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Book versus Card Catalog Costs*

Fred Heinritz

What and Why

LIBRARIANS and library boards are always interested in effecting economies that will not curtail service. Most libraries consider a catalog a necessary expense. Thus it would seem that the relative costs of the different physical forms in which these catalogs might be produced should be a subject of considerable interest to the library world. Since substantially all library catalogs are presently produced either on cards or in book form, these were the two types chosen for study.

Historical Background

Up to the beginning of the present century, the card catalog was most commonly in book form, the material being set by traditional coldtype composition. In our century, however, several factors combined to bring to the forefront and keep it there to this day the catalog produced on separate 3" x 5" cards capable of being interfiled with each other. Among these factors were the growth of libraries, the printing of cards by the Library of Congress, and an increase in the cost of setting type, particularly for the relatively short runs of the average catalog.

There seems, however, to be a trend back toward catalog production in book form. Certainly there is much current interest in the library world about the feasibility of such a return. Again, economics are one compelling factor for change. The advent of the copy camera and the technical perfection of offset printing methods have made it possible greatly to reduce production costs of book catalogs. At the same time, card catalog costs, particularly for filing, storage, and catalog equipment, have risen.

Comparability

Since this study was basically a comparison, it was highly desirable to be able to compare an identical intellectual content in the case of each catalog. Only in this way was it possible to eliminate the unwanted variables and concentrate on those of physical form. This caused a problem, however, in that the libraries accessible to the author produced either only a card or only a book catalog. This meant that if the author insisted

* This article is a summary of a doctoral dissertation accepted by the Faculty of the Graduate School of Library Service, Rutgers University, in April, 1963. The research was supported in whole or in part by the United States Air Force under Grant No. AF-AFOSR-62-9 monitored by the AF Office of Scientific Research of the Office of Aerospace Research. Copies of the dissertation are available from University Microfilms, Inc., Ann Arbor, Michigan.

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on studying an existing situation (and he did), two separate library organizations, with their differing holdings and cataloging philosophy, and hence differing catalogs, would have to be examined. The method chosen to overcome this problem was to study The Engineering Index, Inc., of New York City, which carried on an operation closely analogous to library catalog production, and which produced its intellectual output both on 5" x 5" cards and in book form. The latter was even in two forms—a monthly magazine and an annual volume.

Unfortunately, even at Engineering Index, the card and book products are not precisely comparable. It was necessary to make them so. This was done by adding or subtracting operations and costs—always based on exact data—from one or the other. For example, the magazine had an author index; the card service did not. The cost of the author index was eliminated from the magazine.

Production and Distribution Costs

Once comparability was achieved, production and distribution costs were determined by using for the most part routine methods—flow process chart, 10% depreciation, productive hours, scale floor plans, on-the-spot timing, and perusal of Engineering Index records and manufacturer's catalogs. For these costs, see Table 1.

The procedure at Engineering Index is as follows: The abstractor's manuscript (consisting normally of a paragraph annotation of, plus the bibliographic data for, a journal article) is punched onto a paper tape by a Justowriter JU recorder and then reproduced from the tape as justified proof copy by a Justowriter JU reproducer. Then, for the cards, the individual annotations are laid out, 8 to a sheet of 12" x 18" layout paper, and held in place with white cellophane tape. A picture of the page is taken by a Brown Escort copy camera, producing a reduced image on Ektalith transfer paper. The exposed transfer paper is processed through an Ektalith loader-processor and transfer unit to produce a Multilith offset master. The cards are printed and slit into strips by a Multilith 1250. The strips are punched by a 4-hole Rosback punch, and then cut into 3" x 5" size on a rotary card slitter. Mailing is done from the offices of the Index.

The proof copy is stripped from the layout sheet and re-used for the monthly magazine. Layout is done in the offices of the Index. Use is made of some part-time employees who work by the hour when needed. The copy is held in place with an adhesive wax. Envelopes are addressed on the Addressograph. Layouts and envelopes are picked up by a printer, who both prints and distributes the magazine at his plant. After printing, the layouts are returned to the Index, where they are stripped and stored for use in the annual volume, which is produced in a manner similar to the magazine.

Equal Catalog Access

Since the cards are much less efficient than the book at storing infor-
mation, the card catalog, set for set, will give the user access to more physically-discrete pieces than the book. How many sets of our magazine or book are needed, then, to give the user access equal to the comparable card catalog? Certainly if we duplicate our set enough times to give us a number of volumes equal to the number of drawers required, we should be safe. But there was the question as to whether we needed this much duplication. If we duplicate the sets to the maximum number of users at any one time, no user would ever have to wait to use the volume he wanted—an access even superior to that of the card catalog. If this turned out to be fewer volumes than the number of card drawers required, we could achieve equal access for less money. An experiment to determine maximum reader use was conducted at the New York Public Library main Reference catalog at a busy time—a weekend afternoon. Even using a highly-inflated method of counting, at no time in the afternoon—based on 150 counts of each of three different areas between 1 P.M. and 5 P.M.—were more than 24 out of 660 drawers (3.7%) in use at any one time. Applying this data to that of Engineering Index, it was found that producing two sets of the book per one of the cards would give the book far better than equal access. The cost of the extra set (See Table 1) was computed from a printer’s quotation to Engineering Index.

**Filing, Storage, and Equipment Costs**

Since Engineering Index maintained a card catalog for internal use, it was possible to obtain filing costs there. However, theirs is essentially a manufacturing and distributing operation, so that it was necessary to go afield for the other use costs. The catalog storage and equipment costs for the annual production are computed using standard list prices and common equipment layouts, shown in scale diagrams. For these costs, see Table 1.

*Cumulative Increase with Catalog Growth of its Storage and Equipment Costs*

Returning to storage and equipment costs, we observe that these costs are cumulative with catalog growth; that is, we have to continue to pay for the space or equipment to store a given number of cards or books each year that we store them. Since the book is far more efficient than the cards at storing information, the net result is, over the years, a heavy differential charge against the cards.

Assuming that a catalog grows steadily at the rate of \( x \) cards per year, the cumulative cost of storage after 10 years is about \( x + 2x + 3x + \ldots + 10x = 55x \); after 20 years, \( 210x \); after 60 years, \( 1830x \). Some actual costs are given in Table 2. One can see that after several years they can amount to a noteworthy sum.

Cumulative equipment costs are less, both because the annual cost differential is about half that for storage, and because after 10 years, due to the fact that the equipment is amortized over 10 years, our cost per year figure for storage remains always the same. The cumulative effect is still
substantial. After 10 years, it is 55x; after 20 years, 155x; after 60 years, 555x. Some actual costs are given in Table 3.

Searching Costs

Now the information to this point might be all that would interest many library administrators. It shows the costs to be far lower for the book. However, if we are considering the total expense to society, we cannot ignore those costs connected with looking up items in the catalogs—which turns out to be a heavy differential charge against the book.

The searching times for card and book were determined by means of two experiments: one at the relatively small Douglass College library (ca. 125,000 volumes) and one at the very large New York Public Library main Reference collection (ca. 2,000,000 volumes). In each case samples were first looked up in the existing card catalogs of the libraries and times recorded. Then these same entries were looked up in corresponding book catalogs and the times recorded. For Douglass College, the corresponding book consisted of the bound 1961 and two unbound parts of the 1962 National Union Catalog. For New York Public Library, the entire National Union Catalog was used. It was found for New York Public Library that if one had to look in even three separate alphabets, the card catalog was quicker to use. For Douglass College, the cards were quicker if one had to look even in two separate alphabets. From these data, card-book searching time differentials were constructed, and converted to costs by evaluating the times at $2.00 per hour. For example, for New York Public Library, it was found to take 113 minutes to look up 100 items in the card catalog. \((113/60) \times 2.00 = 3.76\) per 100 items. Looking through 3 alphabets in the comparable book took 133 minutes per 100 items. At $2.00 per hour, this is $4.44 per 100 items. Thus, $4.44 minus $3.76 gives us a charge of $0.68 per 100 items against the 3-alphabet book.

Using these costs and the data of the catalog access experiment, maximum searching cost differentials were computed and charged against the multi-alphabet book. Our access experiment indicated a maximum use of 24 persons per 660 drawers. Assuming that the library is open 12 hours per day, and that our maximum use figure holds for the entire period, we find that, for the number of drawers required to hold the Engineering Index output, the comparable figure would be 26,058,240 drawers used per year. For a 3-alphabet book, then, the searching charge differential is \((26,058,240/100) \times 0.68 = 177,196.03\). For 4 cumulations, the charge is $396,085.25; for 5 cumulations, $614,974.46. Thus the annual searching charges levied against the book in this study are of considerable magnitude.

To determine the precise searching charge for a particular situation, two other kinds of evidence were used. First, actual imprint dates of circulation were studied to see how far back in time reader use extended for different types of libraries. Samples from the Engineering Societies Library, the Linden, New Jersey, Public Library, Rutgers University main
library, and the Rutgers physics library were used. There was wide variation. The library with use going back the farthest (i.e., the case least favorable to the book) was the university main library (Rutgers)—60 years to cover 90% of the use.

Second, using the data gathered at Engineering Index, the actual cost of annual, partial-year, and multi-year cumulation was computed for the book. The more cumulation, the higher its cost; but the lower the cost of searching. The additional cost (over Table 1 magazine costs) for annual cumulation was computed at $21,896.16 for the first 988 sets, plus $5,972.50 for the second 988 sets. The present Engineering Index monthly magazine is not cumulative. The additional cost over it of a monthly cumulation with up to 3 months in one alphabet, after the manner of the H. W. Wilson Co.'s Applied Science and Technology Index, was found to be $21,465.78. The additional cost of a four-month cumulation was $32,198.67. The cost of the second 988 sets was $5,950.71. For multi-year cumulation, if we use present Engineering Index procedures, there is an additional cost of $7,790.82 for extra sets of proof copy for every two uses.

Conclusions

The conclusions are reached in a brief manner by putting together in a summary form all of the previous cost findings:

The basic conclusion of the study was that the book form of the catalog was much cheaper than the card form. The extent of the cost divergence, and its relative increase over the years, can be seen in Table 4. Although the relative result, cost of cards is greater than cost of comparable book, should remain the same, the exact figures would of course vary if one used a different type of cumulation, had a different magnitude of operation, and the like. The entire argument is based on the assumption of an equal set-for-set accessibility to card and book. One must not consider this or that isolated fact or cost out of context. A secondary conclusion was that the book form of the catalog was cheaper than a combination card-book form (i.e., a catalog in which cards are used for the current year only; then their content is cumulated into a book, and they are thrown away). Even though a searching charge differential based on extremely heavy use is levied against the book, this is, even in the case least favorable to the book, far outweighed by the book savings in production, distribution, filing, storage, and housing.

Further the argument is paromologetic; throughout the study, the rule was: when in slightest doubt (and sometimes even when not), discriminate in favor of the cards. As one example of many, the fact that a substantially larger percentage of reader circulation is for books of current years rather than later years is ignored. This omission—as was intended—discriminates against the book by keeping the searching cost in the study much higher than it would be in actual practice. Thus it is reasonable to say that in reality the cost differences are in many cases even more substantial than shown. In addition, the existing reality studied is perhaps not the
cheapest method of producing the book. Finally, the two initial issues of the magazines were studied; there would surely be a lowering of costs for subsequent issues.

Catalog Distribution

There would seem to be a possibility of saving considerable user time by wider book catalog distribution. To take a simple case, it took the author, walking at a brisk pace, nine minutes to walk the four blocks from the corner of 41st St. and 8th Ave. to the 42nd St. entrance of New York Public Library and three more minutes to get upstairs to the main catalog room (315). This 24 minute round trip at $2.00 per hour equals $0.80—the same amount as the differential charge added against the magazine for looking up 100 items through three alphabets in the Douglass College experiment. The point is: if there had been a copy of the catalog at 41st St. and 8th Ave. (and set for set the book form is the cheapest to produce and distribute), the trip might well have been unnecessary. If the reader will think through the implications for greater distances, complex library networks, union lists of holdings, interlibrary loans, and the like, he can see that judicious distribution of the book might well increase even further the book-card cost gap—to say nothing of improving library service. It is not a new idea—as witness the National Union Catalog.

Implications

If the book catalog is cheaper set per set than the cards, and lends itself to wide distribution, there are important implications for current librarianship. Utilization of the book for centralized technical processing and union catalogs becomes no longer an object of wishful thinking, but the most practical device currently available to record and disseminate the record of library holdings. Indeed, it is a device already successfully in use in many places—to name two well-known examples: Los Angeles County Public Library and King County, Washington, Public Library. The highly adaptable book form can be tailor-fit to the needs of a particular school or public library district, academic library plexus, or inter-district cooperative project. Nor do the book catalogs have to adopt the abbreviated entries and limited typography of punch card reproduction to justify forsaking the card form. If the book is clearly cheaper, there are implications for card reproduction. Under what circumstances other than current inertia can the cards continue to justify their existence? There may well be some valid instances, but the burden of proof is on the cards. The energy spent in altercations over this or that problem of card production might perhaps be better spent thinking about the best sort of book catalog to initiate for the given job. Finally, general adoption of the book catalog form would place the problem of code revision in quite a different light.

It should be specifically noted that this study was based upon the assumption of equal accessibility of book and card catalogs in multiple copies. The multiplication of card or book catalogs in various locations
within library systems is increasingly common, but is far from universal. While studies made of the time of the user in consulting a single card catalog, briefly referred to on page 252, may have applicability to this situation, investigations have not been made in sufficient detail to justify firm conclusions. These findings cannot, therefore, be generalized to all types of catalog usage without further investigation of the total systems involved. It is hoped that this report will encourage further investigation in this field.

**TABLE I**

A SUMMARY OF THE RELATIVE ANNUAL PRODUCTION, DISTRIBUTION, AND USE COSTS (EXCLUDING SEARCHING COSTS) OF A COMPARABLE CARD AND MAGAZINE SERVICE, EACH PRODUCING PER YEAR FOR OUTSIDE USE 988 SETS OF 38,560 ENTRIES EACH, AND DISTRIBUTING THEM MONTHLY

<table>
<thead>
<tr>
<th>Production</th>
<th>Magazine</th>
<th>Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Engineering Index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary</td>
<td>$137,272.23</td>
<td>$146,747.14</td>
</tr>
<tr>
<td>Equipment</td>
<td>4,181.60</td>
<td>6,060.32</td>
</tr>
<tr>
<td>Supplies</td>
<td>1,563.58</td>
<td>49,046.98</td>
</tr>
<tr>
<td>Overhead</td>
<td>9,159.71</td>
<td>9,609.78</td>
</tr>
<tr>
<td>At printers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 988 sets</td>
<td>12,749.74</td>
<td>—</td>
</tr>
<tr>
<td>2d 988 sets</td>
<td>5,099.89</td>
<td>—</td>
</tr>
<tr>
<td>Production total</td>
<td>$170,026.75</td>
<td>$211,464.22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Magazine</th>
<th>Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Engineering Index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary</td>
<td>$294.60</td>
<td>$34,670.98</td>
</tr>
<tr>
<td>Equipment</td>
<td>3.59</td>
<td>263.09</td>
</tr>
<tr>
<td>Supplies</td>
<td>2.54</td>
<td>17,350.10</td>
</tr>
<tr>
<td>Overhead</td>
<td>19.85</td>
<td>3,120.35</td>
</tr>
<tr>
<td>At printers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 988 sets</td>
<td>1,390.52</td>
<td>—</td>
</tr>
<tr>
<td>2d 988 sets</td>
<td>556.21</td>
<td>—</td>
</tr>
<tr>
<td>Distribution total</td>
<td>$2,267.31</td>
<td>$55,404.52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscriber use (excluding searching cost)</th>
<th>Magazine</th>
<th>Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filing</td>
<td>—</td>
<td>$346,096.40</td>
</tr>
<tr>
<td>Equipment for use</td>
<td></td>
<td>65,563.60</td>
</tr>
<tr>
<td>1st 988 sets</td>
<td>190.63</td>
<td>—</td>
</tr>
<tr>
<td>2d 988 sets</td>
<td>190.63</td>
<td>—</td>
</tr>
<tr>
<td>Space for use</td>
<td></td>
<td>$114,777.00</td>
</tr>
<tr>
<td>1st 988 sets</td>
<td>1,804.50</td>
<td>—</td>
</tr>
<tr>
<td>2d 988 sets</td>
<td>1,804.50</td>
<td>—</td>
</tr>
<tr>
<td>Subscriber use total</td>
<td>$3,990.26</td>
<td>$526,437.00</td>
</tr>
</tbody>
</table>

**GRAND TOTAL**

<table>
<thead>
<tr>
<th>Magazine</th>
<th>Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>$176,840.53</td>
<td>$793,305.74</td>
</tr>
<tr>
<td>$178.99</td>
<td>$802.94</td>
</tr>
</tbody>
</table>

*Volume 7, Number 3, Summer 1963*
### TABLE 2

**Cumulative Increase with Catalog Growth of Card-Book Space for Use Cost Differential for 988 Sets of 38,560 Cards Each**

The $111,168.00 is derived from the space for use costs of Table 1 as follows: $114,777.00 minus ($1,804.50 × 2) = $111,168.00

<table>
<thead>
<tr>
<th>Year</th>
<th>Cards stored</th>
<th>Cost for year</th>
<th>Cumulative cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>x</td>
<td>$111,168.00</td>
<td>$111,168.00</td>
</tr>
<tr>
<td>2nd</td>
<td>2x</td>
<td>$122,236.00</td>
<td>333,504.00</td>
</tr>
<tr>
<td>3rd</td>
<td>3x</td>
<td>$333,504.00</td>
<td>667,008.00</td>
</tr>
<tr>
<td>10th</td>
<td>10x</td>
<td>$1,111,680.00</td>
<td>6,114,240.00</td>
</tr>
<tr>
<td>20th</td>
<td>20x</td>
<td>$2,223,360.00</td>
<td>23,345,280.00</td>
</tr>
<tr>
<td>60th</td>
<td>60x</td>
<td>$6,670,080.00</td>
<td>203,437,440.00</td>
</tr>
</tbody>
</table>

### TABLE 3

**Cumulative Increase with Catalog Growth of Card-Book Equipment for Use Cost Differential for 988 Sets of 38,560 Cards Each**

The $65,182.34 is derived from the equipment for use costs of Table 1 as follows: $65,563.60 minus ($190.63 × 2) = $65,182.34

<table>
<thead>
<tr>
<th>Year</th>
<th>Cards stored</th>
<th>Cost for year</th>
<th>Cumulative cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>x</td>
<td>$65,182.34</td>
<td>$65,182.34</td>
</tr>
<tr>
<td>2nd</td>
<td>2x</td>
<td>130,364.68</td>
<td>195,547.02</td>
</tr>
<tr>
<td>3rd</td>
<td>3x</td>
<td>195,547.02</td>
<td>391,094.04</td>
</tr>
<tr>
<td>10th</td>
<td>10x</td>
<td>651,823.40</td>
<td>3,585,028.70</td>
</tr>
<tr>
<td>20th</td>
<td>20x</td>
<td>651,823.40</td>
<td>10,103,262.70</td>
</tr>
<tr>
<td>60th</td>
<td>60x</td>
<td>651,823.40</td>
<td>36,176,198.70</td>
</tr>
</tbody>
</table>

### TABLE 4

**Total Relative Cost of Catalogs Studied (Adding Each Year 988 Sets of 38,560 Annotations)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cards</th>
<th>Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th</td>
<td>$15,868,822.70</td>
<td>$7,935,683.65</td>
</tr>
<tr>
<td>20th</td>
<td>46,439,474.10</td>
<td>18,060,259.40</td>
</tr>
<tr>
<td>60th</td>
<td>279,890,079.70</td>
<td>91,778,771.40</td>
</tr>
</tbody>
</table>

### ERRATA

Two errors appear on page 85 of Phyllis Richmond's article on "A Short-Title Catalog Made with IBM Tabulating Equipment" in the Winter 1963 issue. In the third paragraph, the third sentence should read: "A double sort in the column order 33-37, 12-16 would still require handsorting under the letters B, N, S, and U to make a perfect library style file."

We regret this error.

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*Library Resources & Technical Services*
Printing of Congressional Bills

JOHN H. THAXTER, Head,
Government Publication Section, Serial Division,
Reference Department
The Library of Congress

Bills and Depository Libraries

BEFORE 1938, the full texts of the thousands of bills introduced each year in the Congress of the United States apparently were of little immediate interest to document librarians outside of the Library of Congress and the United States Capitol. On June 25 of that year President Franklin D. Roosevelt approved H. R. 5471, which became Public Law 750 of the 75th Congress. ("An Act to amend the laws relating to the distribution of public documents to depository libraries.") One of the provisions of this law authorized the distribution of public bills and resolutions to depository libraries.

Beginning with the 74th Congress, 1st Session, digests of some public general bills had been made available to libraries through the Digest of Public General Bills prepared by the Legislative Reference Service of the Library of Congress and distributed by the Superintendent of Documents. At first, the Digest was limited to those bills which had been "reported out of committee or otherwise advanced." Later the scope was broadened to include all public general bills and joint resolutions. Beginning with the 84th Congress, 2d Session, selected resolutions and concurrent resolutions were also added.

That this publication, although carefully prepared and adequately indexed, did not meet the needs of many libraries, was made evident by a Congressional report issued in 1956.* The report states that 146 depository libraries now receive sets of the public general bills and resolutions.

These figures form an interesting contrast to a statement in the 1949 edition of Boyd and Rips' work on government publications.** On page 55 the following admonition appears:

Depository libraries need to consider carefully before subscribing to copies of bills and resolutions the extra space, service, and funds which will be required to make such material accessible to those who want to use it. The numbers of bills and resolutions introduced in a Congress mounts into the thousands, and

** Boyd, Anne Morris. United States Government Publications. 3d ed. revised by Rae Elizabeth Rips. New York, Wilson, 1949 [i.e. 1950]

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with many printings of each, it can readily be seen that their distribution to a library brings also a burden and a responsibility by no means slight. This burden plus the extra cost to the government for printing and distribution has already caused some skepticism regarding the wisdom of providing such a service.

It would appear that the answer to this skepticism lies in the fact that one-fourth of all the depository libraries now avail themselves of this service. Actually, as the librarians in these libraries can attest, the burden and the responsibility are by no means as great as Miss Boyd describes them. About 90 per cent of all bills and resolutions introduced in the 86th Congress were of a public nature, and only about 12 per cent of these attained the distinction of a second or further printing.* Even so, the number of separate printings of bills to be handled remains considerable. In the 86th Congress, for example, more than 20,000 separate measures were introduced. Of these, approximately 18,000 were public measures, of which some 16,000 were printed only once. The remaining 2,000 were printed an average of 3.3 times each. Thus there were approximately 22,600 printings of public measures in that Congress.

Bills in the Library of Congress

For some time, the writer has had considerable interest in the additional printings of bills, especially the circumstances under which the printings are issued and the differences between the various printings. This interest stems directly from the desirability of maintaining in the Library of Congress a complete set of all printings of all bills introduced in the Congress, a goal which has been almost completely achieved in the last five Congresses. In supervising the collation of the bills, the writer noted that there were from time to time apparent inconsistencies in the printing procedures—a particular bill would be printed only once, for example, while another which had gone through apparently identical steps in the legislative process would be reprinted as many as two or three times. Published sources on the legislative procedure in Congress proved of little help, although the House Manual** and a pamphlet† issued by the House of Representatives contained some general information.

Accordingly, a survey of the bills was made, with a view to developing specific answers to the following questions:

1. Under what circumstances is a bill or resolution reprinted?
2. What characteristics distinguish the various prints from each other?

Basis of the survey was the final edition of the House Calendars. This publication, which does not seem to be distributed outside of Washington, contains, among other features, a daily cumulative legislative history of all House and Senate bills and resolutions (except simple resolu-

* From a survey made by the writer in 1961.

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tions of the Senate) which have been reported out of committee or placed on the calendar.

The collated set of bills was checked against the Calendars. Bills not appearing in the Calendars, if present in the set, were ignored, since it was presumed that only the single printing had been issued. Bills varying from the "normal" printing routine were carefully scrutinized. Any question which could not be resolved by consulting the Calendars, the Congressional Record, or the bills themselves, was referred to the Bill Clerk or Enrolling Clerk of the appropriate house, or the National Archives and Records Service.

In this way there was gradually built up a body of information which enabled the surveyor in nearly all cases to tell by a glance at the Calendars and an examination of the bills whether all printings of a bill were present. A summary of the information gathered in the survey is presented here, in the hope that it may be of use to document librarians elsewhere.

**Printing of Bills and Resolutions**

As we have noted previously, about 90 per cent of the bills present no difficulties, as they are printed only once. Most of the remainder fall in the "normal" category, that is to say, they are reprinted at each successive step in the legislative process: (1) when introduced; (2) when reported from committee; (3) when passed in the body of origin and sent to the other body; and (4) when reported from committee in that body.

However, when a bill or resolution bypasses one or more of these legislative channels, or is introduced or acted upon at a time of parliamentary stress, or is made the object of special action, there may be only one printing of the bill (in place of the usual four) or as many as ten or eleven.

The first customary printing of a bill or resolution follows (with some exceptions) a routine pattern. It bears the number and session of the Congress, the designation, i.e., S., H. R., S. Con. Res., H. Con. Res., S. J. Res., H. J. Res., S. Res., H. Res. (Senate bill, House bill, Senate Concurrent Resolution, House Concurrent Resolution, Senate Joint Resolution, House Joint Resolution, Senate Resolution, House Resolution), the number of the bill, the name of the body in which it is introduced, the date of introduction, the name of the Member (or sometimes, in the Senate, the names of a group of Senators) who introduced it, and the committee to which it was referred. At this state, the measure is called "A Bill..."

The second printing repeats this information and contains in addition the Calendar Number, the Report Number, the date reported from committee, the name of the Member reporting the bill (customarily, the Committee Chairman) and the phrase "with amendment" or "without amendment."

The third printing bears the number and session of the Congress, the designation and number of the measure, the House to which it is
being referred, the date of referral, the "legislative day*" (in the Senate only), and the notation "Read twice and referred to the Committee. . . ." At this stage, the measure is called "An Act. . . ." Note that the chronological account of action taken by the other House does not appear, although at the end of the text appears the notation "Passed the House of Representatives (Senate)," the date passed (if in the Senate, the legislative day also appears), and the attestation of the Clerk of the House or the Secretary of the Senate, as appropriate.

The fourth printing contains the same information as the third, with the addition of the Calendar Number, the Report Number, the date reported (but not the legislative day), the name of the Member submitting the report (Committee Chairman) and the phrase "with amendment" or "without amendment."

Probably the most important exceptions to the normal printing procedure are the bills introduced by committees (appropriations bills and important revenue measures fall in this category). In most cases, the first print is the reported version, the second is as "An Act. . . ." in the other House, and the third is the reported version in the other House. Often in the House of Representatives, if amendments in the Senate have been numerous, a House bill may, by unanimous consent, be printed a fourth time with the amendments of the Senate numbered.

A variation of this procedure is the "omnibus bill" in the House. A committee may have under consideration several bills introduced by individual Members, but all on the same subject. The committee, after studying the bills, may decide to draft its own bill embodying those features of the various bills which it wishes to recommend. This bill is printed with report and calendar numbers, but is not sent to the Senate for action. Instead, the separate bills embodied in the bill are sent, and acted on separately by the Senate.

There are numerous other deviations from the customary printing procedure for bills. Among them are the following:

In either House, when a bill is ordered placed on the Calendar or brought up by unanimous consent, the reported print is omitted. When placed on the Calendar, a print is made bearing the Calendar number.

A bill discharged from one committee and re-referred to another is printed when re-referred. On occasion, this procedure has led to as many as eleven separate prints of the bill.

When a bill has been reported in one House, and an identical "companion" bill has been passed by the other House, the first bill is limited to the two printings.

If a bill is passed in one House, referred to the other, and laid on the table, no third print is made.

It should be noted that printing procedures are dependent on the time element. Obviously, if a bill is reported in one House and passed

* A device by which the Senate recesses, rather than adjourns, at the end of a day's session, in order to avoid on the next day the call of the calendar required by Senate rules.
on the same day, and reported and passed in the other House on the next
day, one or more of the customary printings must be omitted. This is
especially likely to occur in the closing days of the session.

House and Senate concurrent and joint resolutions follow the same
procedure as the bills.

House and Senate “simple” resolutions, in general, are printed when
introduced, when reported, when recommitted, when re-reported, and
when passed. However, a House resolution relating to a specific bill (call-
ing for special consideration, waiver of certain rules, referral to a govern-
ment department, etc.) is not printed for general distribution when
passed. Instead, a limited number of record copies are “engrossed” (i.e.,
printed on a permanent grade of paper) and distributed to appropriate
offices. As in the case of bills, the printing of resolutions may be varied
by the time element.

At this point, a few notes on the engrossing process might be helpful.
Although not generally distributed, engrossed bills are, in a technical
sense, additional printings, and thus fall within the scope of this article.
When a bill has passed in the House of origin, an engrossed copy is
prepared for the other House. It is from this copy that the “Act print”
is made. Similarly, when a bill originating in one House has been
amended and passed in the other House, engrossed copies of the amend-
ments are printed.

Amendments proposed in the House are printed in the Congressional
Record. In the Senate, amendments are separately printed as a matter
of routine, with some exceptions. Amendments to appropriation bills, in
order to be printed, must be submitted one calendar day before the bill
is scheduled for consideration. At times, when a measure is being de-
bated, a Senator will propose an amendment from the floor, and the
Senate will vote on it immediately. Such amendments are usually not
printed separately, but do appear in the Congressional Record. Also, by
unanimous consent, an amendment may be printed in the Congressional
Record, even though it has previously been separately printed.

Proposed Senate amendments are numbered by a date and letter
system, noted on the lower left-hand corner of the first page. Thus the
notation 2-15-58—C means that this amendment was the third one pro-
posed on February 15, 1958. When the alphabet is exhausted, double
and sometime triple-letter designations are used. It should be noted
that the amendments designated, for example “2-15-58—C” and “2-15-58
—D” may relate to two totally different bills. However, when debate
on a major bill consumes all or most of a day’s session, the proposed
amendments to the bill will usually be numbered in sequence.

Sometimes, in spite of all precautions, a bill with a typographical
error will appear. If the error is detected, the bill is reprinted. The reprint
is designated by a star in the lower left-hand corner. On rare occasions,
a bill may be reprinted a second time for this reason. Two stars designate
such a bill.

After a bill has passed both Houses and is ready for the action of the

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President, it is enrolled. The enrolled copy is printed on parchment paper, 10 inches by 15 inches in size, in 10-point modern type, and bears the signatures of the Speaker of the House and President of the Senate. If the President approves the measure, the enrolled copy is sent to the National Archives and Records Service, which prepares the copy for submission to the Government Printing Office for printing as a slip law.

Often, at the end of a busy session, when important measures are amended and enacted within a short time, a page-by-page check of the Congressional Record is necessary to determine the exact form in which a measure was enacted.

Also, until several years ago, there was often considerable delay between the signing of a measure and its appearance in slip law form. The use of conventional printing and its attendant proofreading procedures were the main factors in the delay. The adoption of the offset process has reduced the delay considerably, and the text of important statutes is now made quickly available to attorneys, businessmen, and others having a vital interest in this legislation.

Miscellaneous Notes

Author of a bill. The Member who introduces a bill is known as the author of the bill. Frequently in the Senate two or more Senators will sponsor a bill jointly, and the printed versions of the bill will bear the names of all the authors. The Parliamentarian of the Senate states that this is a custom of some thirty years standing.

Identical bills. A kindred custom in the House, of introducing identical bills, is worthy of note. This stems from the House rule that two or more Members cannot jointly introduce a bill or resolution. Thus in the Eighty-seventh Congress, Second Session, twenty-three identical bills to amend and expand the Library Services Act were introduced by twenty-three different Representatives. All bills were identical in text with the exception of the date of introduction and the name of the author on the first page. Identical bills are usually introduced when a number of Members feel that a measure is important or popular enough for them to wish to be known as co-sponsors of it. Identical bills are not customarily distributed (although a limited number of copies are printed). Instead, a printed slip is distributed which gives a cross reference to one bill in the identical series, and this bill only is distributed with the depository set.

Uses of the Survey

Some of the information given above is no doubt familiar to most document librarians. At the risk of being repetitive it has been included and correlated with information obtained from unpublished sources, in order to bring together all the more important facts relating to the printing of Congressional bills.

At the Library of Congress, this information has been found most useful in guiding the reader who is tracing the legislative history of a
specific measure. It is especially helpful to be able to explain the absence of a particular print in its collection by demonstrating that the print does not exist, or exists only in a limited number of record copies.

It is hoped that other libraries may find it equally useful both in this connection, and as a guide in arranging their Congressional bills in proper order.

Latin American Cooperative Acquisitions Project (LACAP)

Orders for Latin American publications may be placed for material from a particular country or for titles published in a specific subject area. Further details on request.

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The Influence of Photoreproduction on Library Operations*

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United Nuclear Corporation
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IT WAS MORE than a hundred years ago that the first micro-image was made.¹ Fifty years have elapsed since the Library of Congress and the New York Public Library reached their decisions to purchase and install photostat machines.² ³ And it is almost twenty years since Fremont Rider, the “father of the Microcard,” published his thought-provoking and challenging book, The Scholar and the Future of the Research Library.⁴

With eyes focused on the future, Rider had anticipated many of the problems facing libraries today. The problem of providing adequate space for the constantly-growing collections, the need for close proximity to materials desired by the research worker, the need to ease the burdens imposed by interlibrary loan demands, the need to supply multiple copies of certain publications, the need to preserve deteriorating materials, the desirability of reducing binding costs, the need for a method of economically reproducing single editions (when necessary) of scholarly publications—all these problems, though not too pressing at the time, were in the forefront of Rider’s considerations. Realizing that the expanding collections of research libraries (doubling in size every sixteen years) would force some sort of impasse in the not too distant future, Rider was prepared to offer a solution through extensive use of microphotography. “No emendations,” wrote he, “in present library method alone were going to provide a sufficient solution of our growth problem.” ⁵ Rider, however, was not alone in advancing arguments for the exploitation of photographic techniques and processes for the control of published materials. Photoreproduction has been of great interest to many people, both librarians and non-librarians.

The Literature of Photoreproduction

A cursory review of the literature of photoreproduction reveals scores of articles indexed in a motley of indexing services. Contributions are derived from the pure, applied, and social sciences with relevant articles ranging from legal aspects of copyright to photographic optics. It is obvious that government agencies, business firms, archival institutions, etc., have been very much concerned with the growing spectre of “paper

* Paper based on reports prepared for seminars in Organization of Materials and Photoreproduction of Library Materials, School of Library Service, Columbia University.

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mountains” engulfing and strangling normal office procedures, or on the other hand, of valuable documents being destroyed by natural or man-made disasters.

It is, therefore, no surprise that these agencies should be in the forefront in sponsoring and developing methods and procedures for the successful storage, preservation, and management of records. Photoreproduction has generally played a dominant part in such programs. The kind of modern records management problem confronting non-librarians may perhaps be illustrated from the following example, supplied in a talk by Harold Wooster at a Science and Engineering Symposium sponsored by the U. S. Air Force: 6

The Physics Directorate of AFOSR (Air Force Office of Scientific Research) is supervising Project VELA uniform—the network of seismic stations detecting underground nuclear explosions. One station of this network may generate five cubic feet of magnetic tape a week—and unless we can figure out something better to do with these data than put them in boxes and fly them to Washington, the Washington suburbs may be rendered uninhabitable by a slowly encroaching glacial wall of seismic records.

Wooster’s fears about an uninhabitable Washington would, possibly, be allayed through perusing a recent item which reports that equipment has now been developed which “translates magnetic tape data into understandable language and reduces the information contained in 84,000 feet of magnetic tape into 1,000 feet of microfilm.” 7 An even more recent article on photochromic micro-images, developed by the National Cash Register Company, describes a process tantamount to “microfilming microfilm,” or achieving linear reductions of 200:1 representing an area reduction of 40,000:1. 8 “Using this technique,” the authors state, “it would be possible to record a 300-page book within a square inch of film.”

One may surmise from the above example that with respect to one of the “space problems,” the Air Force, librarians and industrial organizations have a great deal in common. Library indexing sources reflect, of course, the great interest that librarians have had in the above subject. In order to alert librarians to pertinent publications and keep them abreast of rapid developments in this field, numerous bibliographies have been compiled, with some kept up-to-date on a current basis. 9, 10, 11, 12 Comprehensive reviews of new developments are also published as periodic features in professional journals. 13 Current data are also found in industrial-type compilations, such as Davison’s Microtext in the Form of Opaque Cards and Transparent Microfiches. 14 The recently published volumes in the State of the Library Art series 15, 16, 17 further reemphasize the sizeable library interest and contributions to the field of photoreproduction.

Library Application of Photoreproduction

Though it can be convincingly shown that librarians have been theorizing, writing about, and discussing photoreproduction at great length, one cannot be as convincing in demonstrating that they have been
fully applying photoreproduction techniques to library operations. In an article written in 1955 describing the microfilming services of large research libraries, R. H. Muller deprecates their lack of the necessary equipment, personnel, and facilities. A 1958 survey by Meals and Johnson of a selected group of seventy-nine junior college libraries reveals that "... only two of the seventy-nine libraries surveyed were using microfilm to any extent as a means of preserving periodicals." These authors further state: "The survey did reveal much interest in periodicals on microfilm by librarians who would like to use microfilm or who were considering using it." R. C. Kingery states in 1960: "One would expect libraries to be the first to see the advantages of photography, particularly through miniaturization, in records management, yet there is no evidence in the literature that photography is being used widely for this purpose." When library materials have been reproduced uniquely in microform text, James E. Skipper asks: 


The above inquiries and critiques notwithstanding, a review of current literature indicates accelerated activity by all types of libraries in the utilization and application of photoreproduction products and equipment. Past surveys exposing and criticizing library lethargy may have contributed to the acceleration process. Such blunt exhortations as Shaw's "Simple Calculations Show that Photocopying Saves Money" may also have hit the mark. Of overriding importance, however, is the outside pressure of documentation centers, such as ASTIA, OTS, AEC, NASA, etc., which have fully adopted photoreproduction as a vehicle for disseminating vital data in microform format.

Through use of micro-opaques the Atomic Energy Commission has distributed, since the initiation of the program in 1952, approximately 12,000 titles annually to each of the 88 U. S. depository libraries, most of which are located in large university or public libraries, to AEC contractors, Federal agencies and 87 foreign depositories scattered in 63 countries. In discussing some years ago the AEC program, I. A. Warheit stated: 

It would have been impossible for us to have furnished the depository libraries with the older documents and with many of the secondary current documents. The TIS (Technical Information Service, AEC) printing capacity, large as it is, can only cope with the current reports. We simply have no capacity to keep reprinting (thousands) of titles. In other words, it is not a matter of getting Microcards or something else, it is a matter of either getting Microcards or nothing.
It may be pertinent to note here that the French Atomic Energy Commission has recently reached a decision to produce and distribute its technical reports in micro-opaque form. Of interest also is the March 1962 announcement by the Microcard Corporation of the filming of its 20 millionth Microcard under the U. S. Atomic Energy Commission technical information program.

The Microcard Corporation alone claims to have printed nearly 100,000,000 Microcards. Thus, what seemed to Fremont Rider as a daring and visionary proposal in 1944 has become more than a reality in 1963.

Other micro-opaques, such as Microtape, Microtak, Microprint, Micropaper, etc., are seeking their niche in the field of photoreproduction. Microfilm, particularly in unitized form, may pose a serious threat to the future of micro-opaques. Freed from the traditional roll to which it has been confined for many years, unitized microfilm is finding extensive application in many industrial and government operations. The combination of microfilm, Xerography and code-punched cards is helping, for example, the Navy Aviation Supply Depot store and service approximately four million engineering drawings. More advanced systems utilizing microfilm aperture cards and specially designed automatic tabulating equipment have been successfully evolved and applied. To be sure, most of the equipment used in these advanced systems is expensive, and many of the procedures experimental in nature. It is, therefore, not surprising that libraries cannot afford to rent, much less purchase, such equipment even though, as in the case of Shaw's Rapid Selector, they contributed to its development. One should, perhaps, also note that in some instances the newly developed “systems” are impractical, let alone uneconomical, for specific library operations.

Nevertheless, to what extent do libraries now utilize the less expensive equipment and products of the photoreproduction era? There are very few ready-made yardsticks by which one could obtain such information. A comparison of the 1959 and 1962 editions of Brinkley's Directory of Institutional Photoduplication Services in the United States seems useful in indicating the emerging trend. In compiling the 1959 edition, Brinkley mailed questionnaires to 2,170 public and private libraries. Out of the 661 replies, 73 (11 per cent) reported “good facilities,” 149 (23 per cent) “limited facilities,” and 439 (66 per cent) “no facilities.” For the 1962 edition 2,848 questionnaires were mailed. Out of the 890 replies received, 125 (14 per cent) reported “good facilities,” 258 (29 per cent) “limited facilities,” and 507 (57 per cent) “no facilities.” It is worth noting that in issuing the 1962 edition the compiler indicated that it contained a larger number of libraries than the earlier edition because it included Canada and Mexico as well as the United States, but the new edition was published primarily because “many U. S. libraries have added photoduplication services of some sort during the past three years.”

A check of a recent issue of New Serial Titles further substantiates the pattern of growth and availability of photoreproduction facilities. Of 636 American and Canadian Libraries reporting their holdings to a
recent issue of *New Serial Titles*, 118 (19 per cent) have facilities for fulfilling microfilm requests and 231 (36 per cent) are able to supply full size copies.33

**Projected Impact of Photoreproduction on Libraries**

As indicated earlier, research libraries are slowly, yet unquestionably, beginning to utilize the products and equipment resulting from the photoreproduction revolution. Admittedly, the impact on traditional library practices has thus far been negligible. Moreover, the field of photoreproduction is dynamic. New products, new techniques, new applications are incessantly being introduced. Diffusion transfer, dye transfer, and thermographic or electrostatic type copiers are being improved upon and new models issued almost each month.34 One should note that during the last few years the photocopying industry has had a more phenomenal growth than the field of electronics and that the manufacture and sale of photocopying and duplicating equipment has become a billion dollar business. The last decade saw the sale of over 500,000 office copiers and over 100,000 offset duplicators.35 University Microfilms, Inc., recently acquired by the Xerox Corporation, has been doing a business of $1.2 million annually. “We have gone the complete circle,” writes Eugene Powers, former President of University Microfilms, “from the manuscript book to the small edition of the early printing press, to the large edition of the modern printing press, to the smaller edition of ordinary offset printing techniques—and now back again to the single copy produced on demand.”36 Powers adds to this statement: “No out-of-print book, if it can be found and filmed, is really out of print.”

In the field of Xerography, Donald C. Holmes, Chief of the Library of Congress Photoduplication Services, speaks of a “revolutionary breakthrough” in the method of card reproduction. “It may become in the near future feasible,” writes Holmes, “to consider no card out of print since it is possible to film the master card and, from this, to make as many or as few copies as necessary.”37 Newly-developed Microcard copiers,38 new electrostatic printing units capable of reproducing topographic maps from microfilm both in color and black and white,39 prototypes of information systems utilizing photographic images of documents reduced to 1/60 to 1/40,000 of their original area” 40, 41 are constantly being introduced. What are the implications of these developments for library operations? In reviewing the 1961 progress in copying techniques, Rolland E. Stevens states: 42 “Although only a small fraction of our librarians has more than a passing knowledge of the fields of copying methods or more than a fleeting interest in its technology, library administrators are becoming increasingly aware of its importance as a reader service and as a means of facilitating and improving information.” The point that this writer should like to emphasize is that library administrators can and should use photoreproduction with the reader in mind. Too often newly introduced innovations in the photoreproduction field cause us to lose sight of the basic library objective, i.e., to provide the best possible service for
the library user. Photoreproduction has been considered as a vehicle for conserving space, as a means of saving binding costs, preserving materials, etc. First and foremost, however, it must be looked upon as a tool for providing more adequate service to the library user.

The possibilities of utilizing photoreproduction in expanding library service are considerable. Let us examine, for example, the needs of the research worker, scholar or scientist. Invariably he functions best with the aid of a carefully selected “Hand Apparatt,” that conglomeration of books marked with bookmarks, single issues of journals (which may some year be returned to the circulation desk), reprints, preprints, notes, etc., that are jealously kept within arm’s reach of the researcher. The very resourceful or conscientious librarian will, of course, conduct a silent and not-so-silent campaign to have library materials returned to the stacks. Photoduplication, in this instance, may avert a considerable amount of unpleasantness and may even make a contribution to librarian-scholar amiability and to the scholar’s productivity. Even with the antiquated equipment of 1941 it was possible to prove that, at least in interlibrary loan transactions, providing photocopies was often less costly than loaning publications through the traditional ALA procedures. The use of modern methods, such as continuous Xerography, would enable the library owning the necessary equipment to obtain single copies at a cost of only a “few cents per page.” Is it not feasible today to improve library service by providing retention copies of the bulk of journal articles requested by research workers? A comparison of costs incurred and service rendered may prove to be extremely illuminating. Recently approved postage rate increases will force even the most conservative librarian to take a more searching look at the traditional interlibrary loan procedures.

In the area of acquisitions, it may be well to remember that increasingly larger collections of books, both new and old, have become available in microform format. Approximately 1,600 journals are reproduced on microfilm. The typical 6 x 9 inch book may be obtained as a Xerox copy at 3½ cents per page. Hundreds of newspapers have been microfilmed.

New guides listing and reporting microform holdings are being published. The Microfilm Clearing House has been reporting general developments in microfilming projects in issues of the L. C. Bulletin. The success of its publication, Newspapers on Microfilm, has led to the recommendation that a companion publication be issued to be called, Serials in Microform. It is obvious that not only the reference and interlibrary loan librarian, but also the acquisitions librarian, will have a need to become familiar with this type of publication.

New technological advances often demand a new outlook and perspective. Frequently, not only a local procedure but a whole operation or project may be affected by the newly emerging frame of reference. How useful, for example, will be the multiple locations in the National Union Catalog for titles available in microform at nominal cost from a commercial or university source? With every negative reproduced and listed

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in a well-organized reference source and with the rapidly-developing communication networks, national and even regional union card catalogs may decline in their usefulness. They may, instead, be replaced by the future “Union Catalog of Negative Microforms” or some such similar title. Recent microform compilations would readily lend themselves as source materials for the union lists of the future. The Subcommittee on Micropublishing Projects of the Association of Research Libraries has been considering for some time a plan to establish a central depository for microfilm. Through this type of depository it is hoped to make available to libraries positive microfilm or electrostatically-reproduced copies of desired materials.49

Entrenched attitudes embracing other facets of library activities may also need to be changed. Some are even now undergoing such change. James Skipper states: 50

More recently libraries have come to the realization that pride of possession for much of this (research) material was an expensive illusion. Their needs could be adequately met at a lower cost by cooperatively subscribing to the creation of one master film which could be borrowed from a central location when needed.

Microforms may make accessible an unprecedented number of published or unpublished resources. Their economic utilization demands, however, closer cooperation among librarians than in the past. Demanded also is an attitude for greater sharing and dissemination of data found in unique research materials. Is there a continuing need to hoard manuscripts and confine their circulation to an extremely limited clientele when photocopies can be safely and inexpensively supplied for general use? How much will the use of photocopies of source materials enhance the teaching of history, the arts, the sciences? Is it not prudent and wise to have a negative film, from which single items cannot be misfiled or stolen and whose durability is greater than that of paper, safely stored in an alternate location?

From the technical point of view, the barriers limiting the use of reproduction equipment and processes seem to have crumbled. From the economic point of view there is no question but that full utilization of photocopying equipment will prove to be more and more attractive. One possible roadblock to greater utilization of photocopying has in the past been the U. S. copyright law. In July 1961, after conducting 34 studies designed to lay a groundwork for a general revision of the Copyright Law, the Register of Copyrights submitted to Congress the Report of the Register of Copyrights on the General Revision of the U. S. Copyright Law. The report states in part: 51

The application of the principle of fair use of the making of a photocopy by library for the use of a person engaged in research is an important question which merits special consideration. This question has not been decided by the courts, and it is uncertain how far a library may go in supplying a photocopy of copyrighted material in its collections. Many libraries and researchers feel that this uncertainty has hampered research and should be resolved to permit the making
of photocopies for research purposes to the fullest extent compatible with the interests of copyright owners.

It recommends that:

The statute should permit a library, whose collections are available to the public without charge, to supply a single photocopy of copyrighted material in its collections to any applicant under the following conditions:

(a) A single photocopy of one article in any issue of a periodical, or of a reasonable part of any other publication, may be supplied when the applicant states in writing that he needs and will use such material solely for his own research.
(b) A single photocopy of an entire publication may be supplied when the applicant also states in writing, and the library is not otherwise informed, that a copy is not available from the publisher.
(c) Where the work bears a copyright notice, the library should be required to affix to the photocopy a warning that the material appears to be copyrighted.

With the passage by Congress of the revised Copyright Law and with the continuing improvement in photoreproduction equipment, the applications that can be made of photoreproduction in library operations would be limited only by the imagination of librarians. What these applications should be, whether for publishing accessions lists, copying title pages for journal routings, reproducing manuscripts, photocharging, index compilation, duplication for vertical files, catalog card reproduction, etc., depends entirely on the needs of the individual library and its clientele. Theory and imagination alone, however, are not sufficient. American research libraries need to apply that which has been conceived. For the truth of the matter is that there is a tremendous gulf between a good idea and its application. As far back as 1945, for example, E. E. Williams suggested the possibility of including microfacsimiles of the original articles with bibliographies.\textsuperscript{52} It is in a recent article entitled: \textquote{New Methods for Presenting Bibliographic Information in the U.S.S.R.\textquoteright} that we learn of its application.\textsuperscript{53} The library profession must not merely look into the future. It must step into it.

REFERENCES

5. Ibid. p. x.

\textit{Volume 7, Number 3, Summer 1963}
13. "Year's Work in Photocopying, [etc.]"] Library Resources and Technical Services, Spring issues.
14. Davison, George M. *Microtext in the Form of Opaque Cards and Transparent Microfiches; Review of Progress (annual).* Moorgate, England, United Steel Companies.
25. Ibid.
32. Ibid. p. 1.

* 252 *

Library Resources & Technical Services
50. Skipper, James. op. cit. (Ref. 21), p. 346.

UNIVERSITY OF CHICAGO CONFERENCE ON THE CATALOG

The 1963 Annual Conference of the University of Chicago Graduate Library School (August 5-7) is on the topic "Library Catalogs: Changing Dimensions."

The program will include papers on "The Demands of Current Scholarship and Research" (Herbert Menzel); "The Changing Character of the Catalog in America" (David Weber); "The Catalog in European Libraries" (Felix Reichmann); "Duplicate Catalogs in Regional and Public Library Systems" (William S. Geller); "Duplicate Catalogs in University Libraries" (George Piternick); "The National Union and Library of Congress Catalogs: Problems and Prospects" (John W. Cronin); "Studies Related to Catalog Problems" (Henry J. Dubester); "Relation of Library Catalogs to Abstracting and Indexing Services" (Dr. Frank B. Rogers); "Automation Related to Library Catalogs and Other Bibliographical Tools: Problems and Prospects" (Don R. Swanson).
Cataloging and Classification in Junior College Libraries

ARTHUR RAY ROWLAND, Librarian
Augusta College Library, Augusta, Ga.

ALTHOUGH SEVERAL ARTICLES in recent years have dealt with cataloging and classification in various types of libraries, no one has considered the more than six hundred junior college libraries in the country. Eaton\(^1\) (1955) surveyed only college and university libraries in *American Universities and Colleges,* and Johnston's\(^2\) survey of junior college practices (1958) omitted cataloging and classification.

Recently I sent a questionnaire to all of the librarians of junior colleges in the "Directory of Junior Colleges,"\(^3\) which represented all of the 50 states, the District of Columbia, and Guam. Replies were received from 336 or slightly more than 50 percent. Of those, 21 were not useful for various reasons. Replies were received from 46 states, the District of Columbia, and Guam.

**Classification**

Of these, 96.5 percent use the Dewey Decimal classification scheme and 3.5 percent use the Library of Congress classification scheme. No library reported using any other scheme, although two of those using Dewey use the Lynn-Patterson scheme for Religion.

Not all of the libraries, however, were satisfied with their present system of cataloging and classifying the collection. However, 13 libraries indicated that the potential size of the collection would determine whether they would use Dewey or LC. Table 1 indicates the type of system presently used and the type that the librarians would use if they were starting a new library.

**Table 1**

<table>
<thead>
<tr>
<th>Presently Used Number</th>
<th>Presently Used Percentage</th>
<th>Preferred Number</th>
<th>Preferred Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dewey Decimal System</td>
<td>304</td>
<td>229</td>
<td>72.7</td>
</tr>
<tr>
<td>Library of Congress Classification System</td>
<td>11</td>
<td>3.5</td>
<td>46</td>
</tr>
<tr>
<td>Dewey Decimal or Library of Congress System—depending on size</td>
<td>13</td>
<td>4.1</td>
<td>1</td>
</tr>
<tr>
<td>Bliss</td>
<td>1</td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td>Lamont</td>
<td>1</td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td>No Answer</td>
<td>25</td>
<td>25</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>315</strong></td>
<td><strong>315</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

\(^*\) 254 Library Resources & Technical Services
The Eaton study of college and university libraries revealed that 92.3 percent of libraries with collections under 25,000 use Dewey. Since 89 percent of the libraries replying to me had collections under 25,000 and 96 percent of my total replies use Dewey, it would seem that whether the library is a junior college or a 4-year institution, Dewey is the prevalent scheme for smaller collections.

Nine libraries have changed classification systems in the past ten years, all except two to Dewey. Table 2 indicates changes made:

<table>
<thead>
<tr>
<th>System</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local system to Dewey</td>
<td>4</td>
</tr>
<tr>
<td>Abridged Dewey Classification System</td>
<td></td>
</tr>
<tr>
<td>to Dewey Classification System</td>
<td>2</td>
</tr>
<tr>
<td>Library of Congress Classification System</td>
<td>1</td>
</tr>
<tr>
<td>System to Dewey Classification System,</td>
<td></td>
</tr>
<tr>
<td>Dewey Classification System to Library</td>
<td>2</td>
</tr>
<tr>
<td>of Congress Classification System</td>
<td></td>
</tr>
</tbody>
</table>

Author Number

With author or book numbers there has not been as much uniformity. A breakdown of the types of author number used is given in Table 3:

<table>
<thead>
<tr>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutter</td>
<td>33.6</td>
</tr>
<tr>
<td>Cutter-Sanborn</td>
<td>41.9</td>
</tr>
<tr>
<td>Library of Congress</td>
<td>2.2</td>
</tr>
<tr>
<td>Other</td>
<td>1.3</td>
</tr>
<tr>
<td>Author’s Initial or Name</td>
<td>3.8</td>
</tr>
<tr>
<td>No Author Notation</td>
<td>17.2</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Subject Headings

In the use of standard lists for subject headings there has not been as definite a pattern as was seen in the classification of schemes used. Of those libraries responding, 25 indicated that they used the subject headings which appeared on the printed cards which they received either from LC or Wilson without any checking to see if they conformed with current edition of standard list. Table 4 shows the standard list used:

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Of the 114 using the Library of Congress List, 25 use both Wilson and LC cards and adapt the Sears headings on Wilson cards to conform to LC headings; two use in addition Kapsner for religious headings; and three also use Reader's Guide and Book Review Digest for additional subjects needed for material cataloged locally.

Even though a larger number (150) use Sears, more libraries in this group use additional aids in establishing headings with materials for which no printed cards were available. For religious material Kapsner is used by 5 libraries; 5 libraries use Booklist, 5 use Reader's Guide and 4 use Book Review Digest in combination with other aids.

Of those libraries which use both LC and Sears all indicated that they use LC headings on LC cards, Sears on Wilson cards or if original cataloging is necessary.

No cross references are made by 58 libraries. Even though 140 libraries use LC or LC in connection with Sears as a standard guide, only 97 make cross references from the LC list. Of the 150 libraries using Sears as the standard guide, 127 also use Sears for cross reference. One librarian indicates that they make whatever cross references seem logical.

Production of Catalog Cards

A percentage of 86.2 indicated that they use printed cards when available. Table 5 indicates the source and type of production of cards:

<table>
<thead>
<tr>
<th>Source of Cards</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library of Congress Cards</td>
<td>216</td>
<td>68.7</td>
</tr>
<tr>
<td>Wilson Cards</td>
<td>13</td>
<td>4.1</td>
</tr>
<tr>
<td>Both Wilson and Library of Congress Cards</td>
<td>42</td>
<td>13.4</td>
</tr>
<tr>
<td>Alanar</td>
<td>7</td>
<td>2.2</td>
</tr>
<tr>
<td>Other Centralized Processing</td>
<td>2</td>
<td>.6</td>
</tr>
<tr>
<td>Reproduce own cards</td>
<td>35</td>
<td>11.0</td>
</tr>
<tr>
<td>Total</td>
<td>315</td>
<td>100%</td>
</tr>
</tbody>
</table>

Of the 35 libraries which reproduce their own cards; only 13 use some type of mechanical reproduction method: 3 Chiang, 2 Ditto, 2 Multilith, 3 Cardmaster, 2 mimeographing, and 1 photoduplication. Eight of the 35 also order printed cards when available, indicating that 22 (or 6.9 percent) of the junior college libraries still type all catalog cards.
Staff

Who does the cataloging and typing is an acute problem because junior colleges for the most part have a small staff. Table 6 indicates who does the cataloging:

<p>| TABLE 6 |
|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time cataloger</td>
<td>54</td>
</tr>
<tr>
<td>Asst. Librarian, in all cases also the only other professional</td>
<td>14</td>
</tr>
<tr>
<td>Clerk</td>
<td>9</td>
</tr>
<tr>
<td>Alanar or Centralized Processing</td>
<td>9</td>
</tr>
<tr>
<td>Head Librarian</td>
<td>223</td>
</tr>
<tr>
<td>Head Librarian and other professional members of staff</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>315</strong></td>
</tr>
</tbody>
</table>

Of the 229 head librarians who catalog, 181 have no other professional librarian on the staff; 48 do have other professional assistants; and 9 of the libraries have 3 or more professional members on the staff. As indicated in Table 6, a clerk does the cataloging and classification of materials as well as the typing of catalog cards in 9 or 2.8 percent of the libraries.

Table 7 indicates the clerical assistance available for cataloging:

<p>| TABLE 7 |
|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>No. of Clerks</th>
<th>No. of Libraries</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>192</td>
<td>60.9</td>
</tr>
<tr>
<td>Less than 1</td>
<td>62</td>
<td>19.7</td>
</tr>
<tr>
<td>1</td>
<td>51</td>
<td>16.2</td>
</tr>
<tr>
<td>1 1/2</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>315</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

In 80 percent of the 62 libraries with less than a full time adult clerk in cataloging, this is the only clerical employee the library has. Table 8 indicates the type of employee who actually types catalog cards:

<p>| TABLE 8 |
|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>No. of Libraries</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerk</td>
<td>123</td>
</tr>
<tr>
<td>Student Assistant</td>
<td>109</td>
</tr>
<tr>
<td>Librarian</td>
<td>83</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>315</strong></td>
</tr>
</tbody>
</table>
Only 50.1 percent of the libraries use any students in the processing of books. Table 9 indicates the number of libraries and amount of student help per week in cataloging:

**TABLE 9**

<table>
<thead>
<tr>
<th>No. of Libraries</th>
<th>Under 5 hours</th>
<th>5-9 hours</th>
<th>10-19 hours</th>
<th>20-30 hours</th>
<th>30 or more hours</th>
<th>Varies according to need</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
<td>41</td>
<td>48</td>
<td>31</td>
<td>7</td>
<td>15</td>
<td>158</td>
</tr>
</tbody>
</table>

**Conclusions**

The Dewey Decimal classification scheme is used very widely in junior college libraries. However, not all librarians are satisfied that this would be the best scheme to use if they were starting a new library. Relatively few have made any changes because of the problems involved and because of the lack of staff.

The biggest problem which faces the junior college library is lack of staff, particularly clerical staff. When librarians in 26.3 percent of the libraries have to do all of the typing and processing of books there is a gross waste of professional time and energy. Most of the librarians, by their comments, recognize that they are not doing the best job, but feel that they can not do a more thorough job without clerical help. With 20 percent of the libraries making no cross references for subjects used, it would seem that there is a need for the improvement of this area.

**REFERENCES**


**RECLASSIFICATION PROJECTS**

Among libraries undergoing reclassification are the University of Maryland (from Dewey to LC) and the University of Malaya (from Bliss to LC)
A New Concept in Serial Dealers*

H. Wendell Alford, Acquisition Librarian
State College of Iowa, Cedar Falls

TO REMAIN altogether sane in serial work, one has early to realize that continual problems are the rule. And why not? Serials as a type of library material have almost human personalities. As most librarians know, they are born, become ill, and die. In between these events they can marry, divorce, have offspring, vary diets, and reduce or enlarge in the middle of volumes, have different nationalities, speak different languages, and even have prejudices. It is uncanny how some serial publications assume attributes almost human. One can remember the tears the day old Colliers died. Serial librarians the country over stepped to windows to see if flags would go above halfway. Tongues are still wagging about what happened to Liberty and American Mercury. And what, pray tell, would be the results of stacking together issues of Commonweal, Commentary, and The New Age.

Even though Freud was not able completely to systemize human personality problems, librarians expect serials dealers to lasso and ride herd on hundreds and thousands of these critters almost perfunctorily. So long as dealers profess, librarians can justifiably expect, it seems.

In planning the new library building which is finally under construction at the State College of Iowa, the guiding principle was the ideal. This ideal was to be initial planning without regard to cost or known possibility. The idea, of course, was to plan the very best and then let practicality take over. The author seeks, within the same framework, to outline what could perhaps be impossible presently to attain, but nevertheless would be, he feels, the ideal serials agent or dealer.

In the beginning, serials agents were concerned primarily with the handling of periodicals only. Today dealers are accepting other types of serials. One company is advertising a list of non-periodical serials which includes proceedings, annuals, conferences, yearbooks, and publishers' series. They do not handle periodicals. Other agents will accept orders for several types of serials. More and more companies in this country are announcing that they are able to handle serials on an international basis. Many librarians do not find that the service equals the advertising claims. Recently the author received a notice that led him to believe that American agents are resubmitting lists to foreign dealers which adds, of course, another link in the chain between user and publisher.

* Revision of a paper delivered at the Iowa Library Association at Des Moines, October 25, 1962.

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As publishing of all types continues to increase, acquiring pamphlets is even more cumbersome now than ever before. It must be admitted that this category of publication cannot be classed as a serial, but in a sense, many pamphlets offer a number of the same acquisition problems as serials. Certain organizations and societies perpetually issue paperbound publications whose subject matter is circumscribed within a relatively narrow discipline. Acquisition librarians know these items are being published, but many times their introduction to given titles comes from students or faculty members through readers service desks and hence to acquisitions. Always the question is: do you have it? Well, no, but it will be acquired. The pamphlet was, perhaps, mentioned in a periodical article written by the same author. He very likely released the periodical contribution before the booklet. Enough has been said to indicate that pamphlet acquisition is a problem with which librarians could use help. Actually, there is a corporation in New York City devoted precisely to this task. They emphasize, however, that they are not trying to infringe upon regular periodical agents' responsibilities.

A rise in blood pressure can usually be detected when an acquisition person hears the word “documents.” The pressure will continue to rise if other terms follow such as non-depository, depository, processed, state, federal, municipal, United Nations, foreign, free, restricted, and issuing office only. Could it be that the international political situation is what it is because the various sovereignties are waiting for someone to organize their publications? If glory is directly proportionate to the size of obstacles overcome, there awaits a glorious task for someone in the area of document acquisitions. While it is true that no one library is interested in every municipal or government document published, it is equally true that every library is interested in some of them. Presently there are attempts with certain types of documents to systemize ordering through agents, but, observing the problem as a whole, the effort is but meager.

Now for the big requirement of the ideal serials agent: would it not be nice to have one address for every category of library material involving problems relating to serial purchases? One annual billing would take care of the bulk of domestic and foreign periodicals, annuals, transactions, proceedings, yearbooks, pamphlets, newspapers, and even all types of documents. Such an all-inclusive dealer presupposes absolute integrity perhaps; and, if viewed within the present possibilities of serial purchasing by the average library, this service is impossible. One would necessarily have to think in terms of a public utility, or at least an organization with general control by the populace such as public transportation or general communication systems. It could be that a change so drastic can be realized only with a generous serving of time. Meanwhile, the struggles presently endured will continue to have many facets. Not all of these would disappear completely with the coming of the giant agency. All would be modified for the better, however, if not eliminated.
In this proposed dealership, time would not be given to soliciting endless publishers for discounts and other terms, but rather the publisher would seek the services of the agency to handle its serial or serials. Bidding on lists would cease, because firm quotes would be standardized. A publication when promoted for subscriptions would, for institutional sales at least, need to have its intrinsic worth emphasized rather than economic devices.

What are some aspects of serial acquisition that the proposed radical change might affect? Already mentioned is bidding which is a headache for all persons involved and a farce as well. Most librarians are well aware of this fact, but not all are successful in converting their superiors. Discounts and long-term subscriptions are circus juggling acts that are really insults to people who desire to practice sane business principles. Paying for one-third of the total list of titles each year might save the publishers time in not having to manipulate the addressograph every year, but what does it do to the agent and librarian? They spend the money saved on subscriptions in trying to keep the conglomerate results straight. If a till-forbidden arrangement can work to an advantage, between the library and the dealer, the same understanding can reach all the way to the publisher with added advantage. The annual pile-up at the end of each subscription year with its related confusion is not an insurmountable task. The dealer could assign times during the year for various libraries to clear annual invoices for approval and payment. Why gain a little advantage in refining a cure when the disease can be eradicated?

The most common thing overlooked in evaluating worth received for money spent in serials purchasing is day-to-day, trouble-free service. Greatly improved service would be possible if the dealer had means of producing historical facts about every serial that will appear in the Union List of Serials to be released in 1965. Future serials could be added to maintain a complete up-to-date history of every serial reported and unearthed. Recently a library discovered a year missing in a serial run. The publisher was asked if the title were published that year. He returned a quote. The library ordered. The publisher sent the order form back with the note, “none published that year.” The publisher was asked to clarify the conflicting reports. A week later the library received the next communication, a bill for the missing year. It is still not known whether an issue appeared that year, and certainly the bill will not be paid until the goods are received. It is probable, however, that already enough has been paid for the piece, if one exists.

Probably less has been done to standardize records and routines in serial acquisition than in any other phase of library activity. The only reason for this condition is that no one thinks that it is possible. A minor point: some librarians even get separate billing on telephone directories these days. There was a time when it was a joke.

Standards for serial acquisition should have careful committee study at a national or international level. Some of the factors that should
be considered are claims; samples; title pages and indexes; order, invoice, and routine communication forms; subscription periods; open or until-forbidden subscriptions; one-year trial subscription; society memberships with publications involved; cancellations; back-issue sets and runs; procedures to follow when price increases or decreases occur during the volume; and serials in microform. Some of these areas for consideration seem almost trivial and, yet, one can believe that tens of thousands of dollars are spent in personnel time and supplies each year on them. Human beings are almost like machines at times, meticulously going through the same mistakes over and over, especially if there is a slight variation or approach each time.

Through prearranged agreements many routine problems would never happen. For instance, in colleges and universities particularly, it is advantageous at times to begin a publication in August or September. The librarian responsible for serials can do one of several things when this problem arises. He can try to make the subscription retroactive, wait until the next volume begins, or start the subscription immediately and bind in a partial volume with the first full one or throw the odd issues away after the first full volume is received. If a standard procedure could not be agreed upon throughout the profession, a majority request could dictate the rule, and unless a library asked for a deviation from that policy, it would receive service on that basis. The agent would have the special requests punched into the IBM cards (or whatever system is used) for any given institution.

Another agreement could be reached regarding discontinued publications. Must librarians extend another publication by the same publisher three and two-fifths months to absorb a refund? If the dealer could let these refunds accumulate until the next annual order and apply the assets against the total billing, it would make more sense. One can hear business managers saying that money should not be tied up for say, ten months. Interest on the amount very probably would not equal the loss of personnel time spent in making a decision on whether to take the girlie or sports alternate. It is probable that other publications of the publisher are taken anyway, and when the other title is extended the three and two-fifths worth at a different annual rate, the new title can be had for four and three-sevenths months. Figuring all this out takes the whole library staff two and one-sixteenth coffee breaks.

Many people feel that there is not enough profit margin in scholarly journals to allow good service techniques. Why should the dealer not charge extra if necessary? A good portion of the titles that college and university libraries buy are not subsidized by commercial advertising. If the extra money spent were efficiently used to eliminate time-wasting errors at the dealer level, the saving could eventually be passed on to the library. Surely, if the University of Minnesota can, in a very short time, announce how many of its last year's approximately forty thousand students took a given course, serial dealers should be able to know whether or not number three of last year's volume of College and Research

Library Resources & Technical Services
Libraries was published. The author feels that there is no one serials dealer in the world today large and complex enough to render the kind of service in serials that the present information explosion demands. Efforts are too segmented to be effective. No one operation in the acquisitions of serials can now afford the equipment to modernize thoroughly for the total challenge to serials purchasing. Even so, present dealers are giving really magnanimous service considering the impossibilities within the present philosophy of serials handling.

Two prices will have to be paid if librarians are ever to realize any value of the suggestions made above. The changeover to a centralized serial dealer would require a sizeable capital outlay in funds initially. But perhaps the harder price to produce would be the overcoming of the inertia of tradition.
Cataloging Small Manuscript Collections

MICHAEI JASENAS, Rare Book Librarian
Cornell University Libraries
Ithaca, N. Y.

IN NO OTHER AREA of technical services has so little been done to establish a code of rules as in the cataloging of modern manuscripts. The tentative rules issued by the Library of Congress are concerned only with the cataloging of collections or groups of manuscripts. Furthermore, many of these rules do not provide for special instances and merely suggest, in general terms, the basic procedures which the cataloger could apply to each special case by using his own judgment and imagination "according to the circumstances."

Some writers on this subject have expressed their doubts about the utility or feasibility of a single code of rules. According to Bond, such a code is not possible "unless it is so detailed that it is unwieldy, or so general that it is meaningless." Mearns points out that "no catalog can be, for everyone who may consult it, a precision instrument, neither can reference to entries in it be substituted for an examination of the works they describe." Libraries should, however, as Mearns himself admits, set up a catalog of manuscripts which will help the patron to eliminate from consideration those items which definitely have no relationship to his inquiry. To achieve this objective, manuscript departments in libraries attempt to establish their own manuscript cataloging patterns in accordance with the cataloging practice in other parts of their libraries. In this article an attempt will be made to bring out some of the major aspects of manuscript cataloging in repositories with relatively small holdings consisting predominantly of modern manuscripts, chiefly historical and literary in nature.

When manuscript holdings are very small, it is of course possible to record manuscripts piece by piece, entering each letter under its writer and making added entry cards for each addressee. As soon as collections grow in size, it becomes imperative to devise a new cataloging practice which would enable the processors to record newly-acquired manuscripts quickly and effectively and, at the same time, not increase the catalog to enormous proportions.

Before establishing a cataloging practice which would best fit the needs of a particular library, it is desirable first to make a survey of manuscript catalogs of other libraries. In addition, a number of outstanding studies should be examined in detail, because they will supply useful information about practices followed in some of the other major collections whose catalogs may not be available for consultation. Such a survey would no doubt provide the background needed for the establishment of the general policies and procedures of manuscript cataloging.

Even a cursory survey of manuscript catalogs shows that cataloging
practices vary to a considerable extent from library to library. Some scholars who frequently use the facilities of various repositories attempt to identify a few major categories of manuscript control systems practiced by libraries. Johnston groups these systems into the four types of control which may be summarized as follows:

1. A simple listing of manuscript collections in a card catalog plus a partial list of persons whose correspondence may be found in a particular collection.

   Under this control system, the catalog does not indicate the number of letters of a writer nor their dates, and “there is no way of telling, until the last item in a given collection has been checked and inspected, whether or not all pertinent documents have been found.”

2. A card catalog as above plus written summaries available for all collections.

   Usually such summaries include some list of important subjects upon which information may be found and the important people involved as correspondents. This system provides only a partial index to the contents of the collections, even though it is an improvement over the kind of control mentioned under 1 above.

3. A card index of all correspondents for each collection, with dates of all letters indexed under the names of the letter writers.

   The main shortcomings of this system are that the reader must look through indexes of all collections because there is no master index, and that it does not provide any subject approach.

4. “The nearest approximation to the complete subject-person index for each collection” plus a master index for the resources of the repository as a whole.

   To scholars such a system is no doubt the most satisfactory of all.

The staff shortage in most libraries prohibits the establishment and maintenance of manuscript catalogs which would be detailed enough to meet adequately the needs of scholars by recording all correspondents with dates of all letters, and, at the same time, providing a satisfactory subject approach. Being faced with high costs of cataloging and a continuous and substantial increase in manuscript holdings, most repositories have no alternatives left but to catalog each collection as a unit or to break down each individual collection into several catalogable units. If the staff shortage is not too serious, the latter course will be chosen. In doing so, the library will provide for its patrons a finding device which, without listing on cards everything item by item within a particular collection, will nevertheless enable the readers to eliminate from consideration those items which have no relationship to the object of their research. Such a course means the establishment and maintenance of a catalog which is a compromise between the ideal advocated by scholars and the traditional practices of cataloging each collection as a unit.

Once this sort of compromise has been made, the first task one faces is to define the catalogable unit. To make it applicable to as many
cases of cataloging as possible, the catalogable unit is generally defined as that part of a manuscript collection which contains a number of mutually related items.5 There are instances, however, where catalogable units may be either an entire undivided manuscript collection or a single manuscript which is not related to any other item in the collection, or, finally, a single manuscript which does not belong to any collection.

The correspondence included in a manuscript collection normally constitutes a separate catalogable unit. Sometimes letters are so numerous that it is deemed desirable to break them down into smaller units requiring analytical entries. A collection of letters can be subdivided thus:
1. Letters written by the “principal person” (often the one for whom the collection is named).
2. Letters written by major correspondents (i.e., those who are prominent enough to be included in biographical dictionaries, as well as those who are of particular significance within a manuscript collection).
3. Letters written by minor correspondents.

It is a sound policy to make a separate entry for all the letters written by the principal person. Also, a group of letters by a major correspondent, no matter what its size, should be given a separate entry. If the letters written by minor correspondents constitute a sizeable group, such a group can be further subdivided in order to obtain more manageable units. This group can be broken down by addressees or by subjects.

In cataloging manuscripts, the prevailing trend in most libraries is to adhere as much as possible to the principle emphasized in the A.L.A. Cataloging Rules for Author and Title Entries suggesting that manuscripts be entered according to the rules for printed books. When a cataloger deals with a group of letters all written by the same person, no problems are encountered in entering such a unit in accordance with the principle of entry under author. It is, however, not so easy to solve the entry problem when letters were written by various persons. In such cases there are two possibilities: (1) all letters are addressed to the same person, or (2) there is no common addressee for the whole group.

With regard to the first possibility the Library of Congress rule A1a may be adopted. This rule stipulates that, “when a collection or group of papers consists of material written by or addressed to a person, family, government agency or other corporate body, it is entered under the name of the person, family, government agency, or corporate body.” In the second case, i.e., a group of letters without a common addressee, the same Library of Congress rule can be applied in all cases when we deal both with the letters addressed to one person and with letters concerning this person. When, on the other hand, the cataloger is confronted with a unit containing letters about a person but none written to him, it is appropriate to enter this unit under the name of the person to whom the letters are related, or under the subject with which they all deal. An entry under subject seems to be, in some instances at least, in accordance with the principle of entry pointed out in the second part of the Library of Congress rule A1b which concerns the choice of entry for collections.
having no common addressee. According to this rule, there may be cases when a collection can be entered under a title that "should start with key words which indicate the content of the collection or its chief characteristic." Such key words no doubt coincide frequently with the subject under which collections are actually entered.\footnote{8}

Without altering LC principles these three general rules can be set up for the choice of main entries for catalogable units or analytical entries:

1. Enter a group of letters of one writer under the writer, with added entry cards made for each addressee.
2. Enter a group of letters by various writers (minor correspondents) to one addressee under the addressee, with added entry cards made for each writer.
3. If a group of letters by various writers (minor correspondents) does not have a common addressee, enter such a group under the name of the person about whom the letters are written or to whom they may be related in some other way; or under the subject with which they all deal; or under the key words which indicate the contents of this unit or its chief characteristics. Make added entry cards for each writer and addressee.

An example of rule 1 may be taken from the cataloging of the Wyndham Lewis Collection at Cornell. All letters written by Lewis were grouped into one catalogable unit. The main entry card is as follows:

**LEWIS**

Lewis, Wyndham, 1882-1957
1861 items

*For holdings see Lewis Index, Pt. I*

Letters—handwritten, carbon copies, and drafts—covering a very wide range of subjects and various phases of Lewis's life and activities. In addition to letters to members of his family, includes copies of letters to Thomas Stearns Eliot, Dorothy and Ezra Pound, and Augustus John.

As seen from the above general reference note, the detailed record of all Lewis letters in our possession is included in an index, which is in loose-leaf book form. In this index all Lewis's letters are listed alphabetically by addressee and chronologically under each addressee. This catalogable unit—letters by Lewis—is considered a separate shelving unit within the Wyndham Lewis Collection. But the arrangement of letters belonging to this catalogable unit is, in the boxes, not alphabetical by addressee, as in the index, but strictly chronological, thus giving us an additional approach to individual items of this unit.
Rule 2 may be illustrated by a catalogable unit in the Truman Collection at Cornell. This unit consists of letters sent to Arthur W. Wilson, an old friend of Harry S. Truman. The card for this unit reads as follows:

TRUMAN

Wilson, Arthur W.
Letters received, 1941-61.
9 items
For holdings see Truman Index.

Letters to Wilson, mostly concerning his application for an army commission, the publication of a letter written him by Truman in 1919, the Democratic National Convention of 1960, and reunions of the former members of the 129th Field Artillery. Correspondents include former White House officials George M. Elsey and Charles G. Ross, General R. M. Danford, former chief of Field Artillery, and Cyril Clemens.

See also:

The general reference note on this card refers the reader to the index of the Truman Collection. As the indexes for other collections, this index records all the holdings of the Truman Collection item by item. This unit is entered in the index under the same heading and title as on the above card. Individual letters of this unit are listed in the index alphabetically by writer and chronologically under each writer.

Rule 3, an example of which is shown below, is applied to cases whenever there are, within a collection, groups of letters written by various minor correspondents and addressed to different persons.

DREISER

Dreiser, Theodore
Letters relating to Dreiser, 1903-1959; undated.
68 items
For holdings see Dreiser Index.

Correspondence of the University of Pennsylvania, Mary Frances Dreiser Brennan and others concerning Dreiser's family and his works, especially Sister Carrie and The Bulwark; also, concerning Dreiser's letters and their editing by Robert Elias.
Here, also, the detailed list of the correspondents is included in the index which, as in the two previous examples, records letters, within this unit, alphabetically by writer and chronologically under each writer.

As seen from the above examples, the information included on the catalog card is limited to the essential minimum. Usually a main entry card for both the collections and the other catalogable units contains the following elements:

1. Location symbol. If collections are arranged alphabetically by their names, the location symbols will be catchwords taken from these names. DREISER, for example, is the location symbol for the Theodore Dreiser Collection at Cornell. For miscellaneous manuscripts which do not belong to any collection, the location symbol may be MISC or just M.

2. Author heading. It should resemble the author headings for printed books as much as possible, and the “no conflict” rule might be a guiding principle in establishing entries for personal authors.

3. Title. In most cases a title for catalogable units must be supplied by the cataloger. It is customary to use standard titles followed immediately by the inclusive dates, as suggested by the Library of Congress rules, for example:
   Correspondence, 1839-76.
   Letters, 1932-56.

4. Collation. The Library of Congress rule B3 concerning the physical description can be applied here. In most cases, as in those illustrated by the above examples of catalog cards, the term “items” is used, and a more detailed physical description (pagination, etc.) is provided only in the index.

5. General reference note. Such a note refers the reader to the index which records in detail the holdings of a particular collection. Usually this note reads as follows: “For holdings see . . . Index.”

6. Descriptive note. For a collection card this note is usually compiled by applying the Library of Congress rules B5-10. In so far as catalogable units within a collection are concerned, such a note, ordinarily contained in one paragraph, describes merely their scope and contents, mentioning the most important correspondents and major subjects of the documents included in a catalogable unit.

7. ’See also’ references. They are used to call the reader’s attention to the additional documents which belong to another catalogable unit or even another collection, but which are related to the ones included in the catalogable unit being examined by the reader.

8. Tracing. There is no need to trace added entries on the main entry card if an index is provided to record holdings of a collection; in such a case, only the subjects are traced, and they are usually listed on the verso of the card.

The only effective way to reduce the amount of information in the card catalog is to supplement the latter by indexes listing holdings of each catalogable unit. The indexes must be detailed enough to indicate the date and pagination of each item. Incipits are given only for undated or partially dated letters. Letters written by one person and constituting a separate catalogable unit are listed alphabetically by addressee and chronologically under each addressee within that unit. Catalogable units are arranged, in the index, alphabetically by main entry.

In addition to relieving the card catalog from excessive bulk by elimin-
nating holdings cards, the indexes *ipso facto* take care of tracing added entries for numerous letter writers. The indexes are also indispensable tools for inventory. The maintenance of indexes should not present a serious problem because, being in loose-leaf book form, they are easily kept up to date. A sample of listings in the index to the Maurepas Collection at Cornell is shown below:

Maillé-Nesle, Armande de la Porte Mazarin, marquise de.
Letters, 1741-46.
9 items
Letters to Maurepas (7)
   1741 Sept. 2     2p.
   Oct. 1        2p.
   1741 Nov. 6[?]  1p.
   1745 Apr. 11   3p.
   1746 Feb. 16   2p.
   Feb. 21       2p.

Letters to Salley, secretary to Maurepas (2)
   1745 Apr. 12   2p.
   Nov. 23       4p.

No one strictly predominant arrangement of manuscripts exists in American libraries. Collections are arranged in one or two of the following ways: in order of accession number, alphabetically by main entries or names, geographically, chronologically, or by subject. In a repository with relatively small and stable holdings, an alphabetical arrangement of collections on the shelves is fully satisfactory.

There are various methods of arranging manuscripts within the collections—by form (for example, manuscripts of an author's works, his personal correspondence, speeches, diaries, business papers), by period, by place, by subject, by size, or by a combination of these. There is a tendency now to arrange manuscripts within an individual collection by catalogable units, especially if most of the manuscripts are of high quality and/or consist chiefly of the papers of prominent literary figures, as is the case in Cornell's Rare Book Department. For repositories using indexes to record holdings of individual collections, it would seem most convenient to arrange catalogable units in the same order in which they are listed in the index, i.e., alphabetically by main entries.

A modern practice gaining ground in recent years is to arrange the letters received by the principal person (incoming letters) alphabetically by writers and chronologically under each writer, while the letters written by the principal person (outgoing letters), which normally constitute a separate catalogable unit, are ordinarily arranged chronologically. Whenever manuscripts are arranged chronologically, undated manuscripts are placed at the end of the dated manuscripts. When only the year is given, the items are filed at the end of that year; when the month and year are
given, items are filed at the end of that month. The nature of the materials in the collection determines whether an alphabetical or a chronological arrangement should be adopted. For the purely historical or archival material the proper arrangement is most likely to be chronological, but the literary manuscripts would, in most cases, be arranged alphabetically by writer.

In order to keep all material within a particular collection together, bound manuscripts belonging to a collection can be shelved (if the appropriate shelving space is available) next to the boxes containing unbound manuscripts of that collection. These bound manuscripts are arranged alphabetically by catchwords taken from their titles. For example, in the Shaw Collection at Cornell a bound volume containing material pertaining to the progress and publication of Bernard Shaw's *Geneva* has the location symbol:

```
SHAW
Bd
Geneva
```

If such a policy is adopted, bound manuscripts which do not belong to any special collection are shelved after the boxes containing miscellaneous manuscripts. They are arranged alphabetically by main entry.

Sometimes a newly-acquired collection of manuscripts has an adequate arrangement which can be retained in its entirety or in part. An example of a well-organized collection is the collection of historical French documents of the eighteenth century, the Maurepas Papers, which was sold by Parke-Bernet Galleries in March 1962. Out of 754 items included in this collection, Cornell acquired 577 items grouped into 47 lots. After a careful study of the original arrangement, a large number of the existing groups of this collection were retained as catalogable units. The lots not kept as separate catalogable units were those which contained papers dealing solely with French naval affairs in the 1730's and 1740's. All these lots were grouped into one single catalogable unit.

The manuscript cataloging policies which have just been described are based on the catalogable unit device. This device is not an innovation; it is only a step forward in the development of the collection device which, in its turn, can, according to Dunkin,\(^\text{12}\) be found in the cataloging of printed books. As an example Dunkin mentions here the practice followed by some libraries of cataloging pamphlets as collections rather than as individual items. Wilson\(^\text{13}\) finds a similarity between a manuscript collection and a collection of essays by several authors in a Festschrift. Both a collection of pamphlets and a Festschrift present a problem which is similar to that of cataloging a manuscript collection, i.e.: to what extent should its contents be analyzed? The solution of this problem depends primarily upon the function which the catalog of manuscripts is supposed to perform in aiding scholars in their research. Here, again, the same trend may be found in the development of both the cataloging of printed books and the cataloging of manuscripts: moving "steadily toward standardiza-
tion and simplification with accent on the catalog as a finding list." It may be added that the concept of a finding device is even more applicable to the manuscript catalog than to the catalog of printed books because, it is generally believed, the users of manuscripts, unlike many other users of a library's facilities, are quite familiar with the subjects under their investigation and are not likely to take a cataloger's word for details without examining the actual items described on catalog cards. The user of manuscripts, like the one portrayed by Bond, "will expect to be led to his material, but not told all about it;" and, for this reason at least, "elaborately detailed cataloging will be wasted, because he [the reader] will rightly prefer to draw conclusions based upon his own examination."

In so far as the description of the catalogable units is concerned, manuscript cataloging is intended to provide only the essential minimum which would enable a repository worker to locate individual items within a collection quickly and unmistakably. For this purpose, as has already been indicated, the loose-leaf indexes ancillary to the card catalog are used to record practically every item without, at the same time, causing an excessive enlargement of the card catalog. While the indexes are keys to each individual collection, the card catalog listing names of all correspondents serves as a master key to all of the resources of the repository. This combination of the indexes and card catalog provides an instrument which is a considerable step toward the ideal sought by scholars in their use of manuscript collections.

REFERENCES

7. Ibid., p. 2.
10. The majority of manuscripts kept in the Department of Rare Books consists of the papers of prominent literary figures (e.g., William Wordsworth, James Joyce, Rudyard Kipling, Bernard Shaw), eighteenth century French historical documents (Maurer Papers), letters and other documents of the French Revolution and Napoleonic period, and correspondence of the leaders of the American anti-slavery movement. The greatest concentration of manuscripts at Cornell, approximately fourteen million items, is in the Collection of Regional History and University Archives.
Regional Groups

There are only five meetings on which to report this time, but the programs are varied and interesting.

At the fall meeting of the New York Technical Services Librarians, Paul Kebabian, New York Public Library, related the experiences of a cataloger in Bagdad. He described the country and told about the work of himself and Stephen Ford, Grand Valley Community College, at the University of Bagdad Library and about their training class for librarians from other libraries in Bagdad. At its Spring meeting the same Group heard Robert Kingery, New York Public Library, discuss Z39—What is it? The American Standards Association Special Committee Z39 on Library Work and Documentation, with its thirteen subcommittees, represents thirty one member groups and is working toward standardization nationally and internationally.

Commercial book processing was the topic at the winter meeting of the New Jersey Library Association Catalogers Section. Arthur Brody, President of Bro-Dart Industries, narrated a color film on the operations of Alanar and Bro-Dart books showing a library’s order from receipt to shipment.

In March the Ontario Library Association Resources and Technical Services Group held a series of regional meetings at Hamilton, Chatham, and Ottawa. At each meeting three of the following topics were discussed: Equipment for the National Library could aid technical services, Recataloging projects, and Paperbacks.

The Catalog Section and the Resources and Technical Services Section of the Mountain Plains Library Association held a joint meeting in the fall of 1961 and heard Pauline Seely, Denver Public Library, speak on Adapting the 16th Edition of Dewey at the Denver Public Library. She also reviewed the work of the Decimal Classification Editorial Policy Committee. Forrest Carhart, ALA Library Technology Project, reported on the studies of card-holding devices, book labeling machines, and card reproduction systems.

Barbara Westby, Chairman
Regional Groups
Convertibility Potential Among Government Information Agency Indexing Systems

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CONVERTIBILITY between retrieval systems is not a new concept to the library world. It has been bandied about for years. Librarians have pondered the possibilities and practicality of combining the Library of Congress cataloging and Wilson or vice-versa, or some special scheme with another. Current concern about convertibility has come about as the result of several factors: the volume of material that must be handled, the amount and frequency of duplication of effort, an effort to use the processing information of one system in another to avoid costly reprocessing, and a tendency toward centralization and/or pooling of resources by several libraries and systems. Some organizations, in an effort to solve these problems have turned to mechanized or automated means. The major problems, however, are basic to both machine and manual systems.

Convertibility may essentially be defined as the ability to take the output of like operations within several systems whether they are physical objects or types of information, draw parallels, and then through some form of manipulation, combine them and be able to extract a single meaningful unit of information from all the units. Convertibility implies similar intellectual expression.

A study of the convertibility problem made from February-August 1962 at the Office of Technical Services, U. S. Department of Commerce\(^2\) has revealed many interesting facts about terminology relationships and information systems in general which are applicable not only to information centers and systems but also to libraries faced with the same problems both now and in the future.

The Office of Technical Services is responsible for the dissemination of scientific and technological report literature both domestic and foreign, generated by government agencies and their contractors, to the public and to industry. It was established in 1950 by an act of Congress (P.L.776)\(^2\) under John Green. The embryo of the collection consisted of foreign (mostly captured German) patents and reports. Since then, however, OTS has become a repository and distributor for many government agencies who do not deal directly with the public, such as the Atomic Energy Commission (AEC), the Armed Services Technical Information Agency

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Library Resources & Technical Services
(ASTIA) and the National Aeronautics and Space Administration (NASA). These are the major sources of OTS' report literature, the bulk presently coming from ASTIA. Along with the reports the processing information (descriptive cataloging, indexing, abstracting) is usually supplied in some form. Hence OTS is really a central information system which as far as its processing operations are concerned has followed its major contributor, (ASTIA) to a certain extent, but which must also handle reports and information from many sources, in many forms, in many stages of processing. OTS must take whatever is given and either completely reprocess or make use in some way of the information already supplied. It may be said that OTS is facing four chief problems:

1. It must handle at least twice as much report literature as it was required to process 15 years ago.
2. Instead of processing all materials itself, it must now rely on processing information supplied by contributing agencies.
3. It has a manual system which is handling machine output from its major contributors.
4. The staff involved was satisfactory in number and experience for the demands of 15 years ago. The same staff with little change is now being called upon to handle the increased load and procedures for a larger operation.

As a result the Data Processing Systems Division, National Bureau of Standards was asked by OTS to conduct a study to determine the feasibility and practicality of automating their operations. As part of this investigation a smaller study of three phases of automatic conversion of subject indexing from one system to another was conducted.

The first phase was an attempt to determine the frequency with which the same report entered the OTS system. The method was actually to conduct the regular search procedures followed by OTS. The check was carried out during three periods in order to see consistencies if any and the possible influence of variables such as peak loads and the processing programs of the contributing agencies.

The second phase (convertibility of the terms used in several systems) was a comparison of the indexing terms applied to the same report as indexed by two or more agencies to determine whether or not there were actual equivalencies in terminology between the schemes. The number indexes of the announcement bulletins of each agency, United States Government Research Reports (OTS), Nuclear Science Abstracts (AEC), Technical Abstracts Bulletin (ASTIA) and Technical Publications Announcements (NASA) were compared and similar items with their subject indexing isolated.

The third phase concerned the consistency of subject indexing. It necessitated the re-indexing of a number of documents by four agencies, OTS, ASTIA, AEC and the National Agricultural Library, representing both manually-oriented and machine-oriented systems and a comparison of the original indexing with the second.
The findings and results were interpreted in the light of several assumptions: OTS’ services will increase rather than decrease in both scope and intensity. OTS will continue to receive, announce, and disseminate the reports generated by other agencies who will do the bulk of the processing. OTS will have to adapt to and use this information. Announcement media will be compiled and produced by mechanized means which will eventually be applied to information storage and retrieval. The study was limited in two ways: one, no translations were included, and two, only scientific and technical report literature was analyzed.

The duplication check of report materials entering the OTS system revealed that of all the varieties of duplication possible in report literature, the type of prime concern was the exact duplicate (same author, title, content and appearance). The other forms were eliminated by other means such as the acquisition policy and the processing efforts of the other agencies before the materials arrive. There were several levels of complexity as far as descriptive cataloging and processing were concerned at OTS, and each had developed a separate search pattern. The highest level used with PB reports (reports received and processed by OTS) and AEC reports was complete descriptive cataloging. The lowest level was that employed for checking stock (multiple copy) items with ASTIA and involved merely a report, series, or AD (ASTIA Document) number. It was found that this number was the key to most duplication weeding.

The highest amount of duplication which the processing system was called on to handle at any one time was found to be approximately 50 percent. This means that 50 percent of the reports handled were processed twice. This is not too serious a problem if the only processing necessary is the determination of a report or series number. It can be costly if complete descriptive cataloging and machining must be done before duplication can be detected. But coding and checking by series number as the documents are received would eliminate the duplicates and isolate only the new items for complete cataloging.

### TABLE I

**SUMMARY OF TABULATION FOR DUALIZATION CHECK**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Number of Items</th>
<th>Number of Duplicates</th>
<th>Total Items</th>
<th>Total Dups.</th>
<th>Overall Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AD</td>
<td>PB</td>
<td>AEC</td>
<td>Stock</td>
<td>AD</td>
</tr>
<tr>
<td>1</td>
<td>109</td>
<td>69</td>
<td>128</td>
<td>110</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>74</td>
<td>60</td>
<td>47</td>
<td>139</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>187</td>
<td>77</td>
<td>38</td>
<td>81</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>72</td>
<td>36</td>
<td>10</td>
<td>18</td>
<td>108</td>
</tr>
</tbody>
</table>

While the first phase of the study was involved with duplication of documents and the elimination of duplication of effort at the central point (OTS), the second phase, comparison of indexing terms, was concerned with duplicate processing by two or more agencies. The second and third phases are tied together by the common concept of convertibility. There are many methods to achieve, or attempt to achieve, cons-
vertibility between indexing vocabularies. A master dictionary contain-
ing all of the terms used by all of the systems with their definitions, abundant references and cross references is one way. Another may in-
volve setting up an entirely new superstructure and then fitting all of the
schemes into it. A third is to set up a table of equivalent terms of one
scheme with another. The analysis and comparisons of terminologies of
this OTS study were made on the assumption that the table of equivalents
would be the converting media. Datatrol Corporation, Silver Spring, Maryland has developed a table of equivalents between AEC and ASTIA
using the ASTIA list as a base. These are the two major sources of OTS
materials. The comparison was made to determine whether or not this
table would be an effective means for conversion for OTS.

OTS handles three separate indexing schemes: a subject heading
scheme used by AEC, a descriptor scheme used by ASTIA, and a uniterm
scheme used by NASA. The AEC scheme is essentially made up of subject
headings (19,000). A subject heading is a term composed of a single word
or combination of words which describe a concept. A subject heading
generally allows only one access point as opposed to the descriptor which
through combinations allows several.

The ASTIA scheme is based on a list of descriptors (7,000) or word
labels which are used to indicate the subject content and/or concepts
contained in a particular document in a particular collection. They are
designed to be coordinated (joining words in varying combinations) with
each other to retrieve information.

NASA uses a type of uniterm system. A uniterm is a subject heading
and sub-headings broken down into single units usually consisting of one
word each which can be coordinated either manually or by machine in a
variety of different combinations in order to retrieve information. The
terms are drawn from the text of the document. NASA’s scheme is a
variant of the true uniterm. Its headings may be single concepts or labelled
concepts and in this sense resemble the descriptor. Insofar as they are
derived from the text and the vocabulary is free, they may be considered
uniterms.

Equivalency, however, is the key to the type of conversion examined.
Equivalency as far as this study was concerned, means a direct word match
except for grammatical variations such as singulars and plurals, e.g.,
“black” used by one agency is equivalent to “black” used by another,
regardless of whether or not they mean the same thing. There was some
attempt to match concepts but the resulting percentage was small. It seems
apparent from the results that there is still much to be done in making
indexing and convertibility comparisons. The percentages in the study
are small and widely scattered.

Datatrol Corporation made an initial contribution in examining AEC
subject headings and ASTIA descriptors, as represented in the published
lists of both. This was a theoretical comparison of all of the terms that
could possibly be used but which were not necessarily used in actual index-
ing. At most even under these conditions Datatrol found only 28 percent

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equivalency of the terms within the ASTIA list. Approximately 45 percent of the terms examined posed a problem in generic relationships (one term in ASTIA would cover two or more of AEC and vice-versa).

In my study the bulk of the duplicate indexing comparison was drawn from about 1400 items indexed by both AEC and ASTIA, with a smaller comparison of NASA and ASTIA and one between ASTIA, NASA and AEC. This amounts to about 1½ percent of the total number of items indexed by all four agencies from July 1961 through April 1962. A sample of about 14 percent was taken from this. The studies were not intended to be valid statistical checks but rather to indicate whether or not under actual conditions the table of equivalents would be useful. Two separate percentages are involved: the percentage of terms within one system which are equivalent to terms in another, and the percentage of overall similarity of indexing.

**TABLE II**

**COMPARATIVE STATISTICS OF FOUR INVESTIGATIONS TO DETERMINE EQUIVALENCY BETWEEN INDEXING VOCABULARIES**

<table>
<thead>
<tr>
<th>No. of items</th>
<th>Datatrol</th>
<th>AP</th>
<th>Trip. Index</th>
<th>NASA &amp; ASTIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTIA descriptors</td>
<td>7,145</td>
<td>200</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>AEC terms</td>
<td>13,385</td>
<td>2,236</td>
<td>219</td>
<td>306</td>
</tr>
<tr>
<td>TOTAL TERMS</td>
<td>20,530</td>
<td>2,833</td>
<td>325</td>
<td>393</td>
</tr>
<tr>
<td>Equivalents</td>
<td>2,001</td>
<td>426</td>
<td>25</td>
<td>52</td>
</tr>
<tr>
<td>% of ASTIA equivalency</td>
<td>28%</td>
<td>19%</td>
<td>12%</td>
<td>17%</td>
</tr>
<tr>
<td>% of AEC equivalency</td>
<td>15%</td>
<td>72%</td>
<td>34%</td>
<td>52%</td>
</tr>
<tr>
<td>% of similarity of indexing</td>
<td>NASA 78%</td>
<td>NASA 60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The comparison revealed that between 12 and 19 percent of the ASTIA descriptors had equivalents in the AEC vocabulary, while between 34 and 72 percent of the AEC terms had equivalents in the ASTIA vocabulary. The NASA-ASTIA comparison indicated similar equivalencies (17 percent of the ASTIA terms and 60 percent of NASA) but the entire indexing of NASA was unavailable, thus the statistic is skewed. Much of the vocabulary relationships fell in the in-between zone where one term included two or more of the other system. Approximately 10 percent had no equivalents, preventing retrieval of documents indexed with them. Essentially this indicates that the smaller (more narrow in subject scope) scheme will inevitably fit into the larger. The table of equivalents study (Datatrol) found that 85 percent of the AEC headings fell into three ASTIA fields (two hierarchial steps above the descriptor) which contain 31 percent of the ASTIA vocabulary. This means that in a system which must handle ASTIA and AEC documents for retrieval 69 percent of the ASTIA descriptors might not be involved in con-
vertibility with AEC. This fact plus the statistics found in the duplicate indexing comparisons suggest that equivalency and convertibility are more plausible than if one were to take the 28 percent equivalency found in the study at face value.

We are thus left with the problem of what to do with the terms without equivalents, an area which may include 50 percent of the vocabulary. One solution is to move to another rung in the hierarchical ladder and search on this level. This, however, necessitates more manual weeding in order to retrieve material. Another solution is to use the table of equivalents insofar as it is effective and rely on manual search for the rest. In a total machine system there would be a need for either human re-interpretation of the request in terms of the vocabulary or translation into machine vocabulary which is convertible.

In considering these solutions and the statistics previously cited, it should be noted that there is still a large proportion of terms which will need some other form of retrieval. An additional problem evolves in attempting to reconcile two different subject concepts, one the subject heading with a single access point and the other the descriptor or uniterm with many through coordination. Thus the practicality of a system made up of many units supplying information, differently indexed, using as a basis for retrieval a table of equivalents, is questionable.

The third phase involved a check of the consistency with which indexing terms were assigned. Consistency is not necessarily related to equivalency, but both are necessary components in an efficient convertibility between indexing schemes. Equivalency presupposes consistency within the indexing of each scheme. Even if every term in one system has an equivalent within the other and there appears to be total convertibility, the lack of consistency in indexing will result in the inability to retrieve all of the information on a specific subject. Convertibility structured on a table of equivalents must have a high degree of consistency in order to have a high degree of retrieval.

Consistency depends on several factors: the subject proficiency of the indexers, the experience of the indexers in indexing itself, the code of rules being followed, and the amount of supervision which is provided. The quality of indexing is not a necessary factor. It is desirable, but it is not an influence. A system of consistency, equivalency and convertibility should stand alone regardless of the quality of indexing.

The results of the third phase of the investigation indicated that the rate of consistency in indexing varies between 62 and 72 percent in both manual and machine oriented systems. Thus the machine or manual factor must be eliminated as significant. There was also little difference in the rate of the systems which averaged 2-3 terms per document and those averaging 12-15 terms per document. We are left with the fact that in spite of the variables there is a 62 to 72 percent consistency in indexing. This means that 28 to 38 percent of the indexing is inconsistent, or that the documents indexed will not be retrieved. These terms will incline to be those with the most general concepts and those which are least
unique to the individual systems. It is perhaps not quite so overwhelming in the individual schemes because "He who hides, finds." Consistency and accuracy are not so important to the individual systems. However, the system which must operate by handling the output of all the agencies together will not have the same advantage. As a result, a 62 to 72 percent consistency rate is not good and would adversely affect the efficiency of a table of equivalents.

The solution to the problem then is to raise the level of consistency within each of the individual agencies. This can be done in four ways: ensure the adequate training of the indexers before they index at all, i.e., subject training; give opportunity for experience in the art of indexing; standardize the indexing code or rules being followed; closely supervise the input to each system. These may present problems. Familiarity with the indexing system may breed inconsistency when the indexer feels that a subject which is normally labelled in one way does not appear to be exactly the same and will either use another label or invent one. Standardization of rules can be achieved to only a limited extent among several systems, but interpretation and application for the individual systems must remain free. Strict supervision of new terminology added to the vocabulary as well as the application of the old vocabulary can help to maintain the validity and effectiveness of the list.

A high degree of consistency is really the foundation upon which the effectiveness of convertibility is based. The value of equivalency studies and most particularly the table of equivalents presupposes the consistency of indexing. Without consistency, the vocabularies as units are not sound; equivalencies cannot be drawn or effectively used for convertibility. Each of these solutions or answers to raising the rate of consistency is currently feasible in all systems. They are possible as immediate objectives and should be aimed at for quality within the individual system's program even without consideration of convertibility with others.

TABLE III

<table>
<thead>
<tr>
<th></th>
<th>ASTIA</th>
<th>AEC</th>
<th>OTS</th>
<th>NAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of items indexed</td>
<td>94</td>
<td>96</td>
<td>32</td>
<td>99</td>
</tr>
<tr>
<td>No. of terms 1st run</td>
<td>1,239</td>
<td>249</td>
<td>346</td>
<td>c.184</td>
</tr>
<tr>
<td>No. of terms 2d run</td>
<td>1,119</td>
<td>460</td>
<td>418</td>
<td>241</td>
</tr>
<tr>
<td>TOTAL NO. OF TERMS</td>
<td>2,358</td>
<td>655</td>
<td>764</td>
<td>422</td>
</tr>
<tr>
<td>No. of terms assigned</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>both times (same)</td>
<td>768</td>
<td>178</td>
<td>225</td>
<td>174</td>
</tr>
<tr>
<td>% of consistency 1st time</td>
<td>62%</td>
<td>71%</td>
<td>65%</td>
<td>95%</td>
</tr>
<tr>
<td>% of consistency 2d time</td>
<td>69%</td>
<td>44%</td>
<td>54%</td>
<td>72%</td>
</tr>
<tr>
<td>% of similarity of indexing</td>
<td>65%</td>
<td>54%</td>
<td>59%</td>
<td>82%</td>
</tr>
</tbody>
</table>

It appears, then, that convertibility between the retrieval systems used by the various agencies contributing documents to the Office of Technical Services involves at least three factors:

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1. Duplication of documents received: If all incoming reports are first checked by their report numbers, duplicates will be weeded automatically.

2. Equivalency of subject terms: No table of equivalents between the different lists of subject terms used by the various contributing agencies at present would be satisfactory as a master control or conciliation of subject analysis done by these agencies.

3. Consistency of subject analysis: Within an individual agency, consistency in applying the same subject terms to a document when it is recataloged is low, ranging from 62 to 72 percent. If the subject analysis by several agencies were combined, this inconsistency would be even more frustrating.

In short, convertibility in this case appears to be difficult if not impossible because (although duplicate reports could be weeded) the subject analysis of the various agencies is capable of no master control or conciliation and is highly inconsistent.

While this study was almost completely oriented to a network of government scientific information agencies and most particularly the Office of Technical Services, the results and applications can be generally considered in regard to similar systems of all types of libraries, public university and special as well as to other types of materials, such as books, wherever the problems of volume of materials and satisfactory retrieval are concerned.

REFERENCES


5. The ASTIA descriptor scheme is arranged in a hierarchy of three levels: Fields (19) Groups (292) Descriptors (c. 7,000).
Designations of Categories: A Problem in Cataloging

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University of Maryland, College Park

EVA VERONA'S ARTICLE on "form headings" which appeared in the Fall 1962 *LRTS* (pp. 295-317) surveys their use since the invention of printing. As she points out, such headings have been more commonly employed in catalogs than the infrequency of references to them in cataloging literature suggests. An examination of the use of form headings—or, to use a more descriptive phrase, categorical designations—in the ALA and proposed codes might well be of interest (neither code having been reviewed by Mrs. Verona): two noteworthy facts about such designations in the two codes are (1) that they appear, in all instances, to be parts of or substitutes for author, title, or subject statements and (2) that they are plural or collective terms which are used to direct one to particular items as well as to groups. In addition, it would be well to glance briefly at the structure of the designations of form prescribed by LC subject headings.

The ALA Code authorizes several entries which include designations of categories (with four characteristic specimens conveniently assembled on p. 242). Rule 9A cites the "form subject" heading "Manuscripts, French" (which may refer to but one ms.); and Rule 9A(1) is illustrated by "Bible. Manuscripts, Greek./The Codex Alexandrinus. . ." Rule 10B cites the "form subject" heading "Atlases," to be used much as is "Manuscripts, French." Rules 12A(6), 116F, and 121 authorize such entries as "Catholic Church. Liturgy and Ritual. Psalter"—"Catholic Church" and "Psalter" being specific, the intervening phrase categorical. Rule 27C authorizes such entries as "Société de linguistique de Paris. Mémoires. (Indexes)"; and Rule 31, such entries as "Aristoteles. Spurious and doubtful works./De spiritu. . ." Rule 34 employs the designation "Apocryphal Books" in an entry for but one of the apocrypha. Rule 73B cites "Gt. Britain. Sovereigns, etc., 1702-1714 (Anne)—an interesting use of the plural, since the same rule cites "U. S. President [not Presidents], 1913-1920 (Wilson)." Rules 83 and 84 are rich in categories; cf. 84C exemplified by "Canada. Laws, statutes, etc./ The insolvent act of 1875," and 84E, exemplified by the entry "Cleveland. Ordinances, etc." Rules 87 and 88A are exemplified by, respectively, "New Orleans. Charters. Charter of the city. . ." and "Canada. Treaties, etc., 1932./Trade agreement. . ." Fi-
nally, Rule 120E authorizes “Church of England in Canada. Dioceses. Huron”—“Dioceses” constituting a reference to a group of corporate bodies, “Huron” a reference to the particular body which is presumably the author of the work about to be cited in the title statement.

The proposed code features fewer citations of categories. Mr. Dunkin, in his commentary upon Mr. Lubetzky’s draft, notes (p. 8) the abandonment of the phrase “Spurious and doubtful works” (ALA Rule 31) and observes not only that the phrase is inaccurate but also that it violates the spirit of the new code, in which “there can be no room for form or subject.” Categorical designations do nevertheless appear—both in the Lubetzky draft and in the Preliminary Official Report of the Paris Conference (which was printed, along with modifications specified by the ALA Catalog Code Revision Committee, in the Spring 1962 LRTS (pp. 161-171) and which, rather than the Lubetzky draft, is to be the primary basis of future revision). Cf. Lubetzky Rule 42B, exemplified by “Canada. /[Treaties, etc. . . .]/Trade agreement. . .,” and Paris Conference Principles 9.5 and 11.6, which relate to constitutions, laws, treaties, etc. An interesting variation in these provisions has had to do with the positions assigned categorizing terms referring to types of documents. The ALA Code places them on the author line; Lubetzky prefers the conventional title position; the Committee first wavered, but has decided (as of June 1962) to place them on the author line.

Such designations appear, then, in connection with author, title, and subject statements. It is in subject entries that they are most numerous. Various “form subject” headings are, as noted above, prescribed in the ALA Code. Other designations may be found in form divisions prescribed by and used by LC, such as “Collections” and “Periodicals” (plural) and “Fiction” (collective), which seem in themselves to refer to groups of works but which may be used to direct one to particular works. Such terms must of course be chosen and applied with care: the distinction LC makes between the apparent synonyms “Choral Music” and “Choruses” is very illuminating—the one for one or more works about, the other for one or more specimens.

All this use of categorical designation may stem, in part, from the fact that our cataloging principles and practices seem to be based on the assumption that our records are to appear on cards—which are capable of being lost, strayed, stolen, etc. That is, each citation is, in theory, self-sufficient, capable of being understood (after having been found) without reference to any other card, specifically, without reference to a guide card; this despite the fact that libraries have been known to file according to categorical designations indicated only on guides. In general, then, if categorical designations are to appear in card catalogs, they must appear on every card to which they apply. In book catalogs, on the other hand, categories may be indicated in captions of whole groups of entries; cf. the BM general catalog, the LC subject catalog, and (under certain
personal and corporate authors) the LC main entry catalog. Such lists do not need to work categorical designations into individual entries. But more basic than the matter of card vs. book is the need (which is itself a response to various needs on the part of catalog users) to designate categories represented by particular items and, especially, to collocate instances of such categories. (For example, the form divisions “Bibliography,” “Biography,” “Fiction,” “Periodicals,” and “Poetry” added to the subject heading “Shakespeare, William” label instances of approaches or emphases and bring such instances together.)

Two questions occur to me: (1) Does the use of plural or collective terms to lead one to citations of individual items confuse patrons by introducing conflicts in number? (2) Do categorical designations confuse patrons in that wherever such designations are placed, except, perhaps, in corner marks, they seem to become parts of author, title, or subject statements? Assuming, for the moment, that the usages now prescribed and/or proposed are more or less satisfactory, i.e., that both of my questions are to be answered, if but tentatively, in the negative, I should like to suggest two further applications of the principle of categorical designation.

First, its use in title statements (cf. the example, already cited, from the Lubetzky draft) might be extended. In music and belles-lettres, for instance, one might introduce form or other categorical designations such as “Operas,” “Novels,” and “Juvenilia” into entries for works which have distinctive titles. Thus, for the present form “Bach, Johann . . . /Wachet auf. . . . ]/Sleepers, wake! A church cantata . . . .” one might substitute “Bach, Johann . . . /[Cantatas, Sacred. Wachet auf. . . . ]/Sleepers, wake! A church cantata . . . .” (The fact that a subject entry will presumably be made under “Cantatas, Sacred” does not negate the possibility of also employing the phrase as suggested here—or in an added “author-category” entry, perhaps.) The classified arrangement of the works of an author or composer thus provided could be imitated in entries for publications of societies and other corporate bodies, at least those which are most prolific, through the use of terms to indicate proceedings, directories, periodicals, symposia, and so on.

Second, indications of category might be used within corporate author statements to offset a deficiency inherent in ALA Rule 124 and in Rule 27 G of the Lubetzky draft (and, presumably in Principle 9.4 promulgated by the Paris Conference). The ALA Code prescribes such entries as “Indianapolis, Ind. First Methodist Church,” whereas the Lubetzky draft prefers “First Methodist Church, Indianapolis, Ind.” The ALA form has two advantages: it facilitates “local” approaches; and it facilitates the work of those who know the locations of institutions but who do not know their names. It has two disadvantages: it suggests a subordination (does the city run the church?) which is presumably unreal; and if there are many entries under one place name the patron seeking an entry for an institution of one kind may be confused by the presence of entries for institutions of many other kinds. The form offered by the Lubetzky draft represents,

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as do many other forms proposed by Mr. Lubetzky, the rise and triumph of name and the decline and fall of place (its chief usefulness being to those to whom the names of institutions are known); it lacks the disadvantages of the form offered by the ALA Code—and, in single-entry catalogs, its advantages as well. Do designations of category offer any help here? Consider the following entries, which differ from both entries cited above in that they collocate similar institutions and specifically refer to type of institution (i.e., church) and to denomination (cited as such neither by the ALA Code nor by the Lubetzky draft except when references are needed to differentiate among institutions in the same cities bearing identical names):

Indianapolis, Ind. Churches. First Methodist Church.
Indianapolis, Ind. Churches, Methodist. First Methodist Church.
Methodist Churches. First Methodist Church, Indianapolis, Ind.
Methodist Churches (Indianapolis, Ind.). First Methodist Church.
Churches (Indianapolis, Ind.). First Methodist Church.
Churches (Indianapolis, Ind.), Methodist. First Methodist Church.
and so on. Such entries (some of which are perhaps third cousins on the backstairs side to the ALA form “Church of England in Canada. Dioceses. Huron”) might be particularly acceptable in theological or medical libraries whose catalogs cite multitudes of institutions named after saints and in large public libraries housing much local material.

A great weakness of such entries—and, indeed, of all entries which designate categories—is that categories may be unknown, uncertain, or even—for surely uniqueness is possible—non-existent. (Perhaps designations of pseudo-categories, e.g., “Other institutions” and “Miscellaneous works,” could be employed.) Furthermore, extensive use of categorical designations might complicate matters for those who do know names and titles—unless entries citing categories were used in addition to more direct entries. Categorical designation is not, then, the solution to all problems of entry; nor should one, ultimately, expect alphabetically-arranged catalogs to replace classification schemes and directories. Nevertheless catalogs ought to be (and not in subject entries merely) more than statements as to whether libraries possess particular works known to patrons by their authors and titles. In “enriched”—or is it “restored”?—catalogs such as are admired by catalogers and reference librarians (but not always, it would seem, acceptable to those entrusted with budgets), designations of categories might well play larger roles than the ALA and proposed codes assign them.
Interlibrary Loans at the University of Denver, 1961-1962

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San Diego State College Library
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THERE HAS BEEN a decrease in the number of articles written about interlibrary loans during recent years, but these current articles give us some insight into new problems as well as recent developments in older problems. Some of the main trends are:

1. Universities are trying to tighten restrictions on materials lent, but public libraries would prefer to liberalize the policy.
2. Faster means of communication are being developed.
3. Greater use is being made of copying machines and of microforms.
4. The costs of interlibrary loans have risen to an almost prohibitive level.
5. Borrowing libraries are creating difficulties by not trying to verify their requests before sending them out.
6. Borrowing libraries are too careless in filling out the loan forms.
7. Interlibrary loan is now only one phase of a growing trend toward interlibrary cooperation of many kinds.

The purpose of this study was to compile up-to-date statistics on interlibrary loan activities at Mary Reed Library of the University of Denver, based on the hypothesis that there had been a large increase since the previous survey in 1959. The results of this new study have verified the hypothesis. For example, between May, 1959, and May, 1962, the yearly total of borrowing requests sent out by the University of Denver increased from 428 to 988. In this same period, the yearly total of lending requests received from other libraries increased from 1,124 to 1,477. Thus, the yearly combined total of borrowing and lending transactions increased from 1,552 to 2,465.

An analysis of the data can be divided into two main parts: borrowing data and lending data. To consider the borrowing first, in the 1958-59 study, of which this is a follow-up, there was a total of 428 borrowing requests during the four quarters ending with the spring quarter of 1959. Of these requests, eighty-six brought no results, leaving a total of 342 items actually borrowed. The number 428 rather than 342 was used in other analyses of borrowing, thus giving an inaccurate count.

The present study, ending with the winter quarter of 1961-62, found substantial increases in most categories. No attempt was made to compute
the number of microfilms received, as most of them came from University Microfilms, Ann Arbor, Michigan. These are not interlibrary loans, but actual purchases. Xeroxed materials were classified with books or periodicals. The large increase in the number of periodicals borrowed is the result of the increase in demand for scientific materials by the Denver Research Institute (DRI).

The patrons who requested aid in borrowing books through interlibrary loan fell into three distinct groups: faculty and staff, graduate students, and the Denver Research Institute. (Undergraduates are not usually allowed to use this service.) Seemingly, the largest group, graduate students, did not increase as much as the other groups; but many of their requests for theses had been referred to University Microfilms.

There has been a substantial increase in the use of the Rocky Mountain Bibliographic Center since the 1958-59 survey. Whereas in 1959 only one-fifth of the 488 requests were sent to the Center, more than one-third of the 988 requests were sent there in 1961-62. Possible explanations are the increased need for hard-to-find, scientific periodicals by the Denver Research Institute and several special projects by faculty members. It is very difficult to identify requests from and to the Bibliographic Center, so these figures are only close approximations.

No attempt was made to count telephone requests to the Bibliographic Center, as neither the University nor the Center kept usable records. These calls, which now number about six a week, are being closely watched by the University, as there is the possibility of paying the Bibliographic Center per request rather than a flat, yearly fee.

Most of the borrowing by Denver University is related to scholarly research. As a result, the requests are sent mainly to university, college, or special libraries, rather than to public or to school libraries. The large increase in the borrowing from special libraries in 1961-62 resulted from greater reliance on the Linda Hall Library, Library of Congress, and an ever-increasing number of governmental agencies. In future studies, the governmental libraries should have a separate classification.

In 1961-62 Denver University borrowed, or tried to borrow, from 116 different libraries. The top five libraries on the list sent more than one-third of all material borrowed. Only thirty-three libraries sent five or more items. In both studies, the University of Colorado was the leading source of interlibrary materials, and libraries in the surrounding area ranked high. This is the correct way to conduct an interlibrary loan system, according to the code. All nearby sources should be explored before contacting distant libraries.

One exception was the Linda Hall Library in Kansas City, to which Denver University sent one hundred requests during the year. This library was not even included in the earlier study, thus indicating an increased need for scientific materials, which are their specialty. As expected, the Library of Congress led the list in number of refusals to send materials—twelve times. They have many valuable items which are not allowed to leave the premises.

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University of Denver Lending

An analysis of lending to other libraries by the University of Denver reveals an increase of 358 items, mainly books. Denver is the interlibrary loan center for many smaller public, school, special, and state libraries, all of which need books rather than documents, periodicals, or theses. Except for the dissertations and theses, Denver University does not have a large number of items desired by other large universities. This leads to a kind of one-way trade; there is little that Denver can borrow in return from the smaller libraries, just as there is little that Denver can lend to the research libraries from which it borrows.

The 1958-59 study revealed that 220 libraries borrowed from Denver University. Eighty-seven of these libraries requested only one item, and 165 libraries requested three items or less. The widespread service to smaller, occasional borrowers was even more in evidence in the 1961-62 study. There were 304 borrowing libraries, of which 256 borrowed five items or less. Two hundred and forty-two libraries borrowed from Denver University, but did not have the opportunity to lend anything in return.

Most of the libraries that borrowed were in the Colorado area in both studies, seventeen of the first nineteen libraries in the early study and eleven of the first twelve in the second study. The University of Colorado Medical Center (76 requests) was our most consistent borrower, and the University of Colorado in Boulder (75 requests) has also been a frequent customer. Three libraries consistently sent requests that could not be filled—the Shell Oil Company of Denver (11 times out of 31 requests), Colorado Springs Public Library (15 times out of 32), and the University of Colorado Medical Center in Denver (16 times out of 76).

There were many requests which the University of Denver could not fill: 255 out of a total of 1,477 requests received. Almost one-fourth of the requests from public, special, and state libraries could not be filled; and about 14% of the college and university requests were not filled.

There were many reasons for not filling requests. The University of Denver did not have some items. Others were at the bindery. Some items were in the locked cage and not allowed to circulate. Faculty members had some of the items and did not choose to return them, when requested. Other items were on reserve and needed by the classes. In a few cases, requests for juvenile books or easily obtained current fiction were not filled. These requests violate the purposes of interlibrary loan, according to the accepted code now in use. The code also indicates that the needs of the university's regular students should come first. Interlibrary loans are still a privilege and a courtesy, not a right. A library may send or refuse to send whatever it wishes. In general, the University of Denver has been very liberal in satisfying requests of all types for all people.

Only about one-fourth of all the requests for books came through the Rocky Mountain Bibliographic Center in 1961-62. There was a greater equality between the use of the Center for lending and for borrowing than in the earlier study. In the 1958-59 study, Denver University contacted the Center eighty-five times for aid in borrowing books, but the Center
contacted the university 388 times in searching for materials to lend to other libraries. In the recent study, Denver University contacted the Center 352 times for aid in borrowing, and the Center contacted Denver University 384 times for lending purposes.

The volume of interlibrary loan activity has created a responsibility that is too great for the existing staff of many libraries. There are a number of possible ways to alleviate the situation, based upon this writer's observations and upon current literature on the subject:

1. Have a full-time, interlibrary loan librarian, free from all other duties and aided by a full-time assistant.
2. Insist that all patrons, either borrowing or lending, present all possible bibliographic information to eliminate time-consuming searches by the librarian.
3. Restrict the number of items that individual graduate students may request. The Interlibrary Loan Code stipulates that the system is for occasional borrowing, not for obtaining the main part of a bibliography.
4. Have the patron pay a fee for each item requested. This may eliminate all the unimportant requests.
5. Follow the practice of some universities in refusing to lend any material that is still in print.
6. Restrict the lending of popular items, such as novels or children's literature, to public libraries. Interlibrary loan at a university should be considered as an aid to serious research, not a phase of public relations.
7. Develop a more rapid and systematic method of wrapping and mailing items.
8. Increase the budget allocation for subscriptions to scientific periodicals. In the long run, this will cost less than continual borrowing.

TABLE I

| ALL TYPES OF MATERIALS REQUESTED BY DENVER UNIVERSITY FROM OTHER LIBRARIES1 |
|---------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
|                                 |                               |                               |                               |                               |                               |                               |
| Books                           | 137                           | 251                           | 78                            | 329                           | +192                          | 240                           |
| Periodicals                     | 120                           | 425                           | 35                            | 460                           | +340                          | 383                           |
| Theses                          | 156                           | 127                           | 51                            | 178                           | +22                           | 114                           |
| Documents                       | 7                             | 14                            | 7                             | 21                            | +14                           | 300                           |
| Microfilm                       | 8                             |                               | 7                             |                               | -8                            |                               |
| TOTAL                           | 428                           | 817                           | 171                           | 988                           | +560                          | 231                           |
| Number Not Sent (Dead File)     | 86                            |                               | 171                           | 171                           | +85                           | 199                           |
| Number Actually Borrowed        | 342                           | 817                           |                               | 817                           | +475                          | 239                           |

1 The format of this table was copied from the 1958-59 study in order to include the "Dead File" information of that study.

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TABLE II

DENVER UNIVERSITY BORROWERS AND NUMBER OF ITEMS BORROWED BY EACH

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty and Staff</td>
<td>90</td>
<td>278</td>
<td>49</td>
<td>317</td>
<td>+237</td>
<td>352</td>
</tr>
<tr>
<td>Graduate Students</td>
<td>208</td>
<td>312</td>
<td>104</td>
<td>416</td>
<td>+208</td>
<td>200</td>
</tr>
<tr>
<td>DRI (Denver Res. In.)</td>
<td>78</td>
<td>227</td>
<td>18</td>
<td>245</td>
<td>+167</td>
<td>314</td>
</tr>
<tr>
<td>B. Ed. Res. (Bur. of Edu. Res.)</td>
<td>52</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-52</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>428</td>
<td>817</td>
<td>171</td>
<td>988</td>
<td>+560</td>
<td>231</td>
</tr>
</tbody>
</table>

TABLE III

USE MADE OF THE BIBLIOGRAPHIC CENTER IN BORROWING

<table>
<thead>
<tr>
<th></th>
<th>1958-59 Requests (Including Unfilled Ones)</th>
<th>1961-62 Requests Filled</th>
<th>1958-59 % Increase of over 59</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Total</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Through the Bib. Cen.</td>
<td>85</td>
<td>270</td>
<td>82</td>
</tr>
<tr>
<td>Direct</td>
<td>343</td>
<td>547</td>
<td>89</td>
</tr>
<tr>
<td>TOTAL</td>
<td>428</td>
<td>817</td>
<td>171</td>
</tr>
</tbody>
</table>

TABLE IV

LIBRARIES FROM WHICH DENVER UNIVERSITY BORROWED MOST

<table>
<thead>
<tr>
<th>1958-1959 (Includes Items Not Sent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univ. of Colorado</td>
</tr>
<tr>
<td>Denver Public Library</td>
</tr>
<tr>
<td>Colorado School of Mines</td>
</tr>
<tr>
<td>Library of Congress</td>
</tr>
<tr>
<td>Univ. of Utah</td>
</tr>
<tr>
<td>U. S. Air Force Academy</td>
</tr>
</tbody>
</table>

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Library Resources & Technical Services
<table>
<thead>
<tr>
<th>Lending Library</th>
<th>Items Sent</th>
<th>Items Not Sent</th>
<th>Lending Library</th>
<th>Items Sent</th>
<th>Items Not Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univ. of Colo.</td>
<td>113</td>
<td>10</td>
<td>Colo. State College</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Linda Hall Lib.</td>
<td>96</td>
<td>4</td>
<td>Northwestern Univ.</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Univ. of Colo. Med. Cen.</td>
<td>47</td>
<td>1</td>
<td>Univ. of Kansas</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Library of Cong.</td>
<td>40</td>
<td>12</td>
<td>Univ. of Calif.</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Colo. College</td>
<td>34</td>
<td>2</td>
<td>Denver Med. Society</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>Univ. of Ariz.</td>
<td>28</td>
<td>5</td>
<td>Western Res. Univ.</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Denver Pub. Lib.</td>
<td>23</td>
<td>3</td>
<td>Texas Tech. Col.</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Univ. of Utah</td>
<td>23</td>
<td></td>
<td>Yale Univ.</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Columbia Univ.</td>
<td>22</td>
<td>5</td>
<td>Univ. of Wisconsin</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Colo. State Univ.</td>
<td>21</td>
<td>1</td>
<td>Univ. of Michigan</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Univ. of Ill.</td>
<td>20</td>
<td>3</td>
<td>State Univ. of Iowa</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Univ. of Wyo.</td>
<td>20</td>
<td>2</td>
<td>Univ. of New Mex.</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Colo. Sch. of Mines</td>
<td>19</td>
<td>3</td>
<td>U.S. Air Force Acad.</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Univ. of Texas</td>
<td>19</td>
<td>2</td>
<td>Univ. of N. C.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Univ. of Chicago</td>
<td>19</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harvard Univ.</td>
<td>16</td>
<td>6</td>
<td>U.S. Nat. Bureau of Standards</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE V**

**MATERIALS LENT BY DENVER UNIVERSITY TO OTHER LIBRARIES**

<table>
<thead>
<tr>
<th>Study Total Requests (Including Those Not Sent)</th>
<th>1958-59</th>
<th>1961-62</th>
<th>Change in Total Requests Since 1959</th>
<th>Index Number 1958-59 =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>650</td>
<td>708</td>
<td>163</td>
<td>+221</td>
</tr>
<tr>
<td>Periodicals</td>
<td>237</td>
<td>243</td>
<td>75</td>
<td>+81</td>
</tr>
<tr>
<td>Theses</td>
<td>226</td>
<td>264</td>
<td>14</td>
<td>+52</td>
</tr>
<tr>
<td>Documents</td>
<td>11</td>
<td>7</td>
<td>3</td>
<td>-1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,124</td>
<td>1,222</td>
<td>255</td>
<td>+353</td>
</tr>
<tr>
<td>Number Not Sent (Dead File)</td>
<td>150</td>
<td></td>
<td>255</td>
<td>+105</td>
</tr>
<tr>
<td>Number Actually Loaned</td>
<td>974</td>
<td>1,222</td>
<td>1,222</td>
<td>+248</td>
</tr>
</tbody>
</table>
### TABLE VI
USE MADE OF THE BIBLIOGRAPHIC CENTER BY OTHER LIBRARIES IN BORROWING FROM DENVER UNIVERSITY

|----------|-----------|-----------|-----------
<table>
<thead>
<tr>
<th>Requests (Including Unfilled of Ones)</th>
<th>%</th>
<th>Requests Not Filled</th>
<th>No. of Requests</th>
<th>%</th>
<th>B + A Total</th>
<th>Over 1958–59</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the Bib.</td>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cen.</td>
<td>383</td>
<td>34%</td>
<td>274</td>
<td>110</td>
<td>384</td>
<td>26%</td>
</tr>
<tr>
<td>Direct</td>
<td>741</td>
<td>66%</td>
<td>948</td>
<td>145</td>
<td>1,093</td>
<td>74%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,124</td>
<td>100%</td>
<td>1,222</td>
<td>255</td>
<td>1,477</td>
<td>100%</td>
</tr>
</tbody>
</table>

### TABLE VII
TOTAL TRANSACTIONS BETWEEN DENVER UNIVERSITY AND OTHER TYPES OF LIBRARIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 No. ofDU Borrowed</td>
<td>2 No. ofDU Lent</td>
<td>Total DU Deals with</td>
<td>3 No. ofDU Borrowed</td>
</tr>
<tr>
<td>Type of Library</td>
<td>Items</td>
<td>Items</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>264</td>
<td>305</td>
<td>569</td>
</tr>
<tr>
<td>College</td>
<td>99</td>
<td>399</td>
<td>498</td>
</tr>
<tr>
<td>Public</td>
<td>52</td>
<td>147</td>
<td>199</td>
</tr>
<tr>
<td>Special</td>
<td>13</td>
<td>206</td>
<td>219</td>
</tr>
<tr>
<td>State</td>
<td>0</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>School</td>
<td>0</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>TOTAL</td>
<td>428</td>
<td>1,124</td>
<td>1,552</td>
</tr>
</tbody>
</table>

1. Includes 86 items not received
2. Includes 150 items not received
3. Includes 171 items not received
4. Includes 255 items not received

### TABLE VIII
LIBRARIES WHICH REQUESTED MOST FROM DENVER UNIVERSITY, 1958–1959 (INCLUDING ITEMS NOT SENT)

<table>
<thead>
<tr>
<th>Library Resources &amp; Technical Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colo., Univ. of Med. Cen.</td>
</tr>
<tr>
<td>U. S. Geological Survey</td>
</tr>
<tr>
<td>Colo., Univ. of</td>
</tr>
<tr>
<td>Colo. State College</td>
</tr>
<tr>
<td>U. S. Air Force Academy</td>
</tr>
<tr>
<td>Colo. State Univ.</td>
</tr>
<tr>
<td>Colo. School of Mines</td>
</tr>
<tr>
<td>Colo. State Library</td>
</tr>
<tr>
<td>U. S. Bureau of Reclamation</td>
</tr>
<tr>
<td>TABLE VIII—continued</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Nevada State Library</td>
</tr>
<tr>
<td>Colo. Springs Pub. Lib.</td>
</tr>
<tr>
<td>Colorado College</td>
</tr>
<tr>
<td>Martin Co.</td>
</tr>
<tr>
<td>Shell Oil Co.</td>
</tr>
<tr>
<td>Denver Public Library</td>
</tr>
<tr>
<td>Texas A. &amp; M.</td>
</tr>
<tr>
<td>Western State of Colo.</td>
</tr>
<tr>
<td>U. S. Nat. Bureau of Std's.</td>
</tr>
<tr>
<td>Ohio Oil Co.</td>
</tr>
<tr>
<td>Texas Technical College</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE IX</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBRARIES WHICH BORROWED MOST FROM DENVER UNIVERSITY, 1961-1962</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not Sent</th>
<th>Not Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colo., Univ. of</td>
<td>66</td>
</tr>
<tr>
<td>Colo., Univ. of Med. Cen.</td>
<td>60</td>
</tr>
<tr>
<td>Colo. College</td>
<td>43</td>
</tr>
<tr>
<td>Colo. State Univ.</td>
<td>36</td>
</tr>
<tr>
<td>U. S. Air Force Acad.</td>
<td>33</td>
</tr>
<tr>
<td>Martin Co.</td>
<td>30</td>
</tr>
<tr>
<td>Adams State College</td>
<td>23</td>
</tr>
<tr>
<td>Colo. State College</td>
<td>21</td>
</tr>
<tr>
<td>S. Dakota, Univ. of</td>
<td>21</td>
</tr>
<tr>
<td>Shell Oil Co.</td>
<td>20</td>
</tr>
<tr>
<td>U. S. Geological Survey</td>
<td>19</td>
</tr>
<tr>
<td>Colo. School of Mines</td>
<td>19</td>
</tr>
<tr>
<td>Texas Tech. College</td>
<td>18</td>
</tr>
<tr>
<td>Ariz. State Univ.</td>
<td>18</td>
</tr>
<tr>
<td>Wyo., Univ. of</td>
<td>18</td>
</tr>
<tr>
<td>Colo. Spgs. Pub. Lib.</td>
<td>17</td>
</tr>
<tr>
<td>Nevada State Lib.</td>
<td>16</td>
</tr>
<tr>
<td>Utah State Univ.</td>
<td>15</td>
</tr>
<tr>
<td>Utah, Univ. of</td>
<td>14</td>
</tr>
<tr>
<td>Ariz., Univ. of</td>
<td>14</td>
</tr>
<tr>
<td>Western State of Colo.</td>
<td>13</td>
</tr>
<tr>
<td>Johnson County P. L.</td>
<td>12</td>
</tr>
<tr>
<td>Grand Junction P. L.</td>
<td>12</td>
</tr>
<tr>
<td>Minneapolis-Honeywell</td>
<td>12</td>
</tr>
<tr>
<td>Fort Hayes Kansas State Col.</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not Sent</th>
<th>Not Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craig-Moffat County Lib.</td>
<td>9</td>
</tr>
<tr>
<td>N. Mex. Highlands Univ.</td>
<td>9</td>
</tr>
<tr>
<td>Texas Western University</td>
<td>9</td>
</tr>
<tr>
<td>Kansas State Univ.</td>
<td>8</td>
</tr>
<tr>
<td>Kansas State Teachers</td>
<td>8</td>
</tr>
<tr>
<td>Nebr., Univ. of</td>
<td>8</td>
</tr>
<tr>
<td>Brigham Young Univ.</td>
<td>7</td>
</tr>
<tr>
<td>N. Dakota State Lib.</td>
<td>7</td>
</tr>
<tr>
<td>Kansas, Univ. of</td>
<td>7</td>
</tr>
<tr>
<td>Mercy Hospital, Denver</td>
<td>7</td>
</tr>
<tr>
<td>Western Mich. Univ.</td>
<td>7</td>
</tr>
<tr>
<td>Kansas Wesleyan Univ.</td>
<td>7</td>
</tr>
<tr>
<td>Kansas City Pub. Lib.</td>
<td>6</td>
</tr>
<tr>
<td>Historian's Office (Salt Lake City)</td>
<td>6</td>
</tr>
<tr>
<td>Dakota Wesleyan Univ.</td>
<td>6</td>
</tr>
<tr>
<td>Hutchinson Pub. Lib.</td>
<td>6</td>
</tr>
<tr>
<td>Lowry Air Force Base</td>
<td>6</td>
</tr>
<tr>
<td>Bibliographic Cen.</td>
<td>6</td>
</tr>
<tr>
<td>Longmont Pub. Lib.</td>
<td>6</td>
</tr>
<tr>
<td>Nat. Jewish Hospital</td>
<td>6</td>
</tr>
<tr>
<td>Ohio Oil Co.</td>
<td>6</td>
</tr>
<tr>
<td>Columbia Univ.</td>
<td>6</td>
</tr>
<tr>
<td>Florida State Univ.</td>
<td>6</td>
</tr>
</tbody>
</table>

*Volume 7, Number 3, Summer 1963*
The Ever-Growing Stream of periodicals coming into a library indicates that books, especially in libraries, are of dubious value, as to their up-to-dateness, in many fields of knowledge. Life is speeding up, indeed, and science performs at a fascinating velocity. No wonder book production hardly covers in time the speedy progress of new inventions and processes, not to mention the events of history, philosophy, and sport, along with other revelations of society.

Logically enough, more and more libraries are setting up new serials departments in order to be ready for current information which, when published in book form, would be presumably obsolete. Thus, the old symbol and trade mark of knowledge, the thick book, has been changed to the slender scientific magazine.

The new circumstances increase the difficulties which already existed in handling this material. These difficulties mainly derive from the spacial character of the periodicals. During its first year of life, a magazine is not yet a real citizen in the library and needs a spacial treatment until it is bound or microfilmed. The loose copy's marking, shelving, retrieving is a more complex operation than that of a bound volume. Even the identification of the actual issue—the point d'appui—contains dilemmas.

Let's take for example an average college library which has a periodical department with a total of 1500 current subscriptions (900 titles). This number covers about 18,000 issues a year (in the usual proportion of quarterlies, monthlies, weeklies, and so on); i.e., 18,000 issues to be received, marked, stamped and shelved.

Publishers have different patterns in marking the issues of their periodicals. Most of them put the date on the front cover at various positions. Very often, even on the same periodical, this position varies from time to time. Some of the publishers put the volume and issue number on the front page, but more frequently we will find these somewhere in the magazine, between the second and the twentieth page—depending on the arrangement of the advertisements. For shelving and retrieving the loose copies many libraries mark each issue on the left top corner of the front cover with identification data. This works pretty well. The person in charge of picking up the requested copy from the vertically filed magazines needs only to look at this little spot on the left corner to identify the issue, instead of taking out the whole magazine—often many magazines—in order to consult the issue data.
The diversity of the mentioned patterns is a time-consuming factor in the identification process, even if it takes only minutes or parts of minutes. Multiplied by 18,000 it amounts to hours and days.

Little had been done so far to standardize this restless material; standardization would be the fundamental step, however, toward the later use of code numbers and uniform mechanical devices. The temporary failure of the Cataloging in Source experiment in setting up a kind of standardization in book processing is discouraging perhaps, but the problems concerning books differ in many ways from those of serials. For instance, in the periodical record—although it is a kind of catalog—the individual entries require only the elements of findability, without any professional classification process, imperative in books.

Taking into consideration the differences, it seems to be promising to suggest that all publishers agree:

(1) to reserve a square inch on the front cover or on the back cover of the magazine, for identification of the individual issue, which would include title, volume, issue number, date;
(2) the assigned spot must be on each periodical in the same place previously agreed upon (e.g. a half inch above the bottom edge on the extreme left side).

In refining this idea, the use of identical types, arrangement, and a light background would also be desirable.

The immediate advantages of such an agreement seem to be

(1) the timesaving and reliable identification of the actual copies;
(2) faster shelving and retrieving;
(3) easier processing for the bindery;
(4) a possibility of standardization of serial entries; and
(5) simplification in bibliographical citation.

For the future:

the fundamental step has been done toward the use of code numbers and electronic data processing equipments.

There might be some objections, such as aesthetic contemplations, difficulties in the layout, etc., but all these seem easy to overcome, compared to the problems of the Cataloging in Source experiment (high cost, disruption of publishing schedules, unreliability of catalog entries).

For the time being, I believe it is improbable that publishers can be persuaded to offer their magazines' front covers to the uniform box. I do not think, however, that they could argue for long against the back cover. This space is the prominent show-window of the advertiser, and the publisher's difficulties most likely will arise at that point. But the problem of advertisement layout can not be decisive. If a large number of leading publications will join the project, the advertiser won't have any choice but to take the situation for granted, and rent the space as it is—provided

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the magazine's circulation promises publicity. I hardly think that the reader's attention will be distracted from the advertiser's message, by the dull, tiny square.

On the other hand, the growing interest of libraries in periodical subscriptions cannot be discounted by the circulation policy of any publisher, and at that point I look forward to the cooperation of editorial associations.

The professional literature has not shown any interest thus far in similar projects, nor has the American Standards Association's subcommittee on Layout of Periodicals moved in this direction. I believe that an organization such as the Council on Library Resources could take the initiative first, by 1. informing libraries and library associations about the scheme, asking their contribution to the idea; 2. contacting publishers and editorial associations requesting their cooperation. If an agreement could be reached, we would have arrived at the threshold of a full-scale international program suitable to the speed of intellectual life.

EXTENSION OF LIMITED CATALOGING

During the past year the Descriptive Cataloging Committee has been studying the Rules for Descriptive Cataloging in the Library of Congress for the purpose of recommending changes that seemed desirable before they are reprinted with the revised rules for author and title entry. The question is being raised at the Library of Congress as to whether the rules for limited cataloging, given in Cataloging Rules of the American Library Association and the Library of Congress. Additions and Changes, 1949-1958, pages 74-75, could, with minor modifications, be considered the rules for standard cataloging. If so, rules for more extensive description of exceptional works for which standard cataloging is inadequate would be provided.

The Committee has come to the conclusion that the Library of Congress limited cataloging rules should, with modifications, be extended to the cataloging of all publications except rare books and other items for which a library considers a more detailed description necessary or desirable.

The Committee believes that the standard cataloging rules should be somewhat above the present limited cataloging rules and somewhat below the present standard rules. It recommends the following changes in the present rules for limited cataloging:

1. The cataloging data included in the entry shall not be limited to the information "which can readily be found without reading the text and preface of the book." This is not a sound basis for cataloging. When necessary, the cataloger should use sources outside the book to establish an entry.

2. The present limitation of added entries in the limited cataloging rules to the second of two joint authors and to titles is not satisfactory, for indispensable added entries are being omitted. Editors and translators of classics (both ancient and modern) constitute the distinguishing element by which various editions are known, and added entries for them are essential. Four of the seven members of the Committee also urge that series tracings be included.
3. **Collation.** The Committee thinks that the rules for collation in the limited cataloging rules should be modified, as follows:

   a. **Pagination.** The last numbered page of each paged section of a volume should be given rather than of “each of the several major sections of the volume.”
   
   b. **Illustrations.** “Ports.” and “maps” should be specified when important; the abbreviation “illus.” is satisfactory for all other types of illustrations. The Committee is divided on the importance of colored, folded, and mounted illustrations.
   
   c. RDC 3:14A2 (Complicated or irregular paging) should be deleted and II.B (a) (b) in Additions and Changes, 1949-1958, page 74, should be adopted even for material which a library catalogs with more detailed description.

The Descriptive Cataloging Committee needs your opinions on this major problem. We urge catalogers to discuss this among themselves and with their reference librarians and to send comments on the proposals to the Committee Chairman at their earliest convenience. The Committee also invites every cataloger to send suggestions for changes in the descriptive cataloging rules which he thinks desirable. If there are sections in the rules which are unclear or inadequate for present-day cataloging, we shall appreciate hearing from you about them.

F. Bernice Field, Chairman
ALA Descriptive Cataloging Committee
Yale University Library
New Haven, Connecticut

Members of the Committee: Rudolf Engelbarts, University of California, Los Angeles; Marian Harman, University of Illinois; Marjorie Michael, Lansing (Michigan) Public Library; Margaret Oldfather, Ohio State University; Joseph H. Ryus, University of California, Berkeley; Emilie Varden Smith, University of Kentucky.

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**List of Dealers**

_A List of Book Dealers in Underdeveloped Countries_, a booklet of 44 pages compiled by Philip J. McNiff of Harvard College Library is now available for purchase. It contains lists of dealers supplying materials from Africa, the Far East, Latin America, the Middle East, the Slavic and East European area, and South Asia. Compiled for the Policy and Research Committee, Acquisitions Section, RTSD, the lists represent the experience of libraries with major programs in each of these areas and, with the exception of the Slavic and East European list, are limited to dealers within the area involved.

The starting point for the African list was a survey of African dealers conducted by Joseph W. Bingaman of the Hoover Institution, and the final listing incorporates the experience of nine libraries. A supplementary list of booksellers outside Africa dealing in Africana compiled by Hans E. Panoisky, appeared in the Winter 1963 issue of _LRTS_.

The pamphlet may be ordered from the Executive Secretary of the Resources and Technical Services Division, American Library Association, 50 E. Huron St., Chicago 11, Ill. The price is $2.00.

_Volume 7, Number 3, Summer 1963_ · 297 ·
Orne, Jerrold. The Language of the Foreign Book Trade; Abbreviations, Terms, Phrases. 2nd ed. Chicago, American Library Association, 1962. 215 p. $5.50.

A dictionary such as this, which fulfills the needs of the users, deserves only words of appreciation, but this does not mean that the users should refrain from voicing some desiderata. The book under review is a dictionary in eleven languages of terms used in the book trade. This dictionary, or glossary—and any of these catchwords might have been embodied in the title—is the result of commendable efforts on the part of a group of specialists under the experienced editorship of Jerrold Orne, who published the first edition of the work in 1949. The present work, although named the second edition, could be considered an entirely independent publication. It is two and a half times larger in volume than the first and includes not only 10,000 new entries, but also sections in Czech, Polish, and Russian, which, in addition to the original coverage in Dano-Norwegian, Dutch, French, German, Italian, Portuguese, Spanish, and Swedish, bring the number of languages to eleven. For each language, there is a basic list of nearly 1,000 terms that are principally employed in the book trade.

As more and more languages acquire literary status, the possibilities for expansion of the glossary are unlimited, but the inclusion of the three important Slavic languages in the new edition is very timely. University and college libraries are expanding their East European collections at a rapid speed, and only a few of them can face the resulting problems with adequate preparedness. The glossary, therefore, will be a handy tool for librarians of various specializations of the profession.

It should be on the desk of the acquisition librarian, and a copy of it might be placed next to the shelves containing foreign bibliographies. In the hands of bibliophiles, the glossary may serve also as a key to discoveries of English or American rarities in foreign catalogs.

Not as a criticism, but as a desideratum to be considered in a future edition, it might be noted that the sections are uneven in listing the names of various languages or of countries. While the Czech section has most of the names of relevant languages in the adverbial form (used when translations are indicated), the German section has only one language: “Franzoesisch”. English alphabetization is used for the entries in each language except Russian, while the Russian entries follow the order of the Cyrillic alphabet.

It would be of benefit to have the names of major cities, centers of publishing houses, in their official form with English and the better known foreign equivalents. We have, e.g. “Warszawa,” as well as the abbreviated “W-wa” for “Warsaw” and “L.” for “Leningrad,” but these are exceptions. In the Italian section we might expect “Livorno” for “Leghorn” and “Milano” for “Mailand.” Similarly, in the French section there might be “Bale” for “Basel,” etc.

It will be in the interest of the profession if librarians using the glossary communicate any difficulties encountered to the editor for consideration in future revisions, but in the meantime The Language of the Foreign Book Trade supersedes any such listing which has been done before and will be indispensable to all librarians having to do with the foreign or antiquarian book trade. Imre Boba, Assistant Professor of Russia and East European Studies, University of Washington.

These thirteen papers by Jesse H. Shera, Calvin N. Mooers, G. Jahoda, Ascher Opler, I. A. Warheit, Peter Scott, Jessica Melton, Don S. Cubertson, George Vdovin, Richard F. Garrard, Bernard Fry, Harold Wooster, and Henry J. Dubester were presented at the Institute on Information Retrieval Today conducted by the Library School and the Center for Continuation Study of the University of Minnesota in September 1962. They have been issued here in mimeographed form, held together by staples and a tape that disintegrates on the first reading. Neither the format nor the contents justify the price.

Like so many conference papers, these are of uneven depth and quality. Five of the essays, for example Jahoda's account of "Indexing with Edge-notched and Internally Punched Cards," present elementary information on the techniques of the field; four, for example Garrard's account of "MEDLARS: Systems Engineering Applied to Libraries," consider practical applications of these techniques; and the remaining four, for example Shera's prescription for "The Propaedeutic of the New Librarianship," deal with the concepts and theories behind these techniques. The nine papers in the first two categories primarily repeat what has been spoken or printed elsewhere a number of times by these or other authors. At the same time no one of them, with the possible exception of Scott's "Graphic Aids for Information Retrieval," is well enough presented to serve as the best current summary of the developments in an area.

In their papers both Mooers and Fry maintain that "the needs of the users and the uses to which they put the information should determine the design of scientific information systems" (p. 141, Fry). Wooster, on the other hand, reports that an investigation of surveys...
of information needs and uses by Taube has led to the conclusion that "the design of information systems was a professional matter and that you should [not] take the consumer's needs, tastes, and preferences into account" (p. 153). Dubesrer agrees that "the user, whether as an individual or as a statistic, is not competent to reflect his needs, his desires, or the manner in which services should be shaped to best satisfy them in terms that can be accepted without interpretation or qualification by the professional librarian" (p. 175). Yet this fundamental issue, which ought to be given first priority, is sometimes not even recognized as an issue. Fry, for example, states that "there appears to be general agreement today" (p. 141) for his view.

Finally it is enlightening to note that in several of these essays, both those by computer specialists and those by librarians, the point is either clearly made or self-evident that many library problems and routines do not require mechanization but only a better organization of the work. In some instances it is quite clear that routines that are being mechanized do not represent best current library practices in their pre-mechanized state. In the long run the chief benefit of our involvement with computers may be that libraries will at last seriously begin to apply the existing, but somehow more mundane, techniques of scientific management to the analysis of their procedures.—Norman D. Stevens, Acting Director of University Libraries, Howard University, Washington, D.C.


If there was still any doubt about the growing interest in things Russian, the almost simultaneous publication of three bibliographic handbooks on the Soviet Union should dispel at least some of it. The slim volume being reviewed here has a limited objective and it has succeeded in fulfilling it rather well. Its purpose is to serve as "a practical working guide to current Russian linguistic and reference aids" for librarians in small libraries. It is therefore highly selective and limits itself, with few exceptions, to the fields of Russian science and technology. In doing this, it admirably complements Paul Horecky's Basic Russian Publications (Chicago, University of Chicago Press, 1962). Even within the subject areas it covers, recent imprints are emphasized.

The work contains somewhat over 200 titles and is divided into six major parts: textbooks and readers, language records, dictionaries and glossaries, encyclopedias and encyclopedic dictionaries, geographical reference works, and bibliographies, indexes, and other reference sources. As an additional feature, there are four very helpful appendices: a table of the major transliteration systems presently in use (with a brief enlightening essay on this most confusing matter), a number of retail sources where Russian publications are available, a list of abbreviations of Soviet publishing houses, and, finally, a glossary of Russian bibliographic and book-trade terms.

Since this is a guide of such intentionally limited scope, it would be out of place to ask the compiler why this or that title was left out, even though I might think it quite indispensable. There are remarkably few typographical errors—a fact which, in a work of this kind, is doubly noteworthy. A slight error of another kind should, however, be mentioned. It is stated in the annotation to item 93 that no recent and complete Russian etymological dictionary is available. Fortunately, there is: Max Vasmer, Russisches etymologisches Wörterbuch
The basis for including some retail dealers and leaving out others is not quite clear. Why, for instance, Central Books of London, and not “Znanie” (5237 Geary Blvd., San Francisco 18, Calif.), which is one of “Mezhkniga’s” larger representatives in this country? But these minor defects should not detract from the guide’s value. The annotations are precise and very informative, the translation of the Russian titles is accurate, and the selection, within the stated limitations, is excellent. Prices are given whenever available to enhance its value as a selection tool. It should be mentioned that this latter feature, in the case of Russian books, is of doubtful utility since Russian publications have a habit of going out of print almost immediately. Acquisitions librarians in particular should be grateful to Miss Neiswender for this welcome addition to the literature of bibliographic aids on the Soviet Union.—E. Alex Baer, Slavic Bibliographer, University of California Library, Los Angeles.


There is so much speculation and interest at this time in the appearance of new projects based on the microfiche, that we tend to forget that a sheet of negative microfilm is the basic unit from which all the micro-opaques are made. This is true for Microprint, Microcard and Microlex. The fundamental difference between microfiche and micropaper is that the former is printed on transparent film and the latter on opaque paper. The attributive differences are numerous and result from advantages and disadvantages inherent in the optical and physical properties of each medium. Both are examples of unitized microform, the subject of this booklet. The Microcard Corporation has been so busy during the past twelve years finding new ways to use old methods and slowly evolving new pieces of equipment designed expressly for their product, that they have not had much time to tell the public how they make Microcards. This has resulted in an unintended aura of mystery about their product.

The present volume will do a lot to clear up the mystery and at the same time show the close relationship between Microcard and microfiche. In their search for better ways to make Microcards, they have developed techniques and equipment for the production of microfiche. In this booklet they explore and explain applications suited to one or the other medium. Of particular value is the note of caution expressed at many points, cautionary advice against jumping blindly into a miniaturized program without thinking through from basic input to final output of the system. The intention is to discourage the individual who is interested in microform publication merely as a gimmick.

Timed to appear at the same time as their dual-purpose portable reader, the Micro III, this small volume explains the reasoning behind that novel piece of equipment. It clearly indicates that the Microcard Corporation is in the game from the beginning to end, camera to reader, and intends to see the game is played by the rules that will benefit the players.—Hubbard W. Ballou, Columbia University Libraries.
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