

SHARING OF SERIALS
AND ITS ASSOCIATED PROBLEMS

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ABSTRACT

Both the number of published serials and their average price are increasing. On the other hand, increases in libraries' budgets are not even keeping pace with inflation, so libraries are being forced to acquire a decreasing proportion of the total number of serials. On-line data services are retrieving citations more rapidly and more obscure serials are being brought to the attention of library patrons. In order to have access to the growing number of serials published, libraries are showing an increased interest in the cooperative acquisition of serials. However, individual academic libraries are having difficulty in precisely defining an acquisition policy, which is essential for cooperative acquisition. To know the holdings of other libraries, a union list is necessary; but the present union lists of serials need many improvements to be useful for cooperative acquisition. Interlibrary loan systems are necessary in the sharing of serials, but their efficiency is dependent on a number of factors. Publishers are experimenting with various measures to cut the costs of publication; so far libraries have felt no impact from these measures.

LE PARTAGE DES PERIODIQUES ET SES PROBLEMES ASSOCIES

RESUME

Il y a de plus en plus un grand nombre de périodiques disponibles et leurs coûts augmentent continuellement. De plus, le budget des bibliothèques n'augmente pas en proportion avec le taux d'inflation alors les bibliothèques se retrouvent dans une situation où elles doivent diminuer le nombre total de périodiques qu'il y a à commander. Nos circuits de service de données sont maintenant capable de relever des citations plus rapidement ainsi que des périodiques de plus en plus obscure. Afin de satisfaire la demande de nos lecteurs, les bibliothèques démontrent un plus grand intérêt pour l'acquisition coopérative de périodiques. Toutefois, certaines bibliothèques académiques trouvent qu'il est difficile de définir une procédure, ce qui est nécessaire pour l'implantation d'un tel système. Afin de pouvoir prendre avantage de ce système, une liste collective des différents périodiques que possède chaque bibliothèque est nécessaire. Un système de prêt-inter bibliothèque est requis afin de pouvoir partager nos différentes séries de périodiques, toutefois son efficacité dépend de plusieurs facteurs. Les maisons de publication essayent depuis quelque temps déjà de diminuer leur frais sans pouvoir accomplir une réduction considérable pour leurs clients.

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INTRODUCTION

The publication explosion, budget restraints and inflation are all forcing libraries to move away from acquiring and housing all publications their readers might need. One of the alternatives open to a library to provide its patrons with needed materials is the sharing of resources with other libraries.

The purpose of this paper is to present the particular problems associated with serials, especially as regards their acquisition, and related difficulties entailed in the development of a resource sharing environment. The solution to these problems involve a detailed examination of acquisition policy, subscription costs, indexing and abstracting services, on-line data bases and alternative publishing formats.

DEFINITIONS

Serials:

Following the AACR 2 (Anglo-American Cataloguing Rules 1978) a serial can be defined as "A publication in any medium 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".

Resource Sharing:

Resource sharing in its most significant sense implies a partnership in which each member has something useful to contribute and furthermore is willing to do so. In the library literature sharing is referred to as cooperation, and perceived in many different ways, e.g. cooperation in acquisition, interlibrary loan, shared cataloguing and shared storage.

ACQUISITION

Acquisition mainly involves the collection of serials and monographs, in both printed and non-printed forms. It is almost inconceivable for any library to operate without serials in its collection. Because of the current nature of information they contain, they are of particular importance to academic and research libraries. When budgeting for the acquisition of serials, a library has to consider such factors as their proliferation and rising cost of subscription. In addition, serials change title, merge, split, die, etc., and so the library has to face complexities in their handling and processing.

PROLIFERATION

The difficulty in precisely defining serials means that an estimate

of the total number of individual serials currently published worldwide can only be an approximation. However, an attempt to estimate the growth in the number of serial titles in the past ten years is made below by reviewing standard serials statistics.

The 12th edition of Ulrich's International Periodicals Directory (1967-68) listed 30,000 titles. In 1969-70 this listing has increased to 40,000 and in 1977-78 the directory listed 60,000 titles (Table 1). From

<u>TABLE 1. Number of Serials Listed in Ulrich's Periodicals Directory</u>					
Year	1969-70	1971-72	1973-74	1975-76	1977-78
Number of Periodicals	40,000	50,000	55,000	57,000	60,000

the figures of the last 10 years it can be estimated that every year 2000 new serials are being published.

Because the British Library Lending Division in Boston Spa, England has one of the most comprehensive collections of serials, it should be one of the better sources of information on the number of currently published serials. The BLLD in March 1975 listed about 45,500 titles - 2,000 titles more than the last list dated March 1974 (British Lending Library 1975). Most of the increase has been attributed to newly published titles, but part of it may be due to improved coverage of existing titles. The total number of serials currently listed in the BLLD's holdings would be greater had there not been an unusually high mortality rate of serials (over 800 titles) between July 1974 and July 1975.

INDEXES AND ABSTRACTS

Retrieving information from the growing number of serials has increasingly become a problem. Indexes and abstracts, which provide researchers with organized access to the primary literature, have become important reference tools for retrieving relevant information from the massive number of serial publications. Therefore, all academic and special libraries have to allocate part of their acquisition budget for subscriptions to indexing and abstracting services.

The number of these access tools is uncertain. It is of interest to note that in the 1963 Guide to the World's Abstracting and Indexing Services in Science and Technology (National Federation of Science Abstracting Services 1963) 1855 titles originating in 40 countries were listed. The total number of United States entries was 365, and 115 of those were new titles. Since then, in response to the increase in the primary literature many of the existing secondary publications have increased in size and many new services have come into being in order to cover new and often interdisciplinary areas. Approximately 2,500 indexes and abstracts are currently being published in all subject areas and in many languages around the world (Bearman 1978).

ON-LINE DATA BASES

During the past ten years the producers of access tools have started offering additional services, particularly machine-readable data bases. These are available through both commercial and non-commercial vendors. The main impact of computerized data base searching is that more citations are retrieved more rapidly, and more obscure serials from all over the world are brought to the attention of patrons. This in turn is forcing libraries either to subscribe to more serials or to depend on other sources, through interlibrary loan, for access to cited papers.

COST

With the increase in the number of periodicals published by commercial publishers, compared to those produced by professional societies and associations, the average price of serials continues to climb; a rise in the number of translation journals is further adding to this price. Furthermore, there seems to be little prospect of relief from the continuing increase in serial subscriptions cost as the cost of editorial work, postage, paper and printing becomes increasingly more expensive.

The July issue of Library Journal of each year (Brown 1978) is one of the many sources that give an idea of the percentage increase in annual serial subscriptions. The 1978 annual survey of the price of American periodicals indicates that among the different disciplines basic science journals, especially those in physics and chemistry, are by far the most expensive and in 1978 their average price was \$108.22. The children's magazines were the least expensive; their average price in 1978 was \$6.34. The average subscription price of an American periodical was \$24.59 in 1977, an increase of 9.2% over that of 1976. In 1978 the average subscription price of the 3255 titles examined was \$27.58, i.e. a 12.2% increase from 1977.

PROBLEMS OF ACQUISITION OF SERIALS AND RESOURCE SHARING

In recent years library acquisition budgets have not been increasing at a rate even close to the increase in the cost of publications. Therefore many libraries are being forced to acquire a decreasing proportion of the world's serial literature.

Many college and university libraries in the U.S. have reduced their budgets for monographs to an alarmingly low level to compensate for the rising cost of serials, and thus to avoid a major reduction in the number of periodicals to which they subscribe (National Commission on Libraries and Information Sciences 1977).

In anticipation of a very unfavourable budget position during the fiscal year 1976/77, and in order to compensate for the inflation in periodical subscriptions, the Library of the University of British Columbia planned to cut up to 32% of its total periodical subscriptions. To achieve this, the library carried out a journal cancellation exercise in the spring of 1976 and examined title-by-title the existing subscriptions. Based mainly on use and other criteria such as price, foreign language etc., five categories were identified. Category 1, "never to be cancelled" represented 68% of the total journal budget; category 5 was the least used and so the first to be cancelled. Ultimately, the library budget position for 1976/77 turned out to be favourable enough to allow the library to retain the subscriptions for all the categories above 5.

In answer to those problems, libraries are showing an increasing interest in participating in cooperative programs ranging from resource sharing through union lists to various degrees of cooperative acquisition of materials.

COOPERATIVE COLLECTION BUILDING OF SERIALS

For cooperative collection to make sense, the following four conditions are necessary (Gribbin 1974): (1) specializations in participating libraries are to be written down clearly and made known to others; (2) the holdings of a given library are to be readily known in other libraries participating in the program; (3) patrons of one library have to have physical access to the holdings of other libraries; and (4) cooperation is to be generally accepted by the library staffs and by patrons, and these members must give their support to the interlibrary cooperation. The cooperative acquisition of serials means that a participating library's acquisitions will be selective and in coordination with its neighbours; a union list of serials, giving the holdings of all the participating libraries, must be available in all the libraries.

Since academic and research libraries are the major subscribers to serials, the remainder of this paper will refer mainly to these libraries.

ACQUISITION POLICY FOR SERIALS

For success in cooperative acquisitions of serials, it is necessary for each library participating in the program to have an acquisition policy stating its users' field of primary interest, secondary interest and no interest.

Several attempts have been made to devise measures to aid selection of periodicals. Some of the criteria used are: (1) frequency of citation; (2) impact factor; (3) immediacy index; and (4) frequency of use.

The frequency of citation of a journal in other journals has been

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used as a measure of its usefulness and importance. This concept is based on the assumption that the more a journal is cited the more it is used. Like any other measurement tool, citation frequency should not be used as the sole criterion for journal selection, for the following reasons: (1) there are, undoubtedly, journals which are highly useful, but are not cited frequently; for example, some journals which serve as current awareness are often read but not cited; (2) factors such as non-availability, foreign language, geographical and political barriers etc., may tend to decrease the frequency of citation; and (3) sometime an article in a journal may get cited for reasons other than quality e.g. author's reputation, controversial nature of the subject, coverage by indexing and abstracting services and reprint dissemination (Institute for Scientific Information 1973).

Impact factor is a measure of the average number of citations received by each source item published in a specified journal during a specified time period (Institute for Scientific Information 1973). This is independent of size and frequency of the journal. Immediacy index is a measure of the rapidity with which articles in a specified journal are cited by themselves and other journals (Institute for Scientific Information 1973). Both impact factor and immediacy index can be computed from the citation data available from the Institute of Scientific Information. These measures, derived from citation analysis, have the same shortcomings as those listed for frequency citation.

The importance of periodicals has also been judged on the basis of their frequency of their use in libraries over a period of time. Such studies usually take into account circulation and all types of use inside the library, such as browsing, photocopying, reading etc., but they are restricted to those titles that are available in the library. To offset this limitation the frequency data can be supplemented by including inter-library loan statistics for other journals. In academic and research libraries past use cannot be a complete guide to future use. However, the frequency data has been made use of, along with other criteria, to cancel subscriptions for journals already in the collection.

In formulating an acquisition policy, it is of course necessary to consider the requirements of the library user community (Montgomery 1976). In the case of academic libraries the acquisition policy has to meet the demands of several clienteles. One typical example of conflict is the choice between satisfying the requests of faculty and graduate students to acquire more and more unique titles, and meeting the needs of undergraduate for multiple copies of a relatively few high demand titles. A second problem is that curricula and research interests are not fixed, but are in a constant state of flux because of the rapidly expanding amount of new information, newly developing interdisciplinary relationships and non-tenure appointments of faculty members. Therefore it is very difficult for an academic library to write an acquisition policy for serials, precisely defining areas of specialization, in the midst of shifting interests and research activities. Only broad fields of interest such as energy, petrology, spectroscopy, etc., can be included in an acquisition policy

rather than specific fields such as solar cells, precambrian, atomic spectroscopy etc.; particularly in the field of science where the number of journals devoted to very specific and narrow subjects is increasing.

RECORDS

In addition to making an acquisition policy of a library known, the local on-order and in-process files must be made accessible to others in the cooperative system, in order to help them to decide whether or not to purchase the same material. It is also necessary to establish a union list of serials for the libraries and to keep it up-to-date, to provide access for both users and library staff.

PHYSICAL ACCESS

One of the essential conditions for the cooperative sharing of serials is that patrons of one library have physical access to the holdings of the other libraries. In the simplest sense physical access could mean joint use of libraries in the same locality. Through frequent truck pick-ups and deliveries, access can be extended to libraries some miles away, and using the interlibrary loan system it can be extended to libraries throughout the nation and the world.

The concept of an interlibrary loan system is basically a sound one, and workable for the cooperative sharing of collections among libraries which are widely scattered, but such a system has a number of areas where efficient management is required. Union lists of serials such as New Serial Titles, Union List of Scientific Serials in Canadian Libraries etc., are useful in giving the holdings of other libraries, but they are often incomplete; this is especially true with respect to cancelled and recently acquired titles where there is a time-lag between acquiring an item and its appearance in the union list. This is becoming more important as the increased use of SDI services is leading to a greater demand for the current issues of serials. A union list of serials may or may not provide information on the holdings of individual titles or on the latest issue received, but a machine-readable union list of serials, with on-line access to the participating libraries' files may alleviate this problem in the future. Other difficulties associated with interlibrary loan resource sharing are inaccurate citations and delivery delays. The delays in delivery could be due to a number of factors, such as poor postal service, or non-availability of the title in the first lending library contacted because the requested item is in the bindery or in circulation. Again a machine readable union list of serials may eliminate delays, other than postal, in the future by incorporating information, beside holdings, such as "in process titles", "titles in bindery", "titles in circulation". With telefacsimile transmission it may be possible in the future to eliminate the delay due to postal service, although this technology is apparently far into the future as far as libraries are concerned.

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ALTERNATIVE PUBLISHING FORMATS

Some publishers, such as Chemical Society, London, Geological Society of America, etc., are closely examining different alternatives, such as microform production and the sale of separates, which could lead to reduction in the cost of publishing serials. However, for various reasons user resistance to microform publications is still prevalent; for example they are cumbersome to use in comparison to hard copy, and tables and maps are not well produced in microform. So from libraries' point of view, there is no significant impact from these cost reduction schemes undertaken by publishers.

CONCLUSION

The increasing number and cost of serial publications, combined with budgetary restraints and other factors, are forcing many libraries to consider alternative means of gaining access to the world's serial publications. One of these alternatives methods is resource sharing through cooperative acquisition and interlibrary loans. There are, however, a number of associated problems. Acquisition policies are difficult to formulate and union lists are subject to time lags and other deficiencies. These problems must be taken into account and solutions sought before a truly efficient system of resource sharing can be realized.

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