusual languages, and so forth. The second group only is organized along the traditional lines of subject and language.

Manifestly the many and varied publications which flow into libraries are not all equal in value or importance, and therefore need not all receive equal treatment. Hence the level of treatment to be accorded certain categories of library materials is an additional element influencing the organizational patterns of catalog departments. For example, a special unit may be made responsible for the processing of pamphlets and similar ephemera, and another for the cataloging of rare books and manuscripts. The developing trend for applying brief or limited cataloging techniques to older and less important publications has resulted in the creation in some catalog departments of special units to handle such materials.

Traditionally, much importance has been attached in libraries to the value of accuracy and consistency in cataloging records. To attain these twin objectives, it has been the policy in many catalog departments to revise in detail the work of even experienced catalogers. Approaching their work conscientiously, the catalog revisers spent much time covering the same ground as the cataloger and correcting minor errors which might have been rectified more cheaply by proofreaders. Forced by the economic exigencies of the times to scrutinize the effects of these practices on cataloging costs and the flow of material through the department, library administrators came to the conclusion that, all things considered, the premium they were paying for accuracy and consistency was too high and that, in the interests of economy and efficiency, a major shift in emphasis was necessary. This has been accomplished in many catalog departments, (1) by depending on proofreaders to discover and correct minor errors, (2) by revising closely only the work of the less experienced personnel, (3) by letting catalogers take the initiative in consulting revisers when their help was needed and in this way placing more responsibility for good work on those doing the original cataloging, and (4) by limiting such over-all revision as remains necessary to a quick examination of entries, classification, and subject headings. This policy has been followed for some years in the Catalog Department of the University of Illinois Library, and is very similar to the scheme advanced by the surveyors of the Los Angeles Public Library in conjunction with their proposal for the reorganization of the catalogers into subject units under the supervision of senior catalogers.  

Administrators of catalog departments have long recognized the
importance of differentiating clearly between professional and clerical duties for the purposes of efficient management. However, despite the increasing attention given in libraries to job analysis and position classification, the evidence shows that in many catalog departments the lines between professional and clerical processes have not yet been sharply drawn. Obviously, where this has not been done, all attempts to arrive at defensible ratios of professional to clerical personnel must rest on guesswork.

Some notion of the size and nature of this problem may be gained from the data presented in the 1951 survey of personnel in catalog departments in public libraries which was conducted by a committee of the American Library Association Division of Cataloging and Classification. According to the answers supplied by 108 libraries, only two of the duties defined as professional were not also performed by nonprofessional workers, and 5 per cent of all duties listed as professional were also performed by nonprofessional personnel. An analysis of the staff involved in the performance of nonprofessional duties in the catalog departments of 110 public libraries revealed that all nonprofessional operations were carried on by both groups; further, 26 per cent of the answers from these libraries indicated that nonprofessional duties were performed by professional catalogers. The conclusion that professional personnel is often wastefully employed in catalog departments is rather obvious. Evidence produced by the survey showing that large libraries experience least difficulty in separating clerical from professional duties is scarcely surprising. Despite the somewhat discouraging picture drawn by these facts, there is considerable evidence in library survey reports, as well as in the published accounts describing reorganization of work in individual catalog departments, to indicate that much real progress has been achieved in the past decade in differentiating professional and clerical duties and in making use of clerical personnel for cataloging operations not requiring professional training.

The accessioning of books is not regarded by all librarians as a logical function of the catalog department. Actually, in many libraries it is performed in the order department or in a special unit. The formal register of accessions, for so many years looked upon as a basic and essential record for any properly managed library, appears to be on the way out. In fact, quite a few libraries have abandoned both the accession book and the use of accession numbers in the individual books. Others have decided on one of several possible compromises,
Organization and Administration of Cataloging Processes

such as (1) adapting other library records, e.g., bills, lists, order cards, or shelf-list cards, to serve the purposes of a standard accession record, or (2) continuing the stamping of accession numbers in the books themselves, thereby preserving their value as a means for positive identification of particular volumes or copies, but without listing books in an accession register nor noting their accession numbers on shelf-list cards. That simplification of accession records and procedures, if not their complete elimination, is a growing trend in libraries, is suggested by the fact that nearly all library surveys have recommended it wherever the surveyors encountered the traditional accession records.

The taking of inventory of the library’s book stock by the circulation department and other readers’ service units can readily be defended on the ground that they have a custodial responsibility for the books shelved in their departments. However, in many libraries this duty is delegated to the catalog department, presumably because it makes and maintains the shelf list and catalog and often keeps the accession record, and therefore should withdraw the notations of items established as lost in the inventory process. Moreover, it may be reasoned, the catalog department is the logical department to correct any errors or discrepancies that may be discovered in the course of inventory.

Particularly in very large libraries, the trend is away from complete periodic inventories, for the simple reason that they no longer can be afforded. In some such libraries formal checking is attempted only in reference and reading rooms and for departmental collections. Larger libraries which have not abandoned the taking of inventories of their central collections, tend to carry them out at longer intervals, rather than annually, or to assign relatively small staffs to carry them on continuously.

One of the most significant recent developments in American librarianship has been the grouping in numerous individual libraries of all services in two divisions, viz., technical services and readers’ services. The underlying administrative philosophy aims primarily at reducing the span of control of the top administrator and promoting effective oversight, coordination, and integration of the various services carried on in the organizational units brought together by the change. The services commonly regarded as technical include acquisitions, cataloging, binding, and photographic reproduction, and the act whereby they are placed in a single large division recognizes the close relationship of their individual functions and the operations involved in performing them.

[269]
Although the merging of organizational units carrying on technical operations into a technical services division may make the coordination of these operations easier, it is admittedly not a prerequisite to effective cooperation. The close relationship between cataloging and acquisitions, for example, is axiomatic, and instances of successful coordination and mutual cooperation are not hard to find. In many libraries the acquisitions department forwards material to the catalog department only after it has been established that the material is to be added to the library’s collections. It indicates what books must be given priority treatment, designates what items are to go to departmental libraries or other special locations, and calls attention to added copies, varying editions, and rare or costly works. It passes on bibliographical information useful to catalogers which is discovered in searching and checking. It brings to the attention of serial catalogers changes in current serials which affect the cataloging of these publications and, in some libraries, adds notations about serial and continuation volumes to the catalog records.

In like fashion, the catalog department facilitates acquisitions work by (1) transmitting to serial and continuation sections call numbers assigned to new serial and continuation titles, and catalog entries established for them, (2) bringing to the attention of these sections gaps in the library’s files of such publications, and (3) notifying the acquisitions department regarding titles for which cataloging has been completed so that the “orders-received” file may be cleared.

Although in many libraries it is the practice to route unbound books to the binding department directly from the acquisitions department, in others such material is forwarded to binding only after the cataloging processes have been completed. This order in the procedure is particularly useful in the case of works issued in fascicles and for certain unbound serials, such as monographs issued in series which, by catalog department decision, are to be kept together as a set and may therefore be bound several to a volume. Serial catalogers can contribute to the efficient operation of the binding department by giving advice regarding the binding of complicated serials, e.g., those comprising subseries or issued with supplements. In some libraries it is routine practice for serial catalogers to assemble serial volumes for binding as a last step following cataloging or recataloging, and to forward with the volumes a form supplying such information as call number, entry, binder’s title, and other items to be marked on the spine, and showing whether any volumes have been bound previously. The
binding department, on the other hand, can assist the work of the catalog department by routing to it all newly bound serial volumes which need to be recorded on catalog records, and by identifying bound and rebound volumes which must be routed to special locations in the library system.

All readers’ services units, both centralized and decentralized, are aided immeasurably in their services to readers by the records prepared and maintained by the catalog department. Hence it is axiomatic that cataloging policies and methods must be related effectively to the needs of readers’ services.

Public service departments stress a number of special ways in which catalog departments can be of help in achieving high standards of service to readers. They urge that cataloging be done expeditiously, that “rush” items be given special priority, and that temporary cards for new books be filed in the public catalog to serve until the permanent sets are filed. They ask that catalog records for items withdrawn or lost, and not to be replaced, be canceled soon, and that errors or discrepancies in catalog records when reported to catalogers receive early attention. If a book is reclassified they want to know, when it is returned, under what number it was charged out. They ask sympathetic consideration for their suggestions for improving the catalogs. Catalogers, among other things, want prompt cooperation when they must recall items for recataloging; and, when books are transferred from one part of the system to another, they want to be notified so that they can make the necessary changes in catalog and shelf-list records.

Effective coordination between the catalog department and other departments can be especially fruitful in simplifying some records and eliminating the duplication of others. A central serials record may make unnecessary the recording of serials in the public catalog; or the checking records of current serials may supplement the information provided for these publications in the catalog. The “orders-received” file, or a combined “orders outstanding-current receipts” file, maintained by the acquisitions department, if conveniently located with respect to both departments, will obviate the need for an “in-process” file in the catalog department.

The branch libraries of public library systems almost universally have been set up by their central libraries, whereas the departmental libraries of college and university libraries have been started in many instances by academic departments independently of the general library. Centralization of cataloging in public library systems has, for
this reason, been the general rule; while centralization of cataloging in
colleges and universities has been achieved generally only as the de-
partmental libraries were drawn into a centrally administered library
system.

In the large public library system, where multiple copies of many
new books are distributed simultaneously to the branches, the policy
of centralizing cataloging has apparently met little opposition. In uni-
versity libraries, on the other hand, there has often been strong resist-
ance to it. The chief argument by the proponents of decentralized cata-
logging has been that work done in the departmental libraries would
meet better the needs of the clientele. Since the cataloging would be
performed by those most familiar with the subject fields involved, they
have maintained, the classifying and subject cataloging especially
would prove more satisfactory than if it were carried out in a gen-
eral catalog department. Furthermore, they have supposed that their
books would reach the shelves sooner if processed in the departmental
library.

The principal arguments on the other side were: (1) a union catalog
recording the library's total resources could be maintained most satis-
factorily through a system of centralized cataloging, (2) standardiza-
tion of the various catalogs in the library system, best attained through
centralization of cataloging processes, would facilitate both their use
by readers and the interchange of library materials between depart-
mental libraries and the central bookstacks, (3) uniform and compe-
tent classifying and subject analysis of books could be achieved by
promoting subject specialization in the general catalog department,
and (4) centralization would promote over-all efficiency and economy.

G. A. Works® put the case for centralized cataloging succinctly
when he wrote more than a quarter of a century ago that cataloging
illustrates well a type of library work in which there is a distinct
advantage in centralization. “It makes for economy and a good quality
of work to have all persons doing cataloging organized in one group
so as to give the largest opportunity for differentiation and specializa-
tion.” Almost without exception library surveys of the past decade or
so have recommended centralization of cataloging wherever they
found that it was not already the established policy. This, or at least
the creation of a union catalog in the general library, they have urged
even where for special local reasons it was not feasible to bring all
departmental and college libraries under the administrative control of
the general library.
The problems of centralization of cataloging is not confined, it must be pointed out, to the relations between a central library and its branches or departmental libraries. Occasionally the cataloging operations carried on in the central or main library are scattered among several independent units. Carleton Joeckel and Leon Carnovsky, for example, in their study of cataloging operations in the Chicago Public Library in 1940, discovered that cataloging was being done in five essentially autonomous units. They strongly urged unification of this work in a single department, and supported their recommendation with the argument that the change would "insure standardization and uniformity of procedures, would permit the efficient organization of professional and clerical personnel, would make possible the economical duplication of cards for the catalogs and shelf-lists, and would probably result in a more even distribution of work throughout the year."

The appearance of the storage library, a very recent development, has raised a variety of new problems for both the storage centers and their parent institutions. H. H. Fussler has defined three types of storage libraries: "(1) a storage depot for the deposit of books from a single library, or library system; (2) a cooperatively owned and operated building in which the cooperating institutions may rent space for the separate deposit of their own materials; and (3) a cooperatively owned and operated library in which the deposited materials are available to and shared by all member institutions." Certain administrative problems of storage libraries are common to all three varieties; but each type has some questions peculiar to itself, among which is that of cataloging policy.

When a library like the Iowa State College Library builds a special structure to provide economical space for little-used materials for which there is no room in the main library, the storage building may be regarded as a simple extension of the central bookstacks. A record in it of what is shelved there may be useful, but not essential; and in the main library it is necessary only to indicate which of its books are shelved in the annex. This may be done by appropriate notation on catalog and shelf-list cards, or by whatever method the main library indicates location of particular books in its departmental libraries.

At first glance it would appear that a similar scheme would serve satisfactorily the needs, in this respect, of a storage library of the second variety, the prototype of which is the New England Deposit Library. Actually, the cataloging plans for the materials stored in the New England Deposit Library are a little more elaborate. The original
proposal, requiring each participating library to supply, for each title deposited, a main entry card for the Deposit’s union catalog was soon abandoned, and only half of the parent libraries continue to furnish cards for this file.

A newspaper catalog, comprising four different indexes, is maintained at the storage library, and there is also a complete shelf list of the newspapers of the Boston Public Library and the Harvard College Library. Largely to avoid the additional expense, but also because Harvard did not make shelf cards even for its own use in the case of new acquisitions placed in storage, the Deposit Library dropped plans for a general shelf list representing the materials housed there.

Harvard, the only cooperating library which sends new acquisitions to the Deposit Library in quantity, has adopted a special cataloging policy for these books. Presupposing that there would be few calls for them, and that therefore the expense of standard cataloging was not justified, Harvard decided to apply simplified cataloging. Also, keeping in mind that grouping of books by size and shelving by fixed location was the basis for storing these materials in the Deposit Library, Harvard decided to save the expense of the usual subject classification in the case of these new acquisitions by simply classifying them according to size and then numbering them serially.

The institution which comes closest to fitting Fussler’s definition of the third type is the Midwest Inter-Library Center. The scope of its function is broader than mere storage, however, since it is charged also with acquiring additional research materials directly, by purchase or gift. Furthermore, excepting only the small deposits stored on a rental basis, all materials housed in the Center are available for use by the member institutions. For these and other reasons, the Center has had to face entirely new problems in organizing and recording its holdings and supplying essential information regarding its resources to member libraries.

The general cataloging and classification plans developed by the Center were described in 1951 by its director, Ralph T. Esterquest, who was quick to point out that they are “subject to revision . . . in the light of experience.” According to Esterquest, fixed location and size-shelving will be the general rule and, for this purpose, six size classifications have been established. Examples of exceptions are: (1) state documents, arranged by state and issuing agency, (2) foreign dissertations, alphabeted by author, (3) old textbooks, disposed
Organization and Administration of Cataloging Processes

under large subjects, and (4) telephone directories, arranged by state and locality.

With respect to cataloging plans the Center has made a number of major decisions. First, the catalog of its holdings is to be limited almost entirely to author entries. For a title cataloged prior to its transfer to the Center, a member library is expected to supply a catalog card. This card, or a copy of it, is marked to show shelf location and then filed in the Center’s catalog. For uncataloged items received, the Center prepares its own catalog entries, always with an emphasis on what is essential. Certain categories of materials, e.g., those listed in the paragraph above, are not given individual cataloging treatment.

To keep its member libraries informed regarding its resources the Center furnishes each library, as well as the National Union Catalog, a multilithed copy of its catalog cards. In the case of currently received serials, a copy of its serial checking card is supplied. To supplement this information, particularly for the uncataloged categories, the Center has prepared and distributed to its member libraries its loose-leaf Inventory of Holdings of Certain Classes of Materials.

The disposition of M.I.L.C. catalog cards in the individual member libraries varies somewhat, but in most the cards are kept in a separate file, usually near the public catalog. In a few cases they are interfiled either in the public catalog or in the “union” catalog, i.e., the Library of Congress depository catalog with which have been interfiled cards from other libraries.

There is also variation in these libraries in their treatment of catalog records representing titles transferred to the Center. If the cards are left in the catalog or shelf list, or if they are filed in the “union” catalog until the corresponding M.I.L.C. cards are received, the fact of the location of the material in M.I.L.C. is noted.

The growing concern of library administrators over mounting cataloging costs is matched by a similar concern over the problem of cataloging arrears. The most inclusive definition of cataloging arrears includes all acquired materials which are to be incorporated in a library’s organized collections but are not being processed currently.

It is a truism that a library’s acquisitions are limited only by the size of its book fund and its ability to secure materials by gift and exchange. But the flow of accessions often is increased substantially by administrative action and policies. For example, the librarian may succeed in getting a sizeable increase in the regular allowance for books, or he may manage to have the book fund supplemented by

[275]
special appropriations or monetary donations, or he may promote an active gift and exchange program leading to large gift collections. If, when any of these things happen, he does not provide the additional personnel needed to take care of the increased accumulations, he either creates an arrears problem for the library or makes an existing one worse.

The general tendency to put the blame for uncataloged arrears on the catalog department is quite understandable, since getting the library's acquisitions cataloged is its chief responsibility. Moreover, it cannot hope to escape criticism for being behind in its work unless it has taken all steps necessary to maintain high efficiency. But if, despite good organization, sound procedures, efficient techniques, and satisfactory morale, a catalog department is unable to bring its accumulated arrears under control, the solution to the problem must be found in providing more cataloging personnel or in adopting a more realistic acquisitions program.

The catalog departments of a number of libraries have experimented with various methods for reducing cataloging arrears or preventing them. The Division of Cataloging and Classification devoted a session to consideration of the problem at the 1951 A.L.A. conference. Papers presented at that meeting reported on efforts to deal with arrears at the University of California at Los Angeles, Yale University, the University of Pennsylvania, the Brooklyn Public Library, and the Library of Congress. These papers, as well as a statement on arrears at Columbia University were published in the Fall 1951 issue of the Journal of Cataloging and Classification. In the same year A. D. Osborn reported on the way Harvard had attacked the matter, and a few months later Alice T. Paloney came out with an article telling how the Los Angeles Public Library avoids arrears entirely.

Although tackling a common difficulty, the methods developed by these libraries have varied considerably. A comparison shows differences in the organization of the material in arrears, in the use of personnel, in the kind of cataloging treatment given, and in the application of special techniques. The significant thing about these experiments is that they all have proved worth while, some beyond all expectation. In view of the results there can be little doubt that more and more libraries, seeing they cannot hope for sufficient personnel to process arrears by normal cataloging methods and routines, will use the lessons reported above to deal with their own arrears.
Organization and Administration of Cataloging Processes

References

7. Ibid., p. 150.

Additional References


Library survey reports of the following institutions: Alabama Polytechnic Institute, Cornell University, Dallas Public Library, University of Florida, Indiana University, Montana State University, University of New Hampshire, University of South Carolina, Stanford University, and Virginia Polytechnic Institute.

[ 278 ]
Catalog Maintenance

ANDREW D. OSBORN and
SUSAN M. HASKINS

Before the development of card catalogs the problem of catalog maintenance was comparatively insignificant. With few exceptions libraries were so small that the remedy for an inadequate catalog was to make a new one. In the Harvard College Library, for example, there were no fewer than thirteen catalogs in succession before the present public and official catalogs were created about 1913.

Naturally then, there was no established program of catalog maintenance to carry over from the nineteenth century, nor was the need of it apparent in the early days of this century. In fact, to some extent it might be said that the very idea of taking steps against obsolescence and of allowing for depreciation was alien to the thoughts of twentieth-century catalogers who, in the face of all cataloging history, thought they could make their records with workmanship of so high a quality that these would endure indefinitely.

Not until the present has the necessity for a regular program of catalog maintenance become apparent. The age, complexity, and size of existing catalogs are the principal factors in bringing about this development. As might be expected, the largest libraries have had to face the problem first and most seriously. Simultaneously, yet independently, the Library of Congress, the New York Public Library, and the libraries of Harvard and Yale Universities all set to work to formulate a plan for the future of their catalogs.

The most ambitious proposal to date is the one at the Library of Congress, which would take over eleven years to carry through and would cost almost $750,000. There the main or public catalog (incidentally the official catalog too) would be edited because of

... unreconciled changes in cataloging policies, rules, and procedures and imperfections in the adequacy of the maintenance of this catalog

The authors are Assistant Librarian and Head Cataloger, respectively, in the Harvard College Library.
over the years. In addition, heavy use over a long period has taken a toll of some of the cards. There has been no provision of systematically organized guide cards. Filing errors are too frequent. In short, the use of the catalog by readers and staff alike is continually impeded by conflicts between the cards in the catalog, by cards with wrong call numbers, by cards with no call numbers, and by cards which are misfiled or missing from the catalog altogether. Editing the catalogs will not only correct the important respects in which the catalog is in a run-down condition but will also offer an opportunity to institute methods of counteracting in some degree the increasing difficulty of its use (due to its continual growth) such as simplifications in filing arrangement and the provision of helpful guides to the user where they are most needed. As the trays are edited, it is planned that filing in them in the future will be completely revised in order to prevent the recurrence of the filing error rate which is in excess of 5%.

Business practice generally allows for depreciation of equipment. But libraries have failed in their budgets to provide for the depreciation of their principal tool, the card catalog. The cumulated effect of this neglect is now making itself felt, as can be seen from studies in several of the largest libraries. Sooner or later institutions of various sizes will have to face the problem squarely too. In an older library with but a single cataloger the problem may even be disproportionately greater than in the large and middle-sized library, where the budget may be sufficient to allow for extra help when necessary.

Filing. The obvious point at which to attack the problem of catalog maintenance is filing, for any general review of a catalog should be undertaken in conjunction with revised filing rules and a complete refiling of all cards, as the Library of Congress has indicated. Simplifications in filing are called for because technicalities not readily grasped by readers or staff make consultation of a catalog difficult and lead to errors in filing. Some of these technicalities derive from the days of the classified catalog. Under the influence of Charles Ammi Cutter, classified arrangements were introduced into the emerging dictionary catalog, and the resulting departures from a straight alphabetical arrangement have died hard. The A.L.A. Rules for Filing Catalog Cards, published in 1942, straddled the issue by providing numerous alternative rules and by recommending straight alphabetical arrangement primarily for the smallest libraries only. In truth, it is the largest libraries that require straight alphabetical filing most.

Failure to come to grips with this fundamental issue was undoubt-
Catalog Maintenance

dedly a significant factor in the subsequent trend towards division of library catalogs. Automatically, by dividing their catalogs, libraries were able to dispense with many of the classified arrangements. So the filing was simplified. And whenever the filing is simplified, consultation of the catalog should become easier for readers and staff alike.

But even this trend left untouched another basic matter, namely, the contribution that letter-by-letter filing might make towards solving problems of arrangement. American librarians have given scant attention to letter-by-letter filing, which has found some acceptance in Great Britain. Thereby they have lost some theoretical insights which might have resulted from a careful comparison of the word-by-word and the letter-by-letter systems. More particularly, for divided catalogs the letter-by-letter system might have much to offer.

It would be of considerable value if studies existed to show whether the revision of filing is less of a burden under letter-by-letter filing. In theory, it should be; for theoretically letter-by-letter filing should require practically no revision except to catch gross errors due to mistakes by workers. Word-by-word filing adds a plethora of technicalities, so that faults in filing may be due either to the human equation or to a failure to grasp or consistently follow a technicality.

The descriptive cataloger has quite generally overlooked the need for a clear, unambiguous, and close-knit filing medium. Fortunately most catalog entries have one naturally, but in any large catalog tens of thousands of imprecise entries are a constant source of trouble and error. For instance, a wooden entry like the following suggests an autobiography:

Descartes, René, 1596–1650
Descartes.

But what is really meant is either

Descartes, René, 1596–1650
[Works]

or

Descartes, René, 1596–1650
[Selections]

This type of entry is also fairly common in the field of art, and difficulties naturally ensue. In the Fogg Art Museum at Harvard they have been sidestepped by not considering the artist as the author of a volume of reproductions. In general we have paid attention to the
problem of books without authors, but no systematic study has been made of the problems that arise in connection with books without titles. The following represent some of the more obvious types of entry that cannot be filed without interpretation.

<table>
<thead>
<tr>
<th>Heading</th>
<th>Actually Filed as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brontë</td>
<td>Bronte</td>
</tr>
<tr>
<td>De La Mare</td>
<td>Delaware</td>
</tr>
<tr>
<td>Eckhart, Meister</td>
<td>Eckhart</td>
</tr>
<tr>
<td>Huntington, A. M., ed.</td>
<td>Huntington, A. M.</td>
</tr>
<tr>
<td>Jones, Mrs. Colonel</td>
<td>Jones</td>
</tr>
<tr>
<td>New York Metropolitan Museum of Art</td>
<td>New York City. Metropolitan Museum of Art</td>
</tr>
<tr>
<td>Terry, Dame Ellen</td>
<td>Terry, Ellen</td>
</tr>
<tr>
<td>Williams, William, called Pant-y-celyn, 1717-91</td>
<td>Williams, William, 1717-91</td>
</tr>
</tbody>
</table>

Some Harvard Solutions. The Harvard College Library has recently taken several steps towards the establishment of limited and self-evident filing mediums. It observed that some controls already exist. For example, a reference from “Labour” to “Labor” enables the two to be interfiled without complication, and the same is true of words that are sometimes hyphenated and sometimes not. But controls needed to be worked out for other cases, notably for modified vowels, forenames with titles or epithets, initialisms, and numerals.

The diaeresis is the principal complicating factor as far as modified vowels are concerned. Thus Brontë and Viêtor are filed as though they contained no diaeresis, whereas Müller is treated as Mueller. It was embarrassing at Harvard to find that some filer had carefully arranged the entries for the distinguished Professor Viêtor under Viëtor. Ignorance? Yes, but who can recognize the technicalities in all languages, including Hungarian and Turkish? Lack of revision? Yes, but how can an adequate yet economical program of revision be carried out in a large catalog? Surely it is more important to ask why the root of the trouble should be allowed to persist.

Three courses of action were possible, any one of which would end the uncertainty and confusion: (1) Ignore both the umlaut and the diaeresis. The name Goethe and the Americanized name Mueller do not lend themselves to this scheme, but in any event the German Department vetoed the suggestion. (2) Omit the diaeresis from the
Catalog Maintenance

filing medium altogether, leaving the field to the umlaut. (3) Spell out the modified vowel when it affects the main filing medium. This is the solution that has actually been adopted, as exemplified below:

<table>
<thead>
<tr>
<th>On the Title-page</th>
<th>As Transcribed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agren, Sven</td>
<td>Aagren, Sven</td>
</tr>
<tr>
<td>Aland Islands</td>
<td>Aaland Islands</td>
</tr>
<tr>
<td>Müller, Carl</td>
<td>Mueller, Carl</td>
</tr>
<tr>
<td>Ørsted, Hans</td>
<td>Oersted, Hans</td>
</tr>
</tbody>
</table>

A similar practice is not followed in the secondary filing medium because the chance of conflict is slight.

It is true that Library of Congress printed cards, and entries from other libraries that do not follow the new convention, must still be interpreted. Old-style Harvard cards must on occasion be refiled too. But the back of the problem has been broken.

For forenames with titles or epithets a strictly alphabetical system has been adopted in place of the former catchword arrangement, as shown by the following:

Mary Lawrence of Jesus, Mother
Mary I, Queen of England, 1516-58
Mary, Queen of France, 1496-1533
Mary II, Queen of Gt. Brit., 1662-94
Mary, Queen of Gt. Brit., 1867-1953
Mary, Queen of Scots, 1542-87
Mary Stuart, Queen of Scots, 1542-87

In this connection, the form of heading for some rulers has been changed to bring about a more desirable arrangement. Thus, Mary, Queen of Gt. Brit., 1867-1953, replaces the former style, which read: Mary, Queen Consort of George V, 1867-1953. Another simplification has been to intercalate forenames among the title entries and corporate names, following, instead of preceding, the relevant surnames.

Initialisms always give a certain amount of trouble, unless in a letter-by-letter scheme they are uniformly treated as words. The new Harvard rule reads: “File as words combinations of initials that are equated with words, e.g., FIAT, RUS, Unesco. In the filing medium initials which are filed as words are written without spaces or periods between the letters; initials that are filed as such are written with either a space or a period between the letters.” The problem has been reduced in size, too, by eliminating a major part of the initialisms. The straight-
forward form, such as H.D., has been retained, and the inverted form D., H. given up.

Perhaps at long last a reasonably satisfactory solution has been found for the vexed problem of numerals. Not much difficulty has been encountered in filing the simple basic numbers as words, such as one through twenty, as well as thirty, forty, hundred, thousand, and million. But a confusing jumble has resulted whenever numbers composed of more than one element are arranged in alphabetical sequence, witness the following:

| 60 acres | 65 | 60 odd | 66 |
| 68       | 64 | 61     | 63 |
| 65th     | 60 letters | 60 selected | 62 |
| 61st     | 69 | 67     | 60 years |

The new Harvard plan is to file numerals, whether they occur on the cards as words or as figures, in terms of a base number which is interpreted as a word, followed when necessary by figures. A table of the base numbers in several languages has been prepared for the benefit of the filers. Figures added to these numbers are arranged numerically, with the result that sixty is followed by sixty-one, sixty-two, and so on.

When a numeral occurs in the main filing medium, in either a main or an added entry, the conventional form is inserted on the cards for the benefit of the filers, the exception being for English numerals through a hundred. Examples are:

[Fuenf . . .] 5000 arabische Sprichwörter
[Sieben . . . 77] Sieben und siebzig Gedichte

The first part of the formula shows the alphabetical position of the entry in the catalog; any subsequent figure, which may be part of the formula or self-evident, exhibits the secondary numerical position.

In the secondary filing medium the conventional form is inserted only when the numeral appears in figures. It is given, for example, in the following case:

Bourgin, Georges, 1879-
[Dix . . .] 1848

One troublesome technicality was ruled out from the very start. No distinction is made between figures or words that stand for years and those that stand for regular numerals.
Catalog Maintenance

Possibly the new filing rules have made their biggest gain in the arrangement of the works of an author. If an author is not officially declared to be voluminous—as determined both by the number and the complexity of the entries under his name—all cards are arranged in a simple alphabetical sequence, with no artificial arrangement for collected works or other special features. If, on the other hand, he is listed in the filing code as a voluminous author, the complete filing medium is made explicit in the heading, e.g.,


Names such as Shakespeare and Beethoven are being reduced to the mere surname, and take precedence over those of lesser people of the same name. When forenames are used in addition to the surname, the balance of the filing medium goes on a second line. By the time a catalog comes to contain millions of cards, it is necessary to consider building up explicit filing mediums so the entries can be kept under control.

Revision of Filing. New and improved filing rules are not, of course, a complete panacea. So the problem of revision of filing must be faced. In a multimillion card catalog revision of filing is not easy to plan, nor is it a simple matter to justify or find the money for the process at a time when cataloging costs are at an all-time high. Filing on the rod is obviously out of the question during normal working hours. The choices seem to be between a pre-library-opening schedule for the filers and removal of the trays on booktrucks to reasonably accessible workspace, thus ignoring the convenience of users of the catalog.

The decisions reached in the Harvard College Library are as follows: (1) A supplementary file is maintained, and the cards from it are incorporated in the public catalog on a six-week cycle. This supplementary catalog contains all entries except for Class I publications, that is, new items in demand. (2) Filing Class I entries is to be done early each day by competent filers whose work does not require revision. Cards from the supplementary file are to be transferred to the public catalog by removing the trays to a convenient location where the filers can sit more or less comfortably, and where their work can be revised as long as necessary for beginners. This method will reduce the element of fatigue, and thereby increase accuracy. (3) Known trouble spots are to be listed, and the filing in these places reviewed every year or so.

Weeding and Improving the Catalog. All that has been said so far
is incidental to the main task of rehabilitating a catalog, for clearly it would not cost the Library of Congress $750,000 or take eleven years merely to refile its colossal card catalogs. The following are some of the matters that need to be considered in planning rehabilitation.

There is much to be done in the way of replacing broken guide cards and providing large numbers of new ones unless an adequate program has been maintained currently. There may be cards with outmoded class designations or location marks which ought to be corrected or discarded. Many cards have outlived their usefulness and can now be eliminated. Under the heading "American Library Association," the Harvard College Library canceled over a hundred needless added-entry cards for items the A.L.A. had merely published, and the remaining file is now much less complex. Also hundreds of subject cards for personal and corporate names have been withdrawn from the official catalog, with the result of reducing bulk and creating valuable space.

In any catalog there may be numerous short cards or other early forms that ought to be replaced by new typed entries. Messy and worn cards occur in most hard-used catalogs too, and should have replacements when desirable. In fact a large retyping program should accompany any reworking of a catalog. In the Harvard project, the equivalent of three full-time typists is kept occupied with retyping. And it has been found essential, though time-consuming, to edit the cards before they are retyped.

Much time and attention should be devoted to the amelioration or elimination of trouble spots. These occur, for example, when there are numerous entries of mixed types, as under a term like "Washington." Each situation needs to be studied, and appropriate remedial measures should be planned for each.

The point is simply this, that as a catalog becomes bigger and older, and especially as it gets into the million and multimillion card range, difficulties multiply, so the only proper course of action is to attempt to restore both order and relative ease of consultation. It is not enough, for example, to say that references and added entries will take care of difficulties. Some readers may find a lone card under Salazar referring to Oliveira Salazar for works by and about the Portuguese dictator, but others will have difficulty when there are two or three hundred cards for various people with the name Salazar and the reader is not aware of the dictator's forename. The remedy is to change all cards from Oliveira Salazar to Salazar, the entry under which most persons
Catalog Maintenance

will look, put in a guide card, and make a reference from Oliveira Salazar which the few people who go to that form should find with relative ease. Again, one can say that a reader who is looking for the Kittredge edition of Macbeth should know enough to go to the added entry instead of plowing through an extensive file under Shakespeare. Maybe he will; maybe he won’t. But should he be forced to adopt such a procedure? Is it not better to bring the Shakespeare file under control, so it can be used with a minimum of effort?

These two types of problem bring up the major matter of concern in a program of catalog rehabilitation, namely, the question of readily findable entries. The large catalog buries far too many items under technical headings, so that readers and staff may fail to discover items in the collection, and hundreds of duplicates may be acquired annually as a result. It ought, for instance, to be easy to find in the catalog an item listed in Winchell’s Guide to Reference Books, but this is not always the case, particularly in a union catalog. And a reader or a staff member should not meet trouble in arriving at the entry for a gazette for a country like Australia, for United States Army publications, for census publications, or for congressional hearings. Nor should there be any complication over getting to the Beveridge report or the Hoover Commission reports, or to works about them. But real difficulties are constantly encountered in large catalogs in attempting to find important items. These are in addition to the ones brought on by sheer size, for in a large catalog the user is confronted by problems caused both by the bulk of the items and by entries that are not direct or clear.

So revision of entries is an important part of catalog rehabilitation. Studies leading to a new code of catalog rules should take this factor into account. Attention to such matters can make the large catalog easier to use than the traditional middle-sized catalog, and the middle-sized catalog easier to use than the typical small catalog.

Much attention must be devoted also to overhauling the subject entries, which in most catalogs include many outmoded headings. There are many confusing practices, for want of definition or for lack of desirable references; and there are an astonishing number of headings represented by a single card only, although somewhere in the collections there may be a wealth of material on its subject. Likewise deficiencies in service arise through failure to bring out many specific topics. For instance, a number of works exist about the Viennese Circle. Should the catalog not bring them out under that, instead of leaving the reader to fumble for them or to turn to bibliographies
for help? The whole philosophy of subject entries is in urgent need of clarification. Proposed studies at the Library of Congress and the New York Public Library are highly desirable, though these should be supplemented, because both institutions have closed stacks, whereas most other libraries do not.

**Continuing Program.** Except in libraries that weed their book collections extensively the problem of catalog maintenance will grow steadily worse, simply because an additional hundred thousand cards in a year means another million cards in ten more years. So a rehabilitation program is necessary in the first instance to get the catalog in hand before it is hopelessly out of order. And thereafter provision should be made for a curator of the catalog who has sufficient time and staff to make improvements on a continuing basis.

The initial program may call for capital outlay, as is anticipated at the Library of Congress. The continuing plan should be financed in the same way that depreciation is allowed for in any business budget.

Two cooperative measures can help. First, studies in catalog maintenance, as well as the development of new cataloging rules and practices, can be made on the basis of common experience and judgment. Second, the publication of book catalogs, in full or in part, can be thought of as a joint venture. In particular, volumes to represent the holdings for voluminous authors can simplify the card-catalog problem, make the arrangement of entries clearer, and at the same time provide valuable bibliographies. It is to be noted in this connection that prolific authors, both individual and corporate, attract to themselves a high proportion of the filing problems and the difficulties of consultation. Moreover, they may even represent better than an eighth of a total catalog, so a concerted attack on them might bring significant gains in a variety of ways.

The dictionary catalog has served American libraries well for fifty years. The next fifty years may tell a different story if timely and adequate steps are not taken. It would be courting disaster to go on into the second half of the twentieth century without fundamental rethinking of the nature and function of the dictionary catalog. Multimillion card catalogs can be expected to double in size before the century ends. The difficulties will be far more than doubled if a large measure of control is not forthcoming.
Catalog Maintenance

Reference

Costs of Cataloging

FELIX REICHMANN

At the approximate rate of one article every second year for almost a century American librarians have discussed cataloging costs. The entire profession, committees of the American Library Association, library administrators, catalogers, and reference librarians have participated eagerly in discussions which have not lacked actuality and "dynamite." Few contributions are of a straightforward descriptive nature. Many have defended the status quo, sometimes passionately, or announced with gusto a lowering of production costs. Compilations of actual data from groups of libraries have been singularly ineffective, however, and have aroused strong reactions from some of the libraries which have helped in making them.

It may be coincidence that eighty years of preoccupation with cataloging costs coincide roughly with a period of American library philosophy which has imposed a new and heavy burden on cataloging departments, viz., the obligation of providing a complete and dual subject approach in the form of multiple subject headings and close classification. These parallel efforts should not be stressed too much because at the same time there occurred a rapid increase in library holdings, a development which in itself made a continuous scrutiny of cataloging procedures imperative. Nevertheless, it is worth noting that the European libraries which do not accept the obligation of giving dual subject approach are far less concerned with the problem of cataloging costs.

The membership of the American Library Association was confronted with this issue ab initio. In the first volume of the Library Journal appeared Charles A. Cutter's vigorous defense of the American cataloging system, and of its usefulness and intellectual standing.1 Cutter was irked because people suggested that the investment in the catalog was a dead loss and were unwilling to be liberal with it. The figures at this time for the entire cost of technical operations for the Boston Public Library 2 were $1.00 per volume (35% cents per volume

The author is Assistant Director of the Cornell University Library.
Costs of Cataloging
cataloged), and for the Enoch Pratt Free Library in Baltimore “about
a third of the annual expenses of the library.”

Despite the interest in the subject, later efforts of a committee of
the American Library Association to arrive at reliable cost standards
were unsuccessful. W. W. Bishop summarized the achievements of
the period ending about 1900. While the financial data are obsolete,
his theoretical conclusions are still valid. Based on frequent discussions
and contributions which had appeared in the Library Journal and
Public Libraries, he estimated that cataloging entailed on the average
a charge of 20 cents a volume and required 4.5 cards per title in large
libraries and three cards in smaller ones. He held that production
standards could not be set, but studies which were to be taken seri-
ously should consider the title, and not the volume, as the unit for
reckoning cost.

The Grand Rapids Public Library was one of the first institutions to
measure cataloging in terms of time spent. In 1914 it reported the
lowest average time for cataloging as four minutes for fiction and
twenty-one minutes for nonfiction, not including that given to classi-
fication and card reproduction. In the same year a second attempt to
deal with the problem was made by the American Library Associa-
tion through a special committee. Titles were designated as production
units, cataloging was broken into thirteen operations, and costs were
calculated in time spent as well as in dollars and cents. The committee
submitted a detailed progress report in 1914 at the Washington con-
ference of the American Library Association. Eighteen libraries,
each cataloging 100 titles, were included in the test “to establish what
might be regarded as a fair cost and a standard method of cataloging.”
The results were unreliable and disappointing. The committee com-
plained that the libraries were too few, the sample of titles was too
small and not representative, varying conditions in the libraries were
not taken into account, the thirteen operations did not equal the total
effort devoted to cataloging, and administrative and overhead charges
were not calculated. A. G. S. Josephson reported on the costs of pro-
duction in terms of items cataloged and time spent in four groups of
libraries, viz., three large libraries of distinctive types, four university
libraries, seven large public libraries with branch systems, and four
smaller libraries. Three of the university libraries took issue with the
outcome as announced by the committee and published their own fig-
ures, which were significantly higher.

Not satisfied with the results obtained so far, the Catalog Section
of the American Library Association accepted the challenge that "the problem of cataloging costs must be attacked by catalogers themselves." A committee under the chairmanship of Ellen A. Hedrick based its recommendations on four preceding investigations: two questionnaires mailed by A.L.A. committees in 1924, one for the Library Survey and one in connection with the study of the Classification of Library Personnel; the work of an informal committee of the Section, with Paul N. Rice as chairman; and Adah Patton's report on the cost of cataloging at the University of Illinois. The questionnaire for the Library Survey was disappointing from the cataloger's standpoint. It did not provide definitions for the terminology used and did not differentiate between clerical and professional work. That for the Personnel Classification study too had only limited validity for the cost problem. One week's activity was reported and the time spent on the different operations was estimated, but the total amount of work done was not recorded.

In submitting his report at the Saratoga Springs conference of the American Library Association in 1924, Rice had made the following suggestions:

1. That a uniform system of cataloging statistics be established.
2. That relative costs of different steps in the process of cataloging 100 average books be ascertained according to the Josephson plan or a similar stop watch method.
3. That records be kept in the testing libraries of items cataloged and the proportion of time devoted to new work.
4. That the proportion of salary pay roll for this work be estimated.
5. That the result of the cost of the entire output be divided by the number of pieces to get a true average cost. That this result divided in turn by the average cost of 100 books be used as a factor to multiply the average stop watch figure for each step in the process.
6. That results from libraries of about the same size and with similar collections and use be compared: (a) Reference libraries 300,000-500,000; (b) Public libraries 100,000-300,000.12

Miss Patton13 calculated the unit cost of volumes cataloged at the University of Illinois Library for a three-year period, 1922-25. She defined "volume cataloged" to include every separate piece added to the catalog and shelf records. By dividing the salaries and wages of the department by the number of volumes cataloged, she arrived at 77.6 cents per volume. Five other large university libraries reported
Costs of Cataloging

for a two-year period, 1922–24, a unit cost per volume ranging from 50 cents to $1.08.

At the Seattle conference of 1925 Jennie T. Jennings, in the name of the committee, presented a “Plan for an Investigation into and Report on the Cost of Cataloging.” It identified in detail the six main factors which are involved in the cost of cataloging: administration, physical condition (equipment and conditions of work), hours of work, procedure, statistics, and cooperation between libraries (cooperative cataloging). According to it the most important single item for an analysis of cataloging cost is the breakdown of operations involved, and the following list compiled by a group of experienced catalogers is still valid:

I. Monographs
   1. Accessioning
   2. Searching for and ordering L.C. cards if obtainable
   3. Searching for correct form of heading
   4. Classification
   5. Cataloging, i.e., making one complete entry and indicating added entries and references, or correcting L.C. card to fit work in hand
   6. Shelf listing
   7. Revising
   8. Carrying out corrections
   9. Multigraphing cards
      a. under subjects and added authors
      b. in subsidiary catalogs
      c. in shelf list
   10. Writing up, if L.C. cards are obtained
      a. under subjects and added authors
      b. in subsidiary catalogs
      c. in shelf list
   11. Revising work, involves proof-reading cards
   12. Carrying out corrections
   13. Filing cards in preliminary files
   14. Filing cards into catalogs
   15. Tagging book, pasting in labels and pockets, plating books —may be complicated by the use of different kinds of plates according to the fund book is purchased from and also if book is a gift
   16. Marking call number on
      a. tag or label
      b. bookplate
c elsewhere in book  
d shellacing tags  
17. Extra labels such as Reserved, Not to be taken from library, etc.  
18. Writing charge cards  
20. Collating books  
21. Revising above processes  
May also involve  
22. Discarding duplicates, and correcting records  
23. Discarding imperfect copies, and correcting records  
24. Checking order list to avoid getting duplicates  
25. Indicating corrections and changes in catalog for uniformity or simplification  
26. Carrying out corrections  
II Serial work—i.e., work appearing at intervals more or less regular, not monographic  
A New series—process the same as in I  
B Continuing work, cards for which are in catalog  
1. Accessioning  
2. Withdrawing cards from catalogs and shelf list or from serial record if continuations are added to latter only  
3. Adding to cards, including shelf list  
4-11. Same as 7, 8, 13, 14, 15, 16, 17, 18, 19, 20, 21 for monographs  
III Serial work—monographic  
A New series  
1. Process same as I, and in addition  
2. Establishing series in catalog, same as I, 2-3  
B Series in catalog  
1. Process same as I  
2. Process same as II B, 2-11  
IV Periodicals  
A Assembling current numbers to form a volume  
1. Record in periodical file only  
2. Current numbers are displayed or  
3. Arranged in stack to await completion of volumes  
B Volume complete—process as in II  
C Recording wanting numbers, checking bills, etc. see IX  
V Analytical cataloging  
1. Indicated by cataloger  
2. Carried out by typist  
3. Revised by cataloger  
[ 294 ]
**Costs of Cataloging**

VI  Government publications, if accorded different treatment

VII Pamphlets accorded shortened treatment, e.g., inaugural dissertations

VIII Maps

IX Bill checking, stamping date of receipt, writing for wanting numbers, indexes and title pages, replacing imperfect copies, is properly the work of order division but may be handled by catalogers—or catalogers may have to furnish data to order department.  

The committee moved that a board be appointed to make an all-inclusive study of ways to reduce costs with the least harm to service. Necessary additional data for a nine-point study were to be obtained personally by an investigator and not through a questionnaire. The several avenues of research were identified as follows:

1. Intensive, comparative study of a selected number of catalog departments of two to three types and sizes of libraries.
3. Analysis of processes according to mechanical, clerical, and technical functions to be compared in terms of the method suggested by Rice (Item 5 of Rice’s proposal).
4. Analysis of administrative problems as affecting costs.
5. Analysis of interlibrary cooperative cataloging.
6. Establishment of a reasonable cataloging cost per volume in six to eight representative libraries, both according to type and size of library and in terms of mechanical, clerical, and technical work.
7. Definition of the terms “mechanical, clerical, technical”; study of their application and rate of times spent for each.
8. Study of cooperative methods in order to save the useless repetition of tedious and time-consuming processes.

The report was forwarded to the Council of the A.L.A. as “the final action and opinion of the Catalog Section.”  

Miss Hedrick’s committee submitted one of the most elaborate fact-finding proposals in the history of American cataloging. Seen in retrospect after almost thirty years, some features of the plan can be criticized, notably, the choice of volume instead of title as the unit of measurement; insufficient breakdown in describing the work of the professional cataloger (in contrast to the detailed listing of procedures...
in the theoretical introduction of the report, the research proposal lumps almost all activities together as "cataloging, i.e., bibliographical research, writing of one entry and indicating added entries and references"); and the location of searching for L.C. cards, ordering L.C. cards and shelf listing on the same technical level with cataloging and classification. The necessity of continuing all the services is dogmatically accepted, and no room is left for the question whether all are necessary and worth while. Nevertheless, the report is an impressive testimony of the earnest intention of American catalogers to reduce cataloging costs.

The survey of libraries conducted by the American Library Association in the mid-1920's had only negative importance for the present discussion. Few libraries reported cost accounting, and none did so for cataloging; most libraries were still scorning the idea. During the next ten years libraries rarely published processing costs; the statements which exist are brief, and limited to the figures of the reporting library. However, Elinor Hand provided data for the University of California Library. Cataloging expense per title (she called it volume) was 65.5 cents, that for complete processing 72.6 cents, and for recataloging 53.1 cents. Operating costs for the bindery were calculated at 21 cents per title; Ruth Wallace in a discriminating paper gave various suggestions on streamlining the organization of a catalog department. She noted, however, that "it seems useless to compile actual costs." The Rochester University Library reported its reclassification expenditure as 54.5 cents per title or 26.2 cents per volume. Bertha Buelow of the La Crosse, Wisconsin, Public Library calculated cataloging cost for a small sample of books. Her figures were for nonfiction 40 cents per volume and for new fiction 16 cents, about four-fifths of the money being used for salary. The cataloging of her first sample of fifteen nonfiction titles, mostly with L.C. cards, required eight hours and thirty-seven minutes. The professional cataloger spent seven hours and seven minutes, and part-time helpers one hour and thirty minutes. The average time to catalog one title was therefore 34½ minutes, i.e., 28½ minutes professional time and six minutes non-professional.

Not satisfied with these descriptive or narrative approaches, the Catalog Section repeated its request for a basic investigation. At the annual A.L.A. conference of 1934 Susan G. Akers read a paper, "A Plea for a Study of Actual Costs of Simple Cataloging." A motion
Costs of Cataloging

was carried to appoint a committee for such a project, but no further action was reported.

In an article which has become a classic in cost accounting, Fremont Rider reported for Wesleyan University Library a unit cost per volume, broken down as follows:

<table>
<thead>
<tr>
<th></th>
<th>Labor</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition</td>
<td>$0.20</td>
<td>$0.26</td>
</tr>
<tr>
<td>Accessioning (and preparation)</td>
<td>0.13</td>
<td>0.19</td>
</tr>
<tr>
<td>Cataloging</td>
<td>0.70</td>
<td>0.92</td>
</tr>
<tr>
<td>All technical operations</td>
<td>1.03</td>
<td>1.37</td>
</tr>
</tbody>
</table>

It is interesting to note that he computed the same costs for cataloging and recataloging. Calculated in terms of present day prices, all the figures would have to be doubled. Whereas Rider gave an accurate but not sufficiently detailed account of the costs to catalog one book in one library during one year, A. D. Osborn provided a keen theoretical analysis of the whole question. Two of his main points were that a compilation of unit costs has local value but does not bear directly on the problem of cost reduction, and that an investigation of the nature and purpose of the dictionary catalog is necessary to lead the way. He also deplored the ever-widening gulf between chief librarians and catalog departments. Harriet MacPherson too suggested a closer cooperation between administrators and catalogers, perhaps through a joint committee which would conduct or direct some of the studies proposed by Miss Hedrick’s group. With full justification, she defined solution of the costs of cataloging as an administrative and not purely a cataloging problem, in saying: “Catalogers . . . have started investigations of the cost of cataloging, but they can hope only to show the output through the figures which they provide; by themselves they cannot change the characteristics of the institution in which they work.”

In 1936 the committee of the American Library Association investigating cost accounting suggested the establishment of a statistical division at the Association’s headquarters to help libraries in their attempts to provide useful data, which theretofore had not been too successful. The committee took a rather dim view of the value of unit costs as published up to that time, stating: “While true cost accounting, with costs reduced to unit basis, is of value . . . , the conditions and procedures in libraries vary to such a great extent that at the present time results obtained by unit costs for various items, useful though
they may be for comparison from year to year within the same library, can prove of small value to any other library.”

In the same year R. A. Miller finished a doctoral dissertation which proved the feasibility of a minute analysis of cataloging cost in the spirit of the catalogers’ proposal of 1925. His data were compiled from elaborate weekly time-sheets, filled in by the entire staff of the technical departments of Iowa University during an eight-week period. No stop watch was used, but every precaution was taken to assure that the time was correctly accounted for to the nearest five minutes. Three of Miller’s tables—those showing direct labor time and cost for cataloging new books, direct labor time and cost for recataloging books, and cumulated labor costs with unit costs for distinct types of cataloging—summarize the important factors, but do not do justice to the exactness of his method. This can be ascertained readily by inspecting the time-sheet with its fifty-three questions.

The reaction to Miller’s publication was a mixed one. Deep respect and sincere appreciation of the work performed was mingled with great reluctance to apply his methods to the operations of other libraries. Many were taken aback by the complicated machinery and the effort involved to keep the records, although Miller had reported that the average weekly time a full-time staff member had spent was 31½ minutes, which he equated with 38 cents. Another question was what should be done with the information after the calculations had been made; for it cost Iowa University almost $1,000 to collect the rough data, and today it would amount to two or three times as much. Again, what administrative decisions would justify such an expense? If it was difficult to evaluate one’s own figures, it was even more frustrating to compare them with the data of another library.

Rider had calculated that recataloging was as expensive as new cataloging, whereas Miller stated that recataloging came to only 50 per cent of the price of new cataloging. Without knowing exactly the problems involved and the methods applied, the mere calculation of the figures remained for the administrator a non sequitur. Miller’s answer to this was his convincing and well-coined slogan, “control through information.” He also reformulated and carefully limited the purpose of cost measurement.

Unit times or unit costs are not, of course, the answer to our many questions of management, policy, and practice. In any one institution they are but evidences of a situation which must be further studied to reveal economies and best procedures. Unless there is a disposition on
Costs of Cataloging

the part of the institution conducting a cost survey to examine carefully the conditions which have resulted in the costs found, with a view toward improving these conditions, there is no virtue in cost analysis. Unit costs do not answer questions. They raise them.28

Then, having been appointed director of the University of Nebraska Library, he applied his methods to measuring the output of the cataloging department there.

Blanche P. McCrum29 presented some standards which were based on the experiences of middle-sized liberal arts colleges. Among her cost figures per volume cataloged are 67.5 cents for Grinnell College, 67.7 cents for Iowa State College (in 1929), and 72 cents for Mills College.

The Montclair Study, which is well documented by two publications, was an investigation of thirty-seven public libraries of medium size and was sponsored by the Montclair, New Jersey, Public Library, an institution whose name has become synonymous with daring application of modern machine methods, especially IBM machines. The survey of cataloging costs was published first.30 Emma V. Baldwin had hoped that the similarity of size and functions among the thirty-seven libraries would have caused a similarity of methods and terminology, "but the degree of rugged individualism which still obtains in libraries had not been fully appreciated." Nevertheless, she believed herself justified in presenting not only averages but a standard of reasonable accomplishment. The full process-time per title (accessioning, cataloging, and preparation) ranges from 124 down to 26 1/2 minutes, with an average of 68 minutes; the money expenditure fluctuates from $1.25 to 28 cents, the average being 70 cents. A processing time of 45.1 minutes for new titles and an average processing time for all titles of 37.4 minutes, including that for duplicates and replacements, was recommended as a standard for medium-sized libraries.

The complete report31 describes the magnitude of expenditure in time and money for the processing of books. The old statement that cataloging is the most expensive operation of the library is invalidated for the medium-sized public library. Only 15 per cent of the entire time of the staffs is spent for the technical processes of acquisition and cataloging, while almost three times as much is used for readers' services, i.e., those of circulation and reference work. Of the total expenditure for salaries, only 6.2 per cent was spent for cataloging, but 8.3 per cent for reference and 26.9 per cent for circulation. The complete distribution of staff time proved to be as below:
43.7 per cent to direct service to the public in information and reference service, assistance to readers, public relations, and circulation of books.

14.6 per cent to acquiring and organizing material for use.

17.8 per cent to keeping the collection in order.

12.5 per cent to administrative and office work.

5.8 per cent to miscellaneous duties.

5.6 per cent to time allowed for vacations, leave, etc.

Processing costs for high school libraries are obviously cheaper. Mary E. Crookston tabulated cataloging output from eleven high school libraries, the sample being distributed over the country and including schools of a great variety of sizes and types. She calculated a unit cost per title cataloged ranging from 12 to 72 cents, with an average of 34 cents, corresponding to unit time from 11.3 to 40 minutes and an average of 27.3 minutes. For college libraries C. B. Clapp computed an annual production per cataloger ranging from 800 to 3,000 volumes and a unit cost of 65 cents to $2.00 per volume. Maurice Tauber’s reclassification study confirmed Miller’s low figures for reclassification. He reported a unit price per volume recataloged running from 23.4 to 53.1 cents. Elsa De Bondeli observed that it was due to the accurate measurement of all operations that processing costs for the first shipment of books to the Biblioteca Benjamin Franklin in Mexico City were kept as low as $1.48 per title, including ordering and binding. Perrie Jones’s success in decreasing cataloging costs from 96 to 64 cents per volume was entirely due to technical shortcuts, short-cataloging, and economy in subject headings.

Patricia B. Knapp calculated the cataloging costs at Chicago’s Teachers College through dividing one year’s total labor cost by the number of pieces cataloged, and arrived at a figure of $1.13 for a new title and 72 cents per new volume. By applying Miller’s technique in an abbreviated form for a sample of thirteen days she arrived at significantly lower results. Her figures as given below, however, represent only costs for cataloging and classification, whereas the yearly average dealt with the entire processing.

<table>
<thead>
<tr>
<th>Cataloging and Classification</th>
<th>Title</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>with L.C. cards</td>
<td>$0.303</td>
<td>$0.152</td>
</tr>
<tr>
<td>without L.C. cards</td>
<td>$0.788</td>
<td>$0.388</td>
</tr>
</tbody>
</table>

Interesting statistical calculations based on production data have...
Costs of Cataloging

been published by Hazel Dean. Her initial sample consisted of forty-six libraries, of which only nineteen reported output in titles, ranging in size from 170,000 volumes to 1,800,000 and “showing enough uniformity in organization to allow statistical comparison.” In spite of the similarity the annual production per cataloger ranged from 608 to 2,471 volumes, or from 419 to 1,555 titles. Moreover, no relation could be found between output and size of library; for instance, the group of the largest libraries contained both the lowest and the highest number of volumes per cataloger. It was baffling, and quite contrary to a common assumption, that no statistical correlation could be found between output and the number of L.C. cards used. It was outside the scope of Miss Dean’s paper to explain all these facts; however, her final rhetorical question implies her answer: “... is it not more likely that ... [the difference] is due to more efficient methods and organization of the work within the catalog department or to differences in the quality of the catalog?”

The Washington University Library at St. Louis, Missouri, reported an appreciable decrease in cataloging costs within a three-year period, mainly through the application of three principles: a clear distinction between professional and clerical work, full acceptance of L.C. cards, and the formulation of clear instructions. The Pasadena, California, Public Library achieved a similar result by an improved coordination between the acquisition and cataloging departments. About 12,000 volumes were cataloged annually by a staff of three professional and 2½ clerical workers. The excellent spirit of the catalog department of Williams College made it possible to catalog yearly about 4,900 titles with one professional and one clerical worker. The large research libraries, however, continue to be preoccupied by rising costs of cataloging. Columbia University Library calculated for 1950–51 an expense of $3.66 per title, and the University of California Library for 1949 one of $3.34 per volume.

The Public Library Inquiry devoted a special publication to work measurement. In it the average time to catalog one title was calculated as follows: fiction, 16 minutes (range 13–21 minutes); nonfiction, 34 minutes (range 16–62 minutes); periodicals, 24 minutes (range 3–38 minutes). A large public library using no L.C. cards reported a total processing time of 73.7 minutes. Watson O’D. Pierce, the author of the report, also tabulated the time units for different operations performed in the catalog department of one library. His work, like others, confirms as follows the view that the financial impact of cataloging on
the total library budget is a small one: "It should be noted that the percentage of total time spent on cataloging is not high. It is very probable that too much time has been devoted to the discussion of cataloging and too little to other parts of the library operation." 

A recent study correlating the size of public libraries with the output of the individual cataloger came to the same negative result as Miss Dean's, which had been based on academic libraries. According to it there is an easily understandable relation between the size of a library and the number of catalogers employed. However, the volume of work performed by the individual cataloger is in no way related to the size of the catalog department, and "Differences between the libraries are more apparent here [volume of work] than at any other place in the study." The yearly output as calculated per cataloger ranges from 800 to 9,405 volumes, with the largest single group between 2,000 and 2,499 volumes yearly. Most small libraries have low production figures, but also the highest quota is reported by two small institutions. The larger libraries, with one exception, do not fall below the 2,500 mark, and the two largest ones have averages running between 5,000 and 5,999. The yearly production by title count ranges from 497 to 4,483 titles per cataloger. The largest single group—18 per cent—is in the bracket 800 to 999; 71 per cent of the institutions report between 600 and 1,799 titles per cataloger. On the whole the small libraries make a better showing. All the widely scattered high outputs are reported by small institutions; none of the larger libraries reaches the 2,200 title mark; and the two largest libraries are in the group next to the lowest, that of 600 to 799.

These results are interesting and worth remembering, but no conclusions can be drawn because the sample is too small. The comments on the ratio between the numbers of catalogers and the total professional staff of a given library are valid. The average cataloging department employs 6 to 7 per cent of the total professional staff and 8 to 9 per cent of the total clerical staff. In about three-fourths of the institutions the force of the public service departments is three times as large as the cataloging personnel. We have no up-to-date corresponding studies for academic libraries, but the ratio probably is 40 per cent for technical services and 60 per cent for public services.

Four groups of publications are summarized in the ensuing pages, because they bear only partially on the topic of this paper. From the large number of general treatises on library finance, but four are men-
Costs of Cataloging

tioned—two American\textsuperscript{48, 49} and two English.\textsuperscript{50, 51} Whereas American librarians pay much attention to unit costs, their English colleagues question the usefulness of such data. Typical is the remark by V. G. Pintress, "There is little profit to be derived from it [consideration of unit costs] directly, although it does sometimes show how the costs can be cut." \textsuperscript{52}

The major American textbooks on university and college library administration \textsuperscript{53-55} stress the value of cost measurement as providing information important in administrative control. W. M. Randall noted: "Unless the results of a process can be compared with its cost, it is difficult to see how a valid opinion concerning its actual value can be reached. . . . It may then be discovered that they [many services] are, in reality, expensive luxuries." \textsuperscript{56} L. R. Wilson and Maurice Tauber give a short chronological summary of studies on cataloging costs and conclude, "the administrator who is interested in an efficient organization will, through knowledge of costs, be in a position to be critical of established library practices, to review routines in relation to objectives, and to consider new ways of doing things." \textsuperscript{57}

Library surveys form an essential part of the professional literature of American librarianship. Their importance is discussed by Wilson and Tauber, in whose work a list of the most prominent ones is given. Within the last few years the findings of several more carried out at educational institutions have been published, namely, of those for the universities at South Carolina, Cornell, Stanford, New Hampshire, Montana State, and Notre Dame, and at Texas A. and M. College, Alabama Polytechnic Institute, and Virginia Polytechnic Institute. Similar compilations have been issued for public libraries, such as that of Los Angeles. Survey reports seldom deal with the unit costs of cataloging,\textsuperscript{58} but their judicious description and critical analysis of the technical services of a library may contain a wealth of important information. No basic study of cataloging practices, and of their functions and uses, can afford to bypass the substantial data they supply. The "rugged individualism" of libraries, largely influenced by the character, growth, and tradition of a given institution, is by no means mitigated by any desire of the librarians to conform to standards. Every survey confirms the belief that libraries, like books, are distinctive, and that resemblances are coincidental only. This situation has to be kept in mind in using the reports of different libraries for statistical calculations.
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1950-1951</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of titles cataloged.</td>
<td>6,458</td>
<td>6,805</td>
<td>7,300</td>
<td>7,569</td>
<td>7,916</td>
<td>7,58</td>
<td>8,211</td>
<td>8,972</td>
<td>9,394</td>
<td>9,547</td>
<td>9,611</td>
<td>11,022</td>
</tr>
<tr>
<td>Amount spent in catalog department.</td>
<td>$111,661</td>
<td>90,158</td>
<td>75,563</td>
<td>57,590</td>
<td>47,517</td>
<td>47,008</td>
<td>157,390</td>
<td>73,401</td>
<td>92,383</td>
<td>43,569</td>
<td>97,619</td>
<td>28,803</td>
</tr>
<tr>
<td>Professionals in catalog department.</td>
<td>5.5</td>
<td>6</td>
<td>7</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>6</td>
<td>5.5</td>
<td>6</td>
<td>10.5</td>
<td>5.4</td>
</tr>
<tr>
<td>Professionals in acquisition department.</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1.25</td>
<td>2</td>
</tr>
<tr>
<td>Clericals in catalog department.</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3.5</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1.75</td>
<td>0.25</td>
</tr>
<tr>
<td>Clericals in acquisition department.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.75</td>
<td>2.5</td>
</tr>
<tr>
<td>Production units for catalog only.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.75</td>
<td>4.05</td>
</tr>
<tr>
<td>Production units for catalog and all technical processes.</td>
<td>7.9</td>
<td>10.1</td>
<td>8.8</td>
<td>8.3</td>
<td>8.8</td>
<td>9.7</td>
<td>8.3</td>
<td>7.8</td>
<td>9.1</td>
<td>10.2</td>
<td>12.5</td>
<td>7.4</td>
</tr>
<tr>
<td>Unit output for catalog department.</td>
<td>817</td>
<td>709</td>
<td>830</td>
<td>912</td>
<td>900</td>
<td>820</td>
<td>989</td>
<td>1150</td>
<td>1032</td>
<td>936</td>
<td>751</td>
<td>1489</td>
</tr>
<tr>
<td>Unit output for all technical processes.</td>
<td>639</td>
<td>405</td>
<td>408</td>
<td>641</td>
<td>600</td>
<td>396</td>
<td>459</td>
<td>636</td>
<td>467</td>
<td>604</td>
<td>447</td>
<td>787</td>
</tr>
</tbody>
</table>

TABLE 1

Production of a Group of American College and University Libraries for 1950-51 and 1951-52
Costs of Cataloging

TABLE 1—Continued

<table>
<thead>
<tr>
<th>Number of titles cataloged</th>
<th>Amount spent through department</th>
<th>Professionals in catalog department</th>
<th>Clericals in catalog department</th>
<th>Professionals in acquisition department</th>
<th>Clericals in acquisition department</th>
<th>Professionals outside above departments, engaged in all tech processes</th>
<th>Clericals outside above departments engaged in all tech processes</th>
<th>Production units for catalog dept only</th>
<th>Production units for all tech processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>6,351</td>
<td>$67,385</td>
<td>5</td>
<td>5.5</td>
<td>1</td>
<td>1.5</td>
<td>1</td>
<td>1</td>
<td>8.3</td>
<td>11.8</td>
</tr>
<tr>
<td>6,566</td>
<td>110,901</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>9.6</td>
<td>16.8</td>
</tr>
<tr>
<td>7,126</td>
<td>65,656</td>
<td>6</td>
<td>3.5</td>
<td>5.5</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>8.1</td>
<td>11.7</td>
</tr>
<tr>
<td>7,813</td>
<td>68,201</td>
<td>5.5</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>9.7</td>
<td>20.1</td>
</tr>
<tr>
<td>8,325</td>
<td>55,857</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>8.8</td>
<td>13.2</td>
</tr>
<tr>
<td>8,326</td>
<td>67,538</td>
<td>4.5</td>
<td>13</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3.5</td>
<td>12.3</td>
</tr>
<tr>
<td>8,498</td>
<td>57,448</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>7.4</td>
<td>14</td>
</tr>
<tr>
<td>8,778</td>
<td>36,427</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>10.2</td>
<td>15.8</td>
</tr>
<tr>
<td>9,331</td>
<td>131,092</td>
<td>4.25</td>
<td>7.5</td>
<td>3.5</td>
<td>1.75</td>
<td>3</td>
<td>1</td>
<td>3.5</td>
<td>8.7</td>
</tr>
<tr>
<td>9,385</td>
<td>85,671</td>
<td>6.5</td>
<td>4</td>
<td>5.5</td>
<td>5.75</td>
<td>0</td>
<td>0</td>
<td>8.9</td>
<td>16.6</td>
</tr>
<tr>
<td>9,859</td>
<td>102,849</td>
<td>8</td>
<td>12.5</td>
<td>3</td>
<td>10</td>
<td>0</td>
<td>2</td>
<td>15.5</td>
<td>25.7</td>
</tr>
<tr>
<td>9,988</td>
<td>125,000</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>8.6</td>
<td>21.6</td>
</tr>
<tr>
<td>10,196</td>
<td>195,308</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9.4</td>
<td>16.6</td>
</tr>
<tr>
<td>10,671</td>
<td>93,037</td>
<td>6</td>
<td>11</td>
<td>1.25</td>
<td>1.75</td>
<td>1</td>
<td>2</td>
<td>4.75</td>
<td>12.6</td>
</tr>
<tr>
<td>11,580</td>
<td>118,280</td>
<td>6</td>
<td>5.5</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>9.3</td>
<td>20.3</td>
</tr>
<tr>
<td>12,222</td>
<td>183,284</td>
<td>12</td>
<td>14</td>
<td>6</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>20.4</td>
<td>39.8</td>
</tr>
<tr>
<td>13,049</td>
<td>51,662</td>
<td>5.25</td>
<td>3.25</td>
<td>3.75</td>
<td>2.25</td>
<td>0</td>
<td>0</td>
<td>7.2</td>
<td>12.3</td>
</tr>
<tr>
<td>14,052</td>
<td>136,586</td>
<td>7.25</td>
<td>20.5</td>
<td>6</td>
<td>23.5</td>
<td>0.2</td>
<td>1.5</td>
<td>19.5</td>
<td>40.7</td>
</tr>
<tr>
<td>14,146</td>
<td>68,279</td>
<td>12</td>
<td>11.5</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>2</td>
<td>18.9</td>
<td>33.4</td>
</tr>
<tr>
<td>14,959</td>
<td>111,820</td>
<td>9.3</td>
<td>9.3</td>
<td>3.1</td>
<td>3.5</td>
<td>4</td>
<td>2</td>
<td>14.9</td>
<td>21.3</td>
</tr>
<tr>
<td>15,003</td>
<td>72,967</td>
<td>4.2</td>
<td>5.75</td>
<td>4</td>
<td>1</td>
<td>0.5</td>
<td>7.6</td>
<td>11.3</td>
<td>2000</td>
</tr>
<tr>
<td>15,915</td>
<td>89,988</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>12.6</td>
<td>26.4</td>
</tr>
<tr>
<td>19,365</td>
<td>149,583</td>
<td>14</td>
<td>13</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>19.4</td>
<td>36.5</td>
</tr>
<tr>
<td>18,115</td>
<td>102,500</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>10.2</td>
<td>22.6</td>
</tr>
<tr>
<td>18,295</td>
<td>192,805</td>
<td>11</td>
<td>9</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>16.4</td>
<td>28.4</td>
</tr>
<tr>
<td>19,526</td>
<td>91,620</td>
<td>10</td>
<td>3</td>
<td>5.5</td>
<td>4</td>
<td>5.5</td>
<td>4</td>
<td>11.8</td>
<td>27</td>
</tr>
<tr>
<td>20,646</td>
<td>195,000</td>
<td>15</td>
<td>11</td>
<td>10</td>
<td>8.5</td>
<td>0</td>
<td>0</td>
<td>21.6</td>
<td>36.7</td>
</tr>
<tr>
<td>20,723</td>
<td>97,513</td>
<td>6.5</td>
<td>11</td>
<td>3</td>
<td>5.6</td>
<td>1</td>
<td>9</td>
<td>13.1</td>
<td>25.9</td>
</tr>
<tr>
<td>22,017</td>
<td>147,525</td>
<td>15.7</td>
<td>12.3</td>
<td>2.4</td>
<td>18.9</td>
<td>2</td>
<td>13.9</td>
<td>23.1</td>
<td>47.2</td>
</tr>
<tr>
<td>22,449</td>
<td>23,166</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>9.4</td>
<td>20</td>
</tr>
<tr>
<td>23,353</td>
<td>116,067</td>
<td>7.7</td>
<td>13.1</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>15.6</td>
<td>23</td>
</tr>
<tr>
<td>24,342</td>
<td>101,236</td>
<td>8.5</td>
<td>10</td>
<td>2</td>
<td>7.5</td>
<td>0</td>
<td>0</td>
<td>14.5</td>
<td>21</td>
</tr>
<tr>
<td>26,172</td>
<td>153,826</td>
<td>16.25</td>
<td>11.5</td>
<td>2</td>
<td>9.5</td>
<td>1</td>
<td>1.75</td>
<td>23.1</td>
<td>33.2</td>
</tr>
<tr>
<td>28,615</td>
<td>147,157</td>
<td>13</td>
<td>10</td>
<td>8</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>34.2</td>
</tr>
<tr>
<td>29,920</td>
<td>113,488</td>
<td>10</td>
<td>8.5</td>
<td>1.75</td>
<td>11</td>
<td>1</td>
<td>4</td>
<td>15.1</td>
<td>26.8</td>
</tr>
<tr>
<td>29,976</td>
<td>346,958</td>
<td>18</td>
<td>20</td>
<td>9.5</td>
<td>12</td>
<td>2</td>
<td>5</td>
<td>20</td>
<td>51.7</td>
</tr>
<tr>
<td>33,056</td>
<td>171,699</td>
<td>22.5</td>
<td>21</td>
<td>5</td>
<td>7.5</td>
<td>1</td>
<td>2</td>
<td>35.1</td>
<td>46.8</td>
</tr>
<tr>
<td>34,125</td>
<td>230,887</td>
<td>25</td>
<td>24.5</td>
<td>4.75</td>
<td>22</td>
<td>1</td>
<td>8.75</td>
<td>39.7</td>
<td>63.6</td>
</tr>
<tr>
<td>38,508</td>
<td>328,765</td>
<td>30.5</td>
<td>22</td>
<td>23.5</td>
<td>17</td>
<td>3</td>
<td>5</td>
<td>43.7</td>
<td>83.4</td>
</tr>
<tr>
<td>39,737</td>
<td>372,446</td>
<td>21.5</td>
<td>26</td>
<td>17</td>
<td>25</td>
<td>8.36</td>
<td>26.27</td>
<td>37.1</td>
<td>93.2</td>
</tr>
<tr>
<td>45,960</td>
<td>199,644</td>
<td>33</td>
<td>30</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td>51</td>
<td>68.6</td>
</tr>
</tbody>
</table>

*Production units are calculated by giving every professional staff member the value: 1, and every clerical staff member the value: 0.6.
†Unit output is calculated by dividing the number of titles by the number of production units.
The fourth group of material, which provides the best over-all view of production and cost in catalog departments, consists of the annual reports of individual libraries. Instead of quotation from such reports, however, a tabulation of the cataloging output of a selected group of college and university libraries is presented here in Table 1, the figures having been collected through direct correspondence with members of the Association of Research Libraries. The idea was that by concentrating on a group of large academic libraries which have much in common a fairly uniform picture would develop. This turned out not to be the case. Differences in definition and administrative organization have proved so conspicuous that the tabulation of output cannot be regarded as an instrument of comparison, but only as a means of easy surveying. Naturally it is the privilege of an individual library to evaluate its own efficiency by comparing its output with that of a selected sister institution, after a careful analysis has showed the likeness of the libraries as regards definitions, structures, and material processed.

In the project referred to, the title has been selected as the unit of work. Measurement is in titles cataloged and not in funds spent. The money value has been disregarded because of the frequent salary changes; besides, it would have penalized the libraries which pay the better salaries. However, the actual cost can be calculated easily by dividing the average professional salary through the unit output. Clerical positions have been assigned the arithmetical value of 0.6 because the ratio between the average professional salary and the average clerical income is frequently 1 : 0.6. The calculation of column 12 is based on the entire staff employed in technical services, on the supposition that the ultimate usefulness of all technical operations to a given library lies in the number of titles (acquired, cataloged, or recataloged) which are readied for circulation. Librarians who do not accept this viewpoint can disregard column 12.

These considerations have excluded the feasibility of statistical calculations, but some general observations are permissible. The range in output between the forty odd libraries is too great to be explained by differences in terminology. The reason for the wide variation must lie elsewhere.

The libraries represented in the sample are research libraries of national standing. We therefore can assume that the catalog departments have equal professional competence, and that the work they
perform follows a uniform pattern. The libraries differ in magnitude, however, and tabulation proves again that cataloging output is not a function of the size of the institution. Furthermore, while the library buildings show great variation in terms of obsolescence, no significant relation based on this factor could be inferred. We can, therefore, conclude that the discrepancy in output is mainly caused by variations in cataloging policy.

Only a few contributions to the problem published outside the United States are to be found. As already stated, English librarians are sceptical. For instance, J. H. Pafford, in a positive and sympathetic review of Miller’s “Cost Accounting” for the Year’s Work in Librarianship, concludes: “The costs of details of library service have not been carefully worked out and, indeed, may be of relatively small importance.” Incidentally, no other mention of cataloging cost appears in the entire run of this important yearbook. J. S. Parsonage, too, doubts the value of “weighted work units and cost accounting.”

The chapter on cataloging in the great German Handbuch does not treat cost, and alludes to economy only in the closing paragraph: “Time and money saving methods lie mainly in cooperation, unification and standardization.” Frels’s erudite history of cataloging in Germany discusses in some noteworthy passages cataloging theory, but not cost. The University Library at Hamburg calculates for 1949–51 a unit cataloging cost of about 50 cents per volume, but because of salary differentials, this figure has to be tripled to become comparable with those of American libraries. A Polish study on a library in Danzig reports a time unit of ten minutes for cataloging plus an additional five minutes for classification.

Unit cost is a mathematical generalization and therefore does not do full justice to individual cases. Moreover, it is a quantitative measurement, and the qualitative imponderabilia which do not lend themselves to arithmetical calculation are unsatisfactorily considered. This is one of the reasons that most American libraries have been lukewarm about setting standards of production. Some report work experiences, but many are dead set against “any production quotas in any department of the library because it would interfere with the flexibility of work assignment and would be resented by the library staff.”

For her ideal library, which she thought of as using L.C. cards for 95 per cent of its cataloging, Margaret Mann estimated as output per hour:
FELIX REICHMANN

Cataloging  5 titles
Typing headings  100 cards
Typing cards  38 cards

Columbia University Library reports as its production:

Cataloging per hour, with L.C. cards  5.3 titles
Cataloging per hour, without L.C. cards  2.7 titles

Cornell's experience of work performed in one hour is:

Searching (one operation for acquisition and cataloging): 10 titles
Cataloging:
  L.C. cards, with classification  6 titles
  L.C. cards, without classification  4 titles
  Without L.C. cards  3 titles
  Recataloging, with L.C. cards  4 titles
  Recataloging, without L.C. cards  3 titles

Card production:
  Stencil typing  25 cards
  Card typing  40 cards
  Headings  100 cards
  Headings, with card corrections  60 cards
  Filing  100 cards

Other clerical work:
  Ordering typing  60 orders
  Volumes checked in from bindery  100 volumes

The minimum standards of performance per hour of the library of the Department of Agriculture are:

Searching for cataloging: 15 titles
Cataloging (includes descriptive and subject cataloging, classification, and assigning book number: separates and serials): 2 titles
Catalog—revision (includes descriptive and subject cataloging, classification, and original stencil or typed card): 4.2 titles
Catalog—typing: Preparation of stencil or typed card from information on Process Form and publication (includes all corrections, catalogers and typist): 7 titles

[308]
### Costs of Cataloging

Other typing:
- Cutting stencils for copies: 17 stencils
- Typing cards: 25 cards
- Completing cards (stencilled cards or L.C. cards): 42 cards
- Typing book plates and labels: 50 cards

Miscellaneous:
- Running stencils: 25 stencils
- Ordering or receipting L.C. cards: 30 titles
- Card pulling (includes preparation of Card Out slips): 25 cards
- Pasting and accessioning publications (includes accessioning shelf-list cards): 26 volumes
- Unpacking, checking, and pasting materials returned from bindery: 30 volumes

Preparation revision:
- Stencils for copies: 50 stencils
- All volumes (includes revision of cards and publications): 25 volumes

Filing:
- Catalog card arranging for filing: 208 cards
- Catalog card filing (unrevised): 100 cards

Based on the experience of five large libraries, the following minimum standards can be suggested:

- Cataloging, with L.C. cards: 5 titles
- Cataloging, without L.C. cards: 2 titles

Card reproduction:
- Typing stencils: 20 cards
- Typing headings: 75 cards
- Filing cards: 100 cards

These standards, like everything else, have to be applied with common sense. As is true of any statistical measurement, they are tools—not idols to be worshipped. It would be unrealistic to multiply the norms by the number of hours in a work week and to assume a corresponding output. Rest periods, staff meetings, and inevitable interruptions are bound to make an appreciable dent in the hours of work. The most important consideration is that human beings are not machines which can be set at a given speed and be expected to produce a uniform product. The best results will be achieved by an understand-
ing supervisor who has the confidence and the respect, and therefore
the loyalty of the staff. This by no means implies that every member of
the catalog department should have freedom to decide how much
time can be spent on the cataloging of one title, or that the concern
is with quality alone and not with the quantity of output. A reasonable
equilibrium between quality and quantity has to be found, since the
acquisitions program of research libraries makes it imperative that
close attention be given to the sum total of titles cataloged.

Cataloging is an intellectual activity which demands knowledge,
judgment, and initiative, and every plan to increase the output must
take these factors into consideration. Three approaches can be taken:
to encourage a progressive spirit in the catalog department, to stream-
line the administration of the department, to change basic policy.

For most modern catalog departments, it will be hardly necessary
to stress the first point. Catalogers as a group are not complacent
about their work, but have a professional, critical attitude and are
eager to adopt new methods. No other group in librarianship has
devoted so much energy to a critical self-evaluation. Nevertheless,
it remains one of the foremost duties of a department head to sus-
tain and further professional responsibility in every staff member,
both with regard to total output and to accuracy of the individual
entry. Specific reasons warranting nonfulfillment of minimum stand-
ards should be established.

Head catalogers have paid much attention to the second point in
the last years. Undoubtedly we all are far from perfection and it will
need constant alertness to maintain a high level of efficiency. The
recent survey of the preparation division of the New York Public
Library 69 is a case in point, showing how much can be achieved by
applying methods of management engineering. The main efforts have
been directed toward modernization of the physical plant to make
possible smoother flow of material, acceptance of work simplification
methods, elimination of overlapping operations (such as verification
of entry), careful work assignment, and shortcuts in descriptive cata-
loging.70

A significant decrease in cataloging costs, however, can only be
achieved by a change in policy, especially with regard to subject
approach. It is beyond the authority of the technical services to effect
such a change because it would necessitate adjustments on the part
of public service departments. Not even such a moderate alteration
of rules as suggested by B. H. Branscomb 71 for college libraries could
Costs of Cataloging

be authorized by a catalog department without incurring heavy protest from other members of the library staff.

The department most affected by any change in cataloging rules is that concerned with reference work. The development of reference service in American libraries is closely related to the growth of subject approach to the library holdings, as represented in dictionary catalogs and close classification. By tradition and practice, accordingly, the work of the cataloger is slanted toward the needs of reference work, as implied in the statement that her main thought “is what she can do to better serve the reference librarian.” Presumably nothing would be gained and much might be lost if a curtailment of cataloging operations should mean only a transfer of labor and expense to the reference department, although no cost figures are available to decide the point.

J. C. M. Hanson is the most outspoken representative of catalogers who do not believe that substantial shortcuts in cataloging would be economically sound. He has said:

... an honest and experienced librarian is not satisfied to meet a demand for reduction in cataloguing costs by saying that he has succeeded in cutting the costs twenty-five cents per title, without at the same time informing his trustees that the reduction had been achieved by omissions and curtailment which must necessarily reduce the efficiency of the catalogue and place additional burdens on other divisions of the library, notably the reference department—not to mention the public. Obviously, the information omitted from the catalogue must be supplied from other sources if called for. It should not be difficult to see that in the long run it will be cheaper to have the facts ascertained and supplied by the catalogue department, equipped and trained for the purpose, than to have the reference librarians, frequently high-salaried assistants, go through the bibliographical investigations omitted in regular routine not only once, but repeatedly, and usually under pressure of time and other limitations likely to affect the results.

Reference librarians are almost unanimously opposed to any drastic cut in cataloging operations. Nobody, of course, is against economy per se, but the group is convinced that any essential modification of cataloging rules would decrease the service potentialities of libraries as a whole and increase the burden on reference departments. For instance Isadore Mudge, although in principal very sympathetic to cataloging economy, summarizes her attitude: “In an experience
of more than thirty years in different types of college and university libraries, I have yet to find any item of information called for in the rules for adequate description of the average book, which some reader, of his own accord, will not make good use of.” Helen Purdum 76 goes even further, in the words: “Was there ever a catalog with too many analytics?” “... there should be a title card for every book, as well as cards for all subtitles, alternate titles, and cover titles; plus a generous use of series cards.” A library administrator 77 therefore concludes: “I... come to believe that insistence on costly standards for public catalogs stems not from catalogers primarily but from staffs in reference departments.”

Although some of these views are based on long experience in successful reference departments, they must be characterized as opinions. W. H. Brett 78 has tried to work out the facts. His investigation, confined to one reference department, led him to the conclusion that “Had the [reference] librarians been denied the use of the [subject] catalog, they would have been able to perform their work of aiding students in their search for material and information very nearly as efficiently as they did.”

Brett’s findings are probably valid for other libraries, yet whether it would mean increased costs for reference departments has not been settled. It is therefore necessary to look for additional data concerning the use of the catalog by the general public. Susan G. Akers 79 has shown that most college students do not understand bibliographical abbreviations, and Miller’s study 80 has confirmed that many added entries (such as those for editor, illustrator, and series) are seldom utilized. Merritt 81 investigated the use made of the subject catalog at the University of California and deduced: “... if subject cataloging were to be dropped for all foreign books and for all English books more than twenty years old, subject-cataloging load would be reduced immediately by 65 per cent. The efficiency of the subject catalog in terms of books circulated with its help would progressively decline to a level not lower than 80 per cent of its present effectiveness.”

The previous literature on the subject, summarized by Merritt, confirmed his findings that the subject catalog is only of relative importance. The conclusion is warranted that the observance of all rules for descriptive and subject cataloging is not the condition sine qua non for the usefulness of a library. Modifications could be made without impairing service potentialities. It presumably is true that every descriptive detail and every subject relation brought out by the catalog

[312]
Costs of Cataloging

card will be used on some occasion. However, it is doubtful whether we should therefore apply elaborate rules to most books at all times.

No evaluation of operational costs is realistic and meaningful unless the final product is taken into account. The question whether cataloging costs are too high depends lastly on an evaluation of the dictionary catalog and of close classification. Catalogers have been eager to adopt new methods of production; they are no less willing to translate new policies into cataloging operations. It is up to the library profession as a whole to formulate these policies.

References


[313]


25. Ibid., p. 92.


Costs of Cataloging

36. De Bondeli, Elsa: Backstage; Behind the Scenes of the Biblioteca Benja-


38. Knapp, Patricia B.: A Cost Study in the Preparation Department of a

39. Dean, Hazel: Size of Cataloging Staffs in Academic Libraries. *College and

40. Orne, Jerrold: We Have Cut Our Cataloging Costs! *Library Journal*, 73:

41. Jones, Helen J.: Cataloging Short-Cuts in the Pasadena Public Library.
*Journal of Cataloging and Classification*, 5:6-7, Fall 1948.

42. Wright, W. E.: Cataloging in a Period of Economic Stringency. *Journal

43. Direct communication from Columbia University Library.

44. California. University. General Library: Cost of Cataloging for Libraries on
the Berkeley Campus. (Catalog Inquiry Memo No. 3) Berkeley, The Library,
1949.

45. Pierce, W. O'D.: Work Measurement in Public Libraries. New York,
Social Science Research Council, 1949.

46. Ibid., p. 33.

47. Personnel in Catalog Departments in Public Libraries. *Journal of Catalog-


49. Baldwin, Emma V.: *Cost Accounting in Public Libraries; Manual*. Mont-
clair, N.J., 1939.


51. Gray, Duncan: *Public Library Finance*. (Practical Library Handbooks


53. Randall, W. M., and Goodrich, F. L.: *Principles of College Library Ad-
ministration*. 2d ed. (University of Chicago Studies in Library Science) Chicago,
University of Chicago Press, 1941.

54. Wilson, L. R., and Tauber, M. F.: *The University Library, Its Organiza-
tion, Administration, and Functions*. (University of Chicago Studies in Library

H. W. Wilson, 1949, chap. 4.


57. Wilson and Tauber, op. cit., p. 177.

58. McDiarmid, E. W.: *The Library Survey; Problems and Methods*. Chicago,
American Library Association, 1940, pp. 38-46.

60. Parsonage, J. S.: Some Aspects of Economic Public Library Administra-
62. Frels, W.: Die Bibliothekarische Titelaufnahme in Deutschland. Leipzig,
Harrassowitz, 1919.
Quoted from a personal letter from W. Bauhuis, University Library Heidelberg.
64. Danzig, Bibliotheka miejska: Rules About Standards of Library Service.
Bibliotekara, 17:118-119, August 1950.
65. Opinions voiced in oral and written communications by librarians who
had been asked to inform the writer on the production quotas of their libraries.
66. Mann, Margaret: Introduction to Cataloging and Classification of Books.
2d ed. Chicago, American Library Association, 1943, p. 266.
(Mimeographed)
68. Information supplied by R. R. Shaw, Librarian of the Department of
Agriculture Library.
69. Cressap, McCormick, and Paget: The New York Public Library, Survey of
70. Pritchard, Jennie D.: Practice of Simplified Cataloging in Large University
Service, 1951.
71. Branscomb, B. H.: Teaching with Books. Chicago, American Library As-
sociation, 1940.
1876 to 1933. (ACRL Monographs No. 2) Chicago, Association of College and
73. Jacobsen, Anna: The Cataloger Looks at the Reference Librarian. Library
74. Hanson, J. C. M.: Sound and Unsound Economy in Cataloging. Library
Library Association. Division of Cataloging and Classification: Catalogers' and
76. Purdum, Helen L.: What the Reference Department Expects of the Catalog
77. Ulveling, Ralph: Catalogers Can Stop "Cold War." Library Journal, 74:
9-11+, Jan. 1, 1949.
78. Brett, W. H.: The Use of the Subject Catalog by the General Reference
Service of the University of California Library. Unpublished M.S. Thesis, University
of California, 1949, p. 55.
79. Akers, Susan G.: To What Extent Do the Students of the Liberal Arts
Colleges Use the Bibliographical Items Given on the Catalog Card? Library
687, July 1942.

[316]
Costs of Cataloging


ADDITIONAL REFERENCES

Substitutes for the Card Catalog

C. D. Gull

If this paper had been written 75 to 100 years ago its title could have read "The Card Catalog Is Superseding Manuscript, Sheaf, and Printed Catalogs," for during that period the now familiar dictionary card catalog was gradually developed, and by 1900 it had displaced virtually all other forms of library catalogs in the United States. Few librarians doubted its superiority in 1900, yet many question its arrangement today and seek substitutes for both that and its material form.¹ ² We are concerned here with the physical aspect of alternatives for the card catalog, and only incidentally with the arrangements which may be in use. There does not appear to be a trend toward any device which will replace the card catalog in the near future as the basic record of each library.

The record-keeping world has learned from librarians the real advantages of a card catalog, based as they are on recording one unit of information on one card, duplicating the card in quantity, and filing copies of it in as many places as are necessary. The advantages and disadvantages deserve recapitulation below, to serve as background for what is to follow:

Advantages.

1. Flexibility. A new card can be inserted at any point in the catalog at any time, or a card can be removed.
2. Currency and completeness. Because of flexibility, a card catalog always can be maintained and revised to any degree of currency and completeness of which the catalogers are capable.

Disadvantages.

1. Difficulty of consultation. Only one card can be seen at a time. Guide cards in a catalog tray, even when freely used, are a poor substitute for an arrangement seen on a page.
2. Limited availability. Card catalogs are so difficult to prepare,
Substitutes for the Card Catalog

distribute, and maintain that it is impractical to provide duplicates outside the library systems to which they apply. The principal attempt at such duplication, the deposit of Library of Congress printed catalog cards in author order only, grew to 105 sets in forty-five years, yet eighty-seven libraries have given up the maintenance of their depository catalogs since 1947, when the same information was made available in book form.

Printed library catalogs afford the converse of the advantages and disadvantages of the card catalog. They are easy to consult because many titles and the plan of arrangement can be seen on the opened pages, and they are widely accessible since they may be published in many copies. They are never current and complete, because additions are impossible once the pages have been printed. Yet the advantages of printed catalogs are those desired by scholars, while those of the card catalog are those which are of greatest convenience to librarians in administering their libraries. A good many surveys confirm this observation by showing that scholars do not make as much use of the dictionary catalog as they do of printed bibliographical sources of information.

Unfortunately for librarians and scholars, library technology has not advanced to the state where a combination of orderly arrangement, flexibility, currency and completeness, ease of consultation, and widespread availability can be provided for any library's catalog, or for that matter for any union catalog showing the contents of many libraries, or for any indexing and abstracting service, or for any bibliography. In actuality, library technology has succeeded only in refining and combining the techniques which were known a century ago. Thus, the sheaf or loose-leaf manuscript catalog provides a compromise between the ease of consultation of the printed catalog and the flexibility and currency and completeness of the card catalog; and when the leaves are printed, the loose-leaf catalog has the further advantage of widespread distribution. The cumulative plan of publishing catalogs in book form furnishes a further compromise which overcomes the difficulty of maintaining a loose-leaf catalog but introduces the necessity of consulting a succession of alphabets if a complete search is desired. Strangely enough, the most modern and advanced substitutes for the card catalog employ the earliest form of record used in libraries, a chronological list of receipts, better known to librarians as the accessions record, because they entail sequential scanning of the complete compilation to locate information. Since an
accessions list offered no orderly author-title-subject approach, librarians gave it up long ago as a means of access to their collections and adopted various orderly arrangements—first, classifications and then alphabetic subject headings and alphabetic arrangements of author and title entries—because it was not practical to read the entire record for every search. Whereas an accessions record grew only at one end of the sequence, the orderly arrangements expanded anywhere within themselves. This situation was a real obstacle in catalog production until the card catalog provided a practical solution to the problem of unrestricted growth.

The new machines which accomplish sequential scanning of the complete record rapidly enough to be practical employ electronic devices to achieve their speed. They include two International Business Machines sorters,\textsuperscript{10, 11} which search 650 cards per minute; the Rapid Selector,\textsuperscript{12-15} which scans 500 feet of microfilm or 120,000 choices a minute; and the various electronic analog and digital computers,\textsuperscript{16-19} whose records consist of charges on wire, tape, and disks. There is already sufficient experience with the sorters and the Rapid Selector to assure the recovering of information by using them. While experts have asserted that computers can be used for storing and recovering bibliographic information, there has been no experimental confirmation of their claims.

The new machines are commonly thought of as solving the problem of subject control; and while they could be employed in searching for author and title entries, they are not being used experimentally in that way now. Yet our research librarians know that author and title entries are fully as valuable and as frequently used as are the subject entries in their catalogs, especially in the present state of cataloging and bibliography. It cannot be said, moreover, that a complete record by subjects will make author and title records unnecessary, for they are legitimate objects of search and identification in themselves. A universal catalog or bibliography will need all three kinds of entries. If the machines are viewed as opening up the possible achievement of a universal catalog, a little arithmetic soon reveals that one scanning of a universal catalog with any of the machines will still require many hours and probably many days to accomplish.\textsuperscript{20} A realization of this situation has already led to searching several questions on the sorters for each use of the complete record, thus dividing the operating time by the number of questions which can be asked simultaneously.
Substitutes for the Card Catalog

The alternatives to a conventional card catalog really are few. They are:

1. Sheets (Books)
   A. Bound printed catalogs
      a. Successive editions
      b. Basic catalog plus supplements
      c. Cumulative editions
   B. Loose-leaf manuscript and printed catalogs

2. Punched Cards (fully mechanized)

3. Continuous Strips
   A. Microfilm
   B. Magnetic Tape and Wire
   C. Magnetic Disks

Table 1 details the values of these devices.

The author is aware of the publication of catalogs in book form to supplement card catalogs, but of no instance in recent years in which a card catalog has been superseded by one of the substitutes in Table 1. History has so far confirmed Charles Martel’s opinion, expressed in 1926 when he was chief of the Catalogue Division at the Library of Congress: “. . . there are probably few among us that entertain any doubt that so far as the physical form is concerned, the card catalog is on the whole the best for the library’s principal catalog and for general use. The arrival of the printed card has indubitably settled the question—at least for the time being.” “It is time to get accustomed to the idea that the great centralized catalog is worth its keep. . . . The card catalog may need to be kept in bounds by printing comprehensive book catalogs—to which the card catalog may be the supplement for the current accessions.”

Martel foretold accurately the action which was taken by the Library of Congress twenty years later, in stating: “The most wanted labor saving device in the business of making catalogs has not yet been found—it is a relatively cheap process of photographic or other faithful reproduction of the printed catalog card—typographical reprinting is unreliable and comparatively expensive. When we have that process one of our most serious problems will have been solved.” In the late 1930’s a committee of the Association of Research Libraries, with William Warner Bishop as chairman, proposed the photo-offset reproduction of Library of Congress printed catalog cards in one alphabet
# C. D. Gull

## TABLE 1

**Strengths and Weaknesses of Various Alternatives to Card Catalogs**

<table>
<thead>
<tr>
<th>Name of Record</th>
<th>Physical Form</th>
<th>Arrangements Possible</th>
<th>Flexibility of Interlocating New Entries</th>
<th>Currency and Completeness</th>
<th>Ease of Consultation</th>
<th>Widespread Availability</th>
<th>Speed of Searches in Subject Arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card catalog (3 x 5)</td>
<td>Cards</td>
<td>1. Numerical 2. Accessions 3. Alphabetic 4. Dictionary 5. Classified</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor—only one entry visible at a time</td>
<td>Impractical—too expensive to distribute and maintain</td>
<td>Slow</td>
</tr>
<tr>
<td>Punch cards (fully mechanized)</td>
<td>Cards</td>
<td>1. Numerical 2. Accessions 3. Alphabetic 4. Dictionary 5. Classified</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor—require mechanical searching for some types of information</td>
<td>Impractical—too expensive to distribute and maintain cards; requires machine installation at each place of use</td>
<td>Medium</td>
</tr>
<tr>
<td>Manuscript sheaf catalogs</td>
<td>Loose-leaf book</td>
<td>1. Numerical 2. Accessions 3. Alphabetic 4. Dictionary 5. Classified</td>
<td>Poorer as entries become more crowded; leaves must be rewritten or retyped</td>
<td>Excellent</td>
<td>Good, if leaves are rewritten or retyped to preserve order</td>
<td>Impractical to make copies</td>
<td>Medium</td>
</tr>
<tr>
<td>Microfilm</td>
<td>Continuous strip</td>
<td>1. Numerical 2. Accessions</td>
<td>None</td>
<td>Excellent</td>
<td>Poor—requires Rapid Selector plus photographic laboratory equipment</td>
<td>Poor—expensive to duplicate film; requires expensive machinery for searching</td>
<td>Very fast</td>
</tr>
<tr>
<td>Magnetic tape, wire, disks</td>
<td>Continuous strip</td>
<td>1. Numerical 2. Accessions</td>
<td>None</td>
<td>Excellent</td>
<td>Very poor—requires costly searching equipment, provides slow printing of answers</td>
<td>Very poor—costly searching equipment</td>
<td>Undetermined; probably very fast</td>
</tr>
</tbody>
</table>
Substitutes for the Card Catalog

arranged by author entry. The activities of this committee resulted in the publication of A Catalog of Books Represented by Library of Congress Printed Cards Issued to July 31, 1942, and later its Supplement, Cards Issued August 1, 1942 to December 31, 1947, altogether 209 volumes of about 600 pages each. Familiarly known from the publisher’s name as the Edwards Catalog, this set, recording about 2,500,000 titles at once, took its place among the great book catalogs of the world.

The success of the Edwards Catalog, and the realization that its depository card catalogs represented a burden most depository libraries could not long afford to bear, lead the Library of Congress to seek means of continuing the publication of its cards in book form as well as their sale for use in card catalogs. The depository catalogs had been valued as a contribution to bibliography from the first, and issue of the cards in books was advocated as an extension of this. During the investigation Theodore Besterman visited the Library of Congress, and responded to its invitation to suggest a method by advocating a printed loose-leaf author catalog. In his article, “The Library of Congress and the Future of its Catalogue,” he wrote:

Any acceptable solution of this problem must satisfy the following conditions: (1) the resulting catalogue must be complete; (2) it must always be up to date in one alphabet; (3) it must be universally available; (4) it must be convenient to use; (5) it must economize space; and (6) it must not be unduly costly.

I now venture to submit a solution which appears wholly or partly to fulfil all these conditions. . . . The proposal, in brief is this:

that an entirely new catalogue be set up in loose-leaf book form; that the type of the catalogue be kept standing; that the type of new catalogue entries be continuously incorporated in the standing type; and that at agreed intervals, monthly or perhaps even weekly, every page in which any change has been made should be reprinted and substituted for the original page in the catalogue.22

The Library of Congress studied the matter seriously, and encountered the following disadvantages, in addition to the reservations expressed by Besterman in his article:

1. Whereas the Edwards Catalog had been reproduced by photo-offset lithography from cards prepared during forty-five years of printing, there was no type standing for 2,500,000 entries from which the basic sheets could be printed. In 1946 it was estimated that com-
C. D. Gull

position, proofreading, typemetal, and storage facilities to put 2,500,000 entries into standing type would cost over $3,000,000.

2. The Government Printing Office was unwilling to hold so much standing type, and in addition, was unwilling to adopt a cumulative plan of publication which would have involved holding type for periods of even five years.

3. The expense of printing new leaves and of inserting them into costly loose-leaf binders for several hundred sets was considered to be greater than subscribers would care to pay.

The Library of Congress also was aware of the potentialities of fully mechanized punched card installations, of the Rapid Selector for high speed subject searching and reproduction of selected information, and of the rapid development of electronic computers, but these were recognized as inadequate for making the catalog widely available. The cumulative catalog method, adopted late in 1946, was a carefully chosen compromise which took advantage of conditions peculiar to the Library of Congress to obtain the best results possible in printing a book catalog from catalog cards. Photo-offset lithography was considered the most effective printing method, and it was readily available at the main buildings of the Government Printing Office. Philip L. Cole, then Director of Planning there, suggested that a great deal of space could be saved, in comparison with the Edwards Catalog, which reproduced only eighteen cards to the page, if the slugs of type could be rearranged to eliminate the white spaces before the cards were photographed in page form. Secure in the knowledge that the rearrangement could be done in the Branch Printing Office, located in the Library’s Annex Building, Cole and R. C. Smith invented the Card Aligning Device on which the cards could be laid out and taped to cardboard to form pages for the camera, at about thirty-eight or thirty-nine entries per page.

The Library then adopted the following schedule of cumulative publication for what is now called the Library of Congress Author Catalog: *

* Effective with 1953, the Library’s book catalogs are issued in five sections and have consequently undergone another change of title:

The Library of Congress Catalog—Books; Authors
The Library of Congress Catalog—Books: Subjects
The Library of Congress Catalog—Films
The Library of Congress Catalog—Maps and Atlases
The Library of Congress Catalog—Music and Phonorecords

[324]
Substitutes for the Card Catalog

Monthly Issues: January, February, April, May, July, August, October, November, and December.

Quarterly issues: January–March, April–June, July–September. (The January–March number replaces that of January and February, for example.)

Annual volumes. These replace the three quarterly and three monthly numbers which make up one year’s issues.

-ennial volumes. The largest cumulation to date is quinquennial, now in preparation to replace the annual volumes of 1948 through 1952.

The adoption of the cumulative style of publication solved the problems of flexibility and currency and completeness by requiring the user to consult more than one alphabet, but provided alphabets which are large enough to compensate for the need to consult several. The adoption of the printed book format meant that any arrangement could be used for the entries, that searching could be done faster than in any card catalog, and that users outside the Library of Congress would have the catalog available in what has since proven to be eight times as many locations as formerly. Sixty-three sets, of both the Author Catalog and Subject Catalog, are used within the Library.

The value of adopting a method which permits any arrangement was demonstrated in 1950, when the Library of Congress Subject Catalog was first published. Its entries are alphabetically arranged by the subject headings regularly assigned and traced on the cards. Variations of the cumulative catalog technique are used in the Library of Congress for its copyright catalogs; and further variations, employing a numerical record plus author and subject indexes, are utilized in the Department of Agriculture Library and the Armed Forces Medical Library to publish the Bibliography of Agriculture and the Current List of Medical Literature, respectively.

Since no library catalog is a complete record of the holdings of its library, and since few catalogs provide more than limited subject access to the cataloged material, librarians and scholars rely heavily on bibliographies, indexing services, and abstracting services, and on the published catalogs of large libraries, for access to information in their own libraries and for notice of information contained in other libraries. Collectively these published catalogs, bibliographies, in-

Each of the last three sections will contain an alphabetic subject index referring to the main entries in alphabetic order for full information about the cataloged materials.
dexes, and abstract journals are more than a substitute for the card catalog, as just noted, yet there is no evidence that any one or any combination of the current publications in this field can be used to replace the card catalog of any research library or of any large public library. All libraries have possessed publications for many years which are not listed in these services, and notably acquire them currently before they are listed. No published register is likely to supersede, for flexibility, currency, and completeness, a library's individual card catalog as an author record of its materials. It is too difficult, for one thing, to transfer the list of a library's holdings from one edition of a catalog to a later edition, or from a number of small cumulations to a larger cumulation. It can be considered impossible to display a library's holdings in any of the services which are arranged by subject, when they do not show the headings or class marks under which individual entries are made; and impractical even if such entries are traced, as they are to a very large extent in the Library of Congress Author Catalog.

A test was made at the University of California Library at Berkeley to ascertain whether the Library of Congress Subject Catalog, which has been since 1950 the world's most comprehensive listing of general publications in a subject arrangement, could be substituted for its subject card catalog without recording California's holdings in the printed volumes. The report on it includes the following:

The results of this investigation give partial support to the idea of substituting the LC Subject Catalog for our own subject cataloging. A sample comparison of the cards and LC Subject Catalog for the letters A and B, excluding UC theses, shows that 65 percent of the locally manufactured subject entries produced in 1950 were found in the LC Subject Catalog for 1950. On the other hand, of the 2,789 1950 imprints in letters A and B of the LC Subject Catalog for 1950, only 16 percent were found in the CU file. Other parts of the investigation showed that as time goes on more and more UC acquisitions appear in the LC Subject Catalog and theoretically it can be assumed that in the course of time substantially everything acquired by the University of California will appear in the LC Subject Catalog. Nevertheless, this information is imbedded in the record of vastly larger LC acquisitions and the probability of increasing numbers of abortive searches by users of the LC Subject Catalog as a local substitute is certain.

Consequently, it has been concluded that the substitution of the LC Subject Catalog (and for more recent publications, the Cumulative Book Index) for local subject cataloging is not feasible.24
Substitutes for the Card Catalog

The daily experience of the Union Catalog Division staff in using the National Union Catalog at the Library of Congress provides another view of the great complexity of what has been termed bibliographical control. That catalog, with some 12,300,000 cards representing approximately 8,500,000 titles held in hundreds of U.S. and Canadian libraries, is the most comprehensive author catalog in existence. There is no accurate information of how complete a record it provides of North American holdings, but year after year the staff is unable to locate 25 per cent of the requests which reach it by mail, telephone, and personal inquiries. This record is not an undue reflection on the catalog and its staff, but rather emphasizes the remarkable improvement over the record of thirty years ago, when 75 per cent of similar requests could not be located. The present effectiveness is achieved with the additional aid of any catalog, bibliography, or indexing and abstracting service which the individual searcher chooses to use; but balanced against these remarkable resources are exceedingly difficult searches, for most of the titles have been sought by competent librarians in their own libraries before being sent to Washington on behalf of the persons needing the material, most of whom are well qualified in their own subject fields.

Since the National Union Catalog was microfilmed in 1952, and can be purchased in its entirety on 2,706 rolls at a cost of $10,824, for use in any microfilm reader accommodating 16 mm. film, it is physically available to any library as a substitute for its author catalog. There have been no purchases to date, however. In spite of its comprehensiveness and usefulness for locating books, there are the following disadvantages to the microfilm copy:

1. It is expensive, although not prohibitively so for very large research libraries.
2. It is filmed in several alphabets.
3. Although current receipts are filmed, they cannot be photographed in convenient arrangements.
4. It must be used in a microfilm reader.
5. Although a majority of the cards bear classification symbols, subject headings, or both, these are not coded, and consequently the film copy cannot be searched by subject with the Rapid Selector.

Are these disadvantages sufficient to prevent purchase, or has its undetermined incompleteness prevented purchase?

Published library catalogs, bibliographies, and indexing and abstract-
C. D. Gull

ing services have been recognized almost since their first appearance as supplements to the catalog of any one library, and as the possible foundation of a universal catalog or bibliography. In recent years librarians have been seriously concerned about the deficiencies of these tools, which may be summarized as inadequate coverage and inadequate analysis (both author and subject); uneconomical duplication of entries by various individual publications; lack of currency; uneven distribution of the published volumes; and the high expense of production, purchase, and use. With the weaknesses so numerous it would seem that none of the services could be of much value, yet most of them are self-sustaining and actually are invaluable to their purchasers and users.

One of the favorite indoor sports of the library profession is to discuss and publish remedies designed to achieve the international integration of bibliographical services. A true measure of the difficulty of solving the problem, however, is that none of the efforts undertaken in the past century has succeeded, and that there is no plan which enjoys any widespread approbation and support at the present time. There is a most comprehensive survey which brings the reader to 1950 in Bibliographical Services, Their Present State and Possibilities of Improvement, prepared by Verner W. Clapp and Kathrine O. Murra for the Unesco/Library of Congress Bibliographical Survey. Neither that nor this paper, however, indicates that any technique will become available in the near future to replace the card catalog as a library's basic record, or that there will be an improvement over photo-offset reproduction of catalogs in cumulative book form as a means of publishing a library's catalog.

References


[328]
Substitutes for the Card Catalog


Training of Catalogers and Classifiers

MAURICE F. TAUBER

Two relatively recent questionnaire surveys, the first by E. J. Humeston in 1951 and the second by Clyde Pettus in 1952, provide a useful body of information for discussing recent developments in the teaching of cataloging and classification. It is the purpose of this paper (1) to summarize various aspects of these two surveys, (2) to review the comments of other observers and critics of the present cataloging instruction in library schools, (3) to describe in some detail the programs at Illinois and Columbia and to comment on that at Chicago, and (4) to present statements of a selected group of supervisors on the competence for cataloging of graduates of one library school. It is believed that together these approaches should serve to isolate and focus attention on some of the major problems in the current training of librarians for responsibilities in cataloging.

Humeston Survey. In a study of instructional programs in cataloging and classification, Humeston wrote to one or more instructors of the subjects in 35 accredited library schools. Humeston was interested in learning of (1) any important changes in emphasis in connection with 18 named subdivisions included in a checklist, (2) any important revisions in teaching methods, and (3) the effect of the new Library of Congress Rules for Descriptive Cataloging on the teaching of the subject.

In connection with emphasis, which Humeston tabulated carefully on the basis of the 18 subdivisions, it was found that a decrease in laboratory work was notable in 23 of the 30 reporting schools. Such work, of course, is part of the method, rather than a unit of the subject. Less stress was also noted in at least four schools on analytics, unit cards, and personal names. Greater emphasis was placed on nonprint materials (23 schools); the principles and theory of cataloging (20 schools); understanding the use of card catalogs (19 schools); organization and administration of catalog departments (18 schools); principles and theory of classification, cooperative and centralized cataloging, and literature and tools of cataloging (14 schools for each); subject head-
Training of Catalogers and Classifiers

ings and substitutes for the card catalog (13 schools for each); study and practice in L.C. Classification (11 schools); and classification systems other than that of Dewey, and printed cards (9 schools for each). Emphasis in 20 or more schools was unaltered for unit cards, personal names, corporate names, analytics, and serials.

Important changes in teaching methods included the use of opaque projectors to reduce laboratory work and hand correction of student cards, cataloging of actual collections, reading periods with one or more problems as a theme, term papers on administrative problems, panel discussions, and student introductory reports on special cataloging problems, such as the handling of music scores or recordings. One instructor conducted a survey to determine what the head catalogers of large public and academic libraries in the area expected of cataloging instructors.

Humeston reported severely contrasting opinions on the usefulness of the new L.C. Rules. For example, some find the illustrations helpful, but others report that they are so few in number and so poorly placed that mimeographed sheets and slides must be provided to depict many problems. Some report that the rules are easy to use—simple, concise, logical, and making the teaching of cataloging a “happier task”—but an equal number of respondents find them more difficult, less logical, ambiguous, and confusing.

Pettus Survey. Also employing a questionnaire directed at accredited library schools, Pettus was concerned with eight topics: (1) the organization of the undergraduate course, (2) preparation of the person to be considered for a cataloging position, (3) proportion of time given to descriptive and subject cataloging, including classification, (4) acceptance of the fifteenth (standard) edition of the Decimal Classification, (5) use of the L.C. Rules for Descriptive Cataloging, (6) utilization of visual aids, syllabuses, model cards, slides and filmstrips, (7) time devoted to history of cataloging and classification, and (8) extent to which discussion of the literature of cataloging and classification is included. The last two topics were suggested in an article by P. S. Dunkin entitled “Petty Codes and Pedagogues.” Following is a résumé of some of Pettus’ findings:

Of the 34 schools replying, six offered undergraduate courses only, while 13 maintained graduate programs alone. Fifteen schools provided both undergraduate and graduate courses. In the 21 schools reporting undergraduate courses, cataloging and classification are taught
as separate units. In the 13 schools with graduate programs, 12 offer
the two topics in a single course.

Of 26 schools providing information, 18 indicated that elective
courses over and above required ones were necessary for recommenda-
tion to cataloging positions. Data from 15 schools showed that 60 per
cent more time was devoted to descriptive cataloging than to subject
cataloging and classification. In required graduate courses, more time
is given to subject cataloging.

Replies indicated that 20 out of 29 schools reporting continued to
use the fourteenth edition of Dewey for instruction or reference. Of
these 20, eight also used the fifteenth edition.

The L.C. Rules are employed in 21 of the 34 schools; eight schools
use these rules for reference but follow simpler ones for problem work.
Most of the institutions utilize syllabuses and model cards; eight employ
slides in instruction. Attention to the history of cataloging and class-
ification, as well as to the literature of the subjects, is provided prac-
tically everywhere.

It may be observed from the above findings that there is consider-
able diversity in the approach of faculty members teaching cataloging
and classification. As Pettus pointed out, undoubtedly there is much
experiment going on. The reorganization of curricula also has had
some effect upon the content of the courses, particularly where under-
graduate instruction has been introduced.

Other Observations. A study of old examination questions given to
students of cataloging reveals careful attention to rules, especially as
set down in the American Library Association code. Students were
frequently called upon to memorize such rules, and teaching was done
according to them. Laboratory drill was essential, since it was assumed
that it simulated situations which develop in actual cataloging de-
partments. There has been a tendency to get away from this pedagogi-
cal approach. Gladys Boughton 4 is among those who have criticized the
old method of teaching “by the rules.” She writes: “Today, in the study
of cataloging, the beginning is made, not with the rules, not with
the principles, but with the objectives of cataloging and the problems
to be solved.” She further notes that catalogers who are brought up on
rules will continue to seek the support of a fixed statement, rather than
find answers to problems in their own setting. Lucille Duffy,5 however,
insists that rules must be learned thoroughly before catalogers
can proceed intelligently.

The difficulty of resolving a controversy of this sort is obvious. Much
Training of Catalogers and Classifiers

depends on ingredients of the teaching program which escape surface analysis. Much also hinges on the caliber of teacher and student, and especially on the willingness of the student to think in graduate and professional terms of work, rather than in those which become college students. Miss Duffy’s observation that students get their first basic course in cataloging only when they have their first job is not without truth. The important point, according to Miss Duffy, is that catalogers produced by library schools should be “aware that cataloging is a continuing process and . . . know that they must be prepared to carry on the process, if their services are to be of any practical value to their employers.”

Three other observers of problems in the teaching of cataloging are Bertha Barden,6 Sister Frances Clare,7 and, as already indicated, Dunkin. Miss Barden has opposed the training of catalogers as specialists, and made a plea for more “general practitioners.” She has pointed out that by the omission of routine problems and by placing less emphasis on details, cataloging can be made more appealing to library school students. She also has called attention to the possibility of introducing “preprofessional requirements,” such as the study of the use of the card catalog and a “superficial survey of the Decimal Classification.” Sister Frances Clare indicated that the two major implications of the new programs of library schools for cataloging were the improvement of instruction by removing those elements which were not fundamental to professional consideration, and the expansion of a cataloging course so as to devote more emphasis and time to the advanced study of cataloging problems.

Dunkin, highly critical of the New Codes, bases his convictions on the declaration that “Crisis demands not a restatement of tradition but a brand new outlook.” Instead of a veneration for tradition, catalogers should develop a “creative scepticism.” He opposes the old form of drill and attention to technical details, which detour students from concern with the real problems of cataloging. He fails to see any innovations in current courses, even if they have been given such titles as “organization of materials” or “bibliographical control.” His proposed program of instruction would involve, in addition to other things, introduction to principles in a few lectures, using audio-visual aids, and actual cataloging in libraries which will work in cooperation with the library schools. He suggests building master’s courses around two general themes, namely, the history of cataloging and classification, and a survey of cataloging and classification theory. Dunkin believes that a
plan such as he describes will relieve the teacher of the burden of revision, reduce the number of offerings needed, give the instructor time to keep up to date with developments in cataloging, allow him to gain practical experience in different kinds of libraries, and provide him with the leeway to carry on research, to ask questions, and to think.

Evidence that the training of catalogers is considered important by administrators is found in observations by Jerrold Orne, Quincy Mumford, and F. H. Wagman. Orne, presenting the viewpoint of an academic library administrator, noted that in general courses have been modified very little, although with perhaps more emphasis being placed on principles and theory. He called attention to the fact that present day texts, such as the L.C. Rules and the A.L.A. Rules, are so organized that the teaching of principles rather than method is required. Orne also observed that changes in cataloging methods, such as centralized cataloging in the Veterans Administration and the St. Louis County Library, justify different curricula in different schools, and that a premium is placed on understanding. Orne also indicated that librarians themselves would still have to be trained in the style of the individual library.

Mumford, who based his remarks on experience at the Cleveland Public Library with approximately twenty-five recent graduates, suggested that perhaps too much was being crowded into the new curricula, and that students cannot understand and apply research without the comprehension which comes from practice. As a corrective device he proposed that they write a required thesis in the second year while not in residence, or that supervised field practice be substituted for the research paper. Wagman, of the Library of Congress, pointed out that at present it is difficult to assess catalogers or compare them with those of the past. Since there is no possibility of setting up a control group, judgment is likely to be subjective.

Illinois and Columbia Programs. Two recent studies by Kathryn Luther and Thelma Eaton describe in some detail the cataloging courses at the University of Illinois. The new program differs from earlier ones in that cataloging is primarily an elective subject and that the amount of drill has been reduced. Two types of courses are offered at Illinois: (1) the so-called practical courses, those designed to teach students to produce catalogs and to classify collections, and (2) courses designed with the view of examining classification and cataloging from an historical point of view and making a critical study.
Training of Catalogers and Classifiers

of catalogs and classification schemes. Courses in the first group are prerequisite to those in the second. The background desirable for cataloging includes undergraduate preparation and complementary library courses, languages, knowledge of words, familiarity with books, knowledge of reference work, and principles of library administration.

The basic course, on the undergraduate level, does not prepare the student to be a cataloger, but provides him with a foundation for the further study of cataloging. It is "an integrated approach to cataloging and classification." Emphasis is on the mastery of the tools that must be used in actual work. The card form is the first unit of study. An introduction to corporate entries is given, but no practice. Principles of classification are taught, and the physical aspects of Dewey are stressed. Memorization of Dewey numbers is reduced to such parts of the schedule as might be serviceable to librarians working in service departments of the library. Subject headings are introduced, and some time is devoted to the problems commonly encountered of adjusting existing codes and schedules to meet the needs of a given library.

The second cataloging course at Illinois proceeds to more advanced work, "to more complicated author entries, to more corporate entries, to serials as well as books, to extended drill in the Dewey Classification, to an introduction to the Library of Congress Classification, and to much more practice in subject headings." Also, there is study of existing policies as established by libraries of various sizes, and an evaluation of the work of cataloging departments. Codes are applied to given situations. The Dewey and L.C. classifications are used in practice. Students who complete the course are considered to be qualified as competent catalogers.

In the third course, two-thirds of the semester is spent on the cataloging and arranging of special types of materials. The remaining part is devoted to problems of administering a catalog department.

At Columbia, the effort has been to relate the courses in cataloging and classification to the entire professional curriculum. Methods, including cataloging and classification, comprise one of the four major areas of study, the other three being foundations, readers and reading, and resources or materials. There are other courses on either a required or elective basis.

The methods area of the professional program includes two courses, i.e., a survey entitled "Technical Services," and "Organization of Materials." Actually there have been introduced in these many aspects of librarianship which were included formerly in such courses as College
MAURICE F. TAUBER

and University Libraries, Public Libraries, and Special Libraries. Some material which was once taught in the second year is included, since it is believed that most of the students will come to think of the professional program as terminal, and all should have some familiarity with the basic problems librarians have been wrestling with for many years.

The content of each of these courses may be examined. In the survey course, which entails primarily lectures and readings and has discussion groups meeting once a week, students become acquainted with the problems involved in acquiring books and other materials for libraries and preparing them for the shelves. They are guided to think in terms of acquisitions, cataloging and classification, binding, preservation, and photography. There is also included a unit on the methods of circulation work.

In the cataloging and classification portions of this survey course, efforts have been made to lead the students to an understanding of the following:

1. Functions of cataloging.
2. The differences among certain types of catalogs.
4. Different arrangements of catalogs.
5. Understanding of basic differences in filing codes.
6. The idea of personal authorship.
7. The idea of corporate authorship.
8. The recognition problem of entry for anonymous works, pseudonymous works, foreign names, governmental publications, Bible, ecclesiastical titles, and similar entries.
9. The various kinds of added entries, i.e., those by subject, title, and name.
10. Distinction between bibliography and cataloging.
11. Elements of descriptive cataloging (introduction to L.C. Rules for Descriptive Cataloging).
12. Recognition of approach of different kinds of users (research, school, public).
14. Recognition of aids to subject cataloging, such as lists.
15. General practices of subject cataloging.
16. Subject cataloging for different kinds of users.
17. Essential records in subject heading work.

[336]
Training of Catalogers and Classifiers

18. General principles of classification.
19. Relation of classification to subject cataloging.
20. Aids for classifiers, such as shelf list, and codes.
21. Classification in different types of libraries.
22. Relation between cataloging and acquisition departments.
23. Understanding of such matters as inventory, reclassifying and recataloging, union catalogs, cooperative cataloging, selective cataloging, simplified cataloging.
24. Cataloging problems in branch and departmental libraries.
25. Understanding of some of the problems in operating a catalog department (e.g., use of printed cards, reproduction of cards).

These represent a long list of concepts that the instructor must be concerned with in a relatively brief period, especially since time is also devoted to the other technical services. Limitations applying to lectures, class discussions, exhibits of certain forms and other materials, readings, and examinations (even if these are rather comprehensive) have suggested that the course would be more effective if there were available certain additional tools. Among these are a comprehensive manual on practices and problems in technical services, which is in process of compilation, and well-worked-out slide materials and appropriate motion picture films. There should be available also a laboratory where new methods and machinery could be tested and exhibited.

The course on organization of materials in libraries is primarily concerned with subject cataloging and classification. It consists of two main parts: (1) classification and subject cataloging, and (2) special problems of entry.

In the first part attention is given to such topics as the process of classification and the properties of classification systems, particularly L.C. and Dewey; and the procedure of assigning subject headings and the properties and limitations of subject heading lists, including Sears, L.C., and such special lists as those of Clyde Pettus and M. J. Voigt. After general introductions there are three units concerned with the application of principles of subject analysis to actual titles (1) in humanities and fine arts (using literature and the N class of L.C.), (2) in social sciences, using the economics division in Dewey and L.C. and that of history in the two classifications, and (3) in science and technology, using chemistry and engineering classes in Dewey and L.C. as points of orientation. It is expected that students will get some help in understanding the nature of the materials in each of the major
subject divisions of knowledge through the resources courses which they take concurrently. They are required to work on from twenty to twenty-five titles in each of the major divisions—assigning Dewey and L.C. class numbers, and adding subject headings and references. The problems are spaced one or two weeks apart, with periods for discussing difficulties met in the work.

In the second part of the course attention is given to the relationship between bibliography and cataloging. Here the class draws upon knowledge acquired in the reference and bibliography course and in the resources courses. Particular stress is laid on the difference between bibliographical entry and cataloging entry. The catalogs of the Library of Congress, the British Museum, and the Bibliothèque Nationale, and the Gesamtkatalog, and the Wing and Pollard and Redgrave lists, together with the Surgeon-General's catalogs and similar tools, are brought into the instruction.

In this part of the course time is devoted also to a more detailed study of anonymous and pseudonymous works, anonymous classics, difficult types of names (such as foreign names and changed names), and manuscripts. There likewise is concern with entries for serial publications, and with the organization and cataloging of governmental publications, maps, music, and films. Attention too is given to the cataloging of materials emanating from European countries, and for those in non-Roman alphabets. Finally, the general practices in simplified cataloging are clarified.

At Chicago, instruction in the elements of cataloging and classification is part of a general course captioned “Interpretation, Evaluation and Use of Library Materials.” Problems in cataloging and classification are taken up also in courses dealing with the several major subject areas, i.e., social sciences, humanities, and natural sciences. There is in addition a course known as “Advanced Cataloging and Classification,” which concerns the treatment of special materials, the Library of Congress Classification, and principles of organizing and administering catalog departments. A seminar entitled “Theory and History of Classification” involves “Examination and criticism of the major systems of classification from the earliest times to the present with particular emphasis on their influence upon the classification and subject cataloging of books.”

Examination of the programs for cataloging instruction in library schools suggests that there is at present some desirable variation in
Training of Catalogers and Classifiers

approach. The literature also indicates an effort on the part of teachers to prepare graduates so that they will be able both to interpret catalogs to users and to prepare entries that are adequate for the purposes of a library. There appears too to be increasing concern for the catalog as one of the several means of gaining access to the contents of libraries. Finally it may be noted that there is a definite effort on the part of instructors, as well as by the Library of Congress and other libraries, to produce manuals, textbooks, and codes which will be useful both for pedagogical and practical purposes.

Observations on Graduates. A systematic study of the graduates of a school furnishes one way of judging a teaching program. The evaluation, of course, should take into consideration certain important factors relating to the individual, such as his background, experience, language facility, feeling for accuracy and details, ability to discriminate in treatment of materials, patterns of work, promptness, and general liking for cataloging. Last year, in preparation for a program on the teaching of cataloging, letters were written to eight librarians who had worked with twenty-six recent graduates of the Columbia University School of Library Service, all of whom had gone into cataloging full time or had been called upon to use their knowledge of cataloging in other services. The replies were generally along the lines one would expect. Those students who exhibited a marked interest in the principles and theory of cataloging in class work and in their achievement on problems usually were praised by their supervisors. Those who had demonstrated toleration for cataloging as a course and had performed on a minimal level were criticized by their supervisors as not being careful with details, as lacking knowledge of certain records, and as having difficulty translating theory into practice.

The head cataloger of a large library in a special subject field made the following pertinent remarks about a cataloger:

Mr. S—— compares very favorably with earlier graduates of Columbia in his preparation for the work of the section. He seems to have a good understanding of both cataloging principles and practice. He seems to know his rules adequately, and does not refer to them any more often than other beginning catalogers, including those trained under former methods. He seems also to have a good foundation for his subject work, judging by his work and his comments. His reviser finds no lacks in his training, and my observation bears this out. To what extent this is due to Mr. S——'s own efforts, we cannot say. He admittedly concentrated on cataloging, and enjoyed it. We believe, too,
MAURICE F. TAUBER

that he has considerable native ability. In short, he came to us quite adequately prepared for cataloging.

It may be added that much depends on the orientation program of a library as well as on the quality of the student. In the time at present allotted to cataloging and classification library schools cannot teach all possible variations in descriptive and subject cataloging and in classification. The extent to which a library staff is able to absorb new personnel smoothly, the atmosphere of cooperation and assistance, the existence of staff manuals and recorded decisions, and the organization of facilities for work, all are important, therefore, in making the most of the potentialities of newcomers. Especially if a library departs widely from standard practice, it will need to take an active part in training, and to allow more time to adjust the beginner than would be necessary otherwise. As in other professional fields this kind of guidance can be most productive if the new appointees have had prior relevant experience, or possess special knowledge, or are aware of the purposes, principles, and current thought pertaining to their work, or are flexible in fitting into new situations; but it is essential even under the most favorable conditions.

It is fitting to close this discussion with an observation made by the late Pierce Butler in a paper presented before the Ohio Valley Regional Group of Catalogers. The activity of the cataloger in the field of bibliography is important, noted Butler, but it is not an end in itself. The effective cataloger is always a librarian first. This is the point of view that some library schools have taken in recent years.

References

Training of Catalogers and Classifiers

Cooperation and Centralization

LUCILE M. MORSCH

For the purpose of this discussion, cooperative and centralized cataloging will be limited to cataloging undertaken to serve the needs of several libraries. Centralization of cataloging within a single system of libraries, such as that of a university having a central and many departmental libraries, or a city library system that encompasses the public library, its branches, and perhaps libraries in the schools, will not be considered. Nor will the various cooperative projects that result in union catalogs or lists be taken into account unless they also produce entries capable of being incorporated directly into the catalogs of the receiving libraries, since otherwise these libraries still have to do their own cataloging, for all practical purposes.

Centralized and cooperative cataloging are often confused, partly because a cooperative project involving more than two libraries needs a central office to coordinate the work and distribute the product. Nevertheless, it should be kept in mind that centralized cataloging is that which is done by a single library or other agency for the use of a number of libraries. Cooperative cataloging is done in two or more libraries for the benefit of each participant and may be made available to others. Thus, the H. W. Wilson Company in New York, which prints catalog cards for sale to subscribers, is a centralized cataloging agency. The Library of Congress serves as a centralized cataloging agency by making the catalog cards that it prints for its own needs available to card subscribers. It also sponsors a cooperative program by inviting other libraries to contribute card copy for printing, by editing this copy so as to correlate it with other entries on Library of Congress cards, and by printing and distributing to subscribers the cooperatively produced cards.

There seems to be general agreement that centralized cataloging is to be preferred to cooperative cataloging for reasons of increased uniformity, more prompt availability of cards, and economy of operation.

Miss Morsch is Deputy Chief Assistant Librarian of Congress.

[342]
Cooperation and Centralization

In the absence of a completely centralized system, however, cooperative cataloging plays an important supplementary role.

The primary requisite for any cooperative or centralized cataloging or classification is a high degree of uniformity in the participating libraries. Indeed, the maximum benefits can be obtained from centralization only when uniformity is complete and all individual preferences of librarians and their institutions are foregone. Likewise, in cooperative cataloging there must be an effort to contribute parts that will fit together in a standardized whole.

Economic and other pressures have forced librarians to look beyond their own institutions for help in providing bibliographic controls of their own collections. The waste that results from unnecessarily duplicated efforts when each library does its own cataloging has been widely recognized. At the same time, many closet doors have been opened to reveal skeletons in the form of uncataloged, uncontrolled “arrearages.”

The lack of qualified catalogers and the high degree of technical specialization needed in this field of library work have also been factors contributing to an increased willingness to accept a standardized system of cataloging and classification. Some librarians (fewer apparently in the United States than elsewhere) who formerly believed fervently in cataloging and classification tailored to their own particular institutions, have even come to agree that a ready-to-wear product may be preferable. Their inability to employ the subject specialists and catalogers with all the linguistic competence needed has made them look more critically at their homemade classification schemes and subject heading lists and forms of cataloging.

History and Present Status. The history of centralized cataloging reflects the increase in standardization in libraries, from the promising but unsuccessful proposals of the nineteenth century, before standardized cataloging rules, lists of subject headings, classification, or even card sizes had begun to be developed, to the system employed by the Folkesbibliotekernes bibliografiske Kontor (Bibliographical Office of Public Libraries) which was established in Denmark in 1939. This independent institution, governed by a board of representatives from the Library Association and the Ministry of Education, with the Director of Libraries as chairman, catalogs and classifies all the current Danish books that are thought to be of interest to the public libraries, as well as selected earlier titles included in booklists it prepares as selection lists for public libraries of certain sizes. In 1950/1951 it printed 692,355 and sold 657,250 cards to almost 500 subscribers.
In Norway, centralized cataloging is combined with centralized buying on the part of the state-aided school and rural public libraries. Each book ordered by these libraries through the Folkeboksamlingenenes Ekspedisjon is accompanied by one copy of its catalog card. Additional copies of the card may be purchased, and subscriptions are sold for the complete output. In addition, the Deichmanske Bibliothek in Oslo prints its catalog cards and makes them available, by subscription, to other libraries.

Printed catalog cards for the six to seven hundred most important Swedish imprints published each year have been available to Swedish libraries since 1933 through the cooperation of the Sveriges Allmänna Biblioteksförening and the Skolöverstyrelsen (Board of Education). Wider coverage and more prompt service were achieved through cooperation with Svensk Bokföretekning, which began in 1948. When the Bibliotekstjänst was established in Lund in 1951, this organization took over the work. Libraries may subscribe for the complete service or for individual sets of cards by title, and the supplying of book cards and pockets has been started. Of special importance is the fact that in Sweden all public libraries, practically all school libraries, and some special libraries use the same classification system, the Klassifikationssystem för Svenska Bibliotek. This scheme is used also in many bibliographies and booklists, and beginning with January 1953 has been adopted for the whole of the Swedish national bibliography, consisting of weekly, monthly, annual, and five-year catalogs. The list of subject headings published in 1948 by Sven-Ola Hellmér and the Swedish Library Association seems also to have been very generally accepted.

Cooperative cataloging in Germany that resulted in centrally distributed printed catalog cards began in 1909. At that time the Prussian State Library undertook to print cards from the type set up for the Titeldrucke, representing all acquisitions of the Prussian university libraries, which since 1898 had been under legal obligation to report such titles to the State Library. Subscriptions were accepted for the entire set only, and the cards were not generally used for cataloging purposes in the local libraries. A survey of ninety-one German and Austrian libraries in 1924 showed that only fourteen subscribed to the cards, and of these only twelve used them for catalog entries. Centralized cataloging was begun in 1921, with the printing of the entries from the Wöchentliches Verzeichnis on one side of the sheet for clipping and mounting on catalog cards. Beginning with January 1937 the entries from the Deutsche Nationalbibliographie were made available
Cooperation and Centralization

Although the Soviet Union has made great progress in centralized cataloging since 1925, G. Firsov stated, in writing in 1948 on the organizational problems in this work in the U.S.S.R., that there was no coordination of the activities of the several cataloging agencies and no standardized bibliographic system. Consequently, the cards were being used primarily for bibliographic purposes other than for catalogs. This is borne out by the small number of copies of the cards being printed. In 1947 the Goskul'tprosvetizdat (State Publishing House for Culture and Education) was printing 2,500 copies of its cards for the public, i.e., the “mass,” libraries, the All-Union Book Chamber was printing 450 copies of its cards for research libraries, and the Leningrad Public Library was printing 60 copies of its cards.

Nevertheless, the extensive coverage of the catalog entries that are available makes the U.S.S.R. one of the leading countries in this field. In 1927 the State Central Book Chamber, now the All-Union Book Chamber, which is a legal depository for all publications appearing in the U.S.S.R., began to furnish cards for research libraries. For trade items its coverage was practically complete until 1950, when a selective policy was adopted to eliminate the most ephemeral materials; beginning with 1950 some non-Russian titles were added. Since 1950 or 1951 some periodical articles and book reviews have been included. The service of the Goskul'tprosvetizdat (taken over from the Bureau for Central Cataloging of the Main Committee for Political Education in the Russian Federated Republic, which started the service in 1925) is limited to titles of Russian books of interest to the mass libraries, and consists of the distribution of annotated catalog entries prepared by the Lenin Library in Moscow. The cards are sold only on a subscription plan providing one copy of each card printed; in 1950 the subscription was for 6,800 cards.

Centralized cataloging in China was initiated by the National Library of Peiping in January 1936, when it began to print and distribute catalog cards for Chinese books published after January 1912. Cards and distribution system were closely patterned after those of the Library of Congress. This undertaking would have resulted in something tantamount to a national bibliography of the Chinese Republic, as well as a complete centralized cataloging service, had circumstances been more favorable. Unfortunately the effects of the Sino-Japanese War, and the end of a subsidy from the Rockefeller Foundation that
had made the project possible, caused it to be discontinued after less than two years.\(^{13}\)

Although much wise and sympathetic discussion of centralized cataloging has taken place in England, the only agency to embark on the production of catalog cards as a centralized cataloging service has been Harrod’s Central Cataloguing Bureau, which was in operation from May 1949 to March 1952. The announcement of the inauguration of the service indicated the intention to catalog all new English trade publications and many American publications. Arrangements had been made with the publishers to supply all books well before publication, and cards were to be available through annual subscription or for individual titles.\(^{14}\)

Brazil has an outstanding centralized cataloging agency in its Serviço de Intercâmbio de Catalogação (S.I.C.), which was established in 1942. The cataloging is done cooperatively through the participation of many libraries, and the copy is edited by S.I.C. and printed by the Imprensa Nacional. Any library having books not covered by the printed cards may undertake to supply copy. Each cooperating library is furnished, gratis, fifteen copies of its own cards. The cards and the system for ordering them follow very closely those of the Library of Congress.\(^{15}\)

One of the most recent and most comprehensive services in the field of centralized cataloging is that inaugurated on July 1, 1949, by the library of the National Diet of Japan. The coverage was limited at first to titles published after July 1, 1949, but now, in addition, older books are being cataloged and the output reaches more than six hundred titles a month. Approximately fifty libraries in Japan are using the cards. Because of the availability of these cards, the cooperative cataloging of Japanese books in the United States excludes Japanese books published since July 1, 1949.\(^{16}\)

Another recently-established centralized cataloging service is offered by Fides Publishers of Montreal, which began in November 1951 to issue printed catalog cards for new French Canadian publications and selected titles appearing in France and Belgium. The idea was initiated by the Association Canadienne des Bibliothécaires de Langue Française, which continues to sponsor the program. Cards are printed in standard cataloging form, with classification numbers and subject headings, for forty-eight titles a month. They are for sale by annual subscription (either for one card for each title or for the several copies of each card needed for a dictionary catalog), by series, or by indi-
Cooperation and Centralization

A list of the 576 titles printed from November 1951 to December 1952 indicates, in addition to the author, title, and card number, the list price of the publication. It also tells which volumes are by Canadian authors or are about Canada or are Canadian imprints, and supplies evaluations of the books in terms of importance for such audiences as adults, young people, children, and specialists.

In the United States, probably the best-developed central system is to be found in Georgia’s State Cataloging Service. It was begun in 1944 at the request of the Georgia Library Association, and is operated for public and school libraries by the State Department of Education, as a part of the state aid program. Libraries applying for the service receive “dictionary sets” of mimeographed cards for all books purchased from state funds for school and public libraries, unless an order, such as one for duplicates, is marked “no cds.” The cards are said to be sent promptly so that they will reach the libraries by the time the books are received.

On a national basis both the H. W. Wilson Company and the Library of Congress offer cataloging services that meet most of the needs of some libraries. Those of the former are very similar to those furnished in the Scandinavian countries; i.e., the coverage is limited to the current American trade publications most likely to be purchased by public and school libraries. The Library of Congress offers the most comprehensive service provided by any library or agency anywhere, since it makes available to subscribers copies of all of the catalog cards that it prints; these include the titles that it catalogs and those in other American libraries that are cataloged in the cooperative program. The Library’s own acquisitions represent a wide selection of the world’s literature received by purchase, gift, and exchange, and all titles deposited for copyright that are selected for the collections of the Library. Cards are printed for all titles cataloged if they are printed in the Roman, Cyrillic, Hebrew, Greek, or Gaelic alphabets or have a title page in one of these. In addition, cards are produced in Roman alphabet transliteration for books in the Indic vernaculars. They are printed also for motion pictures and filmstrips and for sound recordings. Plans for printing cards for books in Braille and other raised characters, and for collections of manuscripts, have been announced.

A special program of duplicating and distributing catalog cards for Chinese, Japanese, and Korean publications has been in operation since June 1949. Nine libraries, including the Library of Congress, share in the cooperative venture by supplying copies of their catalog
cards for materials in these languages; the cards are reproduced photographically without editing, and distributed by the Library of Congress. Each participating library subscribes to one card for each title, and may purchase additional copies for cataloging purposes. The small number of additional copies sold, however, indicates that little use is being made of the cards in the catalogs of the collaborating libraries. Presumably this is because the participating libraries have failed to agree on a standardized product. Differences in the choice and form of entry, in descriptive detail, and in format prevent the cards from being interchangeable. At the present time the project is being studied, and an attempt is being made, with the cooperation of the American Library Association and the Far Eastern Association, to re-establish it on a more satisfactory basis.

The above summary of successful centralized cataloging programs in many countries leads one to hope that even international centralization may some day be a reality. To the extent that language is not a barrier, some librarians are already thinking in international terms. The cataloging of motion pictures at the Library of Congress, for example, enjoys the cooperation of the Canadian Library Association, which coordinates the cataloging of motion pictures produced in Canada and supplies the cataloging data to the Library of Congress for printing in its film series. An article on planning for centralized cataloging in New Zealand, signed "Festina lente," and published in 1943 in the New Zealand Libraries, contains the following thought-provoking question: "Will our new close contact with the United States, and the rapid strides which aviation has made, mean that LC cards come so quickly to New Zealand that instead of amalgamating past work into one common resultant we find ourselves providing a new discordant factor for the future?" 18

Looking Ahead in the United States. In spite of the broad scope of the card service of the Library of Congress, some libraries, particularly in the academic and special research group, are said not to be able to obtain printed cards for more than approximately 60 per cent of their acquisitions at the time they catalog their books. This is explained only in part by the fact that the Library of Congress is not able to catalog all of its acquisitions promptly. The most urgent cataloging problem in the United States is that of finding a way by which the Library of Congress can increase its coverage, so that all or nearly all of the titles received in other American libraries will have been cata-

[348]
Cooperation and Centralization

The most recent proposal that the Library of Congress inaugurate a program of centralized cataloging was made by Ralph Ellsworth in 1948. A Centralized Cataloging Service in the Library of Congress, according to his proposal, would do the cataloging of all books in American libraries so that catalog cards, "including identification entry, subject heading tracings, and classification number," would be available at approximately the same time books were acquired. Ellsworth's aim was that such cards should be supplied not only for new publications but for all books added by any library in the United States. This proposal stated the obligations that would have to be assumed by the Library of Congress and by the participating libraries if the plan were to be carried out. The sharing libraries would have to attempt to make full use of the bibliographic information supplied on the printed cards, foregoing adaptations in call numbers, subject headings, and description, as far as possible, and they would have to be willing to pay their fair part of the cost. The expenses could be shared, according to Ellsworth, by the contribution from each library of the "amount that would equal its own cost if it had to do the work itself, less an amount for an assumed efficiency in centralized operations, and less an amount to cover the cost of altering L.C. cards for local use," or by establishing an arbitrary figure for size and type of library. If libraries find this theory of pricing unacceptable, he says, "then all libraries should join in a campaign to persuade Congress to provide the money."

The obligation of the Library of Congress would be to see that printed cards were available promptly for all books acquired by itself and by participating libraries. To do this, Ellsworth would have the collaborating libraries send to L.C. a copy of each order slip sent out. This would serve both to notify the Library of Congress that it must also purchase that title, if cards were not already available, and as an order for cards. For books acquired locally through gift or exchange and for which no L.C. cards exist, the Library of Congress might "ask the originating library to send in a microfilm negative copy of title page and verso and table of contents—or even the book itself." Ellsworth adds that books received under the Farmington Plan, or under any arrangement for cooperative buying, could be received and processed at the Library of Congress and then sent to the purchasing library.

It is clear that Ellsworth had two objectives in mind: (1) the elim-
inination of duplicate effort in order to make the amount of money available nationally for cataloging provide catalog entries for all the books acquired by the libraries of the country, and (2) the solution of difficulties due to shortage of cataloging personnel.

Objectives of Centralized Cataloging. Taking this proposal as a starting point, we should consider all of the objectives that might be set up for a complete centralized cataloging service. There are six, of varying importance, that should be evaluated:

1. To avoid duplication of work.
2. To make the most effective use of the cataloging personnel in the country.
3. To reduce the cost of cataloging.
4. To increase the number of titles cataloged in the United States.
5. To promote the uniformity of cataloging and catalogs.
6. To raise the over-all level of the quality of cataloging.

If there is one thing on which all writers on the subject of cooperative or centralized cataloging agree, it is that a primary aim is the reduction if not the elimination of duplicate effort. Some believe that we should seek complete elimination of duplicate descriptive cataloging, classification, and assignment of subject headings. This would mean establishing the kind of central agency envisaged by Ellsworth—one actually to handle every publication or unpublished item any library in the country wished to have cataloged—and the attainment of uniformity in all parts of the bibliographical apparatus of the participating libraries. Others, perhaps more realistic, believe that the scope of the system should be limited, either to descriptive cataloging or to descriptive cataloging and the assignment of subject headings, or to materials that would otherwise be cataloged in a certain number of libraries. Some believe that it would not be worth while for a central agency to be involved when duplicate cataloging would otherwise be done by only two or three libraries. A difficulty they may not fully recognize is that of determining which titles could thus be left out, in view of the fact that most libraries are constantly adding to their collections publications of noncurrent imprints.

The scarcity of catalogers qualified for original cataloging that requires either subject or linguistic competence has long caused a problem for administrators, and is at the root of the second objective stated above. Obviously, if there is only one well-qualified cataloger in the country who knows Zulu and the total number of Zulu titles to be
Cooperation and Centralization

cataloged is not more than the number that one cataloger can handle, we shall have made the most effective use of our cataloging personnel only when we have set up a central system that results in this one person cataloging all of the Zulu materials. No research library has on its staff, or easily accessible for occasional consultation, all of the subject and language experts it requires to catalog and classify intelligently or economically all of its acquisitions, unless its scope is strictly limited by subject and language. On the other hand, in view of present supply and demand, even general libraries may not be able to afford cataloging personnel sufficiently expert for their needs. A central agency that could be depended upon to compensate for the lack of local personnel would justify giving this objective a high priority in the consideration of a system.

There are two schools of thought on whether centralized cataloging can be used to reduce costs, in view of the widely accepted fact that costs increase with the size of the collection cataloged. A person's conclusion may be based on many factors, including the following: (a) whether he is considering the over-all cost to the libraries of the country or only the local budget, (b) whether he believes that the same standards of cataloging are needed for his library as would have to be adopted by a central agency serving many libraries, (c) the size of that part of his collection not already covered by such services as those provided by the H. W. Wilson Company or the Library of Congress, (d) the extent to which the cataloging is so prompt that expensive temporary controls are unnecessary, (f) local wage scales, and (g) the actual cost of the catalog cards and of ordering them.

Centralized cataloging offers the possibility, by the reduction of wasteful duplication in cataloging the same titles in several or in many libraries, of increasing the total number of titles cataloged each year by libraries in the United States. Whether this could be realized would depend upon the extent to which the central agency was supported. Henry Thomas, of the British Museum, has this suggestion: "The duplication, and the wastage inevitable in a centralized scheme (on which its advocates are silent) might perhaps be justified, if the institutions supporting the scheme, instead of pocketing savings and shedding staff, were to devote both to some form of cooperative cataloging." 20 As long as most of our larger libraries have substantial collections of uncataloged materials or there is interest in the development of union catalogs that really reveal the resources of the country's li-
braries, the objective of increasing the total number of titles cataloged should not be ignored.

Greater uniformity of cataloging and catalogs in libraries throughout the country, which would be one of the consequences of centralized cataloging, may not at first seem important enough to warrant inclusion in a list of objectives. When one considers, however, not only the convenience of the scholar or research worker who cannot limit himself to the resources of a single library, but the facilitation of the librarian's daily work through the use of bibliographical tools published by other libraries and, most important, the tremendous number of cooperative bibliographical projects constantly in progress in which two or more libraries are participating (union catalogs and lists, surveys of resources, exchange programs, joint acquisition programs, etc.), one realizes that increased uniformity would be worth seeking.

It should be assumed that the average product of a central agency, staffed more adequately with experts than is justifiable in a smaller cataloging establishment, would be of a higher quality than that obtainable in any other way. To the extent that librarians pride themselves on being members of a learned profession they will not want to lose sight of this attainment as an aim in centralized cataloging.

Local Problems. If these objectives seem so important that some way must be found to organize and support a strong centralized cataloging establishment, either in the Library of Congress or to supplement its cataloging, two matters of concern to the local libraries cannot be overlooked. The first is relatively simple, viz., the conversion of present systems of cataloging and classification into a national system, so that the product of the central agency could be used without substantial modification. This should be not too difficult because, although it is an expensive process, several libraries have actually carried out such transformations in recent years, justifying the expense on the grounds of future and permanent economies. The other local problem has not yet found a solution—that of maintaining a local catalog after a library has disposed of all of its expert catalogers. Anyone who has been responsible for the departmental library catalogs in a university library having a central cataloging department, or for the branch library catalogs in a public library system, knows that thorough knowledge of cataloging, on-the-spot, is necessary to maintain such catalogs in even the most carefully coordinated system. Recataloging and recategorization in the central agency caused by developments in a subject field or changes in names of authors, issuing bodies, or titles;
Cooperation and Centralization

the need for revision of subject headings and the addition or deletion of cross references; the effect on the structure of ramifying references when the last or only book listed under a given heading is withdrawn —these are a few of the complex problems that must be solved locally on a fairly high level of capacity in cataloging. It is doubtful whether the necessary competence could be maintained if all cataloging were done by a central agency, even if printed subject and name cross references were supplied by the central agency.

Centralized versus Cooperative Cataloging. It should be clear from the foregoing that the author considers cooperative cataloging a part of centralized cataloging as long as it is coordinated by a central agency and its product is distributed from a single point. There are, however, certain advantages in having the work originate as cooperative cataloging that should not be overlooked. These may be listed as follows:

1. The cataloging can be done without the expense, hazards, and delay of sending the books to the central agency.
2. Specialized subject and linguistic competence of scholars available as consultants to catalogers throughout the country, more extensive than could ever be available at a central point, can be used.
3. The major financial burden for the participating institutions is included in their salary budgets and thus to some extent more subject to local control.
4. More prompt and satisfactory cataloging can result from cooperative work on certain types of publications by getting them cataloged at their source of publication; e.g., state documents in the various state capitals, municipal documents in the issuing cities, doctoral dissertations in the libraries of institutions granting the degrees.
5. A wholesome, critical attitude toward the end product results only from the effort of many cataloging establishments in applying the same rules and following the same policies.
6. National understanding of the difficulties and complexities of cataloging would receive little nourishment if a central cataloging agency were to solve all the problems alone.

Conclusion. The advantages to be derived from a centralized cataloging service approximating complete and prompt coverage of the books that are duplicated in several or many libraries are unquestionable. Such service will be most satisfactory if it results from cataloging that originates in the central agency, supplemented by cooperative
cataloging that is coordinated and disseminated by the central agency. The central service should also cover the cataloging of all materials for which unusual linguistic, bibliographic, or subject competence is required. The extent to which local libraries can benefit from the central service will depend chiefly on local acceptance of the standardized product, but it is unlikely that centralization could ever result in the abolition of local cataloging departments.

References

10. Masanov, IU.: O Pechatnykh Kartochkakh Vsesojuznnoi Knizhnoi Palaty. (On the Printed Cards of the All-Union Book Chamber) *Bibliotekar'*, June 1951, pp. 41-43.
Cooperation and Centralization


ADDITIONAL REFERENCES


Library Trends

Forthcoming numbers are as follows:


October, 1954, Current Trends in Public Services in Libraries. Editor: Leslie W. Dunlap, Associate Director of Public Service Departments, University of Illinois Library.

The numbers of LIBRARY TRENDS issued prior to the present one dealt successively with college and university libraries, special libraries, school libraries, public libraries, and libraries of the United States government.