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Serials Agents / Serials Librarians

Katherine R. Smith, Librarian
Virginia Institute for Scientific Research
Richmond, Virginia

After a brief introduction to the history and purpose of the serials agent, and to the serials librarian's view of the agent, a method of choosing an agent for a particular library is presented. Ways of evaluating an existing relationship and of maintaining a relationship between the serials librarian and the agent are outlined with regard to records, correspondence, claims, invoices, and new orders. In conclusion, the need for greater cooperation between serials publishers, agents, and librarians, now that computers are involved, is emphasized.

What Is a Serials Agent?

From my experience, the serials agent is a middleman, operating between publisher and librarian and called into existence because both indicated a need for him. Agents are in the business to make money, nonetheless. The worst of them do this and no more. The best have become friends and allies of publishers and librarians and have served both well. In so doing, they have also served great communities of readers.

Traditionally, the agent helped the publisher to cut costs by reducing the number of invoices which the publisher had to process. In return the publisher gave the agent a discount on subscriptions purchased. The agent pocketed part of the discount and passed the rest on to the librarian. This arrangement became formalized to some extent in postal regulations. In applying for second-class mailing privileges, the publisher must inform the post office of the number of subscriptions held through an agency, and of the amount of discount allowed. Some agents, particularly those handling foreign publications, served as distributors also, receiving serials from the publishers and repackaging them in lots directed to individual libraries.

The years following the Second World War, however, saw many changes in this traditional role. Publishers found themselves in a cost squeeze: paper cost more, labor cost more, postage cost more. At the same time, new concepts in office machinery reduced invoicing costs. As a result, discounts to agents are becoming a thing of the past. Most large publishers, though they no longer need the agent, still accept library subscriptions placed through agents. Many small publishers, and new ones not bound by tradition, are refusing such subscriptions, partly because of postal regulations concerning their mailing privileges. Others are pricing
their serials so that subscribing through an agent is prohibitively expensive. Agents, in order to make profits, are instituting service charges against the library.2

Traditionally, the librarian placed subscriptions through an agent because the agent offered a discount, thereby lowering costs, and because the agent simplified the task of obtaining and renewing subscriptions, especially foreign subscriptions. The agent in his privileged position with the publisher actually obtained better service for the library. In addition, many agents were willing to renew subscriptions—paying the publisher for these renewals before receiving payment from the library—a definite advantage for the librarian whose parent institution was wound up in red tape, as publishers usually require payment in advance.

Despite the fact that most librarians no longer receive discounts from agencies (in fact most of them now pay a service charge to the agent), librarians still prefer to have agencies handle their subscriptions. The costs of using an agent may have increased, but they are still small in comparison with the cost of maintaining a library staff to replace the agent. Few library personnel are qualified in business techniques, and few libraries are equipped to handle a daily flood of invoices. And since many parent institutions are more than ever wound up in their own red tape, the old problem of payment in advance still exists.

Perusal of advertisements placed by serial agents in Library Journal and other professional publications is interesting. The first volume of Library Journal in 1876 carried advertisements for five such agencies. In this and subsequent advertisements up to 1920, it is apparent that most agents were book agents first, men from the old country who turned a knowledge of that country’s language and publishing procedures into a profit and who added serials to their services to increase those profits. Their number expanded through the 1930’s. Domestic agents came into existence. By World War II most of the large agencies in the business today had opened their doors. Then an era of specialization set in, so that, while large agencies continued to serve all needs, smaller ones arose to specialize in supplying serials or periodicals only to school libraries, to libraries connected with the armed forces, and to medical libraries. By the 1960’s, these smaller firms were being bought out by the larger ones, so that the trend today is toward fewer agents, supplying a variety of serial publications to a variety of libraries and doing so through regional offices.3

Librarians on Agents

Librarians have been reluctant to tell their side of the story. Despite the fact that almost all libraries have used agencies at one time or another, a paucity of opinion exists in print. Drury, writing in 1930, recommends agents for simplicity, but gives no critical analysis of their services.4 Gable’s pioneering Manual of Serial Work, published in 1937, also recommends the use of agents, who can handle more conveniently the
large number of periodicals, continuations, and memberships. He indicates that the choice of an agent should be determined by efficiency of service and terms of discount, and recommends that a check with other libraries be made before any decision is reached. He includes an annotated list of domestic and foreign agents.\(^5\)

Grenfell, writing for Aslib in 1953, recommends the use of an agent “if the library subscribes to a dozen or more periodicals,” as direct subscriptions strain the resources of the library staff. Like Drury, he states that agents guarantee the receipt of every number issued as well as title pages, indexes, and so on. (In my experience, this statement is misleading and rarely borne out in fact.) His method of choosing an agent is similar to that of Gable.\(^6\)

Osborn, in what has become the serial librarian’s bible, *Serial Publications, Their Place and Treatment in Libraries*, published in 1955, advocates the use of agents “except when other reasons make it desirable or necessary to deal directly with the publisher.” He does not elaborate this position.\(^7\)

Davinson published two editions of a book on periodicals, one in 1960, and the second in 1964. While neither edition is adequate with regard to the use of agents, the later edition is at least more thoughtful. His attitude can be summed up in his recommendation that problems with an agent be solved by changing agents.\(^8\) Anyone who has gone through this process will dispute him.

Thus book literature has contributed little to the understanding of the relationships between serials librarians and serials agents. Periodical literature as indexed in *Library Literature* reveals that an average of two articles a year are published concerning serials agents. The subject headings used by this Wilson publication are not specific. Until 1949, it is necessary to check both “Order Work” and “Periodicals-administration” to locate suitable articles. It is not until the 1958 volume that “Periodicals-acquisition” appears as a subject heading. In that same volume “Periodicals-subscriptions” was also added. In 1949, “Order Work” had become “Acquisitions,” so that articles may or may not appear under any of these headings. Reading through articles thus located will not add much substantial knowledge, though it will confirm the fact that librarians employ agents and that they have had some problems with them.

Occasionally, one finds articles by representatives of serials agents. Ralph Lessing of Stechert-Hafner and Albert H. Davis of Faxon & Co. both contributed to *Serial Slants*.\(^9\) More recently, *SLA Sci-Tech News* published an address by Frank F. Clasquin of Faxon & Co.\(^10\) and *Aslib Proceedings* for 1962 included a talk by Julian Blackwell of Blackwell’s, an English firm.\(^11\) These articles consist in discussing services which agents should provide to libraries and in chiding the callous practices of some libraries vis-à-vis their agents.

In short, there is a lack of genuine critical examination of this important library-agent relationship.

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Choosing an Agent

As indicated previously, a bewildering variety of agents is available to the librarian who is searching for a suitable one. There are, first of all, comprehensive agents, who, through various offices, will furnish the serials librarian with standing orders for foreign and domestic serials, periodicals, monographs in series, back issues, reprints, government publications, and even books. Then there are agents who will provide standing orders for periodicals, largely as defined by postal regulations, that is to say periodicals issued not less than four times a year, printed, and bound between soft covers, and for which a subscription, rather than a membership, is necessary. There is a book agent who will accept standing orders for monographic series and continuations. And one agent’s brochure includes library furniture associated with the operation of a periodical department. In short, by shopping around, the librarian may well find an agent, or agents, exactly suited to the needs of his library.

In choosing an agent, therefore, the serials librarian’s first task is that of deciding what kind of service his library needs. How many subscriptions will be placed with the agent and is there a projected expansion of this number? Will foreign titles be included in this number? Will subscriptions be limited to periodicals or will they include newspapers, monographic series, Congress proceedings, memberships, yearbooks, or government publications? What kind of claim procedures would best suit the interests of the serials librarian? Does the library’s parent institution permit the placing of long-term subscriptions (ones that commit funds beyond the current fiscal year)? Will the library be placing standing orders, subscriptions which the agent will continue to renew without specific permission from the library, until he is forbidden to do so? Does the parent institution place any restrictions on invoice procedures?

Answers to these questions and any others which arise from a particular library’s experiences with serials purchasing should be committed to paper before the hunt for the agent or agents begins. Bargaining points should be indicated. Some agents, desirous of additional accounts, will expand their service to cover particular items—a government-issued periodical, for instance—if these are included in the library’s holdings. Or perhaps, because the library’s parent institution has strict regulations governing the payment of invoices, the agent will relax his usual procedures in that area to secure the account. Other possibilities exist, but only if the serials librarian is fully cognizant of his position.

After such requirements have been committed to paper, the serials librarian should write to various agents for their service brochures. If the grapevine has not disclosed names and addresses, these can be had from the April issue of Library Journal, which contains in the “Purchasing Guide” a list of agents along with advertisements from many of these. Other publications of the library profession carry advertisements, and if the library collects in a special area covered by such a publication, agents catering to this specialty probably advertise in it.
The brochures, once received, should be read both on and between the lines. What is omitted is likely to be more important than what is included. For example, many agencies advertise in large type, "one invoice a year." Is this really possible? Publishers can and do change prices in midyear; others, particularly German ones, price their periodicals variably by the issue, not by the volume. Frequently, continuations are priced when published, not before. Even if the agent holds these adjustments in his bill until the next "one invoice a year," can the serials librarian adjust his budget accordingly? Many of these brochures will not offer much more than a list of periodicals normally served by the agent, in which case a letter asking for explicit answers to specific questions should be sent to the agent. Charting services listed in the various brochures, together with answers received to any letters, is a useful procedure and will highlight differences.

By this time, many questions will have arisen for which no answers are apparent. Now is the time to visit or to phone other libraries in the area and to ask for advice. It will usually be plentiful. One must know therefore how to sift through praise or blame and to ask leading questions about the omissions. Find out the range of publications an agent handles for the host library. Brochures frequently do not draw lines here. It is an area open to bargaining.

Ask to see invoices on hand from an agent. Some are not easy to work with as their order is other than alphabetical, titles being grouped by publishers, or by expiration date. How closely does the invoice arrangement parallel the serials librarian's records? What percentage of the library's subscriptions usually appear on the large fall renewal invoice? Is there a service charge on each item, or is this added to the total? Does the invoice appear to be a computer printout? Many of the larger agents now use computers, some have improved their service thereby, and others have encountered programming difficulties that have slowed service. If the agent has recently converted his records to computer format, has the librarian noticed any difference in the service? What is the agency's policy (as understood by this host librarian) concerning deductions from invoices and the issuing of credit memos?

What about a claim service? Does the agent have one, or must the librarian request missing issues directly from the publisher? If the agent provides a claim service, does he also provide forms for the librarian to fill out when claiming? Several agents do insist that the library forward its claims directly to the publisher, but provide a form on which to do this. The form, to be accurate, requires a copy of the mailing label under which the publication usually arrives in the library. Are libraries really equipped to provide such labels? Whatever claim form the host librarian has on hand should be examined. From records available in the library, could all information requested on the form be supplied? Is there space for the lengthy comments frequently necessary? Is the form a multicarbon one, or is the serials librarian responsible for making his own copies?
Have any peculiar situations arisen claiming? Does the agent accept orders for replacement copies, or does he refer all of these to a back-issue dealer?

And finally, correspondence in general should be examined. Are letters to the agent answered promptly? Are the answers received in the nature of a put-off or a problem solver?

Implementing the Decision

The serials librarian should now be ready to narrow the field to one or two agents. First proposals should be made in writing and should state simply that the library is considering placing its account with the agent. If one was requested by the agent in his brochure, a copy of the library's serials holdings list should accompany the letter, and this will be necessary if the library must ask for a bid or quote. What follows will vary according to the size of the account and the location of the library relative to that of the agent. Some agents will send a representative to handle large accounts in person, others will always rely on the mails. In either case, this is the time to ask for and receive answers to any nagging questions, and to proceed with whatever bargaining is necessary.

Since formal contracts do not usually exist between librarians and agents, the library should request the resulting agreement in the form of a letter from the agent accepting the account. Such a letter should include decisions for special services made during bargaining, and it should be accompanied by a supply of claim slips, if the agent provides them, and by any other forms, such as credit forms, which the agent prefers the serials librarian to use. The serials librarian will also want to have the names of persons or departments within the agent's office who handle particular problems, such as claims, new orders, or continuations.

Reevaluating an Existing Relationship

Many serials librarians simply inherit an existing relationship with an agent. In this case, the agent should be notified by the serials librarian, or by the director of the library, that a change in command has occurred and that further correspondence concerning the subscriptions held by the agent should be addressed to the new staff member.

The new serials librarian should begin an evaluation of the agent's services as soon as possible. Such an evaluation will serve to acquaint the new serials librarian with the agent's practices, and to determine the direction of any changes in the relationship. It may also indicate an overhauling of the relationship, or the choosing of a new agent. It should be conducted for a period of six months to a year, depending on the size of the holdings list, and it should always include the annual renewal period.

At the beginning of the evaluation period, the percentage of the holdings list in the agent's care should be determined. Out of those titles remaining, some may have been refused by the agent. If so, extant corre-
spondence may indicate the reason. If other libraries in the area receive these same titles from their agents, notations should be made in order that bargaining on the point can be conducted at the close of the evaluation period.

A diary of claiming should be maintained during the evaluation period. This can be time consuming, but it is the only way to pull together for analysis those copies of claim slips which are usually filed throughout the check-in record. The diary should consist of titles, dates for claims, dates of follow-ups where necessary, dates of receipt of claimed issues, and notations as to country of publication, since this will affect the speed of receipt.

Invoices should be critically reviewed for ease in handling, restrictions on deductions, and the speed with which adjustments are made by the agent. If new orders are entered during the evaluation period, response to them should be timed, as the normal length of time for instating a new order is six to eight weeks.

After the evaluation period has concluded, efforts should be made to compare the service evaluated with that received by other libraries, just as one would before selecting an agent. Theoretically, all libraries using the same agent should receive the same service from that agent. However, the profit motive will frequently render the agent more amenable to services requested by large accounts. Awareness of these favors may also make them available to the smaller account.

At this point, some correspondence may be required with an agent who in all other respects has proved satisfactory. The agent should be informed that his service has been evaluated and found satisfactory, indeed admirable in all respects but the following, which fails to meet needs. The situation is then open to bargaining which will perhaps bring improved service.

An agent whose service proves lamentable for library “A,” but satisfactory for library “B,” should be dealt with more firmly. The serials librarian must remember that part of the problem may have been his predecessor’s inability to work with the agent, but this should not deter him from outlining needed improvements. The request may be softened by asking the agent to suggest areas in which the serials librarian could improve the relationship, or could be hardened by placing a time limit on the improvement in the agent’s services.

In some instances, the agent will prove totally unsatisfactory, or the relationship between the library and the agent will prove irreparable. A new agent is then the only recourse; but this decision should be made only as a last resort after a complete impasse has been reached. The serials librarian should then proceed to choose a new agent as outlined above. Such a change, however, should be timed to occur no later than September to avoid interrupted subscriptions. Some rejected agents will not honor claim slips for missing issues after they have been informed that they have lost the account. The serials librarian should be prepared

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to claim directly from the publisher in the interim period. Such claims should be worded to indicate that direct claiming is the result of a change in agents, giving old and new names of agencies. This will direct the publisher's circulation manager to the proper payment record.

The new agent should be requested to notify publishers that he, rather than the agent formerly employed by the library, is now responsible for continuing the subscriptions of the library. In this way, most of these subscriptions will be recognized by the circulation manager as renewals, which customarily receive priority, and will not be interrupted. In the event that the new agent agrees to accept titles which the library had placed on standing order with the publisher, this same procedure should be followed. However, the serials librarian should bear in mind that the adjustment period following the change to a new agent may be traumatic despite all precautions. Many subscriptions will appear to have been duplicated, and for several months those titles not specifically recognized as renewals may not be received. Particularly annoying can be the volumes in series for which the previous agent placed orders at the time of publication rather than actually maintaining a standing order with the publisher. If the library has many of these, a special file of their titles could be created so that it could be readily checked against issues of Cumulative Book Index.

Purchasing Agents and Bids

A serials librarian's relationship with an agent can be enormously complicated by two restrictions sometimes imposed by the parent institution. The first of these is that the library, rather than dealing directly with the agent, permit the institution's general purchasing agent to do this. While some librarians welcome this escape from responsibility, others abhor it. Doubtless the situation arose because administrators were impressed by the librarian's lack of business acumen, or because of failure to distinguish between those areas in the library where purchasing judgment could be made by a general purchasing agent and those in which only the librarian was competent. Reversal of the situation may occur when the serials librarian is able to convince the purchasing agent or his immediate superior that the librarian is better equipped to handle the agent relationship and is capable of so doing. Even then, tact may be necessary to avoid incurring the displeasure of the purchasing agent who jealously guards his domain. At least one librarian has recorded a happy solution to this problem.12

Whether or not the library is required to purchase through the institution's purchasing agent, the institution may stipulate that the library put its subscription list up for bids. This procedure is most frequently found in libraries serving government. Osborn states, "A system of bids is less objectionable when the successful bidder keeps the subscriptions indefinitely. It is completely unacceptable when the subscription list must
be submitted for new bids every year."\(^{13}\) Agents are even less in favor of
bids, which are costly to prepare and can be based only on known prices,
not on projected ones. Furthermore, agencies insist that they are selling
services, not subscriptions, and the services are not taken into account in
the bidding.\(^{14}\) One way of avoiding bidding is to request quotes rather
than bids, this being a less formal approach. If contracts must be signed,
an escalator clause should always be included to permit adjustment to
increases or decreases in subscription prices.

**Maintaining the Relationship**

Since agents insist that they are now selling services, not subscriptions,
it is to the serials librarian’s advantage to maintain the best possible relation-
ship with the agent, as this is the only way to get one’s money’s worth.
Such a relationship is impossible unless the serials librarian keeps reli-
able records in a readily usable form. Thus, while efficiency and accuracy
are important aspects to consider when choosing visible index equipment,
one should not overlook completeness. In short, the visible index should
provide at a glance all the information necessary to fill out a claim slip,
record an invoice, or answer an agent’s query. In smaller libraries, serials
check-in records may still be housed in 3 × 5” card file drawers, separate
files existing for payment records, bindery records, and so on. In libraries
using visible index check-in systems, or using punched cards, separate
files-by-title should be created. Correspondence concerning a given title
may then be filed in the same order as in the check-in record. Notes,
colored signals, or other signals in the check-in record may be used to
indicate the correspondence. Such a file is invaluable, as the same titles
tend to have the same problems year after year.

In corresponding with the agent, the serials librarian should use
forms provided by the agent, or if none are provided, should develop his
own. If multicopy business answer forms cannot be purchased, these too
can be outlined by the serials librarian. Many librarians have the habit
of outlining a particular problem in a literary rather than a business
style. It is far better briefly to state the problem, state the action desired,
and request an answer. The multicopy business answer form serves to
curtail literary style and automatically indicates that an answer is de-
sired. Claims may be filed with the agent who provides this service in
four kinds of situations. The most frequent of these is the missing issue,
the phrase here referring to the issue which did not arrive in the mail,
rather than to one that, having been properly checked in in the first
place, can no longer be found in the reading room.

In the second instance, claims are filed for copies which, though they
reach the library, are mutilated in the process or are defective through a
printing error. The claim form should be filled out with all the neces-
sary information. The comment should clearly state that the issue was
received in an unusable condition and should request replacement.

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utable publishers will usually make good mail-damaged issues, depending on the number of extra copies available. And most will supply correct copies or replacement pages where printing errors have occurred.

The third situation in which claiming may be employed arises from an interrupted subscription, one which the library appears to have renewed, but which fails to arrive. These are the most difficult to handle as they are not regularly brought to the attention of the serials librarian unless he has developed the practice of examining all entries in the check-in record at regular intervals (a tedious chore which only the use of punched cards eliminates) or unless a patron complains. Such an interrupted subscription may require six to eight weeks to be reinstated. At the end of that time if no issues have arrived and no report has been received, another claim should be filed. In Stechert-Hafner Book News, this agency suggested a claiming schedule for interrupted subscriptions as follows:

<table>
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<th>Frequency</th>
<th>Claim Period</th>
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<tbody>
<tr>
<td>Dailies</td>
<td>after 10 days from receipt of last issue</td>
</tr>
<tr>
<td>Weeklies</td>
<td>after 2 weeks from receipt of last issue</td>
</tr>
<tr>
<td>Monthlies</td>
<td>after 2 months from receipt of last issue</td>
</tr>
<tr>
<td>Quarterlies</td>
<td>after 5 months from receipt of last issue</td>
</tr>
<tr>
<td>All others</td>
<td>one month after usual expected time of arrival</td>
</tr>
</tbody>
</table>

The fourth situation occurs when the library has placed serials other than periodicals on standing order with an agent. Many of these are not billed to the library at annual renewal time, but only after a particular volume has been published. In these cases, the librarian has not really paid for the volume in question, nor does he have convenient methods for discovering the missing issue. He may hold invoices for these pending receipt, thereby creating a tickler file. He may phone other libraries in the area if his suspicions are aroused. Some publishers and agents furnish libraries with lists of volumes just off the press, or intended for press. These can be clipped and filed in the check-in record, or kept separate in a tickler file. There is no sure method for catching all these volumes. Once a missing volume is suspected, a claim form should be filled out giving all the information the serials librarian has in hand.

Claiming is frequently the most irritating aspect of the relationship between agents and librarians. Often serials librarians do not claim intelligently. They ignore the fact that almost all publishers will honor claims within a three-month period following date of publication, but will not do so after this date. Check-in records are not kept so that patterns of receipt are indicated; thus irregularities in a particular title will not be noticed and needless claims will be entered. This is particularly true with foreign titles mailed by ship. These will arrive out of sequence nine times out of ten. Then there are serials librarians who claim recklessly, never supply sufficient information, and follow up claims with a note stating that the issue has been found, or has arrived late. The agent becomes wary of such claims and many do not pass this sort of claim on to...
the publisher. Agents, after all, are middlemen. They cannot solve all claiming problems. In most cases, they simply note subscription or invoice numbers on the slips and forward the slips to the publisher. It is up to the publisher to dispose of the claim.

Publishers have circulation managers, or fulfillment managers, to handle the subscription end of the business. Often, this person will not know exactly why an issue is missing, or an interruption in a subscription has occurred. The best that he is able to do is to check existing records and correct any errors so that the problem will not recur. Once he has determined that a subscription to the title for a particular library does exist, he may choose to send an issue in response to the claim. Most publishers do have such extra stocks of issues from which to fill claims, but in some cases, limitations on this stock exist in the publisher’s contract with a sponsoring society. In any case, the decision to honor a claim is the circulation manager’s. The process may require six weeks. Some circulation managers notify either the agent or the library when a claim cannot be honored. If all were so courteous, a serials librarian’s job would be easier.

The claiming process can be further complicated by mail losses, not just of a single issue, but of an entire issue, a loss occurring at the point of supply, by mail or dock strikes, by postal routines, or by incorrect addressing of copies. Librarians contribute to the latter problem by refusing to realize that addressing plates and computer storage fields are limited spaces. A library having, for instance, the name “John H. Ryland Memorial Library, College of Business Arts, University of Southampton, 1114 Southside Street, Southampton, Va. 23239. Attention Serials Librarian” will receive mail addressed to a variety of addresses because the entire name is too long. Furthermore, many librarians themselves use different forms of the library’s name depending on what sort of impression they wish to make. It is no wonder that local postal officials cannot locate the correct slot for such mail.

Invoicing is another area of discord between agents and serials librarians. Invoices can be long and boring, can be in no particular order, can sometimes not be identified. For all these reasons and more, the serials librarian should record payment for each title on the check-in record of that title. Most annual renewal invoices contain the same titles in the same order year after year, affording the serials librarian the opportunity to develop healthy suspicions about interrupted subscriptions. In fact, no matter how much an agent may brag about his renewal capabilities, many of them lack appropriate back-up procedures. Moreover, the agent cannot guarantee that the publishers’ records conform with his, or that the publishers have recorded renewals at all. If, therefore, a title which has appeared regularly on this annual renewal invoice in the past fails to appear on the current one, action should be taken. Some serials librarians create a separate tickler file of these omissions so that they may be checked in February or March. Others append lists of these omissions

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to the invoice, requesting action or explanation. Only experience with a given agent will indicate the most productive route.

If the agent has given instructions regarding the payment of invoices, these should be followed. If deduction forms are provided, they should be used. Since the agent operates on a narrow profit margin, it is not good policy for the serials librarian to repeatedly hold up invoices for an outstanding item. Such an item should be paid and a credit memo requested if receipt is not imminent, or such an item should be deducted and the corrected invoice sent on. Many invoices from agents contain errors arising from the fact that agents do not always have access to correct bibliographic information. Unless instructed otherwise, the serials librarian should correct wrong volume numbers, wrong renewal years, and other such errors on all copies of the invoice, and should enter the correct dates on the invoice and the library’s records. Here again, accurate records in the library will solve many problems.

Orders for new titles to be added to the holdings list may be sent to the agent on multiple order forms. These forms, available from most library supply firms, are obviously designed for books, but may be used for serials with little difficulty. As with ordering a book, complete bibliographic detail should be furnished to the agent. In the event that the current or desired volume number cannot be ascertained from blurbs or from periodical indexes, the space beneath vol. can be filled with the sentence “begin subscription with the first issue of the first volume to be published in 1969.” If the librarian is placing a standing order, the phrase “continue subscription until forbidden” should be added to the bottom of the order form.

Serials librarians should be aware of the restrictions placed on new orders by publishers and by agents. Many publishers will accept annual subscriptions only. Thus if the library enters its subscription in July, it will be billed for issues published between January and July, and will receive any of these still available. Some agents will enter new subscriptions only in September-December annual renewal period. Others want all changes, additions, and deletions to be on their desks by August. Librarians faced with restrictions on the one hand and a demanding patron on the other may compromise by entering a new subscription with the publisher until the next adjustment period with the agent. Fortunately for serials librarians, the use of computers by agents has lessened this problem.

In Conclusion

In the past, there has been little dialogue between agents, publishers, and librarians concerning their mutual problems, and consequently each has developed separate routines for solving problems without considering the concurrent interactions with the others. Thus, irritations arising from the lack of standards of format and bibliographical notation in the publishing world in the 1930's led librarians to form a committee within
the American Standards Association to draw up and publish acceptable guidelines. Publishers were urged to heed these guidelines, but the problem still smolders.

A similar situation is now at hand as a result of the adoption of data processing equipment by publishers and agents and by a few libraries. In the rush to automate clerical routines, interaction is again being overlooked, and all three parties will suffer because of a lack of knowledge about what is important to the others. In reporting an experience with a mechanized serials system, one librarian indicated a continuing problem with claims, which were sent directly to publishers. The system was set up so that the claim response generated a card to be used to check in the subsequent issue. The librarian complained that publishers failed to respond to the claims. It is possible that this occurred because the form was imperfect, improperly worded, or did not carry sufficient information. It is equally possible that the publishers simply failed to reply because it was not their routine to do so.

Shared time, which is frequently an economic necessity in smaller firms, leads to slower service on claims and renewals. The circulation manager who has access to the computer only on Wednesday cannot supply information from the computerized files to a customer who telephones on Friday. Yet a decrease in the time involved in claiming would benefit most libraries.

Publishers and agents have not broken with tradition, as supposedly they could do with the aid of computer technology, in the area of renewals. Most renewal work is still accomplished between October and January, creating a terrific work load, backlogs, and slower service.

Program inadequacies have occurred through failure to consider points of interaction. One circulation manager interviewed in connection with this paper explained that a discrete number assigned to each subscription was his only entry to the tape-stored payment record. When agents or individual subscribers failed to supply this number on an invoice or claim, the circulation manager was forced to search through files of old addressograph plates to locate the subscription record, or to wait until the next mail-out in order to check the label printed by the computer for the number he needed. His programmers had not realized that libraries and individual subscribers do not maintain files of mailing labels which carry their discrete numbers. Agents, of course, employ their own systems of discrete numbers, which the publisher cannot tie in with his system.

A few efforts are being made to set up universal systems of discrete numbers, or uniform title abbreviations which may be adapted to a number system. CODEN is one of these, as is the accession system of the New York Medical Library Center. A form of coding for individual libraries has existed since the first edition of the Union List of Serials. The American National Standards Institute’s Z39 Committee has issued guidelines for periodical abbreviations. But in all these attempts, there is no
pressure for conformity, and at this point, there is not much dialogue which could lead to a better understanding of why such conformity will be a necessity in the near future. Librarians, particularly practicing serials librarians, should take the professional responsibility of attempting to discover the parameters of interaction between their routines and those of agents and publishers so at least their efforts to mechanize could conform where necessary.

REFERENCES

3. Franklin Square-Mayfair Subscription Agency (Brochure of Services. 1968.)
The fantastic growth in the number of serials demands that we cut processing costs drastically. Much costly inefficiency can be eliminated if publishers never let a title vary. A title should be unique, without initials. Title changes are very expensive and many are unnecessary. The present struggle with numbers and dates, volumes and calendar years, pagination, and margin width is discussed. The U.S. Government must help enforce standards via the U.S. Post Office Department. The 1967 USA Standard for Periodicals: Format and Arrangement is largely unknown. A committee should be established to make standards known to publishers and to report violators to the Post Office Department. Repeated violators would risk losing second or third class mailing privileges.

Anyone only vaguely familiar with the library literature about serials knows about the tremendous growth in the number of titles published throughout the world. This “population explosion” in serials had already been commented on before World War II. More than a third of a century ago, in 1935, J. H. Gable wrote in the Library Journal: “When one visits the departmental libraries of the modern university and notes that the greater portion of the literature is in serial form, it is not difficult to visualize libraries of the future containing almost nothing but serials.” Even now, in 1969, this “almost nothing but serials” is difficult to imagine, but the rapid rate of increase will almost certainly continue in the foreseeable future. I do not want to bore the reader with many figures, but a few are certainly interesting. Already in 1964 the Library of Congress received a whopping total of 160,000 serials. As of the fall of 1968 the University of California (all campuses) received no less than 158,233, the University of Michigan 39,254, and Northwestern University 38,096. There are, of course, several reasons for this rapid increase, but the most important one probably is that books are too slow. It takes too long to write them. Scholars and researchers want to know the latest developments in a great variety of fields long before they appear in book form. Hence the fact that special libraries, for instance, spend more money on serials than on books.

So far nothing new. Most of us are well aware of all this. Librarians also know that separate serials divisions, sections, or whatever we call them, have come into being in academic and in the larger public libraries in the last decade or two throughout the continent. And librarians and
publishers are well aware of the ever-increasing cost of subscriptions. For the most part, the latter trend cannot be stemmed. But much could be done about cutting handling costs not only for libraries but for publishing firms as well. The administrative costs of acquiring serial publications, of recording the receipt of issues (“checking-in” or “posting”), of shelving and of binding—in short, the costs of processing—are outrageously high. And the sad story is that these high costs are so unnecessary. Publishers (those of library literature apparently no exception) are unaware of the great waste of processing time caused by the present anarchy in serials. They still think of subscribers in terms of private persons who receive only a handful of titles and who do not record receipt of any issues.

Speaking about costly chaos and anarchy we might first take a look at the actual titles of serials. A title is a wonderful thing. In the Western world it consists of a certain grouping or combination of roman characters whereby a particular title is known. Publishers do not know this is serious business. This particular combination of some twenty or thirty characters pinpoints a title. If the 1961-65 cumulation of New Serial Titles lists 107,000 titles, this certain group of characters distinguishes it from 106,999 others. A publisher should realize that his title constitutes only one out of some 12,000 to 15,000 serials received by the medium-sized university library in the United States today. He should be aware of the fact that hundreds and in some cases thousands of libraries throughout America and elsewhere in the world have several records of his one title: a check-in card, a payment record, perhaps an edge-notched card to keep track of renewal time, several cards in the public catalog, and perhaps a Linedex strip for quick reference. Furthermore, his title may be listed in the catalogs of subscription agents and second-hand dealers, it may be mentioned in the texts and footnotes of many books, and countless invoices may be filed under it. In short, a title is so important that a publisher should cling to it as he does to his own name. One would not dream of spelling one’s name differently on different occasions. For obvious reasons a person’s name does not vary. And a title of a serial should not vary for obvious reasons. But they do in far too many cases.

Let us see what might easily happen to an issue of such a title. Chances are that the title under which it is in the file cannot be located because of the variation. The piece ends up as a “snag.” After a search in other files without results, the piece may then be considered to be an unsolicited sample. Whereupon the library may decide to order. The publisher may then want to know if the order is meant for a second subscription, and so on. On the other hand, if an entry in the file can be found that looks like it pertains to the issue at hand, the following question immediately arises: Is this the same title? You can find out, of course, by going to the department or division of the library where pieces are shelved and compare those with the troubleshaker at hand. Usually there are telltale signs. Format and size are the same, tables of contents look alike, and so
on. But all this detective work is very time consuming. The next question is whether or not all records should be changed to the new title. Or has it varied before? In that case it is dangerous to change all records, because after all has been done the older version of the “title” may appear again. In which case the piece is a snag again, unless a cross-reference has been kept. But cross-references are expensive because space is expensive in Kardex files, and they clutter up the files. In the meantime, the same guess and detective work is repeated in many other libraries from coast to coast. Such publications are very expensive. If they are received as gifts, they are costly gifts. Not only do they cause endless trouble when recording receipt, but, in case of purchases, processing of invoices can be seriously delayed.

Before we go into actual title changes, I would like to say a few more things about titles. A title should be unique. No other publication on earth should bear the same name. Take, for instance, Challenge. A truly inspiring name for a brand new periodical. It is short, there are no initials involved, it sounds brave. But New Serial Titles, 1961-1965, already lists thirteen “challenges” and the Union List of Serials lists several more. In fact, rumor has it that there are at least forty. Larger libraries are bound to have several publications with identical titles. Subscription agents will have them in their catalogs. They cannot but cause trouble. A new order may be placed with an agent for X and the wrong X may be sent. An invoice comes in for X but payment may then easily be entered on the payment records for the wrong X. A checker may have volume 14, no. 1 of X (2). When searching for the entry, he may first encounter X (1). Chances are he does not notice the next entry for X (2). After all, one naturally expects the next entry to be different. The X (2) piece does not fit on the checking records of X (1) but it may come close. It may show we have received up to and including volume 12, no. 4. The less experienced clerk will walk right into the trap. He will record volume 14, no. 1 of X (2) on the card for X (1). Now, although he lacks experience, he is conscientious and will initiate a claim for all of volume 13; and an unnecessary claim will reach the publisher of X (1). The annoyed publisher will, if he bothers to answer at all, state he sent the issues on this or that date. In the meantime, someone checking the file periodically for claims notices that volume 14, no. 1 of X (2) still has not been received. The checking clerk does not know that the piece was received but has been checked in on the wrong card, given the wrong call number, and placed on the wrong shelf. He then claims volume 14, no. 1 of X (2). The publisher of X (2) maintains he sent it—etc. What a tremendous waste of time for librarians and subscription agents and publishers alike.

Then there are those numerous titles starting with initials. They are stumbling blocks to everyone and the number of man-hours wasted each year in each major library because of initials must be considerable. Take for instance Massachusetts Studies in English. Sometimes it is called as spelled out, at other times MSE. On the front cover the title is spelled

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out in rather small letters. MSE appears under it in big capital letters. Just what is the title? How many clerks across the nation will try to find the entry under MSE rather than under Massachusetts Studies in English? How many cross-references must have been made from coast to coast? How many added entries (under MSE) in card catalogs around the globe? Or take a similar case: MT. Mechanical Translation. Unlike Massachusetts Studies in English it has been entered under MT. Mechanical Translation in New Serial Titles. The bewildered clerk who thinks he has learned a lesson with Massachusetts Studies in English will go straight to Mechanical Translation, only to discover that the entry is under MT. Mechanical Translation. Then, too, agents may list the title as it is spelled out at one time and under the initials at another. No one but the publisher is to blame, especially when he puts initials in front of his title on some issues but not on others. And titles beginning with initials are easily misfiled, especially when the initials have vowels in strategic places. Titles like LIT, NELPA News, NIPA Journal, and NATO Letter are often filed as though they were words. Although librarians are usually aware of these pitfalls, clerks are easily misled and certainly through no fault of their own. And one should not forget that nonprofessionals handle serials almost exclusively. The only time librarians encounter them is when the publication is first established in the file, when it dies, or when something goes wrong. Of course things easily go wrong with initials. Yet even a medium-sized library has hundreds of these snares in its files.

Now we come to the most frustrating and most costly phenomenon to be found with serials: the title change. The Jan.-Mar. 1968 cumulation of New Serial Titles listed about 200 changes and the Apr.-Jun. 1968 issue about 30. This count includes superseded titles and changes in corporate entries—more than 400 reported changes in six months. One wonders how many of these titles were changed without any warning from the publisher. Let us see what happens in such cases. The publisher of Social Upheavals changes his title suddenly to, say, Today's Problems. So volume 13, no. 1 of Today's Problems comes in, the final (never call it "latest") issue of Social Upheavals being volume 12, no. 4. And the checker has a problem that day, one out of many. He may have 14,000 entries in his file but not a single one under Today's Problems. He then searches his "dead file": the list of titles that either ceased publication or that were dropped by the library. He does this because the piece may be another sample of a title not wanted by the library. No luck. Yet the piece is properly addressed to the library, correct name of department, etc., and it bears volume no. 13. As a last resort he tries the main card catalog, because it contains more cross-references and the title may have been misfiled in the serials file. The card catalog is no help either. The piece is a snag and it is given to a librarian. If it is a sample, shall we subscribe? Some time afterwards Social Upheavals is claimed, since nothing has been received
since volume 12, no. 4. But the publisher is swamped for he has already received 500 other claims from libraries located anywhere from Maine to California and from Washington to Florida. He just does not find time to answer. A second claim is sent. . . We need not continue. The amount of time wasted by clerks, librarians, subscription agents, and indeed by publishers themselves is embarrassing.

The writer is well aware of the fact that some title changes are necessary when the scope of a publication changes. But it may well be that about 40 percent of all changes are by-and-large unnecessary. The Jan.–Mar. 1969 issue of New Serial Titles lists some seventy-five changes. Of these seventy-five no less than thirty-three (43 percent) either probably did not really need a new title or a change of title was desirable because the original title had been chosen carelessly. As I remarked before, choosing a title is serious business.

Almost equally serious is the business of numbering. Numbers are wonderful things. A certain combination of only two or three characters will distinguish one issue from some 400 other pieces that may be published during the lifetime of a periodical. A system of numbers enables libraries to make sure all issues are received and that all issues of a volume are there when it is time to bind. References to articles must either give dates or numbers. Purchase orders and invoices depend on numbers and/or dates, and so do indexes and abstracts. In view of the importance of numbers one wonders why publishers do not pay more attention to them. If they were more careful, they would save librarians as well as themselves a lot of work. In case of an irregular publication with so-called whole numbers only, a skipped number is bound to result in an avalanche of claims. The same is true of an issue never published. It is quite understandable that in the case of a quarterly, for instance, there is not enough material for the fourth issue which is usually the final issue of a volume. It is also understandable that a publisher may have occasion to drop the fourth issue after the third one has already been published. But there is no excuse for wasting the time of 800 clerks across the nation by not mentioning the fact that a number was dropped. For example, if volume 3, no. 4 was never published, then volume 4, no. 1 should have this note on the front cover: “Volume 3 complete in 3 numbers.”

Publishers also unnecessarily burden themselves and librarians by not letting calendar years and volume years coincide. For example, a quarterly published in Jan., Apr., Jul., and Oct. should always have the Jan. issue as issue no. 1. What happens when the new volume starts in October? In other words, when the October issue is issue no. 1 of the new volume. The publisher’s records will be awkward and most likely confused also. For the trend is definitely towards calendar years. So the new subscriber or subscription agent orders a new subscription, to begin with 1969. The publisher must then enter on his payment record for so-and-so that so-and-so has ordered, say, volume 33, nos. 2-4 and volume 34, no. 1. His typist cannot send an invoice just for volume 33, 1969. No,

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the invoice must read volume 33, nos. 2-4 and volume 34, no. 1. Sooner or later—and most likely sooner—the publisher will be in trouble, because a clerk will enter on the payment record, say, volume 35, 1971, simply because most issues in that year are of volume 35 and everybody should know what he means. Or he will write volume 35/36, 1971, or volume 35, 1970/71, or volume 35/36, 1971/72. When he leaves the next person will have a hard time untangling the mess. In the meantime, the clerk in the library has renewed for 1970 and if he is not careful he may think he has renewed for volume 34. But volume 33 is incomplete. Issue no. 1 is missing. If he claims it, the publisher may then send the issue for which the library never paid. Or he may start explaining. In such cases publishers and librarians (library publications are sometimes also guilty of off-key numbering) should not blame their clerks for being incompetent. Rather they should blame themselves. If we set traps for the people that work for us, we have no right to blame them for walking into same.

Another trap publishers set for themselves and others is the roman numerals. It is true that they look more dignified, but they are not nearly so efficient as the arabic ones. And efficiency is what we want in this age of mass production and mass processing. When the numbers are still low, people can usually read them, but volume 18 has already five characters in roman numbering. Go a little bit higher and the trouble begins. Obviously people get confused at the publisher's end, because the writer has seen a good number of cases where issues were misnumbered because of the complexity of roman numerals. The writer lives at 4390 Pearl Street. There is not a single mailman in these United States who has trouble with this number. But what might happen if people start writing to MMMMCCCCXC Pearl Street? Is it unfair to compare millions of pieces of mail with a handful of publications? Perhaps so, but one can hardly speak of a handful. In 1967 the Library of Congress processed 1,934,425 pieces. And here are some figures for college and university libraries in the United States. The grand total of serials (periodicals and serials) reported in the Fall 1968 issue of Library Statistics of Colleges and Universities: Data for Individual Institutions, stands at 2,834,479 (give or take a few hundred because of the writer's possible mistakes in addition). If 14,000 titles require 250 postings each working day, which is a conservative estimate, then 2,834,479 subscriptions require the handling of 50,500 issues per day, or 12,877,500 pieces per year, figuring 255 working days per year.

With such staggering figures the library world cannot afford to struggle with irregularities and pitfalls such as roman numerals. Neither can publishers, because eventually they will cause themselves a lot of extra work. And I suspect that is just what happened with the British journal Economist. The trouble began with volume CCXXII which suddenly became volume CCXXIV with the Jan. 10, 1967, issue. The index was numbered correctly. The next volume started as CCXXV but should have been CCXXIV. This was corrected in the third issue of the volume, but the index became CCXXV again. Although the next volume was
numbered correctly, volume 226 came in Arabic numerals. To everybody’s relief it has come in Arabic numbers ever since.

What is worse than Roman numerals, however, is the variety of numbering systems used. Generally speaking there are volume and issue numbers. But only generally speaking, because one also encounters volume and issue and whole numbers, or volume and whole numbers, or whole numbers only, or dates only. From time to time one also is confronted with the problem of a particular issue being part of two different journals. Or one and the same issue being two issues. I have seen a case where an issue of a certain journal was volume 14, no. 2; volume 15, no. 2; and volume 16, no. 2.

Still worse is the fact that numbers are often hard to find. For rapid processing the number(s) ought to be on the front cover, of course. Alas, the truth is that very often they are not to be found there. I just took a stack of issues waiting to be processed. Of the thirty-eight titles in this stack, I counted only nineteen that had numbers on the front cover. Exactly half of the titles had numbers elsewhere. And “elsewhere” is the word. Numbers can be found on the inside of the cover, near the top of page i, near the middle of page ii, at the bottom of page iii, on the left side of page iv, in the center column of page v, etc. Or one finds the volume number on the cover, but the issue number somewhere inside, or the issue number on the cover, but volume and issue number inside. One may also find the date on the cover, but the number(s) inside, or the number(s) on the cover, but the date inside. And although probably no one has ever made a study of it, it just might be safe to say that there is only a 50/50 chance that the person recording receipt of an issue will find the number(s) and the date on its cover. In other words, in our example of a medium-sized university library where 300 pieces are processed each day, the number(s) must be hunted down 150 times each day. Unless the number is written with the call number on the pieces, the hunt will be repeated by the patron who needs to look up an article in issue no. so-and-so, and by the person who assembles the issues for binding and who must make sure all issues of that volume are there and in the right order. A typical example of hard to find numbers is provided by the Saturday Review.

So far we have talked about the tremendous growth of serials, both in numbers and in importance, and about some of the present chaos resulting from the woeful lack of standardization; chaos for which libraries (and publishers) pay dearly, mostly in the form of scandalously high handling time. If we conform to a few surprisingly simple rules, we can vastly reduce the processing time of the ever-increasing number of serials, resulting in great savings. Then why don’t we have standards? We do have standards. In fact, we had them a third of a century ago, in 1935. The 1935 standards were revised in 1943, and the 1943 standards were again revised. What we have now is known as the USA Standard for Periodicals: Format and Arrangement, approved June 7, 1967, by the United States of America Standards Institute. So the point is not that we

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do not have standards, but that they are being ignored, not only by publishers in general, but even by publishers of library literature. At this point I would like to quote William H. Huff who wrote in 1965: "...In line with Z39 standardization activities"—referring to the 1967 Standard then in the making—"the Serials Policy and Research Committee has recommended that action be taken to see if publishers can standardize the form and location of bibliographical information appearing on periodicals, beginning with those journals which have as their path of orbit, the world of library literature." Written four years ago, we know that there are still plenty of library literature serials in orbit that do not adhere to this Standard. At any rate, publishers of all kinds of serials do not only ignore the Standard; most have never even heard of it.

Making the Standard known should not be too much of a problem. I suppose that when publishers apply for their second- or third-class mailing privileges, the U.S. Post Office Department could supply them with a copy of the 1967 Standard, which incidentally is also known as USAS, Z39.1-1967. The 1967 Standard could also be printed in the U.S. Official Postal Guide which, if I am not mistaken, is issued annually. This would mean involvement of the U.S. Government, on behalf of libraries, in disseminating the Standard. But involvement of the U.S. Government should be carried even further: not only could Washington, through the U.S. Post Office Department, assist in promulgating the Standard, it could also help enforce it by linking conformance to it directly to mailing privileges.

This is not a new idea. Librarians have talked about it privately for years. But as far as I know it has not yet been proposed in the library literature. Culbertson merely mentioned the idea a few years ago when he wrote: "I feel that persons as individualistic as publishers, their layout men, and artists will probably never cooperate in a significant number unless standards were to be tied into their second and third class mailing privilege. I'm not sure that I'd recommend any measure this strong." Yet if we cannot count on the voluntary cooperation of publishers, we must go in this direction. The government should do what private enterprise cannot or will not do. No matter how well written, standards are of no use unless people adhere to them and if U.S. mailing privileges provide the only route to conformance, government involvement may well be justified. In this connection it should be noted that during the last few years there has already been increased government interest in library affairs in general. A manifestation of this trend is the recent establishment of the National Commission on Libraries and Information Science as a continuing federal planning agency.

Once U.S. Government interest in enforcing USA Standard, Z39.1-1967, has been aroused, it may not really be too difficult to create uniformity out of the present chaos. It would actually be up to the library world to provide standards that are efficient and yet simple enough to follow easily. The present Z39.1 Standard goes into so much detail that complete enforcement can only be an ultimate goal. On the other hand,
some points raised in this article are not mentioned in the Standard. Librarians would also have to cooperate among themselves in aiding the U.S. Post Office Department and in giving advice to publishers. In order to fulfill these objectives it would probably be necessary to appoint a committee that would give advice to publishers and to the Post Office Department. This board or committee could be established by the American Library Association or by the Library of Congress. It would primarily have to consist of librarians with plenty of experience with serials.

This board could start with bringing standardization to new publications. Whenever a publisher applies for second- or third-class mailing privileges, the U.S. Post Office Department might require clearance from our proposed committee. The committee might require the publisher to submit a sample copy. No clearance should be given until the following conditions have been met:

1. The title:
   a. It must not start with initials.
   b. It must not be a title already used by someone else.
      (The least the board could do is to check with New Serial Titles and the Union List of Serials.)
   c. Title must appear on cover plainly and not be obscured by artistic designs.
   d. Title must never vary.
      (This should be pointed out to the publisher from the beginning.)
   e. The publisher should also be told that he cannot change the title without the board’s approval.
      (Title changes are so costly that they must be kept to a minimum. So the board should approve title changes only when the scope of a serial changes or perhaps in a few other circumstances. If a title must change, it should only be done at the beginning of a volume. The new title should begin with vol. 1, no. 1, or with no. 1 if only whole numbers are used. The title change should be announced on the cover of the last two issues under the old title and on the cover of the first two issues under the new title.)

2. Identifying numbers and dates:
   a. These must appear on the cover.
      (It would be ideal if they would always appear in the same location on the cover. The writer has thought of the lower left hand corner, but this idea may be too revolting to the many publishers who attach great value to the appearance of covers. There may be less opposition to a strip across the cover, with the volume number to the left, issue number in the middle and date to the right of the cover. Anyhow, the most important thing is that all identifying numbers and dates appear on the cover.)
   b. Dates must be specific.
      (There is no reason why a publication cannot have dates such as January, April, July, and October rather than the inexact terms of

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Winter, Spring, Summer, and Fall.)

c. Only arabic numbers must be used.
d. Volumes of regular serials must be on a calendar year basis.
   (In other words, issue no. 1 of a volume must be the first one pub-
   lished during a calendar year and the last issue of a volume must
   be the last one published during the same or a following calendar
   year.)

3. Indexes:
   Whenever an issue has the index for a volume, whether loose or not,
   the word “index” should appear on the cover.
   (This would be of great help to those recording receipt who otherwise
   may have to leaf through each issue in search for an index.)

   Hopefully, this would bring some immediate standardization to most
newly published serials in the United States. The ones currently being
published could perhaps be given a period of grace, say a year, after
which they must conform to standards or risk losing mailing privileges.
But it would be better if compliance with items 1.(a) and 1.(b) would
not be required for the now existing serials in order to avoid a great
many title changes. Such titles will eventually take care of themselves,
as serials sooner or later die anyway.

   The above would only be the beginning of standardization. I have
not even mentioned those points which are just as important, or even
more important, than these. Tables of contents and mastheads need also
to be standardized, terms of subscription must be stated clearly, pagina-
tion of issues and entire volumes needs uniformity, there should be a
minimum margin width, indexes need attention and so do supple-
ments. I would also like to see limits, both ways, to the width and height
of issues. CODEN designations on each cover would also be most useful.
Yet it would perhaps be better to introduce standardization in stages,
so as not to make things too difficult for publishers all at once. And this is
one of the reasons why I would not advocate trying to enforce all of
USAS Z39.1-1967 in one sweep. It would be more realistic to begin with
rules which are simple and few and then to introduce others as time goes
by, always keeping in mind the most urgent needs of librarians and cer-
tainly also the problems that publishers may encounter.

   Speaking of compulsory standardization, this question would soon
arise: Who is going to see to it that publishers obey all the regulations
that may be set up? One could not expect the U.S. Post Office Depart-
ment to examine the thousands of issues mailed daily. And our proposed
committee would presumably get to see only a sample copy of the first
issue of a new serial. But how about a network of reporting libraries?
We already report new titles and changes in publications to the Library of
Congress. Why could we not report violations of standards to the board?
The board could then warn the publisher and notify the Post Office De-
partment in case warnings are ignored. Close cooperation among li-
braries, the board, and the U.S. Post Office Department would be re-
quired, but in this day and age of rapid communication such a scheme ought to work.

While the above contains the main ideas of this article, a few concluding remarks and comments are in order. The reader will wonder if these proposals are not altogether too drastic. Librarians have long ago accustomed themselves to lack of uniformity and to the idea of somehow muddling through. They are not very militant people and they may fear that enforcement of standardization will incur the wrath of publishers. Indeed, publishers may object and some may retaliate by raising subscription prices. They may also protest on the basis of infringement of intellectual freedom: “Today the government prescribes the format; tomorrow the contents.” But here the writer strongly emphasizes that he is concerned with format only, for strictly utilitarian reasons. Contents have nothing to do with it. Another point of consideration is that libraries receive many serials, not infrequently as much as 25 percent of the total, in the form of gifts. Would librarians be willing to report violations in the case of gift subscriptions? And there is also the possibility of nonobservance en masse on the part of publishers, possibly making standardization as difficult to enforce as Prohibition once was.

Yet the need for standardization has become so great that librarians ought to strive for it, no matter how formidable the obstacles may be. Further rapid growth in the number of serials is to be expected. Indeed, so many new publications appear each year that one might well speak of a “serials explosion.” Standardization would mean great savings in handling costs. The point is not that with uniformity we may get along with less personnel handling the number of serials they do now, but that the same number of people we have now would be able to process many more serials than they do at present. The writer also has pointed out several times that publishers and subscription agents would reap the benefits of standardization as well: in the form of less correspondence, fewer claims, fewer telephone calls, and fewer delayed invoices.

So far I have not mentioned automation. Fortunately automation has finally made librarians much more aware of the present lack of standardization. In the early days of automation many people thought that the computer could do just about anything. Some librarians believed they could really pull themselves out of the serials morass by automating. Now that the honeymoon is over people have become more realistic. Yet the idea that with automation one can get along with less personnel is not yet dead. Some libraries, where serials have been at least partly automated, have compared the check-in time required in an automated system with that of a manual one. It was found, of course, that recording of receipt in the case of the computerized method took just as long as that in the case of the manual system. Such studies were unnecessary because plain common sense would indicate that standardization really comes before automation. No matter how sophisticated the method of recording is, the time-consuming hunt for identifying numbers must continue, and so does the struggle with varying titles, changing...
titles, initialisms, etc. And no matter how ingenious the storage medium may be, that which is stored will still be a mass of irregularities. This is not to say that there will be no irregularities after standardization. For instance, publishers simply cannot produce an issue just because one is due. Some titles will still have to change, and so on. But with standardization the number of irregularities will be kept to a minimum and processing will be much faster. Speaking of automation here, the writer does not want to say that we should wait with computerization until serials are wholly or even partly standardized. We might have to wait forever. However, as things are now, automation can only provide better service to patrons. It cannot eliminate the present inefficiency and the problems we now have. Only standardization can do this.

So the advantages of standardization of serials can hardly be overestimated. And it may well be that foreign countries would follow suit. The United States has become a world leader in modern librarianship and its serials travel far and wide. Its influence on foreign librarians is great. Besides, many foreign governments are also becoming increasingly interested in the affairs of libraries. The idea of standardization in serial publications through government cooperation may well become contagious.

REFERENCES

1. Throughout this article the word “serials” is used in the broad sense of the term, thus including not only the less frequently published titles—the real serials—but also the more frequent ones, such as periodicals, magazines, journals, or whatever they are called.
4. There is at least one case where the same issue number of the same volume number of two identical titles covers the same period of time. Vol. 29, no. 1 of The Call Number, published by the University of Oregon Staff Association, is for the “Fall” of 1967. Vol. 29, no. 1 of The Call Number, published by the North Texas State University, is dated Sept.-Oct., 1967.
5. An interesting case is the PNLA Quarterly. One agent lists it under its official title in a price list, but under Pacific Northwest Library Association Quarterly in a list of indexed periodicals, all in the same catalog.
6. These two titles are meant to be fictitious. As far as the writer knows neither of these now exists as a current title.
7. Why 800? We assume here that, on the average, four persons work on one claim: two in the library and two in the publisher’s office. This is not exaggerated, considering the filling out of forms, the routing, mailing, etc. We further assume 200 libraries subscribe.
10. This idea is not new. See: Vesenyi, Paul E. “A Square Inch for Libraries.” Library Resources & Technical Services, 7 (Summer 1965), 294-96.

* 30 *

Library Resources & Technical Services
This article is a forthright description of computer procedures applied to an emerging university's book purchasing program. The analysis includes a description of the system applied, the software employed, the precataloging routines involved, and a preliminary cost analysis. Internal flow charting is included for both the in-library sequences and those used in the Data Processing Center. Personnel requirements for the program are discussed, and the interrelationship of professional librarians, library clerks, and Data Processing Center personnel outlined. Relationships of the system to other library functions are indicated. The stress of this paper is upon the simplicity of procedures involved.

THIS IS AN ACCOUNT of the experience of an emerging university library's application of computer assisted procedures to its book acquisition program. No claim is made for originality in our practices, procedures, programs, or computer routines; we believe the uniqueness of our system is to be found in the configuration in which these elements are used. We direct our remarks to those libraries and agencies which have existing systems, either in the developing stage or completely operational, and to those others which are considering such a venture. The former are addressed in terms of configural applications of routines and procedures and in the patterns of software developed; the latter in terms of encouragement, the observable simplicity of our system, and in the description of personnel involved in the systems analysis, design, programming, and implementation of the program. Simplicity has been the goal strived for in the design of our system, which employs an in-library keypunch (IBM 026), one operator, and the services of our Data Processing Center (Charles Yauger, director) with its third generation computer—the IBM 360/30 and related hardware.

Our program, aimed at data processing applications to our library procedures, began in August 1966, with the initial step being the conversion of the library's general collection to the Library of Congress classification scheme; this conversion is a report in itself which may be recounted at a later date. Our second step, taken during the fall of 1966,
was the analysis and design of a computer-based lending system to employ an IBM 357 data collection system, machine-readable badges which will serve as ID cards to students and faculty, and master book cards which were to be keypunched in the library. Some one hundred thousand master book cards have been punched to date but, as will be noted later, one result of our operational book acquisition scheme is the production of a master book card for each title ordered. Upon the completion of the systems analysis and design for a lending system, and a written report from our Data Processing Center, the library staff turned its attention to a computer-assisted book acquisition program.

Of the members of the library staff intimately involved in the analysis and design of the book acquisition system described here, no one claims expertise in the field of computer applications, although the head librarian could not be called a novice. At the same time, our Data Processing Center’s manager, and the system analysts he assigned us, as well as programmers, had not been involved in library applications prior to this venture. Our key-punch operators are excellent clerk-typists, versed in routine library procedures and terminology, and now trained in a short course offered by IBM to employees of its institutional users free of cost. We say all this to point out to those who are in fear of embarking upon a course of action leading to computer assisted library procedures that, with patience, understanding, and mutual respect, the job can be done by those librarians who are inexperienced and unable to employ computer analysts and programmers for their library staff. We hope we have indicated, also, that a library can train its own library clerks to become efficient and knowledgeable keypunch operators with little expense involved. Finally, we have seen no indication in some three years of association with our Data Processing Center personnel that they wish to take over our library operations.

The advantages we claim for our system, other than the economy of computer use for handling routine and repetitive tasks, consist of the following: (1) printed on-order cards that are filed in our public catalog at the time we receive proof order listings, which permits us to omit one step in our former verification process; (2) use of computer-generated order control cards for use in invoice checking, recording shortages, and cancellations; (3) printed proof orders which give an opportunity to check for duplication of items ordered and automatically permit elimination of the duplicated on-order cards from those to be filed in the public catalog; (4) production of a second on-order card for use in pre-cataloging routines; (5) and, as by-products: (a) production of printed book labels, (b) master book cards for our computer assisted lending scheme, (c) printouts on offset masters for production of our monthly listing of materials added to the collections and arranged by Library of Congress classification subject grouping; and (6) rapid fund accounting, including periodic listings of all items on order and the total amount encumbered.

We have found that receipt of proof printouts of orders and the on-
order cards at the same time in the library has saved several hours of delay in our verification routines, inasmuch as duplicates can be eliminated from each group at the same time and the filing of on-order cards in the public catalog can be completed before the arrival of the official order. The time differential, from delivery of on-order cards to the completion of their filing in the public catalog, is a matter of hours. An inspection of our order deck of cards (which are displayed in Exhibit 1) will indicate to the reader the possibility of later use of this stored information to print short-form catalogs by author, title, and subject—that is, a classed catalog, for use in a divisional library where all stack areas will not be adjacent to the public catalog. Another configurational advantage of our book acquisition system has been the reduction of files used in our acquisition department to two, namely, the public catalog which serves as an on-order file, and a precatalog file which contains both catalog and order materials for items on order. The precatalog file is located in the order section of the technical processing division but is controlled by the cataloger assigned to precataloging in our processing system. There is, therefore, no attempt made to separate order and cataloging routines, rather, use of a computer-based system such as ours tends to tie these related units together. As we hope will become apparent to the reader, one of the emphases of this paper is the indication of the cataloging elements inherent in our book acquisition scheme.

Economic factors may not be disregarded by those who embark upon computer-based library programs and, before we present a description of the routines and software involved in our system of book acquisition, we would like to indicate some of the cost factors encountered in our efforts to the present time and to project operational cost estimates tied to future use. It is our belief at Arkansas State University that computer applications in the library cannot be completely divorced from the economics of their use. Because we are a resources agency of our university, some procedures are justified in part in terms of excellence of service to our students and faculty, but we do not believe that computer-based procedures need to be counted as these. Justification of the feasibility of our acquisition system is measured in terms of increased capability to acquire and process increasing numbers of items annually for our library, and to do so with a decreasing cost per item. Because of the close relationship of our order work to cataloging, it will be difficult to make a fair determination of the unit cost in acquiring an item, but as our experience extends over annual periods an opportunity will be present to determine the order/cataloging cost for processing an item for our shelves.

In the meantime, some of the following cost estimates should be of interest to users and planners of computer-based acquisition systems. Discounting the cost of in-library planning, the systems analysis and design, preparation of written documents, and the writing of programs were completed by our Data Processing Center for the following charges: systems analysis and design, $352.00; programming, $616.00; special con-

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sultation fees, $64.00. Our production billing in the initial months of operation, reflected on an average monthly charge, was $600.00 per month, but much of the work was done on cards at that stage of the systems development. Our data is now stored in disk pack memory, and this will reduce sharply our production costs. We anticipate an average monthly charge of $400.00, plus the monthly rental fee for our in-library keypunch. The charges are based upon the cost of acquiring about thirty thousand items annually through computer-assisted procedures. The average cost per item that may be attributed to computer assistance will amount to 20 cents per item. Of course, some of this cost will be absorbed through a saving of typing and filing time; in the preparation of stencils for our monthly acquisition lists which are now printed by our computer on offset masters; through the printing of master book cards as a part of the acquisition procedures; by the inherent alteration of order/catalog procedures which enable these departments to increase the work load while maintaining the same number of workers; and, finally, in service rendered to our patrons by indicating all materials on-order in our public catalog.

A comparison of costs indicates that we project a monthly cost of $450.00 for our computer-based IBM 357 data collection lending system; this cost includes in-library machine rental fees. As indicated above, the estimated monthly cost for our acquisition scheme is $470.00 a month, which includes the rental fee for an in-library keypunch. While the monthly cost is about equal, the difference is found in a $400.00 monthly charge by our Data Processing Center for acquisitions, while their charge for lending will amount to about $235.00 per month. We anticipate a circulation figure of more than 200,000 transactions annually and, if this figure holds up, our expenditure will be about $0.027 per loan transaction. While our cost estimates have the inherent weakness of being based upon our present experience, we feel they are indicative of the economic feasibility of such a system as we describe here and may serve as a guideline to librarians considering such a venture or to those who might be considering a shared-time computer-based acquisition system, using contract hardware and personnel. Based upon the experience with our computer assisted system, we have now contracted with our Data Processing Center for a study and analysis of our serials acquisition program, which is to include our holdings file, a printout capability by curriculum subject areas of our current subscription list with holdings indicated, and bindery listings.

The second phase of this paper relates to the specifics of our acquisition system. The third phase of the paper will indicate the cataloging procedures which form an integral part of the system.

The writers, in determining the bibliographical string most useful to our library purposes, felt that the book order process would require a minimum of five IBM cards, including one each of the following: author (or main entry, except title as main entry), title, publisher, edition (by date), and fund, with trailer card(s) used to accommodate
lengthy author, title, and publisher entries. It was determined, further, that entries used in the order deck would be based on Anglo-American Cataloging Rules of entry, and Library of Congress cataloging practices as we understand them. Each card in the deck would carry the following added information: card code and sequence number; an order number, i.e., item number—fund number plus accession number; the number of copies to be ordered; Library of Congress call number; and the list cost of the item to be purchased. If the Library of Congress call number was too long, the rest would be punched in the edition card where it could be retrieved for preparation of master book cards and other bibliographical production.

In the final bibliographic deck, the author card and fund card would be considered as primary control cards. Visual proofing of author and fund cards would be made before the cards were sent to the Data Processing Center. All other cards would be scanned for error by use of a proof purchase order printout. In this printout, each title would have its individual order number, the first two digits in the series would identify the fund to which the charge was to be made for that item. Two cards representing the title for each item ordered would be sent with the order, one to be returned with the book, or to indicate temporarily out-of-stock or out-of-print, and returned with the invoice. These cards would be made from the author card. The proof printout indicated above would be an author, i.e., main entry, listing in alphabetical sequence, and such a list would give some control to duplication. Two on-order cards would be printed from the same author card source information and sent to the library along with the proof printout of the order. The on-order cards would be color coded, made from catalog card stock, and distributed: one copy to precataloging, and the other to our public catalog, author-title side, which would then serve as our on-order file. Thus, by depositing an on-order card in our public catalog, we would omit one step in the searching review.

A second general determination was made concerning listings to be made for the library:

1. Two copies of a numerical listing by item number of all orders placed for the week, the regular weekly order, plus rush orders. This list would be an exact duplicate of the orders placed and would serve as a record copy. It would serve as an official source of all information related to its items—in regard to reports, shorts, etc. The second copy of the numerical listing would be placed in the receiving area and used to check in material.
2. A weekly receiving report which would give updated information on completed orders.
3. An alphabetical list of orders placed as an index to the numerical listings.
4. A review report; this would be a weekly listing which would show all funds encumbered by individual items and another listing, produced

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by a second run of the detail cards, to produce a summary fund report.

It was felt that two distribution cards, color coded, should be duplicated when the main entry card (author) was produced, at the time the order was prepared. These two cards would be kept in the precataloging packet for use when the book arrived. One of the distribution cards would be sent to the Data Processing Center when an invoice was received and cleared for payment; the other card would be sent to the Data Processing Center when the material was cataloged and sent to the shelves. Finally, the writers felt that a master book card could be produced from source information given in the order deck, that labels could be produced indicating class number and accession number, and that a return card, i.e., a distribution card, could be returned at the time material was cataloged and sent to the shelves to produce mats for offset printing of our monthly accession lists of new materials added to the collection. This listing would be by broad curriculum areas amenable to the subject-areas delineated by the Library of Congress classification.

The next step in the development of our operational book acquisition system consisted of conferences with the analyst assigned by our Data Processing Center to the library for the project, and with the director of the Center. The result of this activity was a revised format and list of input information. At the same time, a new list of output items to be generated was derived. The primary input information would be punched in a minimum set of four IBM cards. This set is referred to as an order deck and can be seen in Exhibit 1 of this report. The first card of the order deck is a Library of Congress call number card and contains, in addition to the Library of Congress call number, the number of copies of the title ordered, the number of volumes covered by the title, the date ordered, the vendor number, and the list price of the book. All cards in the deck have an item number made up of a fund number and an accession number located in a field encompassing the first eight spaces of the card. This item number serves as the control for the deck. The other three cards (in order) are the author, i.e., main entry, card; the title card; and the publisher card. Any or all of these cards may have one or more trailer cards containing additional information. The copyright date is added after the entry on the publisher card, as well as any other information needed to clarify the order—such as volume number; edition is given, if needed, after the entry on the title card.

From the information received at the Data Processing Center in the order decks forwarded to them, the following cards, which have a later secondary input use, were considered essential to our acquisition scheme and are computer generated at the time the order list is printed: a book receipt card, and a book cataloged card (Exhibit 2). When these cards are returned to the Data Processing Center at the appropriate time, they supply added input information about the order, which enables the Data Processing Center to supply the library with additional output.
CARD CODES:
1 = LC class no. card  3 = title card
2 = author card       4 = publisher card

LOCATION CODES:
A = Arkansas room   L = library science   T = atlas
O = oversize        C = closed shelf      P = permanent
R = reference       I = index             M = museum

If more than one (1) card is needed for author, title, or publisher, sequence code will be 2, 3, etc.

Exhibit 1. Basic Order Deck for Computer Acquisitions System
items. The book receipt card notifies the computer that a book has been received; the book cataloged card notifies the computer that an item has been cataloged and is now ready to be included in the monthly acquisition list of materials added to the collection, and serves as a signal that the information concerning that item is to be erased from memory storage. A change card and a cancel card are in-library originated as the need arises. The change card is used to indicate to the computer that there is to be a change in the Library of Congress call number assigned to an item previously ordered and thereafter any printout will indicate only the corrected call number. The cancel card is used to indicate the cancellation of an item previously ordered and to drop the order deck information from memory. We believe it should be apparent to the reader that the formatting of our input information was changed considerably between the initial planning stage and the operational procedures that now make up our system. The placement of entry information, and its sequential arrangement within the deck, as well as the array of item information included, are the result of a need for the most economic use of card space and better deck control. The change card and the cancel card were devised to handle exceptions that recurred during initial weeks of operational experience.

The output material which the library currently receives from the Data Processing Center is basically that envisioned during the initial planning stages for the system. Materials related to our computer-assisted acquisition process are forwarded to the library in three main stages. Output for the first stage consists of a weekly printout of the order proof list for materials requisitioned that week (Exhibit 3), and two color coded on-order cards for each title ordered that week (Exhibit 4); one series of on-order cards is arranged in an alphabetical order by main entry, and the other is arranged in a numerical sequence by item number. Upon the arrival of these materials in the library, the proof list is visually scanned for errors, and duplicates, if any, purged from the list; at the same time, the duplicate entries identified in the proof list are removed from the two on-order files, and the file arranged by main entry is then filed in the public catalog. Any duplication found in filing the on-order cards in the public catalog is noted, the item is deleted from the proof order list, the order deck is pulled, and the on-order cards are destroyed. For errors other than duplication, a correction is made and the item reordered the following week.

The second stage of output materials included a purchase order for each jobber or other vendor used for order placement during the week (Exhibit 5), a master book card for the library's automated lending scheme, a book receipt card, a book cataloged card, an order control card (Exhibit 4) which is sent to vendor and may indicate temporarily out-of-stock, out-of-print, or cancelled, and a book sticker (Exhibit 6). The materials received in the second stage form the precatalog file and serve as both an individual order control and a precatalog control. This file is arranged by item number, fund number plus accession number,
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<th></th>
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</thead>
<tbody>
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<td>A</td>
<td>T</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Author**: Greene, James Harnsberger  
**Title**: Production Control  
**Edition**:  
**Volumes**:  
**Copies**: 1  
**Publisher**: Irwin  
**Source (if different from pub)**:  
**Year**: 1965  
**Price**: 7.50

**Return Information**  
- Book is here: [ ]  
- Out of print: [ ]
- Other:  

**Requested by**:  
- Prof.:  
- Dept.:  

**Do you wish to be notified immediately**:  
**Would you accept different edition**:  
**If out of print, is the book worth paying a premium for one on the O.P. market**:  

---

**BOOK REQUEST CARD**

---

**ON ORDER CARD**

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**ORDER CONTROL CARD**

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**Exhibit 4**  
*Volume 14, Number 1, Winter 1970*
INSTRUCTIONS

1. SHOW ORDER NUMBER ON ALL INVOICES AND IN ALL CORRESPONDENCE.

2. ENCLOSING "ORDER CONTROL CARD" CORRESPONDING TO ORDER NUMBER MUST BE RETURNED WITH MATERIAL TO CLEAR YOUR INVOICE PROMPTLY. IF MATERIAL WILL NOT BE SUPPLIED RETURN "ORDER CONTROL CARD" AS YOUR CANCELLATION.

3. PLEASE HOLD "ORDER CONTROL CARD" FOR BOOKS NOT YET PUBLISHED UNTIL THEY CAN BE SUPPLIED.

4. REPORT BEFORE SENDING TITLES WHICH ARE PART OF A SERIES UNLESS "SERIES" APPEARS AFTER THE TITLE ON THIS ORDER.

5. ONLY THE SPECIFIC EDITIONS ORDERED WILL BE ACCEPTED.

6. ALL SHIPPING CHARGES MUST BE PAID.

7. UNLESS OTHERWISE SPECIFIED ON THIS ORDER SHIP ALL MATERIALS TO:

DEAN B. ELI IS LIBRARY
STATE UNIVERSITY, ARKANSAS 72447

INVOICES

8. SEND INVOICE IN QUADRUPLICATE TO:

ACQUISITIONS DEPT.
DEAN B. ELI IS LIBRARY
STATE UNIVERSITY, ARKANSAS 72447

9. INVOICE CANNOT BE PAID UNTIL ALL MATERIALS RECEIVED.

INVOICE CARD

<table>
<thead>
<tr>
<th>ORDER NUMBER</th>
<th>VENDOR</th>
<th>NUMBER</th>
<th>ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-170627</td>
<td>JONES, GWYN</td>
<td>06-170627</td>
<td>1</td>
</tr>
<tr>
<td>22-170614</td>
<td>JONES, PERCY MANSELL</td>
<td>06-170614</td>
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<tr>
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<td>KAHN, JACK M.</td>
<td>06-170513</td>
<td>1</td>
</tr>
<tr>
<td>22-170522</td>
<td>KENNEDY, VIRGINIA WADLOW</td>
<td>22-170522</td>
<td>1</td>
</tr>
<tr>
<td>22-170552</td>
<td>KINESIOLOGY REVIEW 1968</td>
<td>22-170552</td>
<td>1</td>
</tr>
<tr>
<td>15-170629</td>
<td>KRISBERG, LOUIS</td>
<td>15-170629</td>
<td>1</td>
</tr>
</tbody>
</table>

JONES, GWYN
THE NORSE ATLANTIC SAGA
OXFORD UNIVERSITY PRESS, 1964

JONES, PERCY MANSELL
THE BACKGROUND OF MODERN FRENCH POETRY
CAMBRIDGE UNIVERSITY PRESS, 1969

KAHN, JACK M.
UNWILLINGLY TO SCHOOL, 2ND EDITION
PERGAMON, 1968

KENNEDY, VIRGINIA WADLOW
SAMUEL TAYLOR COLERIDGE
KRAUS, 1969

KINESIOLOGY REVIEW 1968
AMERICAN ASSN. FOR HEALTH, PHYSICAL EDUCATION, & RECREATION, 1968

KRISBERG, LOUIS
SOCIAL PROCESSES IN INTERNATIONAL RELATIONS
WILEY, 1968

Exhibit 5

and may contain in addition to computer-generated items, the Library of Congress proofsheet of cataloging for the item, a Library of Congress card set—either of local duplication or the printed set from the Library of Congress, the typed book pocket (which serves as a storage envelope for the packet), a photographic reproduction of the main entry card from the National Union Catalog and, in some instances, an order card for Library of Congress cards for the title. Patron inquiries concerning an on-order item identified in the public catalog are traced through use
of the item number which appears on the on-order card in the same relative position as the call number under a heading "order number."

The third stage of materials received from the Data Processing Center includes items used for overall departmental control. The output information in the third stage is presented to the library in the form of an on-order list printed biweekly (Exhibit 7); it is an alphabetically arranged list by main entry within vendor and will indicate the amount of funds encumbered. An accession list is printed monthly (Exhibit 8), arranged by Library of Congress call number, grouped by curriculum subject areas which do not fracture the class scheme, and printed on offset mats for duplication and distribution to our faculty. The subroutine for this sort procedure was the most difficult portion of the program, as it is alphanumeric in nature, possesses linear irregularities, contains punctuation, and includes Dewey call numbers as well as Library of Congress call numbers designated for special collection items. There will be a definite and valuable transfer of programming information to the new lending system being installed, inasmuch as the system will require a daily print-out of materials on loan arranged by call number. Other items received include a weekly fund accounting report for use in the Order Department (Exhibit 9) and a 120-day-old on-order list for use in the same area (Exhibit 10).

There are some exceptions to these procedures. Rush orders are given special priority in verification and are typed and ordered directly from the library. Then the rush order information is keypunched and placed in a special file for inclusion with the regular orders, after the weekly regular order has been printed. This adds rush orders to the computer routines, excluding the actual ordering of the books which has already been done by the library. It has been decided, also, that any material received by the library but not ordered, such as gift books, can be added to the computer data through the rush routine.
<table>
<thead>
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<th>VENDOR</th>
<th>ITEM #</th>
<th>AMOUNT</th>
<th>AUTHOR</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
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Exhibit 7
DEAN B. ELLIS LIBRARY SELECTIVE ACQUISITIONS LIST
AUGUST 20, 1969

IN-INDEX AR-ARK. ROOM
AT-ATLAS RF-REFERENCE
MU-MUSEUM LS-LIB. SCIENCE

(L-1)

8945.D4 144
DEWEY, JOHN

8945.P4 1960
PEIRCE, CHARLES S. S.

B1297.Y63
YOLTON, JOHN W.

B2430.M253M53
MARCEL, GABRIEL

B602.K35
MANUEL, FRANK

BB03.M54 V.01
MERZ, JOHN THEODORE

B232.L3 1969
LAIRO, JOHN

BF21.S68
SPENCE, KENNETH W.

BF41.G32
GARAN, D. G.

BF67.D6
DOLLARD, JOHN

BF108.R803
OCONNOR, NEIL

BF109.S55E9
SKINNER, B. F.

BF204.B4C5A
CLAYSON, AILEEN

BF295.L33
LAWTHER, JOHN

BF455.W2A 1967A
WALDRON, R. A.

ON EXPERIENCE, NATURE & FREEDOM

COLLECTED PAPERS OF CHARLES SANDERS PEIRCE, V.01-06

JOHN LOCKE

PROBLEMATIC MAN

THE ENLIGHTENMENT

A HISTORY OF EUROPEAN THOUGHT IN THE 19TH CENTURY

THE IDEA OF VALUE

BEHAVIOR THEORY AND LEARNING

RELATIVITY FOR PSYCHOLOGY

PERSONALITY AND PSYCHOTHERAPY

PRESENT-DAY RUSSIAN PSYCHOLOGY

THE MAN AND HIS IDEAS

THE BENDER VISUAL MOTOR GESTALT TEST FOR CHILDREN, A MANUAL W-35

THE LEARNING OF PHYSICAL SKILLS

SENSE AND SENSE DEVELOPMENT

Exhibit 8

In a justification analysis of the program here at Arkansas State University, we have tried to obtain the best possible ratio between our input material and our output material. We have insisted upon receiving usable output information and not just “window dressing.” All our output items have a legitimate use and, in as many instances as possible, these items serve as input information to this program, our lending system, and hopefully to future programs. Exhibit 11 presents flow charts of in-library and in-data processing procedures for our program.

Volume 14, Number 1, Winter 1970

* 45 *
An overview of the computer-assisted procedures which go to make up our present book purchasing system would not be complete without a description of the precataloging routines employed in the ASU library. Our description attempts to follow the flow charting of order and precataloging procedures presented in Exhibit 12. These routines divide into three phases: verification, cataloging from the Library of Congress card or proofsheet, and the validation of the precataloged card set against the physical book. Both the verification phase and a part of the matching phase are done in the Order Department.

Our verification procedure is that used by many libraries, in that the same sources are checked; namely, the National Union Catalog, our Library of Congress proofsheet file, Books in Print, and the public catalog. With the information derived from these sources, we not only have enough data to order the title but, in many instances, to begin the precataloging sequence as well. It is during the verification process that corrections are made on the faculty request card, if the need appears. Our initial faculty requests were on standard forms, usually handwritten, and retained because of the quantities on hand.

Exhibit 9
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Exhibit 10
As our experience increased, a decision was made to phase out the use of these book order cards and to originate one that would more closely meet our need in an automated system of book purchasing. A second decision was made which requires all book requests submitted to the
Exhibit 11, part 2
Library receives request from faculty

Is book a 1967, 68, or 69 edition?

Yes

Check proof sheet file

If found, attach proof sheet to request card, after making any necessary changes in entry

No

Check National Union Catalog

If not found, check NUC for 4 years back

Make any necessary addition or correction on request card

If not found

If typed card, take picture. Do not assign call number

Check HIP

Check card catalog

If found

Request card will be stamped "In the library" and returned to faculty

End of Job

If not found

Assign item number and vendor number

Order L.C. cards if needed, putting item number on L.C. order slip

Order is keypunched, and sent to Data Processing Center

We receive: 2 on-order cards, 1 master book card, 1 book receipt card, 1 book cataloged card, 1 book sticker, 1 order control card, 1 purchase order per jobber, and 1 proof list

Exhibit 12
Flle 1 on-order card in public catalog

If book is found to be in library, cancel order and return request card to faculty marked "In the library"

End of Job

Order had no pre-cataloging information

Order is for book for which we already have L.C. cards in the catalog

Order is for 1967, 68, or 69 book which should have a proof sheet

Put green check on faculty request card and file it along with master book ad., etc. in pre-cataloging file by item number

File faculty request ad., 1 on-order ad., etc. in pre-cataloging file by item number

Put blue check on faculty request card and file it along with 1 on-order ad., etc. in pre-cataloging file by item number

Order is pre-cataloged and returned to Order Dept. to be pre-cataloged

Library receives book

All material in the pre-cataloging file for that particular order is pulled

Exhibit 12, cont.
library to be typed. Basically, the new form was designed as a work slip in the verification process (Exhibit 4), as a source document for keypunching, and as a return card to the faculty member making the request. The information needed in the keypunching sequence was placed at the top of the newly designed card in the same order and relative position that it was punched in the order deck. A well-defined blocked area was provided for information from the requestor, and the remaining space was allocated to a record for verification and return information.

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Library Resources & Technical Services
The new card was designed in the same size as an IBM tab card, as it would be filed in the precatalog file with other IBM cards. Since the design of this order request form, we believe that the keypunching will be more easily done if the instructions printed on the request card are done in some other color of ink than black, which is the color used in most typewriter ribbons by persons making the requests.

The information on the faculty request card should agree as nearly as possible with the Library of Congress catalog card for that particular title, by the time the book is ready to be ordered. Our verifiers are trained to note several details in the verification process: correct main entry, title, imprint, series, edition, and Library of Congress call number. The verification process is carried out by student library assistants under the supervision of the professional librarian responsible for precataloging procedures. A description of the verification sequence follows. It begins with a decision, "Is the request for a 1967, 1968, or 1969 edition?" If the answer is "Yes," the verifier checks the proofsheet file, pulling the proofsheet if he finds it; if he does not find a proofsheet, he checks the National Union Catalog for an entry. Requests bearing an edition date more than three years old, or any edition date in a foreign language, must be checked in the National Union Catalog, as we maintain only a three-year file of Library of Congress proof sheets. At this point, one of three procedures is followed: the proofsheet is pulled; the Library of Congress card order number is added to the faculty request form; or, a reproduction is made of the entry in the National Union Catalog through use of our Polaroid CU 5 camera system and attached to the request card. When a decision is made to order the title, an item number is assigned, Library of Congress cards are ordered if needed, and the order deck is keypunched and sent to the Data Processing Center. When the first stage of materials is received from the Data Processing Center, one on-order card is filed for each title in the public catalog to indicate that it has been ordered. This filing serves, also, as a final check on whether the library has already ordered or holds the title. This completes the verification phase of the precataloging routine.

The second step in the precataloging routine is the cataloging of the title from the Library of Congress proofsheet, which is pulled by the verifiers when available, or cataloging from the Library of Congress card. Cataloging from the proofsheet is much preferred, but proofsheets for particular titles are not always available at the time the books are ordered; first because the copyright date for the title is one that is earlier than the dates held in our proofsheet file and, second, the copyright date does fall within the dates for proof sheets held but a proofsheet has not been received. In the first case, the item number is added to the information on the Library of Congress card order slip, catalog cards are ordered from the Library of Congress, and precataloging awaits receipt of the cards. In the second case, a duplicate of the on-order card is placed in the proofsheet file; when the needed proofsheet is received and filed, the filer will see the on-order card for the title, and pull both it and the
proofsheet, and precataloging for the title will then begin. Regardless of which course of action is indicated and followed, precataloging begins when a proofsheet or Library of Congress card is at hand.

All precataloging is done by student library assistants under the supervision of professional librarians. The student assistant will have a proofsheet or Library of Congress card; the request card, on-order card, or the Library of Congress order slip; and a check sheet which contains detailed instructions for the precataloging procedures. A second list is given the student assistant which indicates to him categories of materials which he is not to precatalog; these materials are precataloged by trained librarians or held for the arrival of the book. The student library assistant is instructed to check the list of subject headings of the Library of Congress, make any necessary cross-references, check the series files, and add title tracings when necessary. He is asked to identify books which may be added to the Reference Collection, Special Collections, oversize books, and children's books. Children's books represent one relatively large category of materials which student assistants do not catalog. The student assistant receives a list of Library of Congress call numbers that are not used in our library; books with such call number designations are not cataloged until they are received. Finally, the student assistant assigns the accession number for shelf listing purposes; this number is a part of the order number assigned each item and may be found on the faculty request card, the on-order card, and the Library of Congress card order slip. Upon the completion of the precataloging routine, the cards are routed to a typist in the Cataloging Department.

The library clerk who receives the cards types the call number on the main entry, and the rest of the set is Xeroxed from this unit card. All added entries are then typed, the shelf list entry is made, including list cost of the item, and needed cross-references are typed. The cross-references are sent immediately to thefilers for deposit in the public catalog. A book pocket is prepared for each title indicating call number, accession number, author, and title. The card set is then placed in the book pocket and returned to the Order Department where it is placed in the precataloging file by item number. If the title has been received during the time of this process, the rest of the material will have been pulled from the precataloging file and placed in the book, and the book shelved by item number. The card set and book pocket will then be placed with the other precataloging material in the book, and the book will be removed from the shelf and set aside for final check. If the title has not been received, the material in the precataloging file will be added to the card set in the book pocket and the packet refiled to await the arrival of the book. Eventually, of course, the book and the precataloging packet do get together. It is at this time that the final phase of precataloging is carried out. Actually, this is not much more than a final check.

The procedures carried out as a final check are as follows: the call number is written in the book, and the accession number stamped; the
unit card is compared to the physical book to make sure they agree; and
the book cataloged card is held for return to the Data Processing Center
to indicate the book has been cataloged. If a change has been made in the
call number sent to the Data Processing Center with the order deck, or
if a call number was not available at the time the order deck was
punched, a change card is made which contains the item number and the
correct call number. This insures that our monthly accessions list will be
correct. Mechanical processing completes the cataloging routine, and this
includes typing and application of a spine label, the pasting in of the
book pocket, and forwarding the material to the Circulation Department
for shelving. The card set is then distributed for filing in the public cat-
alog and shelf list; the on-order card for the title is pulled when the
main entry card is filed.

We feel that the precataloging process just described provides the
library with three advantages: (1) there is better use of the verification
process which enables us to omit considerable duplication from the veri-
ification procedures, permits the gathering of cataloging information
during the process, and eliminates many steps that were formerly duplic-
cated during the actual cataloging of a book; (2) we are able to utilize
nonprofessional personnel and student library assistants to a higher de-
gree in the cataloging process than ever before, our professional cata-
logers now attend to problem materials and titles that require original
cataloging, and the average cost of cataloging a book has been reduced;
(3) we are able to make materials more readily accessible to the user, and
to speed delivery to the shelves. The patron may now identify material
as soon as the order is placed, and books which have been processed
through our precataloging routines have a full set of cards ready for filing
at the time the book is received. Such improvement in the service to
our patrons is one of the major goals of our library service.
Unpublished Studies of Technical Service Time and Costs: 
A Selected Bibliography

MARY E. TESOVNIK, Lecturer 
and 
FLORENCE E. DEHART, Assistant Professor 
School of Library and Information Science 
University of Wisconsin—Milwaukee

The bibliography of fifteen time and cost studies was compiled from information acquired from a survey of 193 institutions. The different methods used by the respondents in their studies point up the lack of a common basis for the statistical evaluation of the available data. The survey reveals a need for development of methods for gathering comparable time and cost statistics to provide a foundation for the compilation of standards for technical service operations.

THE SCHOOL OF LIBRARY AND INFORMATION SCIENCE of The University of Wisconsin—Milwaukee agreed to compile for the Technical Services Cost Committee of the Resources and Technical Services Division of the American Library Association a bibliography of unpublished time and cost studies of technical services. The objective of the Technical Services Cost Committee is to establish standards for measuring the time and cost of technical service operations, so that libraries might engage in more accurate self-evaluation of their use of personnel, materials, and equipment. The immediate goal of the Committee is the preparation of a classified bibliography of published and unpublished cost studies in the technical service area. The bibliography of published cost studies is being undertaken by Richard Dougherty, Associate Director of the University of Colorado Libraries.

The information obtained from studying the items in the bibliographies, particularly in regard to the methodology used in computing given statistics, will be useful toward the development of standard terminology and a standard form for reporting technical service statistics, taking into account the extent of processing, the materials processed, the recency of the collection, and other cost factors, along with the methods of computation. Uniform reporting of statistics will permit: (a) the comparison of statistics of technical service operations, and (b) development of standards for the specific procedures. The application of automated and computerized methods to technical service operations and the

Library Resources & Technical Services
separation of professional from clerical tasks require further scrutiny of
time and costs.

Unpublished time and cost studies in the technical service areas were
sought from 193 institutions. Eighty-two percent of the institutions re-
sponded. Only twelve had studies to send, and they sent a total of fifteen
studies. The institutions included the forty-two accredited graduate lib-
rary schools (as of February 1968), the fifty state libraries, the U.S. Office
of Education, and the one hundred largest libraries and library systems,
according to a compilation derived from U.S. Office of Education sta-
tistics. One follow-up mailing was sent.

Table 1 gives the sources of the time and cost studies. Table 2 is a
breakdown of the types of libraries represented in the studies.

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Number of Questionnaires Sent</th>
<th>Number of Replies</th>
<th>Number of Studies Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accredited Graduate Library Schools</td>
<td>42</td>
<td>31</td>
<td>3</td>
</tr>
<tr>
<td>State Libraries and U. S. Office</td>
<td>51</td>
<td>49</td>
<td>3</td>
</tr>
<tr>
<td>Office of Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 Largest Libraries</td>
<td>100</td>
<td>78</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>193</td>
<td>158</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Studies</th>
<th>Academic Libraries</th>
<th>Public Libraries and Public Library Systems</th>
<th>State Libraries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

Six librarians stated that they had made time and cost studies but
felt that, although these studies were adequate for the purposes of their
library, they were not worthy of inclusion in the Bibliography and there-
fore did not send them.

"Unpublished" was defined as not produced for sale or distribution
or not intended for loan and consultation. Theses or dissertations on
microfilm and available for purchase were therefore not included. "Time
and cost studies" referred to those attempting to derive unit time and
cost figures, including time and motion studies. "Technical services"
were considered to be those activities inherent in obtaining (excluding
selecting), organizing, and preparing library material for use.

The Selected Bibliography is arranged by the type of operation under
study, followed by indexes to the libraries and to the types of libraries represented. The following information is included, when given, for each study: the library; its location; the person conducting the study; the title of the study; date; pagination; volumes held by the library; the work activities involved; the sample size, when a given number of items were measured; the duration, when the study was based on a given length of time; the method of computing the cost figures for the operation with respect to direct and indirect costs; and the cost figures.

The studies included a variety of technical service operations: ordering, cataloging, and preparation (that part of the total processing operation pertaining to catalog card production and the physical preparation of library materials), and reclassification. Some of the studies were made for several of the operations and others for only a single operation. The studies varied in the units of measurement, the sample size, the duration, and the degree of detail in analysis of direct and indirect costs. The cost figures reported were therefore not comparable.

A lack of interest in technical services cost information cannot be concluded from the small number of reports received for inclusion in the Bibliography. Lack of uniform methods for gathering statistics and the complexity of technical service operations are factors that militate against conducting time and cost studies. Professor Jay Daily, Graduate School of Library and Information Sciences, University of Pittsburgh, made the following comment concerning needed refinements in methodology: "It is my strong belief that only the most refined methods of scientific management can demonstrate what operations are necessary, how they should be performed, and what are the standards by which they can be measured."

The work of the Technical Services Cost Committee in establishing standardized terminology and reporting in statistics may facilitate and encourage more studies of technical service operations. If methods for gathering comparable time and cost statistics are developed, the Technical Services Cost Committee can then provide standards for technical service operations needed for planning improved library service.

SELECTED BIBLIOGRAPHY OF UNPUBLISHED STUDIES OF TECHNICAL SERVICE TIME AND COSTS

Ordering


   Work activities: sorting; typing; revising; mailing; filing.
   Size of collection: 1,845,069 volumes.
   Sample size: —
   Duration: —
   Direct costs:
   Labor: Processing time per order card for each activity was computed from hourly production rates.

   Library Resources & Technical Services
Total processing time per order card: 5.54 minutes.  
The time required for each activity was converted into cost figures according to hourly wage rates.  

Material: ——  
Indirect costs: ——  
Cost figures: processing cost per order card: $.11.


Work activities: checking request slips in the public catalog and in the order file for items to be added at branch campus libraries.  
Size of collection: 1,845,069 volumes.  
Sample size: 764 request slips checked in the public catalog; 765 request slips checked in the order file.  
Duration: Two employees kept time records on a batch basis, one for 10 working days and the other for 4 working days.  

Direct costs:  
Labor: Time record only was kept. Cost of labor was not included.

<table>
<thead>
<tr>
<th>Number of Slips Checked</th>
<th>Average Time Per Slip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ten Working Day Period</td>
<td></td>
</tr>
<tr>
<td>Public Catalog</td>
<td>483</td>
</tr>
<tr>
<td>Order File</td>
<td>484</td>
</tr>
<tr>
<td>Four Working Day Period</td>
<td></td>
</tr>
<tr>
<td>Public Catalog</td>
<td>281</td>
</tr>
<tr>
<td>Order File</td>
<td>281</td>
</tr>
</tbody>
</table>

Ordering and Preparation


Work activities: bookkeeping; searching; ordering; receiving books; Xeroxing catalog cards; typing headings on catalog cards; marking; filing; miscellaneous.  
Size of collection: 575,500 volumes.  
Sample size: ——  
Duration: ——  

Direct costs:  
Labor: The clerical labor cost was derived from hourly production and wage rates for each activity.  
Clerical labor cost: $1.20 per book.  
Material: card stock: 7¢ per set of catalog cards. The costs for Xerox machine supplies and spoilage were not included.  
Indirect costs: Xerox charges: 13¢ per title.  
Cost figures: ordering and preparation cost per title: $1.40.
Card Production


Work activities: production of catalog cards on an IBM magnetic tape Selectric system (Selectric typewriters driven by magnetic tape using continuous feed card stock), including programming, revising, and run-off.

Size of collection: 924,396 volumes.
Sample size: 27,062 catalog cards.
Duration: 2 months.

Direct costs:

Labor: The labor cost was determined from man hours utilized and salary expenditure.

<table>
<thead>
<tr>
<th></th>
<th>TIME</th>
<th>SALARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming:</td>
<td>240 hours</td>
<td>$ 456</td>
</tr>
<tr>
<td>Revising:</td>
<td>83 1/2 hours</td>
<td>184</td>
</tr>
<tr>
<td>Run-off:</td>
<td>400 hours</td>
<td>640</td>
</tr>
<tr>
<td>Total:</td>
<td>723 1/2 hours</td>
<td>$1,280</td>
</tr>
</tbody>
</table>

Material:

Card stock: $ 184
Proof stock: 81
Carbon ribbons: 40

Total: $ 305
Total direct costs: $1,585

Indirect costs:

Machine rental (including servicing): $ 952
Amortization of card cutter: 30
Amortization of magnetic tapes: 24

Total indirect costs: $1,006

Cost figures: production cost for 27,062 catalog cards: $2,591.
production cost per completed card: $.096.


Work activities: Xeroxing process; stencil duplication; LC card purchase and processing.

Size of collection: 781,002 volumes.
Sample size: —
Duration: —

Direct costs:

Labor: The labor cost was totaled from the production and wage rates for the various activities within each process. Time required for performing the steps involved in the work activities was estimated in most cases.
wage rate for workers performing the activities was given as $1.50 per hour

<table>
<thead>
<tr>
<th>Cost per completed card:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Xeroxing process:</td>
<td>$0.017</td>
</tr>
<tr>
<td>stencil duplication:</td>
<td>$0.039</td>
</tr>
<tr>
<td>LC card purchase and processing:</td>
<td>$0.023</td>
</tr>
</tbody>
</table>

**Material:**

<table>
<thead>
<tr>
<th>Cost per completed card:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Xeroxing process:</td>
<td>$0.006</td>
</tr>
<tr>
<td>stencil duplication:</td>
<td>$0.018</td>
</tr>
<tr>
<td>LC card purchase and processing:</td>
<td>$0.066</td>
</tr>
</tbody>
</table>

**Total direct costs:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Xeroxing process:</td>
<td>$0.023</td>
</tr>
<tr>
<td>stencil duplication:</td>
<td>$0.057</td>
</tr>
<tr>
<td>LC card purchase and processing:</td>
<td>$0.089</td>
</tr>
</tbody>
</table>

**Indirect costs:**

<table>
<thead>
<tr>
<th>Cost per completed card:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Xerox machine charges and amortization of cutting machine:</td>
<td>$0.007</td>
</tr>
</tbody>
</table>

**Cost figures:**

<table>
<thead>
<tr>
<th>Production cost per completed card:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Xeroxing process:</td>
<td>$0.030</td>
</tr>
<tr>
<td>stencil duplication:</td>
<td>$0.057</td>
</tr>
<tr>
<td>LC card purchase and processing:</td>
<td>$0.089</td>
</tr>
</tbody>
</table>

### Cataloging and Preparation


**Work activities:** administration; cataloging; new search; duplicate search; typing; multilith; assembly; preparation; catalog maintenance.

**Size of collection:** 2,604,112 volumes.

**Sample size:**

**Duration:** July 1, 1964, through March 31, 1965.

**Direct costs:**

**Labor:** The labor cost was determined for each work activity from production rates per work unit, man hours utilized, and salary expenditure.

**Material:** Supply costs were enumerated for each work activity.

**Indirect costs:** Overhead costs for floor space, furnishings, equipment, support services, and machine rentals were itemized for each work activity.

**Cost figures:**

<table>
<thead>
<tr>
<th>Work activities</th>
<th>Average cost per work unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>administration</td>
<td>$1.70</td>
</tr>
<tr>
<td>cataloging</td>
<td>1.51</td>
</tr>
<tr>
<td>new search</td>
<td>.44</td>
</tr>
<tr>
<td>duplicate search</td>
<td></td>
</tr>
</tbody>
</table>

*Volume 14, Number 1, Winter 1970*
typing: .11
multilith: .05
assembly: .11
preparation:
  with plastikleer jacket: .22
  without plastikleer jacket: .16
catalog maintenance: .07
cataloging and preparation cost per title:
  $3.77 with jacket
  $3.71 without jacket
preparation cost per duplicate title:
  $0.93 with jacket
  $0.87 without jacket


Work activities: receiving books; filing proof slips; pulling proof slips; ordering card sets; matching books to catalog cards; card production; cataloging; typing headings and classification numbers on cards; typing book cards and pockets; typing book labels; physical handling, including accessioning, stamping ownership, ironing book labels, pasting, and attaching plastic jackets; revising; shipping books. Includes a cost analysis of the simplified operations used for bookmobile books.
Size of collection: 1,193,446 volumes.

Sample size: —
Duration: 2 weeks.

Direct costs:

Labor: The labor cost was determined from the production rate and department or section salary expenditure for 2 weeks for each work activity.

Material: Supply costs were enumerated for each work activity.

Indirect costs: Overhead was calculated at 29% of the direct labor cost.

Cost figures:
cataloging and preparation cost per volume for each activity:
  receiving books: $0.0565
  filing proof slips, pulling proof slips, ordering card sets, matching books to catalog cards: .3400
  card production: .2051
  cataloging: per volume: .4000
  per title: .6600
  typing headings and classification numbers on cards, typing book cards and pockets, book labels: .2700
  physical handling: .1460 to .1600
  revising: .0940
  shipping books: .0160
  bookmobile books: .2120

8. Western Michigan University, Waldo Library. Kalamazoo, Michigan.

Work activities: accessioning; cataloging; preparation; ordering Library of Congress cards; filing cards in the card catalog.

Size of collection: 389,823 volumes.

Sample size: 5,227 books.

Duration: 23 weeks, 115 days, of actual work from September 1, 1961, to February 28, 1962, vacations excluded.

Direct costs:

Labor: The labor cost per book was determined from man hours utilized and was prorated from annual salary expenditure.

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Hours Worked</th>
<th>Salaries Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catalogers</td>
<td>3,042 (35 min. per bk.)</td>
<td>$13,101 ($2.50 per bk.)</td>
</tr>
<tr>
<td>Clericals</td>
<td>1,840 (21 min. per bk.)</td>
<td>2,746 (.53 per bk.)</td>
</tr>
<tr>
<td>Student assistants</td>
<td>903 (10 min. per bk.)</td>
<td>852 (.17 per bk.)</td>
</tr>
<tr>
<td>Total</td>
<td>5,785 (66 min. per bk.)</td>
<td>$16,699 ($3.20 per bk.)</td>
</tr>
</tbody>
</table>

Material: —

Indirect costs: —

Cost figures: cataloging and preparation cost per book: $3.20.

Ordering, Cataloging, and Preparation


Work activities: ordering; cataloging; preparation. Limited to single copy orders of adult fiction and adult non-fiction for which LC proof slips were available.

Size of collection: 821,377 volumes.

Sample size: —

Duration: —

Direct costs: The labor cost was determined from production rates per work unit, man hours utilized, and salary expenditure. Estimated production rates were given in detail in the study.

Labor:

Cost per book:

<table>
<thead>
<tr>
<th>Fiction</th>
<th>Non-fiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering:</td>
<td>.338</td>
</tr>
<tr>
<td>Cataloging, including card preparation:</td>
<td>.468</td>
</tr>
<tr>
<td>Physical preparation:</td>
<td>.053</td>
</tr>
<tr>
<td>Total:</td>
<td>$ .859</td>
</tr>
</tbody>
</table>

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Material:
Cost per book:

<table>
<thead>
<tr>
<th></th>
<th>Fiction</th>
<th>Non-fiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering</td>
<td>$0.007</td>
<td>$0.007</td>
</tr>
<tr>
<td>Cataloging, including card preparation</td>
<td>$0.029</td>
<td>$0.037</td>
</tr>
<tr>
<td>Physical preparation</td>
<td>$0.045</td>
<td>$0.056</td>
</tr>
<tr>
<td>Total</td>
<td>$0.081</td>
<td>$0.100</td>
</tr>
<tr>
<td>Total direct costs</td>
<td>$0.940</td>
<td>$1.748</td>
</tr>
</tbody>
</table>

Indirect costs:
Cost per book:

<table>
<thead>
<tr>
<th></th>
<th>Fiction</th>
<th>Non-fiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead</td>
<td>$0.108</td>
<td>$0.108</td>
</tr>
<tr>
<td>Equipment</td>
<td>$0.110</td>
<td>$0.110</td>
</tr>
<tr>
<td>Total indirect costs</td>
<td>$0.118</td>
<td>$0.118</td>
</tr>
</tbody>
</table>

Cost figures:
ordering, cataloging, preparation cost per non-fiction book: $1.866.

---


Work activities: ordering; cataloging; preparation.
Size of collection: 821,377 volumes.
Sample size: 104,165 volumes.

Direct costs:
Labor: The labor cost was based on the total salaries for authorized permanent positions, in whole or large part directly concerned with new book processing and including administrative salaries.
Total labor costs: $175,609.
Material: Major supplies with summary estimate for minor supplies: $7,746.
Total direct costs: $183,355.

Indirect costs: Overhead (equivalent annual cost of space rental at an average commerical rate): $10,800.
Equipment (total estimate of equipment and furniture value amortized over a 15 year period to yield an annual charge): $1,666.
Total indirect costs: $12,466.

Cost figures:
ordering, cataloging, preparation cost per volume: $1.87.

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Library Resources & Technical Services
Work activities: ordering, receiving; cataloging; card production; preparation; administrative services.
Size of collection: 2,624,125 volumes.
Sample size: 327,390 volumes processed; 304,387 volumes cataloged and processed.
Duration: 1967.

Direct costs:

Labor: The labor cost per volume was determined from man hours utilized and salary expenditure. $328,755.76, including employer's contributions (social security, health, pension).
Labor cost per volume: $1.0378.

Material: ——

Indirect costs:

Rent: $16,839.33
Machine service and maintenance: 19,286.46
Other: 8,903.29

Total: $45,023.08
Indirect costs per volume: $.1402 (sic)

Cost figures:
ordering, cataloging, preparation cost for 327,390 volumes: $373,778.84.
ordering, cataloging, preparation cost per volume: $1.178.


Work activities: ordering; cataloging; book catalog production; preparation.
1965–1966: 37,247
1966–1967: 42,262

Direct costs:

Labor: The labor cost for each work activity was determined from man hours utilized and salary expenditure. Salary figures included direct salary, fringe benefits, and non-direct time for vacations, etc.

Material: Figures for material costs were given for each work activity.

Indirect costs: Figures for the various indirect costs were presented for each work activity.

Cost figures:
ordering, cataloging, book catalog production, preparation cost per volume:
1965–1966: $2.73
projected 1966–1967: $2.09
actual 1966–1967: $1.87

Work activities: ordering; cataloging; preparation.
Size of collection: 382,607 volumes.
Sample size: 33,688 books.
Direct costs:
Labor: The labor cost was determined from man hours utilized and salary expenditure.
Total labor cost: $25,500.
Material: $5,076.
Total direct costs: $30,576.
Indirect costs: Rent, utilities, IBM rental, equipment prorated: $5,502.
Cost figures:
ordering, cataloging, preparation cost for 33,688 books: $36,078.
ordering, cataloging, preparation cost per book: $1.07.

Reclassification to LC


Work activities: gathering books; checking for central library catalog recording; searching; photographing; preparing and filing temporary slips; original reclassification; changing call number inside book; supervision; revising; typing new charge cards; preparing catalog cards; filing cards; remarking books; reshelving books.
Size of collection: 924,396 volumes.
Sample size: A three-shelf book truckload, chosen at random from one of the branch libraries, and the attendant reclassifying of all copies in other locations.

<table>
<thead>
<tr>
<th>Monographs</th>
<th>Serials</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>14</td>
<td>139</td>
</tr>
<tr>
<td>188</td>
<td>199</td>
<td>387</td>
</tr>
</tbody>
</table>

Duration: ———
Direct costs:
Labor: The labor cost was determined from hourly production and wage rates for each activity.
Material: card stock and miscellaneous supplies: $88.00.
Indirect costs: ———
Cost figures:
reclassification cost for 387 volumes: $309.55.
reclassification cost per serial title: $2.83.
reclassification cost per monographic title: $2.16.
reclassification cost per volume: $.80.


Library Resources & Technical Services
Work activities: cataloging; classifying in the Dewey and Library of Congress classification schemes.

Size of collection: 1,112,743 volumes.

Sample size:

Duration: 10 weeks.

Direct costs:

Labor: The labor cost was determined from hourly production and wage rates for each activity.

Production rates:

production rate of library assistants for processing books which had LC classification numbers available: 12 titles per hour.

production rate of catalogers for classifying books in the Dewey classification when the LC cards were at hand: 3 titles per hour.

production rate of catalogers for original cataloging as well as classifying in Dewey: 1.4 titles per hour.

average production rate of catalogers cataloging and classifying monographs in Dewey: 2 titles per hour.

Material:

Indirect costs:

Cost figures:

classification cost per title in LC by library assistants using LC printed cards: $.20.

classification cost per title in Dewey by catalogers using LC printed cards: $1.06, plus the $.20 library assistants cost for a total of $1.26.

projected cost 1964–1975 to continue with present system, using the Dewey classification: $1,883,640.

projected cost 1964–1975 to change to the LC classification and to reclassify: $1,834,140.

INDEX TO LIBRARIES

<table>
<thead>
<tr>
<th>Library</th>
<th>Item number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Brooklyn Public Library</td>
<td>6</td>
</tr>
<tr>
<td>2. Dallas Public Library</td>
<td>9, 10</td>
</tr>
<tr>
<td>3. Dartmouth College Libraries</td>
<td>4, 14</td>
</tr>
<tr>
<td>4. The Nassau Library System</td>
<td>11</td>
</tr>
<tr>
<td>5. Ohio State University Libraries</td>
<td>1, 2</td>
</tr>
<tr>
<td>6. The State Library of Ohio</td>
<td>7</td>
</tr>
<tr>
<td>7. University of Denver Library</td>
<td>3</td>
</tr>
<tr>
<td>8. University of Notre Dame Library</td>
<td>5</td>
</tr>
<tr>
<td>9. University of Oregon Library</td>
<td>15</td>
</tr>
<tr>
<td>10. Washington State Library</td>
<td>12</td>
</tr>
<tr>
<td>11. West Virginia Library Commission</td>
<td>13</td>
</tr>
<tr>
<td>12. Western Michigan University, Waldo Library</td>
<td>8</td>
</tr>
</tbody>
</table>

INDEX TO TYPES OF LIBRARIES

<table>
<thead>
<tr>
<th>Type</th>
<th>Item number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
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</tr>
<tr>
<td>Public</td>
<td>6, 9, 10, 11</td>
</tr>
<tr>
<td>State</td>
<td>7, 12, 13</td>
</tr>
</tbody>
</table>

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Policy decisions and type of action taken on the Anglo-American Cataloging Rules by librarians in academic institutions is correlated with the size of the institution. Most university libraries have definite policies regarding the application of the AACR and all of the libraries contacted are either modifying or adopting it. The small college libraries have only rarely formulated definite policies and, while most of these libraries are modifying the code, many are totally disregarding its existence. The librarians in the various-sized institutions behave similarly in being strongly influenced by the Library of Congress, in using the descriptive cataloging section of the code extensively for books and little for serials and non-book materials, and in recataloging extensively only in conjunction with other major changes such as reclassification.

Introduction

The effect of size of academic institutions of higher learning on library cataloging policies is rarely formally considered. To relate size to the extent of adaptation of the 1967 AACR in the institution’s central library, it is necessary to determine for each type of school the library policies made regarding the code and the primary influencing factors. The results are potentially of great value to college and university librarians, both as indicators of the decisions and policies of sister-institutions of comparable size, and as a demonstration to the library field of the comparative value of the AACR for large universities and small colleges. The response by 81 percent of the 101 librarians contacted by mail for this study reflects a high degree of interest.

Data Collection

A two-page checklist delving into the practices and policies of catalog librarians on the AA code and an appended questionnaire consisting of two open-ended questions to elicit additional information on code adap-

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*Presented at the Technical Services Division meeting of the Minnesota Library Association, Minneapolis, Minnesota, on October 8, 1969. This paper is an abridged version of the author's M.A. research paper, University of Minnesota Library School, 1969.

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tation and/or modifications was sent to 101 librarians. This number represents a random sample of the librarians of 20 percent of the large universities (24 schools) with a student enrollment exceeding 10,000, and 20 percent of the small accredited four-year coeducational liberal arts colleges (77 schools) with a student enrollment of under 2,000. The number of volumes and library operating expenses were gathered from the American Library Directory, 1967, and A.L.A.'s Library Statistics of Colleges and Universities, 1965-66, respectively.

Presentation, General Analysis and Comparison of Checklist Responses

The response (92 percent) of head catalogers at large universities was far greater than that of the catalogers at small colleges (77 percent). The greater interest on the part of the universities may be due to (1) their greater need for a simplified code because of the vast bulk of incoming materials; (2) larger staffs including administrative personnel; (3) extreme dependence on LC, particularly since the enactment of Title II-C of the 1965 Higher Education Act.

Chart A presents each checklist item, followed in the center column by the responses of librarians from small coeducational liberal arts colleges (enrollment under 2,000), and in the right-hand column by those from large universities (enrollment over 10,000).

The widespread shortage of professional cataloging personnel, particularly in small college libraries, can be seen in the light of the publication explosion to have a strong effect on the question of policy formulation regarding the AACR. With 68 percent of these colleges employing only one professional cataloger and 12 percent none at all, it is not difficult to comprehend how 78 percent of the respondents were operating without any definite policy regarding the library's extent of adoption or modification of the code well over a year after the code was put on the market! As one California librarian remarked, "We're too swamped with books to catalog to take time to philosophize on policies." A New York State cataloger added: "Thus far we have not had time to seriously study the changes. As questions arise, we refer to the new code. We generally use LC entries without much questioning. As time permits, we may formulate some definite policies." Caution was reflected in a Georgia reply: "We are still in the process of studying to fully understand the rules before applying to our collection."

The universities, with larger cataloging staffs, tend to be under the jurisdiction of technical services administrators or other administrators whose job it is to make policy decisions. Therefore, it is not surprising that 67 percent had formulated definite policies regarding the extent of adaptation of the AACR. No large university has in practice disregarded the code; half indicated the decision to modify it and half to adopt it as it stands. Of the small college librarians, on the other hand, almost a third have totally disregarded the code and continue to operate under earlier rules.

The influence of the Library of Congress on both small college and
CHART A

<table>
<thead>
<tr>
<th>No. 1. Number of professional catalogers (full-time):</th>
<th>COLLEGE (T = 59)*</th>
<th>UNIVERSITY (T = 22)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>40 68%</td>
<td>1</td>
</tr>
<tr>
<td>2–5</td>
<td>12 20%</td>
<td>2–5</td>
</tr>
<tr>
<td>6–15</td>
<td>0</td>
<td>6–15</td>
</tr>
<tr>
<td>over 15</td>
<td>0</td>
<td>over 15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 2. Number of sub-professional catalogers (full-time):</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2–5</td>
</tr>
<tr>
<td>6–15</td>
</tr>
<tr>
<td>over 15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 3. Has your library formulated a definite policy regarding extent of adaptation or modification of the 1967 AACR?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 4. How can the attitude and action your library has taken regarding the AACR best be described?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modification</td>
</tr>
<tr>
<td>Adoption</td>
</tr>
<tr>
<td>Disregard</td>
</tr>
<tr>
<td>No answer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 5. Will you conform to LC’s new policy of superimposing the AACR on the old rules, thus creating a situation of dual systems?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Partially</td>
</tr>
<tr>
<td>No answer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 6. Does your library now follow LC’s former policy of augmenting through other sources the information on the title-page, in order to provide full names, dates, and real names rather than pseudonyms?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Partially</td>
</tr>
<tr>
<td>No answer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 7. Approximate percentage of incoming materials for which LC cards are provided:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>75</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>No answer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 8. Approximate percentage of incoming materials for which other commercial cataloging services provide cards (e.g., Wilson):</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>75</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>No answer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 9. Which form of entry for serials have you used in the past?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earliest title</td>
</tr>
<tr>
<td>Latest title</td>
</tr>
<tr>
<td>Successive titles</td>
</tr>
<tr>
<td>Serials not cat.</td>
</tr>
<tr>
<td>Title when lib. first subscribed</td>
</tr>
<tr>
<td>No answer</td>
</tr>
</tbody>
</table>

* 70 *

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<table>
<thead>
<tr>
<th>No. 10. Which form of entry for serials do you plan to use in the near future?</th>
<th>College (T = 59)*</th>
<th>University (T = 22)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earliest title</td>
<td>1</td>
<td>Earliest title</td>
</tr>
<tr>
<td>Latest title</td>
<td>30</td>
<td>Latest title</td>
</tr>
<tr>
<td>Successive titles</td>
<td>20</td>
<td>Successive titles</td>
</tr>
<tr>
<td>Serials not cataloged</td>
<td>4</td>
<td>No answer</td>
</tr>
<tr>
<td>No answer</td>
<td>4</td>
<td>(2 librarians checked more than 1 blank)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 11. Is your practice in serials cataloging influenced or determined by LC's practice?</th>
<th>Yes</th>
<th>42</th>
<th>81%</th>
<th>Yes</th>
<th>22</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>10</td>
<td>No</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serials not cataloged</td>
<td>4</td>
<td>No answer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No answer</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 12. Is the A A C R your guide in the descriptive cataloging of books?</th>
<th>Yes</th>
<th>36</th>
<th>69%</th>
<th>Yes</th>
<th>20</th>
<th>91%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>16</td>
<td>No</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serials not cataloged</td>
<td>4</td>
<td>No answer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non answer</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| No. 13. Approximate amount of recataloging to be done to conform to the A A C R: books | 0 | 0 |
|---|---|
| 25 | 8 |
| 50 | 2 |
| 75 | 3 |
| 100 | 1 |
| No answer | 16 |
| Serials | 0 |
| 0 | 29 |
| 25 | 8 |
| 50 | 2 |
| 75 | 3 |
| 100 | 1 |
| No answer | 16 |
| Non-book materials | 0 |
| 0 | 32 |
| 25 | 4 |
| 50 | 0 |
| 75 | 2 |
| 100 | 2 |
| No answer | 19 |

* Percentages based on total number answering each question.

large university library cataloging practices is evident from the responses. Interestingly, large university cataloging decision-makers feel themselves more saddled with virtually all LC cataloging policies than do their small college counterparts, despite the fact that the small college libraries receive a larger percentage of LC cards or proof slips for incoming materials than do the universities. (While 71 percent of the latter receive LC cards for approximately three-quarters of the incoming materials, 91 percent of the small colleges receive LC cards for between 75
and 100 percent of these materials.) The university libraries' almost total reliance on the Library of Congress' cataloging policy shows itself in the adoption of LC's policy of superimposition by 18 (86 percent) of the 21 university head catalogers who answered the question. Only 55 percent of the small college catalogers were willing to adopt fully LC superimposition. The majority of college librarians tended to follow LC's earlier rather than current policy of augmenting title-page information with full names and dates, and real names rather than pseudonyms. Forthright comments reflected a lack of rigidity on this point. Said one cataloger: "When information is readily available, we add it." Another augmented information "in case of conflicts or when known that the information is available. We make no automatic searches." This comment characterizes the approach taken by almost half the large universities; they go along completely with LC's current augmentation of title-page information only when conflicts would otherwise arise in the dictionary catalog.

Over 95 percent of the responding college catalogers and all of the university catalogers cited no other commercial cataloging sources of cards or information than LC. Thus the fact that Wilson cards adhere closely to AACR rules of entry for, e.g., pseudonyms, affects none of the libraries questioned to an appreciable extent. Three libraries receive cards from Bro-Dart for close to 25 percent of their materials. This was the only source other than LC to be cited at all.

Serials cataloging under the AACR was no problem for the four small college libraries which do not catalog serials at all; yet they too must make the decision of form of entry under which to shelve their serials. Of the responding small college libraries which have been cataloging serials, most of them (30 libraries, or 60 percent) in the past had entered the serials under the latest title. Sixteen of the libraries (32 percent) used successive title entries. Present policy would seem to be almost identical, from figures and percentages. Thirty libraries now enter serials under latest title, and twenty enter under successive titles. Yet the figures alone do not give an accurate picture of the changes in serials-cataloging policy which have recently been taking place. As might have been expected, the number of colleges entering serials under earliest title, or title when the library began to subscribe, has diminished. One college library changed from entry under earliest title to latest title, one changed from earliest title to successive titles, one library changed from successive to latest, and five libraries changed from latest to successive-title entries for their serials. These changes to entry under successive titles by six libraries can hardly be said to constitute a major trend, particularly if we keep in mind the affirmation by forty-two schools (81 percent) of the fact that their practice in serials cataloging is presently influenced or determined by LC's practice, which, until recently, involved entry under latest title.

Questions concerning serials policy uncovered in some instances a lack of understanding and/or knowledge of the area. The terms "latest title" and "successive title" seemed especially confusing to some li-
brarians. One candidly stated: "I don't know enough about serials cataloging to understand your question. Sorry." Another cataloger wrote that she cataloged under latest title "unless we get LC cards for new titles."

The serials cataloging practices of all the large universities are influenced by LC's. Eighty-five percent of the university libraries in the past entered serials under latest title and 14 percent under successive titles; the percentage has risen with 32 percent of the universities using successive title entry at the present time. Thus, solely in the area of serials cataloging, the various-sized academic institutions act similarly, admitting to being influenced but not completely dominated by the Library of Congress.

It appears that virtually all the small college libraries which chose to modify or adopt the code have elected to use it in the descriptive cataloging of books, but only two-thirds of these libraries use the code in the descriptive cataloging of serials and non-book materials. Sixty-nine percent of the small college librarians follow LC's policy of complete adoption in the descriptive cataloging portion of the code for books, as contrasted with 91 percent of the twenty-two university libraries. University catalogers seem to accept the code also for the descriptive cataloging of serials and non-book materials to a far greater extent than do the catalogers of their much smaller academic counterparts.

Extensive recataloging by small college libraries is done almost exclusively in conjunction with other large-scale projects. Three libraries are recataloging in accordance with the AACR as they reclassify from Dewey to LC. Representative of the other end of the spectrum is the comment of a frustrated South Carolina cataloger: "Because of lack of staff, we don't even think about this matter."

None of the university catalogers who responded to the question on the recataloging of materials could foresee the recataloging of any non-book materials or more than 25 percent of books and serials. Approximately 80 percent of the large universities planned to do no recataloging at all solely to conform to the new code. Some of the large universities are undergoing enormous changes in their libraries such as reclassifying to LC and find themselves for the present floundering without definite policies, especially in the area of serials cataloging.

It must be noted that inconsistencies in answers came to the fore in several returned checklists. One example of this was the incompatibility of indicating a policy of totally disregarding the AACR and yet later affirming the use of the AACR as the library's guide in descriptive cataloging.

Statistical Analysis

An overview of Tables 2 and 3 with the accompanying measures of central tendency (mean and median of number of volumes and size of budget for each of the categories of academic institutions) demonstrates the very strong correlation between size of school and size of library. This observation confirms an assumption basic in the approach taken in
<table>
<thead>
<tr>
<th>Small Colleges</th>
<th>Lib. Volumes</th>
<th>Lib. Budget</th>
<th>Professional Catologers</th>
<th>Sub-professional Catalogers</th>
<th>Policy made on AACR</th>
<th>Action taken on AACR</th>
<th>LC influence on serials cataloging</th>
</tr>
</thead>
<tbody>
<tr>
<td>arranged alphabetically by state.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Ala.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>2 (Ark.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>3 (Cal.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td>X</td>
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<td>X</td>
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<td>6</td>
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<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>7 (Colo.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>8 (Fla.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
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<td>X</td>
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<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>10 (Ga.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
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<tr>
<td>12 (Ill.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
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<td>16 (Ind.)</td>
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<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>17 (Ia)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
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</tbody>
</table>
### TABLE 2  Continued

** RAW GROUPED DATA ON SMALL COLLEGE LIBRARY SIZE, BUDGET AND CHECKLIST ANSWERS **

<table>
<thead>
<tr>
<th>Small Colleges</th>
<th>Lib. Volumes</th>
<th>Lib. Budget</th>
<th>Professional Catalogers</th>
<th>Sub-professional catalogers</th>
<th>Policy made on AACR</th>
<th>Action taken on AACR</th>
<th>LC influence on serials cataloging</th>
</tr>
</thead>
<tbody>
<tr>
<td>arranged alphabetically by state.</td>
<td>20,000-74,000</td>
<td>$30,000-74,000</td>
<td>$75,000-</td>
<td>0</td>
<td>1</td>
<td>2-5</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>19</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>20 (Kans.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>21 (Ky.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>22</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>23 (La.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>24 (Me.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>25 (Md.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>26 (Mass.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>27 (Mich.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>28</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>29 (Miss.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>30 (Mo.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
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</tr>
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<td>32 (N. H.)</td>
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<td>X</td>
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<td>33 (N. Y.)</td>
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<tr>
<td>Small Colleges</td>
<td>Lib. Volumes</td>
<td>Lib. Budget</td>
<td>Professional Catalogers</td>
<td>Sub-professional catalogers</td>
<td>Policy made on AACR</td>
<td>Action taken on AACR</td>
<td>LC influence on serials cataloging</td>
</tr>
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<td>arranged alphabetically by state.</td>
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<td>35 (N. C.)</td>
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<td>37 (O.)</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
<td>X</td>
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</tr>
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<td>39 (Okla.)</td>
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<td>X</td>
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<td>X</td>
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<td>40 (Ore.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>43 (Pa.)</td>
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<td>X</td>
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<td>X</td>
<td>X</td>
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<td>46</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>47 (R. I.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
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<td>48 (S. C.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
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<td>50 (Tenn.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>51</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>
### TABLE 2 (Continued)

**Raw Grouped Data on Small College Library Size, Budget and Checklist Answers**

<table>
<thead>
<tr>
<th>Small Colleges</th>
<th>Lib. Volumes</th>
<th>Lib. Budget</th>
<th>Professional Catalogers</th>
<th>Sub-professional catalogers</th>
<th>Policy made on AACR</th>
<th>Action taken on AACR</th>
<th>LC influence on serials cataloging</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20,000-74,000</td>
<td>$30,000-74,000</td>
<td>$75,000-74,000</td>
<td>0 1 2-5</td>
<td>0 1 2-5</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>52</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>53 (Tex.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>54</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>55 (Utah)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>56 (W. Va.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>58 (Wisc.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>16</td>
<td>36</td>
<td>20</td>
<td>7</td>
<td>40</td>
<td>12</td>
</tr>
</tbody>
</table>

Measures of central tendency based on raw ungrouped data:

- **Volumes:** (Libraries in 20,000-74,000 volumes column) Mean = 46,582 Median = 46,000
  (Libraries in 75,000- volumes column) Mean = 143,712 Median = 94,000; 100,192
- **Overall mean for number of vols. in small college libraries:** 67,300
- **Overall median for number of vols. in small college libraries:** 55,000

- **Budget:** (Libraries in $30,000-74,000 column) Mean = 48,935 Median = 49,380; 49,831
  (Libraries in $75,000- column) Mean = 99,601 Median = 97,790; 99,746
- **Overall mean for budget in small college libraries:** 66,413
- **Overall median for budget in small college libraries:** 57,618; 57,511
<table>
<thead>
<tr>
<th>Large Universities</th>
<th>Lib. Volumes in thousands</th>
<th>Lib. Budget in thousands of dollars</th>
<th>Professional catalogers</th>
<th>Sub-professional catalogers</th>
<th>Policy made on AACR</th>
<th>Action taken on AACR</th>
<th>LC influence on serials cataloging</th>
</tr>
</thead>
<tbody>
<tr>
<td>arranged alphabetically by state</td>
<td>0-249</td>
<td>250-749</td>
<td>750-</td>
<td>0 or 1</td>
<td>2-5</td>
<td>6-15</td>
<td>16-</td>
</tr>
<tr>
<td>1 (Ark.)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (Cal.)</td>
<td>X</td>
<td>X</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (Colo.)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 (Wash. D. C.)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 (Ga.)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 (Ill.)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
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<td>X</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 (Kans)</td>
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<td>X</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 (Mo.)</td>
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<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 (N. J.)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 (N. Y.)</td>
<td>X</td>
<td>X</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>15</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 (N. C.)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 (O.)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 3 (Continued)

**Raw Grouped Data on Large University Library Size, Budget and Checklist Answers**

<table>
<thead>
<tr>
<th>Large Universities</th>
<th>Lib. Volumes in thousands</th>
<th>Lib. Budget in thousands of dollars</th>
<th>Professional catalogers</th>
<th>Sub-professional catalogers</th>
<th>Policy made on AACR</th>
<th>Action taken on AACR</th>
<th>LC influence on serials cataloging</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0–249 250–749 750+</td>
<td>0–249 250–749 750+</td>
<td>0 or 1 2–3 6–15 16+</td>
<td>0 1 2–3 6–15 16+</td>
<td>Yes No</td>
<td>Adoption Mod. Disregard</td>
<td>Yes No</td>
</tr>
<tr>
<td>18</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>19 (Okla.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>20 (Pa.)</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>21 (Tex.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>22 (Wash.)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3 11 8</td>
<td>0 10 10</td>
<td>0 6 12 4</td>
<td>4 4 7 7 0</td>
<td>14 7</td>
<td>11 21</td>
<td>0 22</td>
</tr>
</tbody>
</table>

Measures of central tendency based on raw ungrouped data:

- **Volumes:**
  - (Libraries in 0–249,000 volumes column)
    - Mean: 160,128
    - Median: 170,000
  - (Libraries in 250,000–749,000 vols. column)
    - Mean: 457,648
    - Median: 362,000
  - (Libraries in 750,000+ vols. column)
    - Mean: 1,542,102
    - Median: 1,122,158; 1,207,359
  - Overall mean for number of vols. in large univ. libs: 817,424
  - Overall median for number of vols. in large univ. libs: 495,702; 683,678

- **Budget:**
  - (Libraries in $0–249,000 column)
    - Mean: 0
    - Median: 0
  - (Libraries in $250,000–749,000 column)
    - Mean: 533,592
    - Median: 439,959; 502,113
  - (Libraries in $750,000+ column)
    - Mean: 1,784,280
    - Median: 1,327,896; 1,497,496
  - Overall mean for budget in large univ. libs: 1,158,949.5
  - Overall median for budget in large univ. libs: 743,925; 990,903
gathering the sample for the study, namely, a sample based on size of school enrollment.

To show statistically the relationship of college and university size to library adaptation of the 1967 AACR, the actual correlation coefficient relating library (or school) size to the degree of acceptance of the code can be computed. Using the formula \( r = \frac{\sum z_x z_y}{(N-1)} \), in which \( r \) denotes the Pearson product-moment correlation and \( z_x \) and \( z_y \) the standard scores, I arrive at a correlation coefficient of 0.424, which is valuable in showing the direction or positive nature of the correlation. The contingency table (Table 1) serves as the basis for the computation, in which equally spaced numerical values were assigned to the various school sizes (0, 1, 2).

**TABLE 1**  
**CONTINGENCY TABLE—SCHOOL SIZE AND AACR ADAPTATION**

<table>
<thead>
<tr>
<th></th>
<th>Disregard</th>
<th>Modification</th>
<th>Adoption</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large universities</td>
<td>0</td>
<td>11</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Small colleges</td>
<td>17</td>
<td>28</td>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>39</td>
<td>20</td>
<td>76</td>
</tr>
</tbody>
</table>

Less arbitrary and therefore more valid a test for randomness is the chi-square test for independence. Using the contingency table (Table 1) as the record of observed frequencies and the formula \( \chi^2 = \frac{\sum (O-E)^2}{E} \), where \( O \) = an observed frequency and \( E \) an expected or theoretical frequency assuming independence of \( X \) and \( Y \), I am able to calculate chi-square for the purpose of comparing the two frequencies. The result, \( \chi^2 = 13.522 \) with two degrees of freedom, is significant at the 0.5 percent level, and almost significant at the 0.1 percent level. (The critical values are \( \chi^2_{0.05} = 10.6 \) and \( \chi^2_{0.01} = 18.82 \)). This means that, if \( X \) and \( Y \) were independent, there would be only about one chance in a thousand of obtaining data as deviant (or more so) from the theoretical expectation as that of this study. I therefore conclude school size and library adaptation of the Anglo-American Cataloging Rules to be dependent.

Tables 4 and 5, based on Tables 2 and 3, provide a more complete

**TABLE 4**  
**RELATIONSHIP OF NUMBER OF LIBRARY VOLUMES TO LIBRARY ADAPTATION OF THE 1967 AACR**

<table>
<thead>
<tr>
<th>No. of vols. in thousands</th>
<th>Small Colleges</th>
<th>Large Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20-74</td>
<td>75-</td>
</tr>
<tr>
<td>Full adoption of AACR</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Modification of AACR</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Disregard of AACR</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>15</td>
</tr>
</tbody>
</table>

* 80 *  

*Library Resources & Technical Services*
breakdown of the relationship of internal factors, such as number of volumes and library budget, to the degree of library adaptation of the 1967 Code.

It is likewise revealing to be able to note at a glance the relationship of both library budget and size of cataloging staff to the existence of a definite policy on the AACR, within each library. This is best revealed by bar graphs, as shown in Figures 1 and 2.

Thus the expected is verified: those libraries, within each school category, with larger professional cataloging staffs and larger budgets have tended to pay more attention to the necessity of formulating definite cataloging policies on which to base their work. Schools with relatively small budgets for the size of their institutions, and particularly those small colleges with only one professional cataloger, neglect policy decisions in favor of work which seems more immediately pressing.

Conclusions

Size of an academic institution is related to the decision on whether and how to deal with the 1967 AACR, as demonstrated by the correlation of +.424 and the chi-square value which is extremely significant (approximately 0.1 percent level). The conjecture that library size is an important variable in the economic considerations of adopting the code is affirmed by the bar graphs in Figures 1 and 2. These illustrate that those small libraries with small budgets are among the most reluctant even to make a decision on their library policy regarding the code, and many have chosen to disregard it for the present. The written responses of the librarians indicate that they have not considered themselves equal to the task or time, much less cost, of completely adopting the code. Suggestions for integrating the AACR into one consistent catalog by relocating cards under new forms of heading behind guide cards, typing new forms of heading above LC's, and relating old and new headings by cross-references have been generally ignored or rejected by the small schools.

*Volume 14, Number 1, Winter 1970*
Both large university and small college libraries tend to make changes in accordance with the AACR to the same extent as LC does, particularly in the case of large universities. This does not mean, however, that large university librarians have been overwhelmingly in favor of LC's superimposition practice. The representatives from "larger university libraries" at the 1967 University of British Columbia workshop resolved, unanimously, to formally ask the Library of Congress to adopt fully the Anglo-American Cataloging Rules. Despite such dissatisfaction, university libraries must follow LC practices, the problems of deviating from LC being too great. Small colleges consider themselves less dominated by LC, despite a strong dependence of small college catalogers on LC cards. Only a small majority of small college catalogers avowedly conform fully to LC's superimposition practice, with a full 25 percent of the respondents to the question declaring their nonconformity to the policy.

No recataloging projects are being carried on by the respondents solely to conform to the 1967 code.

The slight shift in serials cataloging, discussed earlier, from entry under the latest to successive title, name, or author is in keeping with current cataloging philosophies and opinion; yet not successive-title
entry, but rather latest-title entry, reflects prevailing practice according to the results of this study.

In addition to an overall general policy regarding the AACR by each library, a number of specific policies must also be formulated. For those numerous catalogers, primarily overworked librarians from small colleges who have not yet formulated definite policies regarding the use of the AACR in their libraries, I would strongly recommend the suggestions of F. Bernice Field and Margaret Beckman regarding study of the code and a careful systems analysis of the library, respectively. In trying to orient oneself to the new rules, Miss Field suggests a careful study of the contents pages, then of the Introduction (particularly sections on General Character and Structure), and finally concentrated notice of the introductory notes within each section, these being the clues to the understanding of the specific rules which follow.9

Speaking with great insight, Mrs. Beckman emphasizes the fact that "we cannot guess at effects in our individual libraries; these must be determined after a careful systems analysis shows what the actual amount of change would be, what the cost of a policy of deviation might be in certain pre-defined areas, and what the costs of the alternatives might be in terms of both money and user satisfaction."10 As much as our cataloging departments need definite policies on which to base their work, it is vital that these decisions not be hasty or based on untested assumptions.

REFERENCES

2. Ibid., p. 192.
6. Allen, Thelma E., and Daryl Ann Dickman, ed. *New Rules for an Old Game;* Proceedings of a Workshop on the 1967 Anglo-American Cataloging Code held by the School of Librarianship, the University of British Columbia, April 13 and 14, 1967. Vancouver, 1967, p. 120.
7. Ibid., p. 122.
8. Ibid., p. 120.
Classification of United Nations Documents Using the JX Schedule and Document Numbers

Lowell R. Duhrsen, Serials Librarian
Coe Library
University of Wyoming
Laramie, Wyoming

All libraries, constantly being presented with odd forms of book and non-book materials, each requiring space and procedure difficulties, are thankful when something being added can fit into existing patterns and collections. United Nations Documents can be handled any number of ways, none of them simple. The following scheme enabled Coe Library to fit them into the existing collection in the quickest, yet most thorough manner. The documents are completely cataloged in terms of subject and description, the classification scheme puts them in one place in the library, but within the LC schedule, the classification number is obtained directly from the document in hand, the documents are accessible through the bibliographic tools, and LC copy is available for most.

THE UNIVERSITY OF WYOMING Coe Library, in 1968, chose a plan for cataloging UN Documents. After brief correspondence with the Library of Congress, it was decided that in the absence of LC's serial records file, Coe Library would have to devise its own scheme.

Subject classification was considered, but LC indicated that subject classification was assigned only if a second set of documents were received. Coe Library does not have the staff time to assign subject classifications for what was suspected would be the majority of UN Documents, so this idea was discarded.

Using a scheme based only on UN Documents numbers was also dismissed. Coe Library is in the process of changing from Dewey to Library of Congress and materials currently are shelved in two places. There is also a separate United States Documents division using Superintendent of Documents classification. Adding yet another scheme would be the final blow to the already confused faculty and student body.

The selection finally fell on a system that would permit the documents to be shelved within the general collection, but in one specific area. This is possible by using the UN Document number in the Library of Congress JX schedule, in conjunction with the documents numbers assigned to each document by the United Nations. The acceptability of
this plan was enhanced by the quickness with which the classification numbers could be assigned.

**Building a Unique Classification Number**

It is not possible to use the JX number by itself as it is intended only to get the documents involved into the LC scheme. It is necessary to utilize the UN Documents number in combination with the JX number to get a unique number for each document.

The UN Document number begins with a series of letters that stand for agencies, committees, conferences, etc., within the main body. Then each document put out by the specific agency, etc., is merely given a number in sequence. Example: In the UN Documents number “E/CN.11/715,” the “E” stands for “Economic and Social,” the “CN” for commission, the “11” for “Asia and the Far East,” and the “715” means this is the 715th publication for this agency.

Only that part of the UN number which applies to the issuing agency is used. In most cases this is the only number given. But, in the UN Documents number “ST/SOA/62/E/C.6/36/a d.9/rev.1” only the “ST/SOA/62” would be used. In most cases, however, it is desirable to utilize the “rev.” to indicate different editions of a particular document.

Thus each UN Document number is unique and is never repeated, because of its numerical sequence within the agencies. The classification number thus becomes the JX number plus the documents number.

[This is the card for a set, each volume with its own Documents number—all in succession. The example card is for volume 1. Each volume is indexed in separate issues of Documents Index. See v. 18, no. 9, p. 345; v. 18, no. 4, p. 45; v. 18, no. 1, p. 21. Notice that v. 1 is part 2 of the volumes issued for this conference.]

Figure 1

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Cataloging Monographs

Some UN monographs contain more than one volume, and in some cases, the UN has chosen to give each volume a separate number rather than the same one with a volume 1, 2, etc., designation. If you were to utilize each different number, chances are the numbers would be consecutive and would not separate the volumes on the shelf. If, however, the volumes are done at different times, it is entirely likely that the numbers would not be consecutive, but far apart. The documents number is essentially an accession number and many works by the same agency might have been done and accessioned in between these two or three. In the case of a conference, this is less likely.

Figure 2
Library Resources & Technical Services
Thus, it is wise to use the UN number in the first volume if possible. After this number, “etc.” would be added to indicate that additional numbers are involved but will not be listed as part of the classification number. Then, as additional volumes are received, its unique UN number is ignored as far as the classification number is concerned; and it is given the number of the first volume with v.2, 3, etc., added.

If, however, other than volume 1 is received first and it is undesirable
to search UN Documents Index for the number of the first volume, then the Documents number of the volume in hand becomes the permanent number for this monograph. As the number is only an accession one with no subject bearing, this is possible.

Cataloging Serials

Serials also can be cataloged quickly within this scheme. In effect, the last number of the UN Documents number, the accession part, would act as the volume number of that particular issue of the UN serials. This number has no subject meaning to the document itself, being only accession in nature as stated. It acts, in the case of serials, as a means of simply controlling and checking in.

Figure 2 provides four sample cards that a patron might find in the public catalog. Note that the same examples are used in all phases of this paper.

If the UN number were itself subject-oriented, all these dissimilar series with the same classification number would indeed be a violation of cataloging principles. This set of numbers is not only the same for three of the four examples but for tens more issued by that particular branch of that particular UN agency. The classification number applies to the main agency and this particular branch. The various series are simply parts of it.

The sample main entries refer the patron to the Serials Check List for holdings. (At Coe Library the Serials Check List is a separate public catalog in which serials are filed by main entry only, and for which the holdings are given.) In the Serials Check List the patron would find the holdings cards shown in Figure 3 for our sample main entries.

The unique number of a document in the series would consist of the classification number in the upper left corner of the holdings card, to which is added the number written in by the librarian (UN accession number) beside the number in the series.

The first two titles shown in Figure 3 are done without analytics as they are annuals. They are merely checked off by date when they arrive. The last two titles are done with analytics by LC. Thus, not only are they checked off in the Serials Check List, but a complete set of cards is filed for each item. On this set of cards, the last digit of the UN number is added. Figure 4 shows samples of this type of analytical main entry.

Finding a Document with the UN Documents Index Number

It is common for those who use UN Documents Index to have only the UN Documents number, minus the JX 1977/A2, etc. Thus, it is recommended that each document would also be checked off under its pure documents number. This would draw all the separate serials, multi-volume monographs, and monographs together in one place. It should be indicated that the LC number, i.e., JX/1977.A2, must head this UN Document number to find it on the shelf.

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Library Resources & Technical Services


Library of Congress 31


Includes the reports of the Working Group of Experts on the Asian Development Bank and the Working Group of Experts on Trade Liberalization.

(Continued on next card) 66–8040

Figure 4

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A file of UN Documents numbers is housed in several drawers of the Serials Check List. Filing is by Documents number as this is the way the patron will approach this tool. This procedure enables the patron to know just the UN Documents number and still find the item without ever having to go to the main catalog or determining the main entry. Figure 5 includes sample cards as they would appear in the UN Documents number file.

**Shelf List Information**

Shelf list information for UN Documents has to be handled differently, as the number will, in many cases, be the same, i.e., JX1977.A2 E/CN.11. Thus, cards with the same number are filed alphabetically by main entry in the shelf list. They, in turn, refer to the Serials Check List for holdings.

(JX1977.A2 must head all numbers to locate)

Figure 5
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(JX1977.A2 must head all numbers to locate)

Figure 5, cont.
Gifts and Exchanges: Practicalities and Problems

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New York, New York

Problems considered include: quantity of material involved, disposal of unwanted materials, requests for evaluations and appraisals of gifts, restrictions placed on bequests and gifts, interlibrary exchange programs, and a few legal questions arising in the handling of gifts.

Much of what I have to say will not be new to most of you, but perhaps you will recognize some of your own problems shown in a different light. I think we can start with the basic idea that gifts and exchanges are very much alike in at least one respect: they are materials received in the library without any direct cost in paying for them. They both represent acquisitive functions and therefore would logically form part of an acquisitions department. This is not always true, however, in actual practice. Some libraries handle exchanges in the serials department, since so much of exchange material is serial in nature. In smaller libraries gifts and exchanges are sometimes handled through the reference department, or even through the librarian’s office.

But let us examine some of the problems engendered by these two forms of acquisition. First there is the quantity of material involved. In a large library system one is likely to receive as gifts from numerous sources large numbers of books and other library materials which are not needed or wanted. Here comes the problem of how to handle them. It takes personnel, space, equipment and judgment. One large library estimated that it could use only 40 percent of the materials it received as gifts. What to do with the other 60 percent? They can be sold, or given away, or exchanged, or discarded, or stored against some eventual use for them. In terms of selling, many libraries are enjoined from selling materials which in the larger sense belong to their governing body (state, county, municipality, etc.). The same might apply to giving away materials. Sometimes these strictures can be circumvented by selling or giving to the library’s constituency. This poses a problem of how physically to do this. Suppose you wish to sell to the faculty and students at your college or university. Through the bookstore? Through a separate library-sponsored book sale room? An annual book sale in a tent? Periodic sales in an unused classroom? Then, how do you price the
books? In groups of different values? A flat price for each? In bundles? And who gets the income?

Suppose you wish to give these unwanted materials to other libraries. Which libraries? Who selects what shall be given to what library? To book drives for underdeveloped areas? Again, who selects and who pays for packing and shipping? There are always, of course, agencies such as the Seamen's Institute or international agencies like the Asia Foundation, or cooperative agencies like the U.S. Book Exchange. This, as you know, is a privately sponsored agency to foster international exchange of publications. It is very important and very useful for acquiring needed items (especially serials) and for handling non-needed materials. But this is not the total answer, even though the U.S. BE is moving forward in the areas of specialized listings, computerized want lists, and individualized service.

Perhaps the answer lies, in large metropolitan areas at least, in a cooperative arrangement wherein all libraries in the area pool their unwanted materials for disposal, first, by selection by the cooperating libraries, then by sale to dealers, the remainder to be given to book drives, to foreign libraries in answer to appeals, or to be junked. Monies derived from sales could be used to support the operation. Perhaps I should add here that the problem of disposal is concerned not only with books received as gifts, but with all discards for whatever reason—poor physical condition, superseded, unneeded extra copies, changes in the library's collecting policies, etc.

Another problem arising from the acceptance of gifts is the increasing number of requests for evaluations and appraisals. There seems to be a fast-growing awareness that gifts given to libraries are tax deductible, and with the tax burden as it is today most people are anxious to make the most of this, and no one can blame them. Basically, it is unwise for a library to make its own appraisals for the use of donors. In the first place, the appraisal may be thrown out by the tax courts on the basis that the appraisal was made by an interested party. In addition, a library-given appraisal or evaluation implies that the library (corporately) or a member or members of its staff can reasonably back up such appraisals either through proved expertise or by citing other appraisals of similar materials. Most librarians would agree that the best course of action is to follow the Recommended Library Policy of the ACRL Rare Books Section adopted July 7, 1961*—briefly, if the material is worth appraising, call in a competent appraiser from the outside and hope that the cost of the appraisal will be borne by the donor. (Rates currently charged for appraisals run roughly between fifty and one hundred dollars an hour.) The costs of such appraisals are also tax deductible.

However, calling in an appraiser for every request is just not feasible. It could very well be that the cost of the appraisal would exceed the value of the material. What to do, then, to avoid annoying a donor (or

losing a gift)? The library might well provide an estimate of value based on available evidence—listings in dealers' catalogs, book auction records, quoted subscription prices, list prices of books still in print, etc. In cases like this, the basis for the evaluation should always be stated, and it is wise to use such words as "estimate" and "approximate." A statement of value by a competent appraiser should be a formal, notarized document which outlines the competency of the appraiser, the basis on which the appraisal is arrived at, and the date the appraisal was made.

For potential donors who wish to include a library in their wills, most major libraries have prepared leaflets to explain how this should be done, showing the correct corporate designation of the library as well as several forms of devises and bequests which could be considered. When asked about leaving books, money, real estate, securities or other property to the library, the librarian would do well to consider that the fewer the restrictions the better for the library. When a donor leaves money for a special collection of books in his honor and decrees that these books shall not circulate, shall be housed in a special area and shall be cataloged and maintained in certain specific ways, the library in future years may find itself saddled with an intolerable burden. If, however, a bequest has terminal strings (and this applies to outright gifts also), the bequest (or gift) may be much more welcome. For instance, an author or famous person who gives his manuscripts with the proviso that they may not be made available to the public (i.e., the library's constituency) until five years after the donor's death, is not placing an undue burden on the library. It merely means proper care and storage for a period of time, after which the restriction is removed.

And speaking of restrictions, depository collections should also be watched carefully. We are all familiar with the U.S. Depository Library set-up. The terms of acceptance are usually not hard to live with. But there are other kinds of depositories—from government organizations, from businesses and even from individuals. Here are some factors to consider before accepting depository collections. Are there limitations in the use of the materials? How much will it cost to handle the materials? Are there time limits on the collection—i.e., must the library keep the materials a specified length of time, or is the use of the materials restricted for a period of time? Are there strings on who may or may not use the materials? Above all, does the material fit within the collecting policies of the library? All of these factors (and perhaps others as well) should be spelled out in a written agreement.

Except with the most unusual or rare items, a library should aim to accept gift items on the basis that they will be used in whatever way will be best for the library. Although perhaps not stated directly, freedom should be retained to catalog (or not), to exchange, to sell, or to discard. In any case, one should make certain that the donor knows how the gift will be handled and that the donor agrees to this arrangement. This implies a fair amount of tact and judgment on the part of the librarian. In a like vein, if a proffered collection has little or no useful-
ness for the library, it is wise to suggest alternative places where the collection might be useful—another library in the area, a book drive, or perhaps a philanthropic agency. Here, perhaps, is the place to emphasize good public relations—the need to apply tact and diplomacy with donors and to acknowledge all gifts in an appropriate way. Perhaps a simple postcard will do, or a signed form letter, or a specially dictated signed letter. In many cases an additional letter of thanks from a higher authority is in order—from the president of the institution, from the Board of Trustees, or some other source.

As with a gift program, the function of interlibrary exchange is to acquire books and other library materials without purchase (but not without cost or money to operate). In the past several years many librarians have raised the question of the practical value of an exchange program. Is it not cheaper and more efficient to buy what one needs directly? In some cases this may well be true. If a library does not have available to it suitable materials to offer on exchange, then it is best to buy directly. But even this generalization must be hedged. For instance, there is still being published—especially in the European countries—a large body of scholarly materials that is not available in any other way. Perhaps this is intentional, for a very simple reason. May I quote from the Library of Congress PL 480 Newsletter of February 1967: “American institutions should keep in mind that exchange is the only means available to many libraries abroad for obtaining American publications.” It is all a matter of currency restrictions. With this in mind, is not an exchange program a wise thing to consider? If your own institution does not make available materials to be used for exchange—either by a grant of a specified number of copies for this purpose, or by a substantial discount—perhaps you should point out to your publishing agency that you would not be cutting into their market, for there is no market if the countries abroad cannot export currency. The simplest and most common form of exchange involves periodical titles on a title-for-title basis. But this does not by any means indicate that monographs are excluded. Over the past several years the tendency has been to evaluate exchanges on a monetary basis, whereas ten or twenty years ago the usual pattern was exchange on a piece-for-piece basis. This monetary basis means more bookkeeping, more records—a costly procedure, true, but is it any more costly than regular ordering procedures if you are going to buy the materials at current prices?

The Duplicate Exchange Union and the programs set up by the Medical Library Association, the American Theological Library Association, and the Music Library Association are examples of exchange programs which have worked successfully for a number of years, but they do have their drawbacks, especially for a large library. First, there is the cost of listing (or otherwise indicating availability) of materials and the paperwork involved in the actual transactions. The United States Book Exchange manages quite well to deal with this problem on a centralized basis. Another way of reducing costs is to list only titles

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which are available in multiple copies, thereby prorating the listing cost over the number of copies of each title available. Then, again, titles offered by most libraries in the Duplicate Exchange Union are not usually useful for large libraries, which already have the titles listed, except for an occasional replacement needed.

Perhaps the most efficient and effective exchange program is one where arrangements are made with individual institutions on the basis of what is available on either side. There are several aids which are useful for this purpose, prime among them being the UNESCO Handbook on the International Exchange of Publications, now in its 3rd edition (1964), which indicates specific institutions and what they have to offer. The UNESCO Bulletin for Libraries supplements this information on a more current basis. The World of Learning (the 18th edition is dated 1967-68) is a valuable source of information for addresses, departments of instruction, and often names of publications of institutions of higher learning throughout the world.

The usual pattern in setting up an exchange arrangement is to write a letter to the proposed exchange partner outlining one's fields of interest, the materials available for exchange and proposing an exchange of publications on the basis of title-for-title or piece-for-piece or monetary value for value. One can at this time ask to receive a specific title or group of materials (e.g., catalogs of exhibitions, or publications in the field of anthropology, etc.) in exchange for similar titles. When offering a serial title, it is wise to send a sample issue for examination by the proposed partner. This informal arrangement by letter is most often successful if the pattern of operation is properly and fully spelled out. However, in some cases a formal contract is offered in which terms are specifically stated (including provision for breaking off the exchange if later desired) and signed by both parties. A contract could also include the exchange rate to be used in determining value of publications sent and received. Such a formal arrangement seldom is necessary, however.

From time to time legal questions arise in the handling of gifts. One such question that comes to mind is the legal definition of a book. Several years ago a major library received as a bequest a rather large and important collection with one string attached. Quoting in part from the will, "I give and bequeath to my son, —-—, if he survives me, the choice of such five hundred (500) books in my library as he may select and after my son has made such selection, I give and bequeath to — [library] such of the remaining books in my library as it may wish to accept. For the purpose of this Codicil to my Will, my Encyclopaedia Britannica, my bibliographies and other catalogues are each to be considered as one book." This posed quite a problem in that the son interpreted each listing on the official appraisal as one book, regardless of how many titles or volumes were involved in the entry, and he also thought of any set or series of volumes (regardless of titles) as one "book." In the effort to resolve this difficulty no one could find a legal definition of a book—and to my knowledge, no such definition has yet been found.
In other words, is a book a physical volume, or is it a title (regardless of the number of volumes)? And if a title is a book, which title do you count? The publisher’s title of “The Collected Works of Washington Irving” may consist of twenty-five volumes, each with its own specific title. Is this to be counted as one book or twenty-five books?

As you can see, I have only skimmed over the surface of many problems. I have posed a lot of questions and provided only a few answers. In many cases the individual circumstances will have to dictate the solutions. But I hope I have shown that gift and exchange operations work at both ends of the acquisitions process: the receipt of materials as well as their final disposition.
Delight and Pitfalls of Subject Cataloging

RUDOLF F. SCHAFFER*
Camp Springs, Maryland

Reminiscences of a subject cataloger at the Library of Congress, in which he tells of some of the challenges of subject analysis and explains methods of meeting them.

These highly personal notes are an expression of gratitude for twelve years of work which was a constant source of satisfaction and enjoyment. They will offer nothing new or startling to any experienced cataloger. My views and attitudes may occasionally have a pedagogical slant and thus offer advice or warning in the guise of reminiscences; if so, I hope an educator by profession and a teacher for a great many years will be forgiven.

Subject Cataloging as a Job

Subject cataloging is delightful if regarded as work worth doing, not just a job to keep one busy within prescribed hours, producing subject entries and class numbers for a certain amount of books in a given time, and a pay check every two weeks, linking one coffee break by way of lunch with another along the road to five-fifteen. If the books piled on your desk are only a chore to be disposed of as quickly and as graciously as can be managed, then my thoughts on the subject may seem to be those of a daydreamer or just wishful thinking in retrospect.

If, on the other hand, you are looking forward to each new assignment of books, entrusted to you for analysis and interpretation, with suspenseful curiosity and anticipation, then my delight at subject cataloging will become understandable. An almost personal relationship will evolve between the author speaking through his work and the subject analyst “listening” to him. In a way, this relationship begins when he takes a first look at the book.

At this point I sense a strong objection: How can there possibly be a “personal” relationship to an individual work when the overall work load is pressing, and the books have to be moved along at a fast pace. To counter that objection, let me look for a moment at subject cataloging from a psychological angle.

* The author, originally a teacher of classical philology in Germany, received a Ph.D. degree from Columbia University in 1951. At the time of his retirement in 1964, he was on the staff of the Library of Congress as a subject cataloger in the humanities. We regret that his death on January 4, 1970, makes this article posthumous.
What happens to the subject cataloger, what goes on in his mind, when he looks at a book for the first time? While this first reaction and attitude will not and should not determine, or even affect, the subject entries he will finally assign to it, he is by human nature bound to react to a given work in a certain way. Should he feel obligated to suppress and ignore his reaction in order to do an impartial job? We are dealing here with two entirely different intellectual processes, to be kept strictly apart in subject analysis. There is, on the one hand, a personal reaction which may range all the way from fascination to indifference to repulsion. There is, on the other hand, the unbiased, objective interpretation of a work in terms of subject headings and classification. The latter is undoubtedly a desirable achievement. However, I sincerely doubt whether a cataloger is capable of entirely suppressing his personal reaction for the benefit of a completely impersonal evaluation. If he were, I should not envy him.

Subject Cataloging as an Art

What is it in particular that makes subject cataloging, by and large, a delightful occupation? What is its nature, its philosophy? What does it take to be a competent subject cataloger?

I have heard it said by men in authority that subject cataloging is an art. Verner W. Clapp in his article on David Judson Haykin probably has subject cataloging in mind, among other things, when he speaks of "the arts which are basic to library work." ¹

In what respect can subject cataloging be considered an art, unless we mean by this just a high degree of skill in the performance of a difficult task? There are, of course, a great many things which can be learned by extensive training and prolonged experience. Even advanced scholarship that may lead to a Ph.D. may be so achieved, and still we would not call it an art.

On the other hand, there are certain activities where all the schooling and practice in the world would at best lead to mediocre results. To give two illustrations, conducting an orchestra and teaching are such activities. It was Felix Mottl, I believe, who said that some men can just stand in front of an orchestra and conduct it, while others, in spite of the best training, fail miserably. The conductor is undoubtedly an artist; a teacher is not. And yet, there are similarities. All of us, I am sure, have experienced well-meaning, even scholarly teachers who face their classes in utter helplessness. Long training and experience prove to be of little help. These teachers just "did not have it in them," neither the ability to teach nor a love for teaching; and if they are wanting on either score, teaching is torment for them as well as for their victims.

With these illustrations, I believe I have already presented the case for subject cataloging as an art. For one thing, you have to love it or, with growing experience and independence, to find sustained enjoyment in it. Otherwise it will be a job just like any other you might suffer from, and the people who seek access to the books entrusted to you will suffer.
as well. Love alone is not enough, however. It may be an unhappy love unless, like the successful conductor and teacher, you have an innate gift, a certain mental disposition for it.

What is the intellectual endowment which seems to be the prerequisite for a competent subject cataloger? Is a resourceful scholar necessarily a good interpreter of works in his own field by other writers? When I once discussed this question with my colleagues, the case of a great scholar was mentioned, a man with an awe-inspiring list of publications, a ranking authority in his field, who, however hard he tried, just was not made to be a subject cataloger. As a scholar he was obviously too much engulfed in his own research problems to have the patience and perseverance to explore another scholar’s ideas with detachment. In other words, he was not able to follow through the maze of another author’s thoughts, sometimes seemingly devious or even obscure. He just could not muster the necessary empathy with the author’s line of thought, regardless of whether or not he shared his opinions.

In order to discover the logical structure and psychological build-up in another man’s work, the subject cataloger must, first of all, be capable of clear and systematic thinking. With this mental equipment he subjects the work at hand to meticulous examination. Just as a teacher (to use this illustration again) can be successful only to the extent that he is able to follow most intimately the student’s thought processes, however strange and peculiar they may appear to him, so the subject analyst has to follow closely and self-effacingly the author’s mental tracks in order to determine what he is talking about. Only then can the cataloger assign the subject headings and classification which will do justice to the work and be a genuine aid for the reader to find what he is seeking. Incidentally, this psychological affinity to teaching, my life-long pursuit before becoming a librarian, may be a strong contributing factor to my personal pleasure in subject cataloging.

Moreover, the subject cataloger must project himself into the role of a potential reader and anticipate under which subject headings he might possibly—or under no circumstances—look for the work he endeavors to make accessible to him.

To summarize, love for this type of work, a specific mental readiness and disposition for it, and a clear view of the library user’s needs, if put into everyday practice and developed to near-perfection, may well make subject cataloging an art in the broad sense of the word—an art which, like any true art, is more an ideal, an ultimate goal than an accomplished reality.

The Time Element in Subject Cataloging

Going into some special aspects of subject cataloging, I should like to lead off with a question that is difficult to answer. How much time should be devoted to an individual work in all its significant details? What is the average time it takes an experienced cataloger to handle a book? It is practically impossible to give a satisfactory answer. Books
are individualities, and their individual treatment may take any time between half a minute and, say, three hours. While I am talking chiefly of works in the humanities, I am certain that this is also true for other disciplines. Take works of fiction, works on places whose names have been established, treatises on established periods in the history of a country—you glance at the book, and subject headings, if any, as well as class numbers, can be assigned in a matter of a few minutes. However, works like these do not offer much of a challenge. The enjoyment of subject cataloging comes from those books whose complexities and the problems they present make their analysis a real challenge.

The Author

As it is fascinating to meet an unusual person, so it is when you encounter him as an author of a book. Your curiosity about the author, far from being merely personal and distracting, is necessary if you are to interpret the work at hand correctly. You have to find out who your author is and how the work at hand fits into the pattern of his other publications, if any, previously cataloged or listed in his bibliography. Sometimes the works in the catalog listed under the same author cover a great variety of fields, even fields that are, or seem to be, quite unrelated. In such an instance one cannot help being skeptical. On occasion I even dared to question the descriptive cataloger's identification of a writer. I remember one author, Rolf Italiaander, whose works are classified in no less than sixteen classes; yet, the identity of the author could not be disputed. In another instance I was more successful: a teacher in a village elementary school had published a collection of local poems and folk songs of a remote Alpine valley and, so I thought, was most unlikely to be the author of several books on higher mathematics. It turned out that he was not the same man.

Aids in Subject Cataloging

Every experienced subject cataloger knows, of course, and every student in a course in subject cataloging certainly learns, where in a book to look for signposts in the search for proper subject headings and classification. Therefore, there is no need to discuss such obvious sources of information, in addition to the title, as the table of contents, dedication, foreword, introduction, acknowledgements, epilogue, summaries, conclusions, and, of course, footnotes, bibliographies, and indexes. Not so widely known is the fact that extensive listings under any one entry in the index may suggest a subject heading. Since any scholarly work is just a link in a chain of continuous research or, to use a Platonic term, a part of the perennial dialectical process, there are bound to be in it hints or references to the author's or other writers' previous and, often, potential future research in the same or related fields. In other words, there is hardly a work that does not either continue previous research, or express appreciation of, agreement with, or opposition to, earlier works. The subject treatment already

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given to works referred to in a book may give a valuable clue to that of
the work at hand. To hunt for these clues contributes to the enjoyment
of subject cataloging, and the caution and care with which they should
be pursued will not diminish it.

The dust jacket, so dear to cataloging teachers and catalogers alike,
may seem to give significant clues but has primarily a commercial pur-
pose—to arouse curiosity and to attract readers. Subject entries it might
suggest sometimes mislead rather than guide the subject analyst.

Turning to what he would expect to be a more reliable clue, the
table of contents, the cataloger may be in for another disappointment
when, in lieu of meaningful chapter headings, he finds numbers I, II,
etc., or such fanciful captions as “Hopeful Beginnings,” “Disillusion-
ment,” “Trial and Error,” which serve to disguise rather than to reveal
the actual contents.

Even greater frustration than a meaningless table of contents may be
in store for you when, before plunging into the body of the book, you
hope for guidance from the title. Here again you have to be on guard.
I remember one striking instance: The title of a book by Lillian Ross
was Reporting. “This is an easy one,” you think, because it is a case
when the title coincides with, or comes very close to, one of our subject
headings. So REPORTING AND REPORTING and the corresponding PN class
number come automatically to mind. However, Reporting, to quote
from the book itself, turned out to present “facts in the form of fiction”
or “factual short stories.”

The Meaning of a Work

Whatever guideposts you have already used, examining the text
of the book still remains the main job. Getting at the essence of its con-
tent is like taking a picture: after first taking in the entire scene, you try
to focus on what you deem the predominant and essential features, while
the less important elements remain on the side or in the background.
Similarly, you try to get a mental picture of a work by focusing on its
main features and its crucial points. What is the author actually driving
at, what are the key passages, what are the main objectives of his work?
These are questions to which in many cases you may at first not find an
answer. I still remember sitting in front of an open book, glancing over
its pages, reading shorter or longer passages here and there, pondering
over the fundamental question, “What does he mean?” and thinking
“I wish I knew!” or sometimes even, “Does he himself know?”

Believe it or not, the author himself does not always know! Let me
give you two illustrations, one from my early teaching days, the other
from a contemporary American play.

At a time when local folklore played a significant part in the curricu-
lum, I tried to interpret a poem by a nature-inspired lyric poet of the
early twentieth century. I no longer remember the title of the poem,
but I do recall a nightmarish passage in which the poet describes some
gloomy events happening in deepest darkness. It was as dark, so the poem

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read, "as in a goat's night." Here seemed to be a very interesting piece of animal folklore, possibly still alive in the remote retreat where the poet happened to reside. What, I pondered, could the darkness of the night mean to a goat? I searched through the literature on local folklore, I consulted authorities in the field, I examined books on zoology for any peculiar behavior of goats during nights not brightened by moonlight or stars. No success. The poem was too beautiful to be passed over just because "a goat's night" defied interpretation. Facing my class, I said with all the courage and sincerity I could muster something like "It must have been an extraordinarily dark night. I wish I could tell you just what the poet's image of a goat's night really means."

A few weeks later one of my brightest students came up with a quite surprising answer. He had it from the poet in a personal letter in reply to his specific question. The writer, the letter said, was quite delighted at the student's inquisitive mind, but as to the goat's night, he had not the slightest idea how and why the image of a goat had come to his mind to characterize the utter blackness of the night.

Not long ago, Broadway was puzzled by Edward Albee's play, Tiny Alice. Having become interested in the author from his earlier plays, I followed the different interpretations of the play by the New York critics and out-of-town newspapers, in literary journals, and magazines on the stage. The variety of interpretations was unbelievable. Again the author was consulted, and here is his answer as reported in Time: "There are some things in the play that are not clear to me."

Some such vagueness or self-uncertainty may well be the hallmark of an entire book. True, the foregoing illustrations concern works of the imagination, while scholarly publications or factual materials usually do not leave too much doubt as to what the author has in mind.

However, there are publications that may be referred to as crackpot literature, which do not lend themselves to being classified within known disciplines of knowledge, and which at one time at the Library of Congress were assigned to an unofficial Class X. There are books which you doubt that the author wants to be taken seriously, books which just do not make sense. A look at the imprint may disclose that the author was his own publisher, or that a close relative published the book for him. I can easily imagine an unfortunate psychopathic writer whose family will help him publish the product of his mental aberrations as a kind of psychotherapy, to let him see himself in print. Unlikely as it may sound, many such books are on deposit in the Library of Congress.

Apart from this type, let us face it: we sometimes come across books, especially doctoral dissertations, in our very own fields which we fail, at least in part, to understand. In this connection a paper comes to mind which was read at one of the University of Kentucky Foreign Language Conferences. It was a very learned paper on a minute aspect of a narrow linguistic problem. The paper's terminology, as characterized by the chairman, was so distressingly obscure that he, a well-known linguist himself, did not feel competent to make any comments. A subject cata-

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ologer may come across a work just as puzzling as this paper. Some doctoral candidates, together with their sponsoring professors, develop, in blazing new trails of research, an idiom entirely their own not to be found even in the most recent reference works in the field. Only the full text of the dissertation, not just an abstract, may perhaps throw some light on the meaning of the freshly baked terminology and on the problems discussed. Can subject cataloging of such works be called delightful, one might ask. I am afraid not. And yet, we do enjoy the never-ending challenge we face, especially in the more problematical works. Then we try desperately to get at the bottom of a study, while at the same time we realize that we may feel frustrated with the result of our endeavor.

Fortunately, there are books (yes, even dissertations) that are, or at least look, quite simple to handle, with all the signposts pointing in one direction. Even in such works surprises might be in store, and caution and skepticism should remain the order of the day. Spot-checks throughout the book sometimes reveal the fact that the actual content does not live up to what title, table of contents, chapter headings, and captions entitled you to expect. Then you feel obliged to dig further, and the final outcome may be quite different from what you had anticipated. Of course, you cannot read a book from cover to cover, although in some instances this might be the only way to get a reliable picture of a work.

As a matter of fact, I did read several books from beginning to end, not at my office desk, to be sure, but at my leisure during periods of prolonged convalescence when I had the unique opportunity for such a thorough examination of books which I had earmarked at work for that purpose. Of course, these were books of particular personal interest. Sometimes my reading of the whole book gave me quite a different opinion of its content. After finishing such a book I asked myself: would you have assigned the same subject headings if you had known the book the way you do now? In all honesty the answer was no. These are, fortunately, exceptional cases.

Temptations

It goes without saying that you cannot help getting interested, to different degrees, in the content of the books assigned to you. Until the subject cataloging machine is invented (if this should ever happen), personal involvement cannot and, I believe, should not be discounted or discouraged; but do not let it run away with you. I must admit it sometimes calls for a sustained effort in self-control to tear oneself away from a fascinating book or a work of strong personal appeal. I still have a large file of titles of such works marked "RR" for "retirement reading."

Excessive personal interest is not the only temptation a subject cataloger is exposed to. Another temptation, closely related to the first, is that of making value judgments. Although we consider it a major crime for a subject cataloger to let his value judgment determine what
kind of subject entry and class number he assigns to a work, I would, nonetheless, admire (or maybe I would not) the superhuman detachment or indifference of the individual in whose mind criticism does not build up while he examines and interprets the content of a book.

Problems of Fiction

Among the many puzzling factors that keep you on your toes and make your work so enjoyable, are the questions of what constitutes fiction, where is the dividing line between fiction and factual report, and when does fiction merit a subject entry.

Although there are hundreds of books for which I had to resolve these questions, two instances remain most clearly in my memory.

There is an unwritten rule, apparently handed down from one generation of subject catalogers to another: to identify fiction watch out for two elements—direct discourse and love affairs. If you find these ingredients, you may be fairly sure that you are dealing with fiction.

This is not necessarily so. These ingredients may just be the sugar-coating to attract a reader to a book, the only intent and purpose of which is to give factual, well-founded information. This is particularly true when it comes to juvenile literature.

The book I remember so well told of recent excavations in Egypt. The archaeologist in charge had his daughter visit the excavation area during her summer vacation, and one of his younger assistants promptly fell in love with her. Moreover, animated discussions, presented in direct discourse and dealing at least in part with personal matters, ran through the entire book. And yet, the purpose and subject of the book, once the ornamentation was stripped off, was a description of ancient Egypt as disclosed by recent archaeological discoveries. What other purpose could the numerous maps, charts, photographs of the excavation sites, chronologies of the Egyptian dynasties, lists of suggested readings, etc., have served? They certainly did not contribute anything to what at first glance appeared to be a love story for young readers.

The problem of another book was even more intricate and too challenging to be forgotten. A subject cataloger fell victim to its makeup, and I happened to be the one.

An old and ever-puzzling question is that of the borderline that separates biography from biographical fiction. Both are quite likely to have the ingredients of a love element and actual or at least highly believable conversations. Yet, what would you do with what appears to be the biography of a famous actress, published with the vague subtitle, "the story of . . .," whose method of presentation, to all appearances, is strictly factual? There is a detailed table of contents; events and facts are listed in chronological order; an elaborate index, an extensive bibliography, substantial footnotes, an appendix giving in exact figures the actress' financial situation at the time of her death, and the text of her will appear to document the account; in brief, the work bears all the earmarks of scholarly research. There was no question in the cataloger's
mind that this particular work was a biography, and that was how I treated it.

A few weeks later, a British edition followed the American one, not only stripped of all the scholarly apparatus, but with "... a novel based on the life of ..." added to the title. No doubt was left at this point that the book was a work of fiction. As such, it was assigned to another subject cataloger, who could not know that the text of the English edition was identical with that of the American "biography." So it happened that two catalogers felt justified in treating the same work in two incompatible ways. Whoever thinks of the exciting job of subject cataloging as an easy one ("you read books to your heart's desire all day long and then get paid for it") may examine the two editions of this book and ponder over them for awhile.  

Teamwork

Many books cover a variety of fields, sometimes not even closely related, or lend themselves to more than one interpretation. In such cases, the involvement of more than one cataloger in the same work is, of course, quite common and desirable.

Dan Lacy, then Assistant Director of the Processing Department, expressed this thought when he welcomed me to the Library staff. "We in the Library," he said, "are all one big family. Besides, we are a great university in our own right." It was this spirit of being one big family which I gradually came to realize in the atmosphere of the Subject Cataloging Division.

Perhaps not everybody will agree with me. Whoever does not like to be interrupted from time to time but would prefer to do his work in the quiet solitude of his study, whoever thinks little of what he may learn by discussing his problems with others cannot easily understand the pleasure of consulting with others, of seeking and giving advice, of opening up new pathways of thought through a free-flowing exchange of ideas.

My own cataloging work offered me a fine opportunity to combine theory and practice in discussion and debate, the very topic about which new books reached my desk in ever-increasing numbers. Thus, I was kept aware of the ideal situation in the fruitful give-and-take of argumentation. This calls for modesty and humility in acknowledging the possibility of differing viewpoints and, most important, for mental flexibility—all prerequisites of constructive discussion. I also became sensitive to its pitfalls when those participating in a discussion were overbearing or so rigid in their attitude that they could not believe their own opinions might possibly be modified by an exchange of ideas. Fortunately, I found very few such people in our group; in fact, I consider the predominant spirit of ideal collaboration one of the strongest factors contributing to my pleasures of subject cataloging.

What I find especially enjoyable is the research that we carry on in exploring the needs for new subject headings, investigating their nature,
and searching for authoritative sources as the basis of our recommendations.

Here again, delight and pitfalls are neighbors. As we know from personal experience in research, we may easily get lost in the maze of the problems involved or be tempted to go far beyond what is needed as solid base on which to erect a new subject structure. We must be aware of the danger of being carried away by our own interest and zeal. To roam through the hunting grounds for new subject headings is no more important than to realize the limits of the chase and to recognize the point of diminishing returns.

I shall illustrate this problem by another experience. As a high school student I had a mathematics teacher who, in correcting student papers, indulged in fanciful marginal comments. One of them in my own paper read “Ulysses in Ithaca.” As hard as I tried, I could not figure out what Ulysses’ homecoming had to do with the solution of a mathematical problem. So I asked. Just as Ulysses, I was told, was not aware that he had already reached his homeland, I had failed to realize that I had already solved my problem and kept on figuring in the belief that the solution was still ahead.

By the same token, the subject cataloger is in danger of not recognizing that he has already reached his objective, that he has assembled material sufficient to prove the need for, and to document the proper form of, a new subject heading.

Having an ear to the ground in your special fields so that you can sense the right moment for the need of a new subject heading and help establish it is, indeed, a creative act. In this sense, too, subject cataloging may have something in common with art.

Challenges, Learning Experiences, and Personal Associations

The Library of Congress catalog would challenge the subject cataloger’s creative potentials, if time permitted him to utilize them. Some extensive, unwieldy subject files have become so unserviceable that they call for new differentiations because the material in the file has through the years almost unnoticeably become so heterogeneous as to defy accommodation under a once adequate subject heading. We may come to realize such a situation while running through a file for some other purpose. Occasionally a different class number for works under the same subject entry may give a valuable clue as to where a dividing line between an existing and a potential subject heading might be drawn.

I was privileged to originate the separation of the materials dealing with the modern concept of Mass Media from the all-too-inclusive and heterogeneous entries under Communication. Other such bulky files of subject entries come to mind—or, rather, have long burdened my conscience—entries which I would have been only too glad to revise had time permitted me to do so. I realize that some such changes may have to wait until automation frees hands and minds of subject catalogers for the more creative aspects of their work.

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In this context, I am not so much concerned with the pleasures of subject cataloging I missed as with those I experienced in my work. Among them I should not fail to mention the sustained personal enrichment in gaining new knowledge and remaining in the everlasting process of learning. It is in this sense also that I now understand the reference to the Library of Congress as a great university not only for the scholars who use it, but also for those who are called upon to contribute to its structure of subject headings and classification.

For example, the subject heading you help establish may concern a topic you have never heard of before. I did not have the faintest idea what a shaggy-dog story was when I handled a book tracing the history of this peculiar type of humor back to its British origin and was thus required to recommend a new subject heading, *SHAGGY-DOG STORIES*. I am sure most of us will have had similar experiences in the case of new concepts emerging even in our own fields of specialization.

Apart from these generally shared experiences, there are the personal ones, not always pleasant, but certainly enlightening, sometimes even moving. You simply cannot help taking a personal interest in those authors you have known as your teachers, fellow students, or friends. The number of such authors is not small for one who has been associated with two German and two American universities.

It was a fascinating experience to catalog the Festschrift compiled on the occasion of the seventieth birthday of my revered teacher of Greek literature, Konrat Ziegler, all the more appreciated when I received a letter from him in response to my congratulatory note.

It would be easy for me to add many other instances when personal acquaintance or friendship gave additional flavor to the already absorbing cataloging work. Such is, of course, not the rule, but rather the exception in a day's work. Instead of being distracting, personal associations keep subject cataloging from becoming monotonous or routine and contribute to the mental alertness so vital to subject analysis.

If someone belonging to a later generation of subject catalogers in, say, a decade or so should come across these personal notes, he might have a condescending smile for someone who put so much emphasis on the personal and human element in his cataloging work at a time when armies of computers were about to converge on the library world. It is entirely possible, and even desirable, that some technical details in the subject cataloging process one day be entered on punch-cards or magnetic tape and be turned over to computers. Subject analysis, however, will remain a task for which, I am sure, humans will not be displaced by machines.

REFERENCES

THE MEDLARS (Medical Literature Analysis and Retrieval System) system at the National Library of Medicine (NLM) has over the past few years been one of the most significant and one of the most publicized automated bibliographic information retrieval systems. Over two hundred articles on it have appeared in American newspapers and popular magazines, in specialized medical journals throughout the world, and in a variety of library journals. The publicity that has attended this project has, in a way, been unfortunate, for it has presented an exaggerated picture of the system and its accomplishments which has only made the skeptics more skeptical; and it has obscured in part the examination of MEDLARS' real accomplishments. There has to date been very little careful outside analysis and evaluation of MEDLARS. Over 50 percent of all of the articles listed in the bibliography in Austin's report, and virtually all of the substantive ones, represent the work of persons closely connected with NLM or the development of the MEDLARS system. Their judgment on the effectiveness of the system and its overall value cannot help but be colored by this connection.

With the recent publication of Austin's report and Lancaster's study to accompany the initial preliminary document and to mark the coming to an end of MEDLARS, it would seem timely to have a review and evaluation of that system, as presented in those three major documents, by someone not directly connected with that system. That is what this paper will attempt to accomplish. It represents one individual's views and is designed to raise some of the questions that arise from a careful reading of those reports. While it is critical, its criticisms are designed to bring up for consideration and discussion some of the points that have arisen out of the development of MEDLARS which are extremely important to the field of automated bibliographic information services, and indeed for cataloging and bibliographic services in general. MED-


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LARS has been one of the most significant library developments of the past decade and there is much to be learned from it.

Taken together these three documents present the best picture yet available of the scope and accomplishments of MEDLARS. The first preliminary document, The MEDLARS Story, was published before the system was operational. While it is the least substantive of the three, it does outline the goals and objectives of MEDLARS as they were then seen and, thus, is an invaluable and honest starting point. Austin's report is a good companion piece for it is a review and final description of the actual operation of MEDLARS done at a time when it is in its final stages and when NLM is in the process of designing a new system to replace it. Although it contains a wealth of detail about the operation of the system, its main thrust is a broad scale evaluation of MEDLARS as it now operates and of the extent to which its objectives have been met. Lancaster's study is a careful evaluation of one aspect of MEDLARS—the demand search bibliographical service. For those interested in the automation of the technical operations of libraries these three volumes are indispensable for they describe the largest computer-based store of bibliographic data yet produced and some of the problems encountered in the development, operation, and manipulation of it.

The first section of this paper will review the nine objectives of MEDLARS as outlined in The MEDLARS Story, as evaluated and commented upon by Austin, and with additional comments by me on those objectives and specifically on Austin's evaluation of how they have been met. In the point-by-point consideration of the nine objectives, the format is: (a) the original objective; (b) Austin's evaluation and comments; (c) my comments on (a) and (b). The second section of this paper then will consider in greater detail Lancaster's study and some of the questions it raises about the demand bibliographic search services and, by extension, about MEDLARS as a whole.

1. (a) "Improve the quality of and enlarge (broaden the scope of) Index Medicus and at the same time reduce the time required to prepare the monthly editions for printing from 22 to 5 workdays."

(b) "For the most part, this objective has been met. The quality of Index Medicus has been improved through improvements to MeSH (Medical Subject Headings), improvements in the journal selection process, and constant attention to indexing accuracy. The scope has been broadened considerably from 2,275 journal titles in 1963 to 2,300 journal titles in 1967. Processing time has been cut to about five days."

(c) Whether or not the quality of Index Medicus has been improved is a question of subjective judgment and no concrete evidence has been, or probably can be, presented to support this claim. The broadening of the scope, however, is measurable and Austin's claim of success is open to question. The initial projections called for the indexing annually of 257,000 articles from 6,000 journals by 1969. Considering the
levels reached in 1967 it is unlikely that those figures will be met. In any case, those levels represent only a 25 percent increase in the number of journal titles covered. In an era when the explosion of knowledge is such a widely discussed phenomenon, increases of this size hardly represent an enlargement; especially when compared to the coverage, however crude and slow it may have been, of more than 10,000 serials in the old Index-catalogue . . ., and to NLM’s current intake of between 18,000 and 19,000 different serial publications of all types.

This all assumes, of course, that a broadening of the scope of Index Medicus was a desirable goal, and that ought to be considered. In any index comprehensiveness is, in one sense, to be desired for then the user can be assured that he has covered all sources of information. On the other hand, investigations into the use of scientific journals, particularly of medical journals, indicate that a relatively few journals account for a very high percentage of the actual use. Lancaster’s study, for example, found that about 75 percent of the items retrieved in the searches he analyzed came from one-third of the journals indexed. At the same time, although the indexing of foreign language articles consumed about 45 percent of the input effort, they accounted for not more than 16 percent of the total usage in those searches. Perhaps NLM should experiment with producing a printed Index Medicus that is narrower, rather than broader, in scope for everyday use, relying on computer-based searches and recurring bibliographies (see below) for more comprehensive searches.

2. (a) “Make possible the production of other compilations similar to Index Medicus in form and content.”

(b) “This objective has been accomplished through the production of recurring bibliographies. However, the original estimate of fifty recurring bibliographies was too high and only nine were in production on January 1, 1968, with some others in the planning stage. Because of the difficulties in the intellectual effort required, the development of recurring bibliographies turned out to be a much larger job than was originally estimated.”

(c) The concept of recurring bibliographies (“a periodic selection of citations from current input, structured by a predetermined pattern according to the interest profile of a group”—Austin, p. 37) is an interesting one that is now being widely developed. In addition, for example, to the NLM products, Abstracts of Mycology is now published as an extract from Biological Abstracts. There has been, however, no examination of the rationale behind such bibliographies. Perhaps if the general bibliographies were more limited in scope, as I have suggested, these recurring bibliographies would be more useful. But there are problems. What is a “group”? Do these bibliographies really serve the best interests of “a group”? Are the costs of production justified, or would it be more efficient and less expensive for each user to do his own searching, utilizing the larger and more comprehensive bibliography? Should these be envisaged as nonpermanent, noncumulated tools de-
signed primarily for the personal use of research workers? If this is the case, the use of less intellectual effort and the production of bibliographies for smaller and more highly specialized groups should be considered. Once the basic information has been put into machine-readable form the possible permutations are many and varied and too little attention has been paid to what pattern of printed index services we expect or need to have emerge from this new production approach. Incidentally these recurring bibliographies present a new acquisition problem for libraries. If a library subscribes to the larger, more comprehensive bibliography (Index Medicus), does it need to subscribe to the smaller, more selective bibliography (Index of Rheumatology) production from the same store of information? Probably not, but the library that does not is likely to find itself facing demands from users who find the selective bibliography more convenient to use as it is tailored to meet their more specific needs.

3. (a) “Make possible for Index Medicus and other compilations, the inclusion of citations derived from other sources, as well as from journal articles.”

(b) “The system capability to include citations to monographs in MEDLARS was provided through reprogramming for the Current Catalog.”

(c) Austin begs the question here for by no stretch of the imagination can the original objective be said to have been met. The original intention was clearly to combine the indexing of monographic material, theses, and serial titles with that of journal articles in Index Medicus. The MEDLARS Story, in fact, maintains that, “MeSH is based on the concept that subject cataloging of monographs and subject indexing of periodical articles are essentially like operations” (p. 47). Reprogramming the Current Catalog does not meet that initial objective. Austin does point out that that objective was dropped because system limitations would not permit publishing citations without extensive modification, because books and serial titles are not indexed in sufficient depth to be mixed with the detailed indexing given articles, and because there seemed to be certain advantages in a book-form catalog. This was one of the most interesting concepts of the original MEDLARS program. It ought to have been pursued more vigorously. Given the system limitations was the question of what constitutes acceptable form thoroughly considered? The advantages of having an articulated system might well outweigh the disadvantages of having to modify our concept of what constitutes a proper and necessary catalog entry for a monograph. Could books, if not serial titles, be effectively indexed in the same depth as journal articles? Taking again Lancaster’s findings on the relative lack of use of the foreign language journal articles, one wonders if NLM ought not to have considered indexing English language monographs in more detail in lieu of indexing foreign language journal articles. In Project Intrex and other proposed advanced automated library systems, the concept of the “augmented catalog” with
more detailed approaches to monographic material plays an important role. Does NLM’s failure to achieve this in *Index Medicus* mean that the “augmented catalog” cannot be effectively achieved? One hopes that it will not, in any case, put an end to further experiments along these lines by NLM or other interested parties. Finally the inclusion of detailed indexing for monographs in *Index Medicus* would not seem to prohibit the publication, as a recurring bibliography, of a book-form catalog with more general entries for monographic material.

4. (a) “Make possible the prompt (a maximum of two days) and efficient servicing of requests for special bibliographies, on both a demand and a recurring basis, regularly searching up to five years of stored computer files.”

(b) “It has not been possible to accomplish a two-day search turnaround time with the present batch processing system. Also, because of computer time limitations, demand searches beginning in early 1968 include only references from January 1966 on, instead of references from the entire file.”

(c) This was, of course, one of the major objectives of MEDLARS and certainly one of the most publicized. The major limitation of the previous mechanized system was that it provided only for the publication of *Index Medicus*. It could not provide for “growing demands for rapid retrieval of complex requests specified according to multiple subject axes. Some way had to be found to accomplish more—to do it better, to take less time, to operate more efficiently, and generally to provide a greater all-round versatility” (*The MEDLARS Story*, p. 2). In a number of respects this objective has not been accomplished. Service is not prompt; instead of a two-day turnaround time the average is now about two weeks. This is a major weakness especially when users now increasingly expect real-time access to computer-based information stores. Only a two-year base is now searched. This is also a major weakness when a manual search in the biomedical field would normally cover at least five years. Here again, while comprehensiveness is desirable, it is perhaps less important than a broader-based search in terms of time. NLM might have investigated, when it became apparent that system limitations prevented searching the entire file, restructuring the file so that a longer file of, say, the English language citations could be searched. Finally, the original projections called for 22,500 demand searches to be provided in 1969 but, in 1968, only approximately 9,200 demand searches were provided. This, too, is a major weakness, for much of the justification for such a system ought to be its ability to handle an increasing number of demand searches. Despite this general failure to meet the original objectives, the MEDLARS demand search service has been the most significant real-life experiment in computer-based bibliographic searching yet conducted.

5. (a) “Increase the average depth of indexing per article by a factor of five, i.e., ten headings versus two.”

(b) “This objective has been achieved for depth journals to which

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an average of about ten subject headings per article are assigned. However, nondepth journals are indexed to an average depth of only about four terms.

(c) In recent years most designers of information systems have placed a high priority on a general increase in the number of subject headings assigned for each item. Depth indexing would seem to be of value in providing for greater specificity in the use of index terms and for better coverage of secondary topics dealt with in an article. One basic concept in MEDLARS was that a distinction could be made between depth journals (those that generally carry reports of greater significance) and non-depth journals (those that generally carry reports of lesser significance) and that the number of index terms could be assigned accordingly. This is an unreal distinction and, indeed, one of Lancaster’s recommendations is that it be abolished. His study found that non-depth articles constitute 45 percent of the MEDLARS file but account for only 25 percent of the items retrieved because the limited number of terms assigned provides for too generalized indexing. He recommends that this distinction be abolished and each article be treated on its own merit and assigned as many index terms as are necessary to provide for adequate access to its contents. As many as 30-40 percent of all relevant non-depth articles presently missed in MEDLARS searches might be retrieved if they were indexed at the same level as depth articles. On the other hand, an increase to 25-30 terms per article would be needed to provide for a significant increase in the retrieval of depth articles presently missed because of lack of sufficient indexing depth. Lancaster concludes that although 20 percent of the recall failures in MEDLARS demand searches are attributable to insufficient depth of indexing and only 11.5 percent of the precision failures are attributable to too great a depth of indexing, an overall increase in the number of terms assigned per article does not seem justified. Much more needs to be done in the way of objective research on the basic question of how many terms it is desirable to use in the indexing of articles. The two to three terms traditionally assigned and the ten terms used in MEDLARS are both based primarily on subjective judgments, as well as limitations of resources, rather than on an objective consideration of users needs. Lancaster’s analysis of the number of headings needed to provide for effective recall of articles is noteworthy as being perhaps the only objective investigation available.

6. (a) “Nearly double the number of articles that may be handled annually from 140,000 now to 250,000 in 1969.”

(b) “Production has increased with MEDLARS to 165,000 articles input in 1967. Library management hopes to meet the goals of 250,000 articles by 1969, but the attainment of this goal remains uncertain.”

(c) See (1.) (c) above.

7. (a) “Reduce the need for duplicative total literature screening operations.”

(b) “This objective is difficult to evaluate. However, all indications
point to its being met. Index Medicus and other MEDLARS bibliographies are used extensively in libraries and information centers as literature screening tools. No other medical indexing operation comparable in size to MEDLARS has come into existence. Hence, it can reasonably be assumed that a good deal of expensive, duplicative indexing has been avoided.

(c) This is the most artificial objective imaginable. Was there ever any real prospect of a rival system to Index Medicus being instituted even prior to the conception and development of MEDLARS? Once a major bibliographic tool has been established in a field—no matter how inadequate and expensive it may be—the likelihood of another system being established in the same subject field is extremely small. Presumably then it is in the area of recurring bibliographies in specialized subject fields that MEDLARS has most effectively reduced the need for other literature screening operations; but only nine of a projected fifty such bibliographies are being produced and there is still no competition. Perhaps this only indicates, however, that the recurring bibliographies are not as essential as the original MEDLARS concept envisaged. It hardly seems reasonable to assume that “a good deal of expensive, duplicative indexing has been avoided” by the development of MEDLARS.

8. (a) “Keep statistics and perform analyses of its own operations, to provide the information needed to monitor and improve system effectiveness.”

(b) “This objective has been partially accomplished through the Statistical Module Reports. . . . Other reports have been identified that could be very useful (e.g., statistical data on demand searches). However, for the most part, NLM programmers have been too busy to work on these reports.”

(c) How typical! In the initial justification of all automated systems the unlimited possibilities of statistical analysis are cited as an important objective, but once a system is operational these analyses somehow become less important and this objective is the first to be sacrificed. MEDLARS is no exception. It is just as well for one has the feeling that this is as usual a poorly thought-through objective which would only result in the production of a wide variety of meaningless statistics if it were carried through.

9. (a) “Permit future expansion to incorporate new and as yet not completely defined and hence secondary objectives.”

(b) “This has been accomplished. Installation of MEDLARS has provided a base of data processing equipment and experienced system personnel at the Library for work on new systems and extensions of MEDLARS.”

(c) The development of new systems and extensions of MEDLARS hardly qualifies as meeting an objective that specified an expansion of the system. How effectively has this objective been met when, even though most of the original target figures have not been approached, “work loads approaching machine capacity” (Austin, p. 9) already exist,

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and MEDLARS is being abandoned in favor of "a new, more powerful approach to the problems of literature control and information retrieval in the biomedical sciences" (Austin, p. 69).

The secondary objectives were not altogether incompletely defined. Some of them were: "(1) the requirements of a national, decentralized, medical bibliographical system; (2) the possibility of storing and retrieving graphic images of textual material; and (3) the mechanization of other Library functions" (The MEDLARS Story, p. 61). Probably the worst error of judgment in the planning of MEDLARS was the selection of Honeywell, rather than IBM, equipment in view of the requirements of a national decentralized, medical bibliographical system. This error was not as critical as it might have been only because of the failure of the demand search service to develop as rapidly and as extensively as was anticipated. Honeywell equipment is not readily available and, in fact, only the MEDLARS Station at the University of Colorado has had access to it. Although extensive work on reprogramming the MEDLARS files for the more commonly available IBM equipment has been done, "the time and effort involved was badly underestimated by NLM staff" (Austin, p. 57). As of January 1968 only the Colorado MEDLARS Station was processing demand searches. The other five MEDLARS Stations, all of which had been in operation for from two to three years, were sending formulated searches to NLM for processing. A variety of other problems, many of them related to the basic difference in available equipment, exist, and all have greatly increased the developmental time and costs for the decentralized system.

While the development of the demand search service and the need for a decentralized system to support that demand was overestimated, the development of a widespread demand for electrostatic reproduction of articles based on the use of Index Medicus was probably underestimated. Fortunately the development of a decentralized system has helped to provide adequate coverage. In view of that demand, however, one must also judge the failure of MEDLARS to meet the secondary objective "of storing and retrieving graphic images of textual material" as a major weakness. Since NLM has had difficulty in meeting the basic projected goals of MEDLARS, the development of such a capacity within MEDLARS would seem to be nonexistent. This is presumably one of the major reasons for the abandonment of MEDLARS and the development of a new system. Hopefully it will attempt to meet that objective.

MEDLARS has achieved a great deal, but has not met many of its original goals and objectives. This is not altogether unexpected in a project of this size and magnitude. In a more particular way MEDLARS has been successful for it has provided for the prompt publication of Index Medicus, which was an essential requirement, while permitting NLM to gain a great deal of experience with the use and problems of a large-scale automated bibliographic retrieval system. This is probably the most that really should have been expected from the first venture
into a program of this scope and magnitude.

Lancaster's evaluation of the demand search service is one of the most important documents published to date in the area of analysis and evaluation of bibliographic information retrieval systems. It is so important not only because it deals with a real-life experiment as opposed to the artificial experiments of many other projects, even the Cranfield studies, but because it raises a number of interesting questions about the use and development of such systems. Unfortunately it is not well organized and is, therefore, somewhat difficult to follow. His synopsis "MEDI-ARS: Report on the Evaluation of Its Operating Efficiency," in American Documentation (20: 119-42, April 1969) is much better organized, and is considerably easier to follow and comprehend; it does not, of course, provide quite the same detail as the full report, but I recommend it to those who do not have the time or patience to read the full report.

Basically Lancaster is reporting on the precision and recall performance of MEDLARS operating in a demand search service mode in 302 actual requests made by users representing the full range of potential users during 1966 and 1967. His test program, whose design and execution was reviewed by a MEDLARS Evaluation Advisory Committee that included Austin(l) but also Cleverdon (who also acted as a special consultant on this project) and Mooers, consisted primarily of an evaluation by the ultimate user of the relevance of the citations supplied to his needs (precision) as well as an evaluation of how successful MEDLARS was in supplying citations that had been identified in a number of other ways as being relevant (recall). Each of these requests was then analyzed in great detail; the reasons why 3,038 items not relevant were supplied in 278 of the searches, and why 797 items known to be relevant were not supplied in 238 of the searches were identified and examined. Much of his report is devoted to an analysis of the reasons behind each of these 3,835 errors grouped under the general headings of failures attributed to searching, failures attributed to indexing, failures attributed to index language, and failures attributed to inadequate user-system interaction. The analysis of these is careful and detailed and sheds much useful, and sometimes amusing, light on some of the problems encountered. For example, among the most heartening reasons for failure are a number of cases of human-like failures on the part of the computer, including one in which five articles that precisely matched the search formulation were overlooked and not recalled in the initial search although they were recalled in a later rerun using the same formulation. These accounted for only an insignificant proportion of the failures (1.4 percent of recall and 0.1 percent of precision failures), but they are somehow encouraging kinds of errors. On the other hand, in a number of cases, real human errors, including the failure of terms assigned by the indexer to be included in the final input and the failure of single issues, or even whole volumes, of a journal to be indexed, also occurred and they can only be classed as discouraging kinds of errors.
The general findings are that, on the average, MEDLARS is operating at 57.7 percent recall and 50.4 percent precision ratios, but that the results are widely scattered, with some searches achieving high recall and precision ratios and others totally unsatisfactory recall ratios. About 25 percent of the articles retrieved were judged to be of major value by the users (precision) and about 65 percent of the known articles of major value were retrieved (recall).

The general validity of these specific recall and precision ratios is open to serious question, and raises a question about NLM's continuing lack of perceptiveness in the use of statistical techniques. In 1962 NLM published a report on the use of its loan system in which a complete year's file of loan requests was examined. There was no statistical analysis in that report, but the sample size was probably large enough, indeed it seemed unnecessarily large, to make that survey statistically valid. There is no statistical analysis in Lancaster's report either, but it would be useful to know what degree of statistical validity there is with a sample size of only 302 when as many as 18,500 searches may have been handled in 1966 and 1967. The statement that "it was felt that the approximately 300 searches that would thus be fully completed would be adequate to allow a meaningful performance breakdown by processing center, subject field, originating organization, and mode of interaction" (Lancaster p. 15) is not justified in a scientific report. This is especially true when many of the final results are described in percentage terms and are, therefore, presented as being representative of all searches.

Lancaster indicates that these recall and precision figures could be altered by a broadening of the search strategies which would provide for a higher recall ratio but only at a much lower precision level. MEDLARS, as it presently exists, can be operated at any point on or near a recall/precision plot that allows for considerable variation in performance ranging from 90 percent recall with less than 20 percent precision to only 19 percent recall with over 80 percent precision. For the most part the searchers have been operating the system at about the midpoint in order to obtain a satisfactory recall level at an acceptable precision point. Too little attention has been paid to the user's requirements in a particular search. One of Lancaster's main recommendations, and one of his most sensible, is that the MEDLARS search request form be specifically redesigned to allow for the user to indicate his recall requirements and precision tolerances within the framework of the possible relationships. The search strategies could then be adjusted to

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2 The actual figure is difficult to ascertain because neither Austin nor Lancaster indicates much about actual performance levels attained for the demand search service. Austin provides one table (Figure 29) that shows that 2,300 searches, including 600 handled abroad, were completed in the first quarter of fiscal year 1968. My figure of as many as 18,500 searches for the two-year period is based on a projection of those figures. Lancaster provides no such information whatsoever.
meet these requirements. If there is a choice to be made, certainly it should be made by the user rather than by the search analyst or system designer.

The present pattern shows a variation in performance between individual searchers as well as between the five MEDLARS centers that formulate searches. The ranking by centers, in fact, shows a completely inverse relationship between recall and precision (i.e., the center with the highest recall level had the lowest precision level) which tends to confirm, as Lancaster puts it, "the inevitability of the inverse relationship between recall and precision . . . known to research workers for some years" (p. 128). This assumption, which is widely held, that there is a direct fixed relationship between the two elements in a system and that once that relationship is established an improvement in one can only be accomplished at the expense of a deterioration in the other also needs to be carefully examined. Too often it is accepted as an inalterable condition and the question of whether or not there are ways of improving the two ratios simultaneously within a system is ignored. Fortunately, even though Lancaster calls this inverse relationship "inevitable," a number of his recommendations are designed to improve the general performance level of MEDLARS (i.e., provide higher recall with better precision).

Since 25 percent of the recall failures and 16.6 percent of the precision failures were directly attributable to the defective interaction between the user and the system, Lancaster recommends a complete redesign of the search request form to capture the user's initial request before he has discussed it with a search analyst. His earlier analysis of this problem is one of the most interesting and arresting parts of the report. "Unless the requester is first required to write down a narrative statement of need, this requirement may well become distorted in an oral interview between requester and librarian, and the request, as recorded by the librarian, thus becomes an imperfect representation of what the requester is seeking. It is for this reason that MEDLARS performs, on the average, less well for searches in which the local librarian has participated actively in request formulation than for searches in which the librarian acts as carrier only" (p. 113). This conclusion is based on a careful examination of the test searches and seems to be warranted. Lancaster's reasons as to why this should be so are worth quoting.

When he (the requester) makes a personal visit to a MEDLARS center, we do not normally have the benefit of this written, natural language statement. Rather, the requester is invited to discuss his needs with a search analyst. Unfortunately at this point, his information need tends to get distorted. The problem appears to be at least partly due to the fact that the requester's need is discussed in terms of, and unduly influenced by, Medical Subject Headings. When the requester is writing down his request, he is forced to think of what exactly he is looking for. In this, he is not particularly influenced by the logical and linguistic constraints of the system. When, however, he approaches a MEDLARS center, if he has not already gone through the discipline of writing
down his request, he has a less well-formed idea of what he is seeking (i.e., of
the scope and constraints of the search). When this somewhat imprecise need
is discussed with a search analyst, in terms of Medical Subject Headings, it tends
to become forced into the language and logic of the system. The final "request,"
rather than representing what the requester wants, represents what he thinks
the system can give him, phrased in a way that the system will search for it. In
many cases the "request," as recorded by a search analyst, is not a true request
at all (at least it resembles nothing that a requester would submit in his own
natural language terms). Rather, it is a "pseudo-Boolean statement": a string
of MeSH or MeSH-like terms put together in some relationship (p. 111).

This is startling! It certainly seems to contradict our normal and
traditional view that the user has an imperfect representation of what he
is seeking that can only be improved and clarified in an oral interview
with a trained reference librarian. If Lancaster's reasoning is correct,
and he certainly makes a strong case, the whole question of how the
ultimate user will approach computer-based stores of bibliographic in-
formation will need to be carefully reexamined.

While the traditional library approach generally calls for the analysis
of all approaches to a system to take place as a function of the input
system, possible approaches to a system through manipulation and
analysis of the output system need to be considered. Lancaster recom-

mends, for example, changes in the MEDLARS searching strategies
which would formalize into pre-established search strategies the "hedges"
(informal collections of headings which cut across several MeSH cate-
gories in a horizontal pattern) that have been developed by the searchers.

The most obvious solution, though, is that the input ought to be in
natural language terms so that the user, especially in an on-line system,
can approach the system directly and in his own terms without the
constraints imposed by an intermediary and an artificial language. Lan-
caster recognizes this. One of his recommendations concerns changes in
the index language of MEDLARS designed primarily to provide for the
up-dating of MeSH by an analysis of the demands placed on the system
as reflected by the actual terminology encountered by both indexers
and searchers rather than by the use of an external advisory committee
on terminology. Finally in his general concluding recommendation that
the material gathered in this study be used for further investigations,
Lancaster specifically suggests that "natural language, free-text searching
of abstracts would be . . . well worth investigating" (p. 202).

These are only a few of the more salient topics dealt with in Lan-
caster's study. He deals with a number of other topics including factors
critically affecting the performance of a MEDLARS search, the indexing
coverage of MEDLARS, the general question of journal usage factors,
the effect of delays in response time on the value of a search, the

These are: (1) the quality of interaction between the requester and the system;
(2) the complexity of the request; (3) the ability of the index language to precisely
express the notions involved; (4) the subject field of the request; (5) indexing policies
and practices; and (6) the adequacy of the search formulation.

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serendipity value of MEDLARS searches, output screening, indexer consistency, and requests rejected by MEDLARS. Each of these is treated briefly but concisely and yet a wide range of interesting points is raised. One page, for example, is devoted to a consideration of the extent to which the requester found the items supplied which were irrelevant to his specific need of interest because of some other need or project (serendipity value). There was wide variation but the combined sample indicated that 18 percent of the irrelevant articles supplied were of value in relation to other needs. Lancaster feels that this figure is high because in this test the requester was supplied with photocopies of the articles which he might not have looked up had he been supplied only with the citations. I disagree. I suspect, based primarily on personal experience, that in many literature searches, both manual and machine, an important by-product is the supply of useful information not directly related to the immediate need which prompted the search. In fact one of the weaknesses of machine searching may be its inability to provide for the totally unrelated kind of serendipity value that can come in a manual search when one happens to notice, almost as it were by accident, other items simply because, for example, they are on the same page.

This review and evaluation has attempted to summarize and comment upon some aspects of MEDLARS and the questions it raises. It has touched upon only a few of these aspects especially with Lancaster’s study. Much remains to be done and a number of other aspects of MEDLARS, including several not adequately dealt with in any of these reports, need further investigation. Except for some limited comments, for example, in The MEDLARS Story and Austin’s report about the number of man-years required to operate the former mechanized system for producing Index Medicus (40 man-years per year) and MEDLARS (projected at 60 man-years per year; actually about 90 man-years per year as of January 1, 1968), there is virtually no indication of the time or costs involved in the operation of MEDLARS in any of these reports. One can only assume that the social benefits of a medical information system outweigh any cost considerations. This is unfortunate, for an essential element in the evaluation of any operational program of this size ought to be a careful consideration of the cost and time element. Lancaster recommends that NLM consider establishing a program of “continuous quality control” for MEDLARS (which would provide for the monitoring of all search requests in order to discover further inadequacies of the system) and that, as I have indicated, the data collected in his study be used as the basis for further investigations. This is a start. At some point NLM might hopefully be in a position to make its complete file and records on MEDLARS, especially those relating to costs, freely available to independent researchers. There must be at least a dozen excellent doctoral dissertations there.
Internationalizing RTSD: A Report of the RTSD Subcommittee on International Relations

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The internationalizing of RTSD does not imply an insularity of the American Library Association, for at the 1876 Conference of Librarians in Philadelphia Mr. James Yates of Leeds was present. In the following year a group of American librarians attended the first conference of librarians in Europe. The arrival of the Americans at the meeting in London has been described as follows by Henry R. Tedder, a Joint Secretary, with E. W. B. Nicholson, of the Organizing Committee:

The evening before the Conference will be ever memorable to me. Nicholson and I were busy in our shirt-sleeves in the large library at the London Institution putting up notices and making final arrangements, when suddenly the door opened and an alarming deputation advanced—the American librarians, some twenty strong (all except Melvil Dewey much older than either of us) and all very dignified in demeanour and ceremonious in behaviour: Poole, Winsor, Cutter, Lloyd P. Smith, Reuben Guild, S. S. Green, F. Jackson, Miss Godfrey (afterwards Mrs. Melvil Dewey), Mrs. Olmstead, and others.¹

Since that date there have been many visitations, much correspondence, many exchanges, but none more prophetic of involvements yet to come!

Within recent years the American Library Association has created an International Relations Office of which David G. Donovan is director of the Washington Office, and an International Relations Committee of which Emerson Greenaway is chairman. The IRC has as its function:

To promote the exchange of librarians between this and other countries; to encourage and facilitate the use of library and bibliographic techniques and knowledge throughout the world; to assist in the exchange of professional information, ideas and literature between this and other countries; to coordinate the activities of other units of the Association within this field.²

Among the current committees of the International Relations Committees are these:

Advisory Committee for the University of Brasilia Library Development Project

Library Resources & Technical Services
Advisory Committee for the University of Delhi Library Project
Panel on UNESCO
Special Committee to Aid Italian Libraries
Subcommittee for Liaison with Japanese Libraries

The International Relations Committee has coordinated the activities of other units of the Association by endorsing the creation of Subcommittees of the following Divisions:

American Association of School Librarians
Association of Hospital and Institution Libraries
Children’s Services Division
Public Library Association, Armed Forces Libraries Section

Though the Subcommittee of the Association of College and Research Libraries, created in 1967, was discontinued at the ACRL Board meeting of Midwinter, 1969, there has been discussion of reviving it.

Creation of the RTSD Subcommittee on International Relations

The latest Subcommittee created has been that of the Resources and Technical Services Division, for on April 11, 1969, the International Relations Committee approved its formation and endorsed its statement of responsibility as being:

To serve in an advisory, representative, or in any other capacity as requested by the ALA International Relations Committee;

To foster an international involvement of the Resources and Technical Services Division in activities for which the Division and its Sections are responsible, namely, acquisition, identification, cataloging, classification, and preservation of library materials, and the development and coordination of library resources.

The RTSD Subcommittee has not enumerated its responsibilities in detail but prefers, as of this time, to continue to explore, study, and suggest. The view is held definitely, however, that the Subcommittee will serve more as a liaison/communicative agency than as a performer and will seek to disperse matters requiring reports, etc., to appropriate Sections or to the RTSD Board.

The Subcommittee itself had been in existence unofficially since 1968 when the RTSD Board of Directors, with David C. Weber as president, appointed an ad hoc committee of three “to explore RTSD’s interest in regard to international librarianship.” The three members were Robert D. Stevens, Sarah K. Vann, and Marietta Daniels Shepard who served as chairman during the exploratory period and whose committee report to the RTSD Executive Board prompted the Board to create a standing committee of five members. The incoming RTSD president, Margaret C. Brown, expanded the membership with the appointment of Nathalie Delougaz of the Library of Congress and Elizabeth Nebehay of the United Nations Library and reappointment of the original three. It was this committee which was later legally
structured as a Subcommittee of the ALA International Relations Committee.

Elevation of the committee from an ad hoc to a standing status reflected not only an awareness of the current trend to create such Subcommittees but significantly identified RTSD as the Division to consider international dimensions of acquisitions, cataloging, classification. The timeliness of creating the Subcommittee is magnified by such international happenings as a search for a World Information Network by FID; increased awareness of the limitations but possibilities of universal expansion of classifications such as the Dewey Decimal Classification, the Library of Congress Classification, and the Universal Decimal Classification; international acquisition programs developing in libraries throughout the United States; the Shared Cataloging and PL-480 programs of the Library of Congress; global extension of computer technology for intelligently codified data for universal use; commonality of teaching problems relating to these developments in American library schools and elsewhere; and the increasing opportunities for personal and/or group involvement (committee involvement) in these and other activities. An underlying reason for the need of an RTSD Subcommittee emerged later as the resolutions and activities of the International Federation of Library Associations were discussed.

Among the topics which have been reviewed, some action taken, or about which some questions have been asked are the following:

Foreign Librarians and Arrangements for Their Visits

An immediate, practical request from David G. Donovan that the RTSD Subcommittee assist the International Relations Office in making special arrangements for those foreign librarians wishing to study technical services has resulted in the Subcommittee's inviting the Council of Regional Groups to be available for such activity by:

1. Furnishing the International Relations Office with a list of persons in each Regional Group who would be willing to participate.
2. Indicating the special language skills of each.
3. Keeping the International Relations Office informed of changes and names of new presidents as they assume office.

At the invitation of Mrs. Jane Moore, Chairman of the Council of Regional Groups, the Subcommittee Chairman attended a Council meeting during the 1969 Atlantic City Conference and inquired of their possible interest. Miss Marian Sanner, incoming Chairman of the Council, has agreed to make the initial step in gathering the appropriate data from the Regional Groups.

American Librarians Abroad and Arrangements for Their Visits

From the two British guests who attended the meeting of the Subcommittee during the Atlantic City Conference, it was learned that, as in 1877, "alarming deputations" of American librarians, singly or in groups, still advanced and wished to visit libraries! The British guests
indicated that it would be exceedingly helpful to them to have prior information on ALA members (especially RTSD members) who might wish to have guided tours of British libraries, the purpose being to make the best use of those individuals while they were in England as well as to plan more effectively their programs for library visits.

The Subcommittee has forwarded to the International Relations Office a recommendation that the IRO should inform the Cataloging and Indexing Group of the Library Association of dates of such visits and names of visitors when known.

Liaison Relationships of RTSD with Other National Library Associations

Before the Subcommittee was created, the RTSD Executive Board had designated individuals to serve as RTSD liaisons when attendance at a national conference seemed possible. Now that the Subcommittee is active, it is likely that it will become more involved.

Translations of Titles Reflecting RTSD Interests

The need for translations of manuals, codes, guides, and other resources which would contribute to international librarianship was emphasized by the Subcommittee members. Suggestions included the internationalizing of Library Literature, the internationalizing of the Publishing Services of the American Library Association, and the compilation of a basic list of titles translated or which need to be translated on an annual basis. Currently, the Subcommittee plans to make inquiry as to how best to proceed with the compilation of such lists, one retrospective and one an annual selection.

Other Topics

Among other topics which have been or are yet to be studied by the Subcommittee are these:

1. Short-title cataloging of older works in Latin American libraries.
2. Manuscript preservation and cataloging of collections of documents.
3. Biographic data on involvement of American librarians in international matters pertaining to technical services.
4. Relationship with the Library of Congress in regard to international acquisitions and cataloging problems.
5. Bilateral research programs in cataloging or acquisitions with some national associations.
6. Classification and reclassification problems in Latin American libraries.
7. Procurement of U.S. publications by libraries outside the United States, including problems of exchange of publications, lack of dollars, lack of use of UNESCO coupons, etc.
8. Traveling fellowships for technical services professors.
Common Interests of RTSD and IFLA Committees

As the RTSD Subcommittee focused attention on the activities of the International Federation of Library Associations, the members learned quickly of the near-total absence of communication between RTSD and the following IFLA committees and/or sections involved with similar responsibilities:

- Committee on Bibliography
- Committee on Exchange of Publications
- Committee on Exchange of Official Publications
- Committee on Mechanization
- Committee on Periodicals and Serial Publications
- Committee on Reprography
- Committee on Uniform Cataloguing Rules
- Committee on Union Catalogues and International Loans
- Section of National and University Libraries*

Rarely has there been RTSD representation at any of these committee meetings; in 1967, however, RTSD designated Mrs. Elizabeth Rodell, then Executive Secretary of RTSD, as representative to the 33rd Session of IFLA which was held in Toronto. In a summary report, Mrs. Rodell stated:

I wish to record my surprise that, in view of RTSD's responsibility within ALA for library resources, and the acquisition, cataloging, preservation, and reproduction of library materials, we [that is, RTSD] have not been represented at IFLA for so long a time.

Permeating the whole conference were the development of the Shared Cataloging Project of the Library of Congress and other movements towards developing a world-wide system of bibliographical control—certainly a subject in which RTSD is vitally interested. The committees which met in Toronto were, many of them, within RTSD'S field of responsibility for ALA: the Committee on Uniform Cataloguing Rules; the Committee on Periodicals and Serial Publications; on the Exchange of Publications, on Union Catalogues and International Loans (concerned with conditions of lending and of furnishing microfilms and photocopies)...

At the 34th Session of IFLA, held in Frankfurt in 1968, Barbara Westby, Field Director of the Library of Congress Office, Oslo, served as RTSD's representative. In her brief summary report, Miss Westby was equally impressed with the similarity of interests, for she observed:

It is said that history repeats itself. At the library meetings of 1876 and later years, cataloging was a lively topic at the general sessions, and participants in the discussion were the leading librarians of the day: Dewey, Cutter, Jewett, etc. Today cataloging is again stepping out from the sectional meetings into the general arena as a subject of interest to leading librarians. Certainly Sir Frank

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* Communication link important because of the interest in NPAC (Shared Cataloguing) noted during the 1968 Session.
Francis... takes every occasion to eloquently support cataloging progress. He did so again in his presidential address at the IFLA meeting in Frankfurt a/M. He mentioned specifically the Shared Cataloguing Program, the continuing effects of the International Conference on Cataloguing Principles, cataloging-in-source, and the mechanization of retrospective catalogs and of union catalogs.6

The following resolutions* endorsed by some of the IFLA committees during the 1968 Session indicate the common interests of these committees with those of RTSD:

From the Committee on Bibliography (and Section on Special Libraries)

1. The Committee and the Section intend to publish the material on problems of bibliography, collected from 1966 to 1969, in the form of collective volumes. While the Committee will publish the material dealing with bibliographical and national aspects in the field of general librarianship, the Section will concentrate on the material dealing with special fields of knowledge.

2. For this purpose the Committee and the Section ask the support of the Executive Committee and the Department of Librarianship and Documentation of UNESCO for 1969.

3. The Committee resolves to complete the collection of questionnaires concerning the main problems of current bibliographical information, to revise the material and to bring the action to an end. It asks the Chairman of the Committee to appoint an editorial commission and to discuss means of publication with the Executive Board and UNESCO before the 35th session of the IFLA General Council.

4. The Committee resolves to set up a permanent working group and to ask the Library Associations of the different countries to name their experts.

From the National and University Libraries Section and Committee on Mechanization

The proposal of 18 April 1968 for a contract between UNESCO and IFLA to examine the possibility of using the Shared Cataloguing Project for the libraries of other countries limits the investigation to developing countries. But the Shared Cataloguing Project is a complicated system which makes highly technical demands which cannot generally be fulfilled in the developing countries. Apart from the

* The text of the resolutions has been extracted from mimeographed copies of the resolutions made available during the Frankfurt Session. The proceedings are to be found in: Fédération Internationale des Associations de Bibliothécaires. Actes du Conseil Général . . . 34* session, Frankfurt-am-Main, 1968. La Haye, Martinus Nijhoff, 1969.

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enormous technical and organisational problems which arise from the adoption of the Shared Cataloguing Project by other countries, the restriction of the investigation to developing countries raises the additional question as to how these countries should be placed in the position of being able to use the technical mechanism of the Shared Cataloguing Project.

Both questions—the general investigation of the use of the Shared Cataloguing Project by other countries and the special test of the conditions for the Project in the developing countries—can certainly not be answered in a single study.

The National and University Libraries Section and the Committee on Mechanization therefore recommend that the Executive Board should negotiate with UNESCO to obtain the following amendments to the contract:

1. The first study should investigate the general conditions for the application of the Shared Cataloguing Project to countries other than the United States of America.

2. To this study should be added a second to examine the use of the Shared Cataloguing Project in developing countries.

3. After completion of the first study a conference of experts from all interested countries should be convened which should set out the different conditions in individual countries. UNESCO or another international organization should be asked to support this conference financially.

From the Commission on the Exchange of Publications and the Sub-commission on the Exchange of Publications

The Commission and the Sub-commission repeat their proposal that a new UNESCO seminar for the exchange of official and non-official publications should be held as, for example, the one at Budapest in 1960.

It should comprise the heads of the national exchange centres.

The Commission and the Sub-commission propose that this new UNESCO seminar should be held at Paris in 1969 or 1970 to review the progress made during the ten years since the adoption of the UNESCO Conventions on the exchange of official and non-official publications.

The Commission and the Sub-commission propose that IFLA request UNESCO to obtain the necessary funds for this project.

The Commission and the Sub-commission are willing to support UNESCO with information and proposals for the preparation and conduct of the seminar.

From the Committee on Periodicals and Serial Publications


3. An intensive study of national material about new periodicals in order to prepare the Guide.

IFLA Committee on Uniform Cataloguing Rules

Since the completion of the Anglo-American Cataloging Rules, there has been little involvement by the American Library Association in the activities of the IFLA Committee on Uniform Cataloguing Rules, though during the years of preparation of the Rules, international communications were routed to/through the Catalog Code Revision Committee and the editor of the Rules. Effective contributions were made by American librarians, among them Seymour Lubetzky, editor of Code Revision activities in 1961, to the 1961 IFLA International Conference on Cataloguing Principles.

Though it was a recommendation of that International Conference that liaison committees with the IFLA Committee on Uniform Cataloguing Rules be continued, the American Library Association did not create such a committee but relied instead on the Catalog Code Revision Committee. With the demise of the Catalog Code Revision Committee, consequently, no channel for formal communications with RTSD remained. It is interesting to note, however, that the Canadian Library Association through its Technical Services Division has continued its liaison relationship with the IFLA Committee.

As of the Frankfurt Session of 1968, the IFLA Committee furthered its plans for a second international conference on cataloguing principles in order to discuss developments since the adoption of the statement of principles made at the Paris International Conference of 1961. The resolution read thus:

That a meeting of cataloguing specialists be organised preferably immediately before, or immediately after the next meeting of the General Council of IFLA to review progress in cataloguing since the Paris Conference of 1961, to consider the text of the Annotated Edition of the “Statement of principles” in the light of wider representation and the problems raised at this meeting in Frankfurt in relation to the Shared Cataloguing Programme of the Library of Congress. In connection with the proposed meeting the officers of the Committee should arrange for the necessary documentation to be prepared and should investigate the possibility of financial support so that the meeting be representative of all important cataloguing interests.

While there was no RTSD representation on the IFLA Committee at the time of the Frankfurt resolution, Barbara Westby was invited by A. Hugh Chaplin, chairman, to serve as a member of the Organizing Committee, and at a meeting in London in March, 1969, plans were completed for the international conference to be held in Copenhagen on August 22-24, 1969. Miss Westby later attended the conference both

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as a member of the Organizing Committee and as a non-voting delegate of the American Library Association.

Since among the topics to be discussed was that of shared cataloging, C. Sumner Spalding of the Library of Congress was invited to describe the actual operation of the Shared Cataloguing Program of the Library of Congress, noting "the degree of its success in reaching its objectives and of the difficulties that have had to be overcome." Mr. Spalding was also designated as a non-voting delegate of the American Library Association.

The conference now known as the "IFLA International Meeting of Cataloguing Experts, Copenhagen, 1969," was made possible by a grant from the Council on Library Resources. More details may be found in the release from the Organizing Secretary, dated May, 1969, which appears in the Appendix.

Toward RTSD Involvement

While the Subcommittee recognized the importance of the activities of the IFLA committees, particularly that of the IFLA Committee on Uniform Cataloguing Rules, it recognized equally the barrier that had been created through the absence of or confusion in communication channels. Elizabeth Nebehay, who has attended several IFLA sessions, including that of 1968 in Frankfurt, informed the Subcommittee not only of the absence during some IFLA committee meetings of official delegates from the American Library Association but also of the difficulty encountered by IFLA Committee chairmen in identifying the appropriate committee/subcommittee within the American Library Association with which to communicate. Consequently, at the request of the RTSD Subcommittee, the ALA International Relations Office has informed the IFLA officers and committees of the creation of the RTSD Subcommittee and of its responsibility in insuring that appropriate attention be given to matters "concerned with the international aspects of such activities as acquisitions, cataloging, classification, preservation of materials, and the development and coordination of library resources."

The RTSD Subcommittee, recognizing the implications of IFLA activities beyond those of its own interests, has transmitted the following resolution to David H. Clift, Executive Director of the American Library Association:

That the official, voting delegate of ALA to IFLA be directed to collect all resolutions presented and endorsed by IFLA delegates and that the resolutions be referred to appropriate ALA Divisions and/or their Subcommittee on International Relations as soon as possible following the IFLA Session.

It is the hope of the RTSD Subcommittee that, should this introductory report be considered informative, a series of similar reports on the "Internationalizing of RTSD" may appear in LRTS.
REFERENCES

3. Ibid., p. 1189-1190.
8. Letter to Anthony Thompson, Secretary-General, IFLA, from David G. Donovan, March 12, 1969. (Similar letters sent to other officers and chairmen.)

APPENDIX

IFLA
International Meeting of Cataloguing Experts
Copenhagen
1969

For Information and Publication

At its meeting in Frankfurt, August, 1968, the IFLA Committee on Uniform Cataloguing Rules passed the resolution that a meeting of cataloguers should be organized to review progress since the International Conference on Cataloguing Principles, Paris, 1961, and to consider problems arising from the Shared Cataloguing Program. This resolution was then adopted by the IFLA General Council.

The Council on Library Resources, Washington, D. C., has made available a substantial grant to enable such a meeting to take place: the International Meeting of Cataloguing Experts will be held in Copenhagen from 22-24 August, 1969, prior to the IFLA General Council Session.

The purposes of the meeting are to review cataloguing developments and to examine the prospects of cataloguing advances through standardization and mechanization; and in this connection, to consider the national bibliographies, the Shared Cataloguing Program, and the production of cataloguing data in machine readable form. The aim will be to arrive at conclusions of practical value which will further international uniformity in cataloguing.

The meeting will be limited to about forty participants and will take place in a new hotel on the outskirts of Copenhagen. The participants will include cataloguing experts known for their work in relation to the subjects under discussion, delegates selected by library associations or national cataloguing committees, representatives of selected national bibliographies and of regions of the world not otherwise included. It is to be a working meeting: documents and papers relating to the subject matter will be circulated in advance to participants and will serve as a basis for discussions; participants will be given every opportunity to relate their national experiences and to express their own views.

The arrangements for the meeting are in the hands of an Organizing Committee, which met in London in March to plan the programme and set up the organization.
Preparations are now well under way, and the Organizing Committee is confident that there is every prospect for a useful and successful gathering of cataloguers.

The Organizing Committee welcomes this opportunity to acknowledge the generosity of the Council on Library Resources which has made this new venture towards international co-operation in cataloguing possible.

Organizing Committee, International Meeting of Cataloguing Experts, Copenhagen, 1969.

A. H. Chaplin, British Museum, Chairman.
J. C. Downing, British National Bibliography, Secretary.
F. G. Kaltwasser, Bayerische Staatsbibliothek.
R. Pierrot, Bibliothèque nationale.
Eva Verona, Chairman, Yugoslav Cataloguing Committee.
Barbara Westby, Library of Congress.
Dorothy Anderson, British Museum, Organizing Secretary.

Issued by: Organizing Secretary,
c/o Department of Printed Books,
British Museum, LONDON, W.C. 1,
May, 1969.
STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Act of October 23, 1962; Section 4369, Title 39, United States Code)

1. DATE OF FILING
   September 30, 1969

2. TITLE OF PUBLICATION
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3. FREQUENCY OF ISSUE
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   EDITOR (Name and address)
   Dr. Paul S. Dunkin, Rutgers-The State University, New Brunswick, New Jersey 08903

   MANAGING EDITOR (Name and address)
   Dr. Doralyn J. Hickey, School of Lib. Science, Univ. of N. Car., Chapel Hill, N. C. 27514

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   of total amount of stock. If not owned by a corporation, the names and addresses of the indi-
   vidual owners must be given. If owned by a partnership or other unincorporated firm, its name
   and address, as well as that of each individual must be given.)
   NAME
   American Library Association

   ADDRESS
   50 East Huron Street, Chicago, Illinois 60611

8. NONOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWN-
   ING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORT-
   GAGE OR OTHER SECURITIES (If there are none, so state)
   NAME
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    A. TOTAL NO. COPIES PRINTED (Net Press Run)  13,122  12,505
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       1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES
          None
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       3. TOTAL PAID CIRCULATION  11,291  11,354
    C. FREE DISTRIBUTION (including samples) BY MAIL, CARRIER OR OTHER MEANS
       96  81
    D. TOTAL DISTRIBUTION (Sum of C and D)  11,387  11,435
    E. OFFICE USE, LEFT-OVER, UNACCOUNTED, SPOILED AFTER PRINTING  1,735  1,070
    F. TOTAL (Sum of E & F—Should equal net press run shown in A)  13,122  12,505

I certify that the statements made by me above are correct and complete.

(Signature of editor, publisher, business manager, or owner)
(signed) Mrs. Betsy Kate Berrey

Volume 14, Number 1, Winter 1970
RTSD NOMINEES—1970 ELECTION

Resources and Technical Services Division

President (1970–71):
C. Donald Cook, Ontario Universities Bibliographic Centre, Toronto, Ontario, Canada.
Stephen R. Salmon, Bibliographic Products Unit, Xerox Corporation, New York, New York.

Vice-president (President-elect) (1970–72):
Mrs. Jane R. Moore, Brooklyn College Library, Brooklyn, New York.

Director-at-Large (1970–73):

Vice-chairman (Chairman-elect) Council of Regional Groups (1970–71):
Carol Ishimoto, Harvard College Library, Cambridge, Massachusetts.

ALA Council (2 vacancies to be filled) (1970–74):
(1) Rexford S. Beckham, University of California Library, Santa Cruz, California.

(Nominating Committee, RTSD: Mrs. Elizabeth Rodell, Chairman; Murray S. Martin, Mrs. Dorothy P. Ladd, Charles G. LaHood, Jr., Mrs. Janice H. Horn, Carolyn A. Small, Jane E. Stevens.)

Acquisitions Section

Chairman:
Mrs. Roma S. Gregory, Cleveland, Ohio.
Frank Oakes, Southern Illinois University, Edwardsville, Illinois.

Vice-chairman (Chairman-elect):
Howard A. Sullivan, Wayne State University Library, Detroit, Michigan.
Norman H. Dudley, University of California Library, Los Angeles, California.

Member-at-large (2 vacancies to be filled) (1970–73):

Library Resources & Technical Services

(2) John R. Grantier, John Coutts Library Services, Niagara, Ontario, Canada.

Philip Howard, Oakland University Library, Rochester, Michigan.

(Nominating Committee, AS: Murray S. Martin, Chairman; Mrs. Roma S. Gregory, Mrs. Eleanor F. Morrissey.)

**Cataloging and Classification Section**

**Vice-chairman (Chairman-elect):**

Barbara A. Gates, Oberlin College Library, Oberlin, Ohio.

Ann F. Painter, Indiana University Graduate Library School, Bloomington, Indiana.

**Member-at-large (2 vacancies to be filled) (1970–73):**

(1) Mary Pound, University of Texas, Austin, Texas.


(2) Paul D. Berrisford, University of Minnesota Library, Minneapolis, Minnesota.

Ronald Hagler, University of British Columbia School of Librarianship, Vancouver, British Columbia, Canada.

(Nominating Committee, CCS: Mrs. Dorothy P. Ladd, Chairman; Margaret Ayrault, Pauline A. Seely, Kenneth W. Soderland, Paul W. Winkler.)

**Reproduction of Library Materials Section**

**Vice-chairman (Chairman-elect):**

Robert T. Grazier, Wayne State University Library, Detroit, Michigan.


**Secretary (1970–73):**

William C. Roselle, University of Iowa Libraries, Iowa City, Iowa.

Melville R. Spence, University of Oklahoma Libraries, Norman, Oklahoma.

(Nominating Committee, RLMS: Charles G. LaHood, Jr., Chairman; William S. Budington, David G. Nevin.)

**Serials Section**

**Vice-chairman (Chairman-elect):**

Dewey E. Carroll, University of Tennessee Library, Chattanooga, Tennessee.


**Secretary (1970–73):**

Mrs. Evelyn Baker, Ohio State University Library, Columbus, Ohio.

Duane W. Fenstermann, Luther College Library, Decorah, Iowa.

(Nominating Committee, SS: Mrs. Janice H. Horn, Chairman; Mrs. Margaret Marquart, Rolland E. Stevens.)

*Volume 14, Number 1, Winter 1970*
PROPOSED AMENDMENTS TO THE RTSD BYLAWS

Because of changes in the ALA Bylaws regarding organizational membership and because of the change of the name of the official journal of the Association from ALA Bulletin to American Libraries certain changes need to be made in the RTSD Bylaws. Please study the changes below and be prepared to vote on them at the membership meeting of the Division on Friday, July 3, 1970.

Article IV. Membership.

Sec. 4. Dues, rights, and privileges.

Present wording of the first two sentences:
All members of the Division have the right to vote and are eligible for membership in any one or more of the sections. Only personal members have the right to hold office.

Proposed wording of the first two sentences:
All members of the Division are eligible for membership in any one or more of the sections. Only personal members have the right to vote and to hold office

Article V. Meetings.

Sec. 5. Votes by institutional members.
Delete.

Sec. 6. Quorum.
Renumber as Sec. 5.

Article XIV. Notice by mail.

Present wording:
Publication of notices in the Division’s journal or in the ALA Bulletin is considered sufficient to fulfill the requirement of notice by mail.

Proposed wording:
Publication of notices in the journal of the Division or the Association is considered sufficient to fulfill the requirement of notice by mail.
Because of changes in the ALA Bylaws regarding organizational membership, and because of the change of the name of the official journal of the Association from ALA Bulletin to American Libraries, certain changes need to be made in the Bylaws of the Sections of the Division. Please study the changes below and the ones published on p. 290 of Library Resources & Technical Services, v. 13, no. 2, Spring 1969. These will be voted upon by the members of each section at the membership meeting on Friday, July 3, 1970.

Because the text of the section bylaws is almost identical, the Acquisitions Section bylaws changes are printed below. The same changes are proposed for the bylaws of the other three sections.

Article IV. Membership

Sec. 3. Dues, rights and privileges.

Present wording of the first sentence:

All members of the Section have the right to vote, but only personal members have the right to hold office.

Proposed wording of the first sentence:

Only personal members of the Section have the right to vote, and to hold office.

Sec. 5. Votes by institutional members.

Delete.

Sec. 6. Quorum.

Renumber as Sec. 5.

Article X. Notice by Mail.*

Present wording:

Publication of notices in the journal of the Division or in the ALA Bulletin shall be considered sufficient to fulfill the requirement of notice by mail.

Proposed wording:

Publication of notices in the journal of the Division or the Association shall be considered sufficient to fulfill the requirement of notice by mail.

Reproduction of Library Materials Section

Article IX. Other Committees.

Sec. 1. Standing and annual committees.

(d) Individual committees.

Delete: Copying Methods Policy and Research Committee.

Insert: Reproduction of Library Materials Policy and Research Committee.

*This is Article XI in the CCS and SS Bylaws.

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IN THE MAIL: REPRINTING

In Lending to Reprinters: a Policy Statement of the Reprinting Committee, as published in Library Resources & Technical Services, Fall 1968, p. 455-456, several lines were omitted from the first full paragraph on page 456. This paragraph should have read as follows:

The philosophy behind lending materials for edition reprinting and microfilm publication is basically the same. However, it is recognized that the economics of these two forms of publication are different. Since it is impossible to know or estimate how many potential copies would be produced by microfilm publication, it seems reasonable that a similar fee should be charged for both forms of reproduction. While no significant income should be sought by the lending library, it is felt that suitable fees to recover costs should be charged.

—Alfred H. Lane, Chairman, Reprinting Committee.

CORRECTIONS IN COMMERCIAL PROCESSING DIRECTORY

In the Directory of Commercial Processing Firms appearing in the Spring 1969 issue of Library Resources & Technical Services the following changes should be made. The compiler regrets the error in information.

(1) Documentation Incorporated has changed its name to Leasco Systems & Research Corporation. It offers neither cards nor a book processing service but it does produce book catalogs by computer printout or by camera copy and photo-offset. The library customer supplies its own cataloging on cards to the company.

(2) Documentation Incorporated (Doc Inc.)

Leasco Systems & Research Corporation

4893 Rugby Avenue
Bethesda, Maryland 20014
Telephone: (301) 656-9500
Began cataloging service: 1965.
Cataloging
Library furnishes its own cataloging on cards
Book catalogs
Computer produced in upper and lower case, or produced by camera copy and photo-offset
Price
Dependent on library's specifications
Delivery time
Dependent on library's specifications
Supervisor of cataloging
Librarian
Visited 1967

Library Resources & Technical Services
ERTC/CLTS ABSTRACTS

The following abstracts are based on those prepared by the Clearinghouse for Library and Information Sciences of the Educational Resources Information Center (ERIC/CLIS), University of Minnesota, 2122 Riverside Avenue, Minneapolis, Minn. 55404.

Documents with an ED number may be ordered in either microfiche (MF) or hard copy (HC) from ERIC Document Reproduction Service, National Cash Register Company, 4956 Fairmont Avenue, Bethesda, Maryland 20014. Orders must include ED number and specification of format desired. A $0.50 handling charge will be added to all orders. Payment must accompany orders totaling less than $5.00. Orders from states with sales tax laws must include payment of the appropriate tax or include tax exemption certificates.

Documents available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151 have CFSTI number and price following the citation.


Institution (Source): Infornics, Inc.

Covers January 1967 through September 15, 1967, the period of Task One of NELINET. The primary object was to set up procedures and programs to build a catalog data file for the center. The secondary task was to set up procedures to selectively extract bibliographic data from the catalog data file and output this data in the form of catalog cards, book spine labels, and book pocket labels. The system is designed to be compatible with the Machine Readable Cataloging (MARC) system.


Institution (Source): Infornics, Inc.

The New England Library Information Network (NELINET) entered the pilot project stage late in 1967 when the University of New Hampshire became the first member of the network to be connected to the processing center in Cambridge, Massachusetts. The five other New England state university libraries were ready to be connected at the time of this report. The report focuses on (1) systems analysis and program planning, and (2) services available under the pilot operation. Section one is an introduction and summary. Section two covers initial work with catalog data file searching. Section three deals with acquisitions processing. Section four is a demonstration of services carried out in connection with the pilot operation.

Institution (Source): Informatics, Inc.


Included are acquisitions flow charts; a current operations questionnaire; an algorithm for splitting the Library of Congress call numbers; analysis of MARC II format; production problems and decisions; operating procedures for information transmittal; compression word coding techniques; and sample cards and labels.


Sponsor: Council on Library Resources, Inc.

MARC (Machine Readable Cataloging) records were distributed for some 16,000 titles in the pilot phase from November 1966 through June 1967 and for additional titles in the following fiscal year while the project was in transition to an operational stage. By June 30, 1968, approximately 50,000 records had been distributed to the participants for use in the production of book catalogs, catalog cards, book selection notices, and other library tools. This final report contains a detailed description of the MARC pilot system, including the tape format, character sets, bibliographic codes, and input procedures. An analysis of the cost of production during the pilot period, as well as brief summaries of the computer programs used, are provided. The new MARC system which evolved from work carried out in the project and which is used for the MARC Distribution Service is also described.


Sponsor: National Bureau of Standards (DOC), Center for Computer Sciences and Technology.

The result of a study of a set of existing and proposed catalogs of computer programs and some related material. It discusses the entries used in current catalogs and recommends a standard format usable in a comprehensive, publicly available catalog. Conventions are proposed for recording in machine-readable form the various components of entries.


Sponsor: Office of Naval Research.

While the program is primarily designed for counting strings of character-oriented data, it can be used without change for counting any items which can be represented in an integral number of characters. Counts may be obtained simultaneously at several levels of detail. Both printed outputs and outputs for further computer processing may be obtained, and a variety of summary and detailed outputs are available.
The program, titled FRONCY, is written in the Fortran IV language and was compiled and run on the IBM System/360 using Fortran IV (G) and the System/360 Operating System. It may not compile or run under other Fortran systems. The program is extensively parametrized to allow its efficient use on computers with varying amounts of immediate-access storage and input/output equipment. It covers the purpose and usage of the program and also describes its organization and internal operation.


Institution (Source): Northwestern University, Vogelbock Computing Center.


TRIAL allows for: (1) the creation and maintenance of a master file, (2) indexing on words designated as "key" words or, alternatively, on every word in the text, excluding those common terms that are user supplied as a “stop” word list, and (3) computer retrieval and printout of entries that satisfy a user search command. The system is designed so that any one or any combination of the above features can be achieved through one computer run with proper control cards. The system is especially adaptable to large masses of bibliographic data where either selective bibliographies or various forms of indexes are desired.

Boylan, Merle N., and others. Automated Acquisition, Cataloging, and Circulation in a Large Research Library. May 1968. 94 p. CFSTI UCRL-50406. MF $0.65, HC $3.00.

Institution (Source): University of California, Livermore, Lawrence Radiation Laboratory.

Describes procedures now in use in the library at the Lawrence Radiation Laboratory, Livermore. A broad view of the automation is in the first section, where system concepts and master data files are discussed. Subsequent sections fill in the details, describing the individual operations in terms of flow charts, tape records, and input-output formats. Printed catalogs for books permit access by author, title, subject, and call number. Those for documents index by personal author, corporate author, title, subject, contract number, report number, and accession number.

Brandhorst, W. T. Data Form and Availability and the Design of Computerized Retrieval Systems Dealing with Bibliographic Entities. 1969. 39 p. ED 027 922. MF $0.25, HC $2.05.

Activity in this area has been independent and autonomous. This is now giving way to cooperation, standards, and a rigorous rational analysis of the traditional raw materials and processes of librarianship. There is a genuine rapprochement between librarians and computer specialists, resulting in a scientific approach to the problems posed. The design of systems dealing with bibliographic data must respond to pressures generated by the structure of the data itself, as well as to inter-system and user requirements. This is a critical period for library automation, for the standardization of machine input records, and for the design of retrieval systems dealing with these records. Decisions made today will affect the access to bibliographic data for decades to come.

Burgess, T., and Ames, L. LOLA: Library On-line Acquisitions Sub-system, Volume 14, Number 1, Winter 1970
After an overall study of the Technical Services System, a detailed study was made of work in the Acquisitions Department, and the Telecommunications Control Program was developed for the on-line system. The Acquisitions System uses the IBM 1050 typewriter terminal with paper tape reader and paper tape punch. Topics discussed in this report include the overall design of the Technical Services System and the Acquisitions System design.

Cuadra, Carlos A. A Study of Relevance Judgments. 1968. 12 p. ED 027 921. MF $0.25, HC $0.70.

During the two-year Relevance Assessment Project, fifteen studies were designed and carried out with over 500 subjects used as relevance judges. The subjects were librarians, information specialists, library science students and faculty, and graduate and upper division students in psychology. Materials for judging were selected for subjects according to their interests and backgrounds. Results of the many experiments conducted indicate that relevance judgments can be influenced by many factors including (1) the skills and attitudes of the judges used, (2) the documents and document sets used, (3) the particular information requirement statements, (4) the instructions and setting in which the judgments take place, (5) the concepts and definitions of relevance employed in the judgments, and (6) the type of rating scale or other instrument used to express the judgments. Findings indicate that relevance scores must be used with caution for system evaluation.


Institution (Source): Defense Documentation Center for Scientific and Technical Information.

Contains 249 annotated references grouped under two major headings: Time Shared, On-Line and Real Time Systems, and Computer Components. The references are arranged in accession number (AD-number) sequence within each heading. Four indexes, AD-Numeric, Corporate Author/Monitoring Agency, Personal Author, and Contract, are appended.

A DDC Bibliography on Computers in Information Sciences. Volume II. Information Sciences Series. October 1968. 297 p. CFSTI AD 679 401. MF $0.65, HC $3.00.

Institution (Source): Defense Documentation Center for Scientific and Technical Information.

Contains 239 annotated references grouped under three major headings: Artificial and Programming Languages, Computer Processing of Analog Data, and Computer Processing of Digital Data. The references are arranged in accession number (AD number) sequence within each heading. Four indexes, AD-Numeric, Corporate Author/Monitoring Agency, Personal Author, and Contract, are appended.

The information sciences arise from the dependence of the modern world upon records, and therefore upon means to facilitate discourse. Such means range from the physical to the conceptual, but all entail aspects of language, therefore they must all involve social activities, explicitly or implicitly. This excludes purely physical events on the one hand, and private mental activities on the other. The main divisions of information sciences are related to those of semiotics (documentation to semantics and pragmatics, computation to syntaxics and pragmatics, signalling and reprography to pragmatics). However, they have no useful common principles or theories, but are a federation of various techniques working within the wider field of management (in its widest sense) to facilitate discourse. To give mutual assistance towards this end they require a reasonably unambiguous common terminology.

Fried, J. B., and others. *Index Simulation Feasibility and Automatic Document Classification*. October 1968. 25 p. CFSTI PB 182 597. MF $0.65, HC $3.00.

Index simulation was studied in general for various types of indexes, and in depth for the simulation of an inverted coordinate index to a document collection having a specific distribution of maximum postings per term. The two principal lines of activity included (1) the collection of real-world data, and (2) actual index-model programming, for which two preliminary simulated programs were written and made operative. It is concluded that an inverted index can be simulated effectively, but more work must be done to ascertain the feasibility of a general index simulation model. The automatic classification model classifies documents by reading succeeding parts of a document only to the point at which classification of the document into one or more categories is achieved. The report recommends that (1) further work on a large scale be conducted on an index simulation model, and (2) the automatic classification model become operational so that it might be compared to other existing and proposed systems.


What does a large research library do when its catalog shows signs of serious deterioration? The Main Public Catalog of the Research Libraries of the New York Public Library has nine million cards, some of which date back to 1857. Major conclusions and recommendations of the study are that (1) the catalogs of the Research Libraries of the New York Public Library be divided chronologically as soon as possible; (2) the present (or retrospective) Public Catalog be reproduced photographically in book form; (3) the future (or prospective) catalogs be produced in a combination of card and book form from a store of machine-readable data; and (4) a Central Serial Record be created to contain acquisition information, cataloging and holdings data, and bindery records for all serial publications in the Research Libraries.

A combination of three separate reports (1965, 1966, and 1967) prepared in reply to a UNESCO questionnaire. Not intended to cover all bibliographical services in the United States; however, it is hoped that they will give an impression of the variety of activities as well as suggest to the user many valuable sources in his area of interest.

Annotations.


Institution (Source): System Development Corporation, Dayton, Ohio.

Sponsor: Aerospace Medical Research Labs, Wright-Patterson AFB, Ohio.

Describes how vocabulary and thesaurus techniques can be applied to a user-oriented computerized data-handling system. An analysis of the specialized problems associated with the development of vocabularies and rules for regulating their usage. Consists of glossaries of action verbs and nouns accompanied by appropriate rules of usage and cross-reference indexes of acceptable terms and their synonyms. All the terms contained in the vocabularies are clearly defined and are mutually exclusive. Care was exercised to avoid selecting terms that had restricted usage, so they would be useful in a wide range of aerospace systems. The vocabularies and rules for usage should, with modifications, be applicable to any data base containing aerospace human factors data.


Institution (Source): Indiana University Graduate Library School.

Sponsor: Office of the Chief of Engineers (Army), Washington, D. C.

Phase I of an investigation of the Federal Library Committee, Task Force on the Role of Libraries in Information Systems, in federal agencies based in the Washington, D. C. area which deal with scientific and technological information within the last ten years. These topics in the literature are examined: definitions, functions, objectives, organization, financial base, services, personnel, and the user. Analysis of the data reveals that the library is a major element within a more comprehensive network or system and that the nature of information handling has become so complex that no one element can hope to provide total service and control.

Saracevic, Tefko. The Effect of Question Analysis and Searching Strategy on Performance of Retrieval Systems: Selected Results from an Experimental Study. May 1968. 12 p. CFSTI PB 178 498. MF $0.65, HC $3.00.

Institution (Source): Case Western Reserve University, Center for Documentation and Communication Research.

This experiment used five index languages to form nine different index files to the same collection of documents. Each index term was treated as an independent English term, and as a coded entry in a faceted-type thesaurus which specified relationship between terms. The performance effect of the thesaurus was then tested enlarging the question terminology with and without use of the thesaurus. Six levels of search statements were thus formed for each question, which was then searched at all six levels over each of the nine index files. The analysis indicates that (1) enumeration of all relevant search concepts is tedious but necessary; (2) thesauri, as constructed today, do not seem to be powerful tools for term analysis; (3) even a very elaborate question analysis cannot avoid the problem of the inverse relationship between relevance and
recall; and (4) information systems need to have designed into their operations elaborate procedures and a large capacity in terms of people, costs, time, etc., for the handling of questions.

Syner, James C. *A Computer Based Biomedical Information System. I. Logic Foundation and Techniques.* October 1968. 69 p. CFSTI AD 681 893. MF $0.65, HC $3.00.

Institution (Source): Army Medical Research and Nutrition Laboratory, Denver, Colorado.

System was designed to service the needs of physicians engaged in patient care and clinical research, and scientists engaged in laboratory research. The system embraces information collection, storage, retrieval, analyses and display. The principal goal is to place these functions under the maximum degree of automation possible with existing hardware-software capabilities. At the time of this report the status of the system is best characterized as "semi-automatic." A total biomedical information system to service a complex medical facility will necessarily evolve through several generations of hardware-software alterations. Progress is dependent upon support and participation from the professional staff, including both physicians and scientific investigators.


Sponsor: National Science Foundation.

The desired end product of this study is the development, checkout, and refinement of a set of guidelines for use by information system managers. The objective of this initial eight months' effort was threefold: (1) to identify the variables, criteria, and system management features of concern and to classify and relate them, (2) to structure a preliminary version of an integrated system management guide, and (3) to pretest the system management tool by selecting and analyzing alternative information systems.


Institution (Source): Engineering Index, Inc.

Sponsor: National Science Foundation.

Objectives of Engineering Index were to (1) determine the need for a planning capability, (2) blueprint a mechanism to accomplish planning, and (3) recommend priorities requiring planning attention. Recommendations for improved operations include: (1) a Planning Advisory Committee; (2) a full-time position of Manager, Planning and Research Division; (3) a grant proposal for submission to the National Science Foundation (NSF) (which should include support for the ongoing input into the computerized data base for plastics and electrical-electronics engineering, publication of the plastics monthly bulletin, further development of the User Participation Program, experimental work with the Mohawk Data Recorder, and writing of conversion programs for the IBM 360 computer); and (4) another grant proposal to NSF to cover a marketing study; evaluation of the pilot project; research into language, categorization and indexing problems; and the development of programs for effective file partitioning, computer representation, and console display of the indexing and categorization structure, and Selective Dissemination of Information.

*Volume 14, Number 1, Winter 1970*

This is an annotated bibliography, arranged in a typically British classified sequence, of 404 items from the monograph, periodical, and report literature on library automation in English for the period from January of 1964 through December of 1967. The compilers state that it is a comprehensive, but not exhaustive, guide to this literature with a full list of other bibliographies on the subject, and a selective list of items in the closely related areas of computer hardware and software, information retrieval, and reprography. A selected number of items prior to 1964 are also included. In these latter categories the principle of selection is simply that the items included are ones that the compilers themselves have found useful.

This principle of selection, which presumably also operated in the selection of the items on library automation, severely limits the usefulness of this bibliography. Other users have other purposes. While they will be able to use this publication as a guide, they will not be able to rely on it as covering the entire field; and not knowing on what basis items have been included or excluded, they will have to re-search the entire literature. This is especially true, for example, in the listing of reviews of monographs where generally only one review, and not necessarily the most detailed or critical one, is cited. A comprehensive listing of reviews would have been of real value; a listing of one review is of almost no value.

The coverage of the periodical literature is, for the most part, satisfactory but then these are primarily items that can be readily located through Library Literature and/or Library and Information Science Abstracts; the coverage of the report and other near-print literature, which is difficult to identify and locate, is far less satisfactory. One periodical article and two reports on the automation of library activities at Johns Hopkins University are cited, but several useful mimeographed reports which had more limited distribution are not.

The selection and annotation is also lacking in critical awareness and evaluation. In this field many articles are written and many reports are distributed which describe a project’s expectations rather than its accomplishments and later information reporting its accomplishments is not readily available. This fact should be taken into account in the compilation of a bibliography and items which overstate or misrepresent a project’s actual accomplishments either ought to be excluded altogether, or at least commented on critically in the annotations. Cayless and Potts do neither. For example, several items on the Columbia-Harvard-Yale Medical Libraries Computerization Project are listed but there is no indication that this project has been terminated and that its actual accomplishments were negligible.

Generally in compiling a retrospective bibliography an initial cut-off date is used when there is some logical reason to do so. Recency of information may be an important factor or an important discovery, event, or invention may mark a turning point in research. In library automation 1964 represents no such turning point and it is doubtful that recency of information is as important as accuracy of reporting and lack of exaggerated claims. There are many pre-1964 items not cited which are of far greater impor-
tance than many of the post-1964 items cited.

It is always frustrating, but especially so in a bibliography, to find mis-spellings and other careless minor errors. Unfortunately this bibliography contains a number of such errors of which the most peculiar is undoubtedly the relocation of the 1964 New York World's Fair in Chicago.

On the whole this bibliography is useful primarily as a partial reading list and review guide which supplements and updates slightly, although it does not replace, Lois McCune and Stephen R. Salmon's "Bibliography of Library Automation" (ALA Bulletin 61:674-94, 1967). Its personal usefulness principle of selection, inadequate coverage of some forms of the literature, uncritical annotations, limited time coverage, and minor errors all combine to make it unsatisfactory for anything more.

A full-scale critical definitive bibliography on the subject of library automation is still much needed. Unfortunately Cayless and Potts have not provided it.—Norman D. Stevens, Associate University Librarian, University of Connecticut, Storrs, Connecticut.


These proceedings represent a bilingual institute held for the purpose of enlightening administrators and managers with respect to the glories and pitfalls of library automation. The whole procedure of library automation has been covered from beginning planning to actual case studies of several projects. Wise advice based on sad experience abounds. System analysis considerations, and problems of staff education and personnel accommodation receive the most attention. Automation is viewed from the manager's aerie. This was a tutorial rather than a research conference, so that pains were taken to make the material clear to beginners. No new ideas appear, but existing practice is explained rather well. The whole tone is one of cautious optimism, a welcome relief from some of the blatant and unsound propagandizing that characterized similar tutorials a few years back.

Paul Fasana covers the subject of systems analysis and gives a functional description of the computer. Rosario de Varennes discusses the use of the computer at Laval University. Joseph Rosenthal gives an interesting summary of the planning for automation at the New York Public Library. John Williams of McGill University discusses the administrator's responsibility in preparing for automation. Richard De Gennaro describes Harvard's experiences to date with automated procedures, while Ben-Ami Lipetz discusses management considerations in evaluating library automation and tells briefly of the work at Yale.

De Varennes and Williams delivered their papers in French. Somehow "le oiseaux matinal" is more glamorous for "early bird satellite," and "le stockage" or "emmagasinage" for "computer storage" than the English terms! There are French abstracts for all papers in English and English ones for all papers in French. Questions were answered in whichever language they were posed. The best summary of
the conference is probably that of De Gennaro (p. 156).

Of necessity, there is some overlapping and repetition, which serves to reinforce the points made. Fasana is justifiably dubious about computer languages and techniques now being more or less haphazardly applied to library purposes. "Haphazardly" is used because the languages and techniques are usually what computing centers happen to have or what scientists, who were the early experimenters, preferred. However, during the past three or four years a whole new area of computer applications to the needs of the various fields comprising the humanities has sprung up. New methods, new compiler languages and new techniques have been applied and developed, particularly with list programming languages and computer graphics, some of which have application to library activities and might be candidates for improved methods in library automation. All the speakers emphasize that the automation field is by no means mature and changes are the rule rather than the exception.

This Institute report gathers in one place most of the sound current thinking on library automation. Many other conferences of the type will probably be held as more and more libraries begin to plan and prepare for automation. It scarcely seems advisable to publish proceedings of all of them unless radically new ideas are forthcoming or unless enough experience (5-10 years) has accumulated for a significant evaluation to be made. Tutorial conferences are essentially a vehicle for developing group enthusiasm and coherence. Much of their content is readily available in the literature and can be reached with a good bibliography. The addition of such a bibliography would have been a welcome asset in this report.

The format of the report is mimeographed text in paperback. Typographical errors mar the English part.

The reviewer was not adept enough to catch any in French. The price appears reasonable.—Phyllis A. Richmond, School of Library Science, Case Western Reserve University, Cleveland, Ohio.


Seventy United States libraries contributed to the compilation of this valuable list of some 5,500 Latin American titles for the twenty Latin American republics and Puerto Rico.

One-third of the volume (207 p.) is devoted to the holdings of Mexican titles. Argentina and Bolivia rank next with forty-four pages each. The number of pages is not indicative always of the number of titles, for Argentina is represented by 300 titles (102 showing only one issue); whereas the Bolivian listing shows 644 titles with 185 of only one issue.

The arrangement is by country, then by city, and then alphabetically by title.

Frequently titles listed here are not those of newspapers but rather those of magazines or journals and official gazettes because some reporting libraries did not follow the definition included in the original questionnaire. Therefore anyone using this work should not assume that the listings of holdings for titles are comprehensive for even those libraries reporting. It is unfortunate that the various institutions were not informed of the change in guidelines before the work was published so that the reporting could have been comprehensive for all titles listed.

Librarians will find this work an excellent reference tool for locating the holdings on the titles reported here.—Nettie Lee Benson, Latin American Librarian Resources & Technical Services
Collections Librarian, The University of Texas at Austin.


Librarians must be concerned with the design of national automated library systems and should be active participants in the design effort. This volume, an important contribution to this national need, is the author's thesis for the M.S. in Engineering Science submitted to Rensselaer Polytechnic Institute in 1966. One may wonder at the need for Scarecrow Press to publish an unrevised thesis when United Aircraft Corporate Systems Center in Farmington, Connecticut, issued it in different format in 1966; the text has been retyped with a few punctuation changes, a few typos corrected, one sentence was added concerning the ITEK Memory Centered Processor, and a short index added, but no updating was attempted of design logic or factual data and the tables and figures are now less clear than in 1966.

The book is well done in development of the network concept, good on hardware aspects, thorough in treatment of communication traffic loads and communication system design, but, perhaps not surprisingly, it is very considerably weaker in its understanding of library processes. The critical file organization problem is given a plausible solution, the process design for the Regional Centers appears efficient, the National Library Central is assigned reasonable responsibilities, and the planned use of special automated systems is commendable. The ability of any one man to treat equally well all aspects of such a design is impossible; one would expect a large research task force to have contributed to the considerable technical and statistical analyses which are here recorded and form the basis for the design. Mr. Meise is to be congratulated for a major document well written. His achievement is not less for including flaws and a few points for nit picking.

One notes that none of the literature cited is more recent than 1965. Some systems used as design models are defunct, e.g., the Columbia-Harvard-Yale Medical Library Project. The critically important copyright issue is all but ignored. And the controlling element of costs is not developed (costs are merely alluded to on pages 26 and 159-160, and the Telpak rate structure used on page 148 is outdated). There have been substantial developments through EDUCOM, the work of NELINET, and a number of developmental state library networks which constitute major contributions to a refinement of the proposed design and are reported in the Annual Review of Information Science & Technology.

One particular criticism could be leveled at the proposal that public, academic, and special libraries all be integrated through a Regional Center. Rather, the development of academic consortia and mission-oriented special library services may argue the contrary organization: it may be far preferable for there to be a separate layering of each of the major types of libraries with an interchange between these types of library systems at some middle level in the hierarchy of services.

Another substantial criticism is that the fundamental justification for such a large and expensive and intricate national library system is based on the fact that the very large research libraries "tend to become inefficient since the costs rise rapidly and thorough bibliographical searches become impossible." This applies to the large research or university library, yet these libraries are almost completely ignored in the design analysis and in the assumptions presented on pages 126-127. As examples, the largest reasonable
current serial file is figured as 20,000, a maximum of fifty purchase orders outstanding at one time is indicated, and the national system is calculated to provide 90 percent of all bibliographic data and 80 percent of the cataloging data wanted by any library. Furthermore, there is an assumption underlying the system loads, and detailed in the system concept on pages 41-51, that each year the great majority of libraries will weed and send to their Regional Storage Center the equivalent number of volumes of their annual intake!

Such objections should not detract from the overall effectiveness of this study. Acquisition librarians will find some good thoughts contained in the conceptual design for that function. Serials librarians will unfortunately find their materials minimized as part of “thorough service” provided by the national system (see, for example, pages 93-112). Catalog librarians will find the design places major emphasis on decentralized but shared cataloging with Regional Center review for acceptability—a view which seems somewhat utopian but would be of critical acceptance considering the costs of a national automated system. The processing scheme overlooks the urgency most libraries feel in getting materials into the system and it minimizes special local requirements, though Meise in no place indicates that all libraries or all branches or collections in any one library need all work through the national system. There are some good thoughts in the treatment of inquiries for a bibliographic tree and for a search which needs vocabulary determination. The data base storage is well conceived in its two parts of “data retrieval aids,” which include indexes, dictionary and thesaurus, and “the linear file” which is the complete bibliographic citation with system data.

There is much practical wisdom in the statement that “the organizational problems associated with implementing the proposed system are much more complex than the technical problems. Important questions that must be answered include: What agency is responsible for the system design? Where will the funding come from for implementing the system? Who will operate the system? How should operational funds be obtained?” And he believes that the organizational approach will probably be decided on political and funding bases rather than technical factors.

A major conclusion drawn in this study is that “the need for automation in library service is critical since the quantity of information being generated far outstrips the ability of current methods to cope with it.” This may be somewhat overdrawn and it may read like the comment of an engineer, but one can hardly argue the fact that libraries cannot cope with bibliographical controls in the next thirty years by the same method that they have employed in the past one hundred years. Other conclusions are that “current technology is sufficient to permit the design development and implementation of an automated national library system” and that the system requires “a rapid random-access mass storage device with a capacity of over 100 billion characters.” This seems documented given his additional statement that very large memory-centered photodigital stores must still be developed, suitable terminals need development, and of course expenses must be found cost-effective. Meise also concludes that “the proposed system design represents a significant advance in library service and should be implemented as soon as possible.” With the first half of this one cannot disagree if one acknowledges the slowness of existing interlibrary services and the inaccessibility of national bibliographical data in terms of minutes or even hours. And a final conclusion is that the key is not in the hardware but “in the system design

Library Resources & Technical Services
and engineering of an integrated set of hardware, computer programs, search techniques, and operational procedures."

It is to be hoped that librarians will join information scientists, engineers, computer scientists, and others in the effort to develop such systems. For funding to be forthcoming, the nation needs to be convinced that this vast upgrading of library service is essential in the national interest.—David C. Weber, Stanford University Libraries, Stanford, California.


These conference proceedings report an apparently lively meeting consisting mostly of papers by members of the staffs of relatively small libraries which are reclassifying to the Library of Congress system. Although the professional affiliations of all speakers and respondents have been omitted in editing, obviously this is not Cornell reporting on its twenty years of experience in reclassifying to LC. As in any conference, the papers are uneven in quality. The best are those of Christopher Needham on the Dewey Decimal Classification and James E. Gaines, Jr., on financial aspects of reclassification. Other papers cover the Library of Congress and Universal Decimal Classifications, subject headings related to classification, planning and personnel needs for reclassifying, workflow, use of outside contractors, and two papers on automation. Some of the papers badly overwork the first person singular, but most are reasonably objective. Almost all of the moderators’ comments could have been omitted without loss.

Christopher Needham contributes a sparkling defense of the Dewey Decimal Classification, bringing up points that have been forgotten during the long controversy over implementation. The commentary on this paper is a shining example of how not to write, consisting of unsubstantiated, sweeping statements reflecting a strong bias.

Elton Shell, writing on the Library of Congress Classification, makes that system seem more inflexible than it actually is. The recent radical changes resulting from the process of classifying in class K have certainly created relocations to end all relocations. No mention has been made of the use of Title II-C Shared Cataloging cards as a source of rapid LC classification.

Harry Dewey’s commentary on subject headings is good, especially in its treatment of the rationale behind cross-references. Unfortunately, his paper descends to a polemic toward its end.

Jean Perreault’s examples from the Universal Decimal Classification are taken from one of its best expansions (class 6) or are derived from implementation of the system with the auxiliaries of the faceting procedure. The latter will work well with any classification and probably would be best with Bliss. Since UDC numbers can be added to the MARC II format, this system may yet come ready-made with LC cards. Perreault continues to cite Perreault when referring to ideas originally put forth by Cutter, Pettee, Prevost and a few others.

Desmond Taylor’s paper on the actual process of reclassifying outlines a system that would be suitable for a library not very fussy about quality. Apparently original classifying (not cataloging) is to be done from the card and not the book in cases where the Library of Congress has not provided a number—and by clerks at that. In

* * *
contrast to the tenor of the paper, LC subject headings have changed since 1954 (Insane, Hospitals and Children, Abnormal and Backward come to mind), and are still changing all the time. The "quaint protocols" of name, subject, and title in filing take on a less than quaint appearance when a catalog has thirty or forty drawers under the heading "U.S." Later speakers tell Taylor why the accession number should be retained. The moderator for this paper comes up with two beautiful examples of changes in LC class numbers.

The paper of James E. Gaines, Jr., on the costs of reclassification is excellent and will stand comparison with that of Jennette Hitchcock in the 1966 Institute on the Use of the Library of Congress Classification. Gaines' concern over the naiveté of some of those switching to LC has been shared by personnel at the Library of Congress and evoked the paper by William Welsh cited by Perreault (p. t86). Several papers in the conference, including Gaines', show confusion between classification of a series as separates (a run of monographs with a series entry to draw them together) and as a serial (the series treated as a set like any other serial, with or without analytics for individual volumes). The moderator's comments are based on a preference for standards considerably below those of Gaines.

The most interesting feature of David Batty's contribution on workflow is the description of the reclassification adventures of the Birmingham (Eng.) Reference Library.

Lawrence Buckland briefly and succinctly covers the factors involved in getting a contractor and warns against precipitate action, while Robert Freeman, in tackling trends in bibliographic data processing, drops a veiled hint to the effect that in planning, the possibility of automation in the near future should at least be considered before committing funds for reclassification.

The last contribution, by Thomas Cales, is a logical discussion of a facet formula for classification, as a prerequisite to use in a computer. In the summing up, Perreault correctly points out that the cost of reclassification depends on decisions made as to what level of quality is desired in the end-product. The reviewer would have added that with low standards, the job is scarcely worth doing.

The conference probably succeeded in its purpose, which was to expose the subject of reclassification and examine it from all sides. Reading between the lines, it is rather apparent that it is the implementation of a classification system and not the system itself that causes difficulty. The papers of the various speakers do not inspire confidence that the Library of Congress will be implemented any better than was the case with Dewey. Perhaps Freeman is right: one should seriously think about what automation can do before undertaking anything so drastic.—Phyllis A. Richmond, School of Library Science, Case Western Reserve University, Cleveland, Ohio.
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