

Samuel Lazerow
Chief, Serial Record Division
Library of Congress
Washington, D.C.

SERIAL RECORDS: A MECHANISM FOR CONTROL

Consideration of serials has, to some extent, been pushed aside, allegedly temporarily, as we have struggled for solutions to many other complex library problems. The sheer volume of serial holdings in large research libraries and the enormous resources required to gain control over them have caused administrators to face what sometimes must seem like an intolerable dilemma. They see the need for relieving a deteriorating situation, but they are understandably reluctant to pour funds into what many of them view as a bottomless pit.

At the same time the astronomic rise in the quantity of serial literature in recent years cannot be ignored. Today the reputation of a research library depends on its total holdings, and serials represent a very sizable portion of a research collection. Some major libraries estimate that as much as three-fourths of their holdings are serials, and it has been indicated that in science and technology alone more than 50,000 serials are published currently.¹

It has always seemed something of a paradox to me that concentrated attention to problems of serials controls has been so long delayed at a time in our history when the scientists who are so dependent on them are more and more active. Librarians have been quick to institute acquisitions arrangements that would insure collection of the scientific and technical publications for which the scientists have clamored. Yet one of the greatest disenchantments of the scientific researcher for a very long time has been the lack of adequate control over serial publications. He has not been timid either about expressing his unhappiness as he has repeatedly asked why librarians have not been more concerned about providing easier access to journals and their contents. Serials, therefore, are very much with us and the problems of their control are not going to vanish.

The principal focus of my remarks concerns the essential matter of a recording mechanism for serial literature—the need for this instrument that enables the librarian to tell the user whether a serial publication is in the collections, whether a particular issue has been received, and where it is located. The serial record is the tool that enables the librarian to add or delete titles, watch for missing issues, prepare holding lists, determine when unbound serials should go to the bindery, respond to requests about serials, follow subscription expirations, institute claims, arrange for exchanges, and insure that issues of the title keep coming.²

Librarians have called serial records many things—not all of them complimentary and some not repeatable. A serial record can be defined very simply as a recording device for posting the receipt of incoming serial publications. A serial has been defined by the Library of Congress as “a publication issued in successive parts bearing numerical or chronological designations and intended to be continued indefinitely. Serials include periodicals, newspapers, annuals (reports, yearbooks, etc.), the journals, memoirs, proceedings, transactions, etc., of societies, and numbered monographic series.”³ The National Agricultural Library interprets serials “to include any title issued in parts which is incomplete in the library collection, thus periodicals, annuals, biennials, and even incomplete works-in-parts are considered serials.”⁴ I am inclined to agree with Osborn’s practical definition of a serial as “any item which lends itself to serial treatment in a library.”⁵

There are divergent opinions today about the organization of serials activities in a library. In large organizations the serial functions may be grouped together in one department. It has been argued that this type of organization eliminates duplication of recording, simplifies routines, reduces possibilities for error, accelerates production, reduces communication problems, and eliminates departmental bias. On the negative side there are the factors of expense, space requirements, and the overlapping of purely serials functions with non-serial library activities.

In the three U.S. national libraries—and I have been associated with each one—considerable attention has been given at various times to the location issue. On these occasions administrators have had to consider such questions as these: What are the pitfalls to be encountered and to be avoided with respect to centralization? What procedures should be instituted to prevent duplication of posting in the central serial record and the custodial unit? Is the serial record primarily an acquisitions activity or is it a cataloging operation? Is it something in between these? What are the relationships of the record to other activities of the library?

In the national libraries centralization has been the choice. The National Agricultural Library (NAL) has placed the serial recording function with the catalog and records activity; the National Library of Medicine (NLM) placed serial controls in the acquisitions area of its technical services division. The Library of Congress adopted a comprehensive approach in the early 1940s when it established its central serial record as a section of the then accessions division. Archibald MacLeish described this innovation in his 1942 *Annual Report*: “Perhaps the organizational change of greatest long-range effect is the

establishment of the Serial Record."⁶ In centralizing serials he was responding to one of the central recommendations of a group of advisers known as the "Librarian's Committee," which had been asked to survey operations and recommend improvements. Establishment of a central control over serial literature was a major recommendation of the committee and one of the first to be implemented by the Library.

Since that time the Library has shifted its serial record from divisional to sectional and back to divisional status. Similarly, NAL and NLM today operate their records as independent units. We have all found that staffing and personnel requirements are more easily met in a centralized activity.

While there may be conflicting opinions about location, there is more likely to be agreement on the functions of a serial record. Basically they are:

1. to record serial issues as they are received in the library (preceded, to be sure, by the receiving and sorting routine, a sizeable and complex activity in a large library);
2. to forward or route issues from the central register to various other parts of the library;
3. to provide a serials information service to other library units and to clientele of the library;
4. to prepare the temporary and/or permanent cataloging records for serials; and
5. to place claims with the publisher for missing issues and to take other action necessary to assure completeness of the file.

In my division at the Library of Congress there is a sixth operation—the editing and publishing of *New Serial Titles*, but I shall not discuss this complex activity in this paper. Each of these areas is vital in the control and management of the flow of serials through the library and in the servicing of the literature.

When the Library of Congress began to develop its comprehensive serial record, the functions which this tool was intended to provide were described in the Librarian's *Annual Report* to the Congress for the fiscal year 1942:

When completed, this record will contain an entry for every serial publication received in the Library, exclusive of the newspapers . . . and all non-serial continuations issued in parts, such as in fascicles or loose-leaf form. The information for each title will include a record of current issues received, a complete record of the holdings, source of publication, the location within the Library of current issues received, information regarding volumes bound, the call number of classified holdings, essential historical notes, such as changes in title or publisher, and billing information.⁷

There have been long and involved discussions and several reorganizations in the years since LC's Serial Record began, but by the late 1940s the Serial Record was firmly established in the Library of Congress as an important part of our bibliographical apparatus.

The development of the record was steady, although there were inconsistencies and gaps and frustrations over the years due to a shortage of dollars and manpower. The lesson of experience has taught that no matter

how solid the advance planning, the responsibility can be met only if adequate resources are available.

In the Library of Congress our serial record program is organized roughly around the basic functions already enumerated. Preliminary to the accessioning, of course, is the receiving-sorting activity—an operation that sometimes reaches unmanageable proportions in a large institution. The national libraries have found it expedient to have a variety of ways of grouping material—by language, title, size; color is another possibility.

The basic function of recording incoming serials involves the checking of the title, the noting of changes in titles, as well as the complicated business of tracing successive changes in title in order to make a workable accessioning record. The inconstancy of serials publications constitutes one of the principal problems faced by the staff of any serial record operation. Serials resemble people, and they mirror their activities, sometimes positive, sometimes negative; like people, serials are born, they marry, they multiply, they separate, and they die. The staff must deal with these many varieties of behavior in the daily recording of incoming issues.

This most important work of recording involves much more than the mere posting of receipts into the file. There are the basic steps of searching incoming serials against a record of previous decisions and ascertaining whether the library kept the particular serial, in how many copies, what cataloging treatment was given, how the copies were assigned, etc. The real work is to establish what the serial is and where it goes. Obviously, the serial record must be organized to facilitate in every way possible the primary function of registering issues.

The accessioning function brings up the question of the form of entry to be used—should the serial record entry be a quick and dirty entry for purposes of rapid posting, or should it conform to the cataloging rules practiced by the particular library? A serious discussion is taking place today on this question, with many libraries endorsing the concept of listing the serial in the way in which it will usually be requested.

Format is another matter that must be determined here. It is important to choose a format that will guarantee an optimum posting situation as well as provide a workable claiming mechanism. Routing, cataloging, and retention decisions must be clearly displayed in the record and, if the file is divided by date, provision should be made for easy transfer of holdings information.

This raises the question of file division. Should the serial record list holdings from the first issuance of the title up to the present time or should the record be divided into two parts—a current file and a non-current file? I believe the latter arrangement is preferable. The vast majority of incoming items are current; reference consultations in large files are costly, and it is therefore, important to keep the record uncluttered with old entries not relevant to the piece in hand.

Routing is also a basic function because all service divisions are dependent upon it. There exists in most libraries the need to send journal materials to places other than the custodial unit, as in the case of journals needed for circulation among staff and among resident scientists. This requires

the development of a control system over journals in transit, the institution of a simple routing system (pre-prepared slips, perhaps located in the visible file), the indoctrination of personnel in the importance of proper routing, and the prompt return of the literature to the collections. Unless individual serials can be transmitted expeditiously from one location to another, additional copies of a title may have to be acquired, and this of course adds to the cost. It is, therefore, clearly in the interest of the acquisitions librarian as well as the serials reference librarian to cooperate in the solving of routing problems.

One of the principal reasons for the existence of the serial record is the need to have available data with which one can respond to questions about the availability of specific serial issues. These inquiries come in increasing numbers by letter, by telephone, and in person. This past year in the Library of Congress our reference service accelerated to the point where we were required to install additional telephone equipment and special jacks to accommodate it.

The availability of a current, well-maintained serial record in a large research library is invaluable to users of the collections. It eliminates visits to the shelves; it avoids the necessity of searching through unwanted items to find what is desired; and it provides the patron, the cataloger, or the reference librarian with immediate access to information about materials that may be vital to ongoing research investigations.

There has been mention of the growing dependence of the scholar on journal literature. The reference function of the serial record serves this important need. After all, research is valid only if its results are publicly verifiable, and such verification is not possible unless there is convenient and prompt access to the published document. The serial record, through its reference service, assures this accessibility.

The cataloging function is handled in different ways in different institutions. For years the Library of Congress followed the practice of preparing temporary cataloging records in the serial record division, with permanent descriptive cataloging being the assigned function of the descriptive cataloging division.

After several studies and some debate we concluded that there were economies and efficiencies to be realized by combining the two operations, and in 1968, the serials section of the descriptive cataloging division was absorbed administratively into the serial record division. The merger has proved to be wise. Serial record searchers, serial record catalogers, and printed card catalogers (formerly in descriptive cataloging division) have been organized into working teams (by language) so that incoming material can be moved from one person to another with a minimum of duplication of effort. Information is transmitted by the searchers to the catalogers, who then decide upon appropriate entries with a minimum of further searching. A typist assigned to each cataloging team prepares the necessary records. In this way the visible file entry and cross references, the report to *New Serial Titles*, and the information for the printed catalog card are handled in one operation. This group approach has enabled us to move slowly in the direction of preparing printed cards from the first issue of a publication received. We hope

that this arrangement will eventually take clerical work away from the catalogers and that our searchers will profit from the supervision of the catalogers in the team structure. Moreover, the close working relationships developed between the different levels of catalogers have permitted more individual training and instruction, and this has accelerated production.

In serial processing much emphasis must be placed not only on efficient checking techniques but also on development of a sound program for claiming replacement copies and issues not supplied. Since librarians have much contact with serial publications, they are quick to realize how important it is for a research library today to have complete runs of serials. Incomplete serial sets constitute one of the most serious problems the librarian can face. The number of titles which the *Union List of Serials* indicates as being generally complete in large libraries is pitifully small; the number of full sets in almost any given area is inadequate for research needs.

These gaps in holdings cause many problems—inadequate service, binding delays, and increased cataloging costs. If all serials arrived on schedule there would be no need to develop and maintain a follow-up and claiming activity. But because of the many reasons for non-receipt of current serials, there must be some system for insuring the receipt of all issues due and available before they become out-of-print.

My personal philosophy of the serial record function has always included the belief that one of the essential purposes of a serial record is to facilitate the claiming of missing issues. Indeed the necessity for claiming can be viewed as a major reason for establishing and maintaining a serial record. There are some who maintain that claiming can be done from examination of the shelves and the charge file, but in actual practice this is not practical. It is far more satisfactory to use the checking record as the basis for claims to publishers for specific issues of a current subscription or for claims to dealers for items to fill in gaps in the collections.

Some of the most critical problems concern the dwindling stock of old numbers in the face of growing demand. Exchange of duplicates among libraries has helped to ease this situation to some degree. The *Union List* assists acquisition of older issues by pointing out gaps so that libraries can try to fill them.

The claiming system must be as automatic as possible, ideally with claims entered on the basis of each day's checking, supplemented by periodic and systematic scanning of the full record. Claiming should be carried out as a by-product of the daily posting—this is known as "skipped issue claiming." Of course this method does not take care of the situation in which titles have ceased coming altogether.

It would therefore appear essential to arrange for review of the entire serial file at regular intervals to find overdue items. This however, is costly and time-consuming; in a large record, such as that of one of the national libraries, it would require a full-time claiming crew to assure this thorough review on a regular basis. As a consequence, the claiming function in a large serial record is sometimes on a catch-as-catch-can basis.

There are a number of methods for setting up claiming systems—the use of a variety of colored cards to designate frequencies of publications (all of the cards for each color can then be scanned for delinquent issues at specified times in relation to the frequency); attachment of colored signals to the exposed edge of the checking cards, with each color representing either a frequency of publication or signaling the specific time for searching. Tallman has described in some detail the various ways in which colored signals and other devices can be employed in the claiming procedure.⁸

In large and complex serial records, the conventional practice of writing claims becomes time-consuming and burdensome. My experience with manual files has indicated that use of a camera of the photoclerk-family is a far better claiming device. Instead of typing the name and address of the journal and the title and issues desired on a form postal card, it is possible by the photographic system to superimpose the number of the missing issue upon the title and address section of the entry card with a mask bearing a standard message to the dealer. The resulting photoprint then becomes a claim notice that can be slipped into a window envelope and mailed. This photographic procedure raises the production rate (it is possible to do about 120 photoprints an hour) at a fraction of the man-hour cost of the manual method, and the camera, of course, makes no mistakes.

In summary, libraries have a responsibility to see that gaps are filled. In order to assure the completeness and current receipt of all issues, a systematic review of serial record entries should be made at regular intervals, according to some acceptable system. Special forms can expedite the searching and claiming of delinquent issues. Claim post cards or photography can be dispatched quickly and will bring a high percentage of missing items. The result will be more complete and accurate records of serial holdings.

Since serial checking and the other activities involved in serial processing represent a mass operation in large libraries, it is obvious that the choice of equipment must be based on the need to eliminate wasteful effort. In the three national libraries three major types of serial equipment house the national serial records:

1. *The blind or vertical file.* NAL employs this method which involves the filing of 3 x 5 inch catalog cards in catalog trays. This method has the disadvantage of not allowing the user to view a number of entries simultaneously; he must riffle through a number of cards to locate the item desired. It must be explained, however, that NAL has relied on this method primarily because it set as an objective the photographic renewal of its record at least every three years.

2. *The pure visible file.* The Library of Congress follows this method—a method that permits the serial record to do triple duty as a reference tool, a binding record, and an inventory of serial holdings. This equipment is an improvement over the vertical file. It offers an eye-finding system that is quicker for the user than the traditional catalog card file.

3. *The vertical-visible file.* NLM has adopted this method and, as the name indicates, it combines features of the other two types. This tub-like equipment, which has arrived on the market within the last ten years, offers

conveniences in use over the other two types. It is, however, the most costly, and therefore libraries with the pure visible file cannot easily shift to the newer apparatus. Preference for the vertical-visible file is understandable. Entries here are more easily visible, more quickly retrieved, more conveniently extracted and replaced, and more readily expanded.

In recent years there has been interest in the rotary files and in the use of marginal punched cards, but the visible index continues to have the important advantage of being able to accommodate overriding slips. This eliminates the need for frequent retyping of checking records as they become full. In some libraries the rotary files are used to complement the visible files, and Osborn makes the practical suggestion that visible indexes might be used for high-frequency serials and motorized rotary files for low-frequency serials.⁹

Like everything else, recording serial data is going to be affected by automation. There is not time here to go into any detail even about punched card possibilities. Magnetic recording drums with random access have already made some of our current equipment look antiquated, and technical advancements in the decade ahead will certainly bring new equipment ideas that will merit experimentation if the prices are not prohibitive and if cooperative serials programs can be extended.

PROBLEMS

The continuing information explosion, the necessity of constantly changing entries, and the uneven receipt of some titles are among the major problems faced by the serial record administrator. Since libraries of even moderate size face a constant arrearage problem, it is easy to understand the difficulties which large institutions encounter when they attempt to avoid backlogs of unrecorded serials.

To cope with an arrearage that appeared likely to grow to unmanageable size because of staff shortages and rapid staff turnover in the face of rising serial receipts, the Library of Congress mounted a special drive to eliminate its arrearage of unrecorded serials. A combination of techniques was employed: sorting procedures were simplified; special categories were designated to assure rapid separation of masses of incoming pieces; alphabetizing breakdowns were made as easy as possible; production goals were established; and progress reports at set intervals were required. Daily analyses of work records identified progress and pitfalls. An evening shift comprised mostly of university students expedited production. On June 30, 1969, we were able to report "no arrearage" for the third consecutive year—a million and a half serial pieces received and a million and a half pieces processed. Nevertheless, arrearages are a constant dread and staff shortages in vital areas a continuing and threatening problem.

The need for regular, systematic claiming has already been mentioned. Again, any delay in establishing a firm program here is contributing to future problems, not only in the serial record itself but in all aspects of service. The longer we wait to claim, the less success we will have in assuring completeness of our serial holdings.

Organizational and administrative problems often confront the librarian. Lack of space, deteriorating, outmoded, or inadequate equipment, duplication of records, overlapping of functions and responsibilities, lack of established guidelines, failure to understand the full mission of the serial record, and, of course the necessary considerations of money and manpower—all these are factors that can contribute to keeping a serial record in what has sometimes been described as a state of magnificent disrepair.

It is necessary also to include among the problems the question that continues to be asked by administrators as they deal with monumental library needs and limited resources—is there really a need for a serial record?

The idea has been advanced from time to time that it is not necessary to have a written record of the serials coming into a library, that if one wishes to discover what is in the library, it is necessary only to go to the shelves or to consult the charge information. Such a practice, it is alleged, saves one step in the process, both from the point of view of labor and time, and expedites access by a patron to the actual materials. This might have some validity in a perfect world where the publisher never loses an address plate; where the post office never loses or sends off to Calcutta an issue of a journal destined for a library; where the perfect ordering process automatically renews, without fail, every serial title that the research library is supposed to receive; or where subscription agents are infallible in placing subscriptions. However, all of us know that this perfect world does not exist, and it would therefore seem necessary to maintain a checking record in order to compensate for customary failings in people and in organizations. This would seem to argue that the major function of a serial record is the claiming function, and I am inclined to believe that this is true.

There are also those who argue that the proper time to record a library's serials holdings is when the volume is completed and gathered for binding; at that time, it is reasoned, the collator can detect any missing items and the item can then be claimed or otherwise acquired to complete the binding. This thinking, however, assumes another aspect of our mythical perfect world where publishers keep issues in stock indefinitely, always available to libraries to complete their holdings. We know this is not the situation, that publishers' overruns are very meager and that stock is exhausted very quickly.

Moreover, the absence of a written record on receipt of a serial issue can complicate service in numerous and embarrassing ways. Suppose in the Library of Congress, for example, there were no current record of incoming titles or issues. When the White House or a member of Congress telephoned seeking an issue of an unusual foreign journal, the absence of a serial recording device would make it necessary for the telephone attendant to search the shelves to ascertain whether the journal was there; if not, the charge record would have to be checked, and if there were an arrearage of unshelved items, this would have to be examined. Even if all of these investigation could be made immediately and the answer was still negative, the validity of the response would be uncertain, especially if the issue in question were the most recent.

The card catalog was once considered to be the place for detailed statements of serial holdings. Today this is considered awkward and expensive,

at least for live titles, and it is generally recognized that holdings statements belong in a separate file.

The complexity of serials handling resulting from the expanding number of journals, accompanied by the continuing inflationary costs of maintaining quality controls, has led administrators to look for simpler methods that could assure lower costs. Some have gone so far as to advocate the abandonment of all serial controls prior to full cataloging.

While I recognize, of course, that life in the real world requires some kind of economic accommodation, I am convinced that we must explore avenues of possible savings. There are greater advantages to be gained, for example, from more experimentation with simplified cataloging, wider acceptance of standards, and various shortcuts in sorting and checking processes. If we are to give convincing evidence of leadership in this area, we must be innovative, but total abandonment of conventional controls is not an innovation I would recommend.

Because of the staggering statistics of large serial records and the apprehension that serials librarians inevitably feel as they search for the magic formula to guarantee currency in serial records despite the heavy volume and limited staff and funds, we would be well advised to keep in mind the possible remedies that automation can offer. As Hammer has pointed out in an earlier article, it is unfortunate that "the enormity of a library tends to hinder the development of a machine system,"¹⁰ and this fact slows the entrance of the largest libraries into the computer field. The LC serial record, with its 300,000 entries, is a case in point.

Still, positive steps are being taken by the three national libraries. Phase I of the National Serials Data Project has been completed with the Library of Congress as executive agent. Under this program the Library of Congress developed a draft format for recording serial bibliographic data in digital form. This format has been issued by the Library of Congress as *Serials: A MARC Format*.¹¹

The pilot project now being launched by the Association of Research Libraries, under a grant of funds from the National Agricultural Library, represents the next step of the cooperative effort of the three national libraries to build a national data base of serials information. Our objective here is to produce a union list of the live scientific and technical serials held by the three national libraries and to provide data about the characteristics of serials and the effectiveness of various techniques for handling serial information. Policy guidance is being given by the U. S. National Libraries Task Force on Automation and Other Cooperative Services, with support from the Council on Library Resources. The experience to be gained with live science serials promises to be of value to serials librarians as they work toward eventual expansion of a national data base to encompass serials in other disciplines.

Serial networks have been under discussion for over a decade. As Osborn commented in 1955, "The greatest development which can be anticipated in public service is of course the introduction of television facsimile reproduction machines. The day will surely come when the libraries of the country are

linked up in a vast network of these machines . . . when library networks are established serials will represent their principal commodity . . . [and] cooperative programs of collecting, listing, and servicing [serials] will have to be developed on a large scale."¹²

Perhaps one of the most significant benefits to come from the computer age will be the heightened importance of cooperation in our most costly library activities. Certainly serials stand as a major example here. In the manual serial record we have a prime candidate for computer application. The obstacles to machine processing are also present, however. Old records are distorted by years of varying practices by many hands; incomplete or inaccurate entries have not been changed because there was never enough manpower to devote time to the past; editorial cost estimates are fantastically high; the prospect of operating dual systems for a temporary period after automation is not attractive to library administrators; any savings to be gained from automation appear to be hypothetical rather than real, at least in the foreseeable future.

This editing cost problem and its interference with progress in serials automation is sufficiently critical to justify a serious search for compromises that might offer some promise of a solution. Clearly, we cannot afford to accept a policy of despair and allow our serial records to continue to deteriorate further because of lack of funds to put them in some degree of uniformity and editorial excellence. An imperfect solution, of course, is to put the record data as presently listed in machine-readable form. Proponents of this policy argue that it will cost less to edit the tape from the imperfect machine run than to edit the entries before inputting them. The danger here is that one may overlook the high cost of inputting irregular, inconsistent, erroneous, even useless data that will have to be deleted eventually, and the inevitable duplication of costs in reprogramming and correcting the earlier errors. It would seem more logical to look for some cooperative approach that could assure the proper preparation of entries in one master record. All research libraries could then benefit from the product of the edited record when automated techniques are applied. It must be emphasized, however, that this utopian situation cannot be realized without a broad sharing of costs and responsibilities.

It is because of some of these complexities that we hesitate. Yet the technology is here; many professions are using it. They are doing more work and doing it more quickly; it seems clearly in the interest of sound serials controls to move ahead with a cooperative serials systems effort as quickly as collective resources will permit.

At the same time the manual serial record, the basis for any automated system, must be regarded as a vital target for studies in work simplification, organizational improvements, and functional coordination. It may be costly to change our thinking and our processes, but not nearly as costly in the end as will be apathy or delay.

Serials and serial records are not about to go out of style. What is required today in this serials era is the assignment of a high priority to collective attacks on these controversies and obstacles. One of the hopeful

signs is the growing interest of such groups as COSATI, the Council on Library Resources, Inc., the Association of Research Libraries, international bodies such as UNESCO, and the national libraries of the United States. With the endorsement of these groups, librarians will be compelled to press for dynamic serials approaches that will be attuned to today's needs and tomorrow's clientele.

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