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6 Management of printed and electronic serials

Hazel Woodward

Serial literature constitutes a major part of all academic libraries' collections, and typically accounts for more than half of their expenditure on library materials – often a great deal more than half. For many academic and research staff, the serials to which the library subscribes are the most important and useful elements of its stock; for librarians they represent material which is expensive to acquire and difficult to manage. Serial literature, whether in printed or electronic format, thus merits separate attention in a study of academic library collection management.

In many ways managing a serials collection differs little from managing a bank, a soccer team, or any other organization. The fundamentals of a shared mission, commonly defined objectives, open two-way communication and clearly perceived tasks and responsibilities drive any organization to its level of appropriate success. Essential to the successful management of serials collections in libraries is an understanding of the nature of the collection being managed, and of the managerial forces at play over the collection. The type of library in which the collection resides will call forth varying managerial responses but while styles and methods of organizing staff may differ among various academic libraries, the principles of management remain the same whether in London, Los Angeles or Lagos.

THE NATURE OF THE COLLECTION

Terminology associated with serials can be confusing, as a variety of words is used to describe similar material. ISO Standard 3297 defines a serial as 'a publication, in printed form or not, issued in successive parts usually having numerical or chronological designations and intended to be continued indefinitely'. Thus the term serial encompasses an extremely wide range of material including journals,

newsletters, newspapers, technical and research reports, yearbooks and annuals, and national and international government publications. In current usage the terms journal and periodical are synonymous. Harrod describes a periodical as 'a publication with a distinctive title which appears at stated or regular intervals, without prior decision as to when the last issue shall appear. It contains articles, stories or other writings, by several contributors'.[1] In the United Kingdom, the term 'magazine' is normally reserved for popular, mass circulation titles, but this is not the case in the United States, where it is synonymous with the word 'journal'. In reality, each academic library will make its own decision about what is to be regarded as a serial, thus defining the scope of its serials collection, in a manner best suited to the needs of its users.

The collection manager in an academic library must be prepared to deal with serial literature published in a variety of physical formats in addition to the traditional print on paper. Microfilm and microfiche have, for many years, been popular serial publication formats. Serials are usually acquired in microform either to save shelf space, or because older or rarer material is unavailable in printed format. Listings of serials published in microform can be found in the annual *Serials in Microform* published by UMI. An important development in recent years is the increasing number of serials available in electronic formats, either on CD-ROM or via the Internet and World Wide Web (WWW).

Although relatively few individual serial titles are published on CD-ROM – much to the relief of librarians who would have great difficulty in providing networked access to large numbers of individual journals in this format – some publishers have brought together journal titles in specific subject areas onto CD-ROM. This is well illustrated by UMI's *Business Periodicals on Disc*, which contains the full text of 400 business and management journals, updated monthly. CD-ROM publication is a particularly useful format for indexing and abstracting services, and the majority of core titles such as *Biological Abstracts, Index Medicus, Science Citation Index* and the US Educational Resources Information Centre, *ERIC*, are widely available, sometimes from several different publishers. In addition, many of these databases are also available via the Internet and the WWW as is a rapidly growing number of individual journals. Electronic journals (e-journals) are proliferating on the WWW at a rapid pace. Most large commercial publishers are now making the electronic version of their printed journals available on the WWW on a subscription basis, and many other titles are freely available – usually emanating from academic research groups, clubs and societies, or even enthusiastic individuals.

Finding out about and keeping up to date with new titles published on the WWW and on CD-ROM can be difficult in such a fast-moving area. This will be further discussed in the section on bibliographical control, but one solution for the collection manager is to scan the professional literature on a regular basis: there

are a large number of journals covering the broad area of information technology, including such titles as *Online and CD-ROM Review, The Electronic Library* and *Database*. Titles such as *Serials, Serials Review* and *Serials Librarian* also provide a wealth of serials-specific information in this area.

BIBLIOGRAPHICAL CONTROL

PRINTED JOURNALS

Because of the disparate nature of printed serials, satisfactory bibliographical control has proved to be difficult. The serials manager needs to be familiar with a wide range of bibliographical tools to assist in the successful management and development of the collection. The most comprehensive general attempt at serials listings is *Ulrich's International Periodicals Directory*. The 1998 edition lists over 156 000 titles in a classified sequence, which may be accessed by a title and ISSN (International Standard Serial Number) index. Detailed information about individual titles, which can assist the collection manager, includes year first published, ISSN, publisher and address, price, language, editor, title changes, format, and information about which abstracting and indexing services cover that particular title. *Ulrich's* is updated on a quarterly basis with annual cumulations; it is also available online and on CD-ROM as *Ulrich's Plus*.

The British Library, particularly the Document Supply Centre (DSC) at Boston Spa, is an important source of material and information relating to serial publications. The list of *Current Serials Received* is an especially useful tool for interlibrary loan librarians. *Serials in the British Library* is a more detailed publication, containing data from BNB MARC (British National Bibliography Machine Readable Cataloguing) back to 1950. These data are also available on the British Library CD-ROM entitled *Boston Spa Serials*, which contains over 500 000 serial records from the collections of the British Library, Cambridge University Library and the Science Museum Library; and the British Library online public access catalogue (OPAC) is freely accessible via the WWW.[2]

Famous for its citation indexes, the Institute for Scientific Information publishes annual volumes (in print and on microfiche) entitled *Science Citation Index – Journal Citation Reports* and *Social Science Citation Index – Journal Citation Reports* which provide ranked lists of journal titles in broad subject areas. There is considerable controversy within the profession as to whether these lists of titles, ranked by number of citations, are applicable in the general library context, but many librarians believe that they give some indication of core titles within a particular subject area. For the collection manager they may be one of a number of tools which can assist the selection and de-selection processes.

An additional source of bibliographical information is the serials agent's

database. Many agents such as Blackwells, Swets, Dawsons and Ebsco provide printed catalogues of serials for their library customers. Such catalogues normally represent only a proportion of the total number of titles available in the complete database. Most of the major agents also offer customers online access to their full databases through, for example, such services as DataSwets and Blackwells' Serials Connect. In addition to providing bibliographic information, such services may also offer facilities to the serials manager for online ordering and claims, and financial data relating to local holdings.

Turning to the bibliographical control of local serial holdings, the collection manager may, or may not, be responsible for the serials cataloguing function. Many librarians believe that library staff should be organized by function, with the cataloguers, not the serials staff, responsible for the bibliographical record. This record is, after all, the keystone of modern systems for the retrieval of books and journals and its production should be the province of specialized staff, who are able to exercise their knowledge of MARC fields, proper subject headings, holdings formats, and classification schemes. Whether or not serials cataloguing falls within the remit of the collection manager, it is important to develop a sound knowledge and understanding of local bibliographical practices, as these underpin a large proportion of serials-related activities.

ELECTRONIC JOURNALS

If bibliographical control of printed serials appears complex, the problem is compounded in the electronic environment.[3] It is notoriously difficult to find information about electronic journals. Those made freely available on the WWW have little or no marketing budget (compared to their commercial counterparts) and rarely find their way into traditional bibliographic sources. Even titles emanating from commercial publishers are currently difficult to trace but they do at least have the benefit of having a print equivalent, which can be traced in the various bibliographies and databases described above. The best, and most comprehensive, source of information about e-journals is the Association of Research Libraries (ARL) *Directory of Electronic Journals and Newsletters*.[4] The seventh edition of the ARL directory, available via the WWW, includes over 3 400 serial titles of which 1 002 are peer-reviewed and 708 charge in some way for access. The directory provides information on e-journal titles and publishers/distributors and is searchable by subject and keyword. It is complemented by the *NewJour* electronic announcement service and Web site which added its 5 000th item in January 1998 and claims to have 3 000 readers.[5] The Web sites of individual publishers are often a useful source of information and they can be easily accessed via AcqWeb's *Directory of Publishers and Vendors*.[6] The major subscription agents are also slowly

beginning to provide e-journal information to libraries, but service is patchy.

Those libraries which have begun to add e-journals to their collections usually decide to catalogue them. Cataloguing is greatly facilitated if the library OPAC is Web-based, as hypertext links can made directly from OPAC to the title pages of e-journals, or because of the way certain commercial publishers provide access to their titles, via the publishers' own e-journals Web page. A recent survey on the management of e-journals, conducted on the electronic discussion list lis-serials, showed that where libraries hold both a print and electronic subscription to a journal, 75 per cent of respondents create separate print and electronic catalogue records, using the MARC 856 field to add the Universal Resource Locator (URL) to link to OPAC and/or their e-journal WWW page.[7]

THE ROLE OF THE SERIALS COLLECTION MANAGER

Just as the nature of the serials collection varies from library to library, so does the role of the collection manager. The organization of staff within a library will have a significant impact upon the way in which collection management decisions are made and implemented. In a small college library, a single library assistant handling check-in and claiming might comprise the entire serials staff, with all collection management decisions being made by the college librarian. In larger academic libraries, the staffing pattern may range from a senior library assistant in charge of day-to-day housekeeping activities, overseen by the collection management librarian, to a professional serials librarian with responsibility for all aspects of serials collection management.

Managing a serials collection differs in significant respects from managing a monographs collection. The nature of the material is diverse; receipt and claiming missing issues is complex; vast amounts of shelf space are consumed on a continuing basis; decisions regarding retention and weeding need to made regularly; detailed and accurate financial control and budgeting are difficult and time-consuming. If a serials collection is to be managed efficiently and effectively, clear objectives for the collection, and therefore for its management, should be established. One such set of objectives for a serials department, identified by Woodward,[8] is paraphrased as follows:

● to ensure that the serial collection is, and remains, relevant to the needs of the user community. This can imply liaison with users over selection and de-selection decisions, collection analysis and production of management information; use and user studies; and the formulation of a written collection development policy;

- to ensure prompt and uninterrupted receipt of serial issues by careful budgeting, regular updating and maintenance of the financial control systems, timely payment of invoices, claiming parts not received and close liaison with suppliers;
- to conserve and preserve printed material within the collection as appropriate, by binding and other conservation procedures;
- to facilitate access to up-to-date information about the range, scope and location of material within the serials collection or available electronically. This includes clear and consistent cataloguing and classification practice, including ongoing catalogue record maintenance and updating;
- to facilitate access to current and back issues of serials held in the collection or available electronically. This includes the efficient management of processes and arrangements for check-in, shelving and tidying as well as the maintenance and updating of Web pages;
- to exploit the collection by alerting users to the range of serial acquisitions, and by assisting users seeking information. Methods of exploitation include the organization and maintenance of displays of serial material; print and Web-based publications; current awareness and selective dissemination of information (SDI) services; and answering users' enquiries;
- to supervise serials staff and oversee the processes by which serial material is acquired, to ensure an efficient and effective service to library users. This involves the application of such management techniques as the setting of objectives, staff training, appraisal and motivation.

Particularly in larger academic libraries, collection development decisions – including liaison with users, selection of new titles, cancellation and weeding – may not fall within the responsibility of the serials collection manager. Where collection development decisions and functions are separated from those of collection management, however, it could still be argued that the collection manager executes a significant, if oblique, influence on the development of the serials collection. Even if the subject specialist or subject bibliographer – in consultation with users – holds the primary decision-making power over which journal titles will be subscribed to and which will be cancelled, it is almost invariably the collection manager who guides the subject specialist through the thickets of retention, binding, location and cataloguing decisions.

For example, how long should the library maintain a printed title in its holdings? Newsletters, bulletins, newspapers and associated materials need only a short six-to-twelve-month retention period, before being discarded or possibly replaced in microform. In other cases the subject specialist may need to be reminded that a particular title's quarterly issues are cumulated or superseded by an annual volume and should therefore be discarded in a timely manner. In many other cases all issues of a title should be kept in perpetuity. Yet how should they be kept? Binding may be the standard response for paper publications, until closer inspection reveals margins which are too narrow, paper which is too brittle, or usage too heavy for issues to be worth binding. Once again the collection manager may have to lead the subject specialist through the steps of electing fan gluing, oversewing or placing in tiebinders. Or, rather than binding at all, the suggestion might be to throw out the tattered issues and purchase the title in microform as its permanently held format. Where should the new journal be placed? In some cases the special subject collection in law or medicine may be self-evident. However, does the *Financial Times* go to the newspaper collection or the business library? Does the Dun and Bradstreet publication go to the reference collection, the information department or the stacks? In some cases the subject specialist will provide the accompanying detail; in others, the question is left unanswered for the collection manager to resolve.

In the electronic environment the role of the serials collection manager may be even less defined. As library staffing structures change to accommodate the move towards the electronic library, there may be a member of staff, or a team, responsible for the overall development of electronic services. These staff will almost certainly feel that e-journals fall within their remit. Nevertheless, the serials manager will almost certainly have a role to play in the purchase and acquisition of e-journals which will include bibliographical checking; setting up new subscriptions to either individual titles or a range of titles from a particular publisher; liaising with subscription agents or directly with publishers on methods of access (usually either by Internet Protocol (IP) address validation or by password); and advising on the availability, or non-availability, of the electronic archive.

The professionalism of the serials collection manager will be considerably enhanced by involvement in professional affairs outside the local library. It might even be suggested that there is an inherent responsibility to attend (if not vigorously participate in) the available serials seminars, workshops and conferences. Excellent continuing education programmes are offered by such organizations as the UK Serials Group (UKSG), the North American Serials Interest Group (NASIG) and the Australian Serials Interest Group (ASIG). Such programmes offer a valuable opportunity to discuss matters of mutual interest and concern, and new trends and developments in the serials industry, with publishers, subscription agents and colleagues.

SERIALS MANAGEMENT

The application of automation to serials control has dramatically changed the work of the serials manager. Automation has materially advanced the manager's control

of the serials collection through superior public access to information, improved claiming for missing issues, enhanced binding control, and a far wider range of financial and management reports. The serials collection manager must to some degree become an expert in automation. The selection of an automated serials system, whether operating on a single stand-alone machine, or a library or institutional server, implies some awareness of, or learning about, the types of systems in existence and how the local serials system may be supported or enhanced by each. Consideration should be given to the local applicability of the following automated serials functions:

- check-in/receipt
- claiming
- routing
- binding
- ordering and subscription renewal
- financial control
- management reports
- union lists
- online user access
- circulation.

A wide range of literature on the subject of serials automation is available, and this might be consulted in the early planning stages. Of particular note is Farrington's writing on serials automation[9] which provides detailed advice on the preparation of an operational specification, types of systems, functions and standards. A major trap to be avoided at all costs in this initial stage is the attempt merely to replicate the existing manual system, or the first generation automated system. Such restrictive thinking usually fails to engender enhancement to the serials management process and often fails to exploit the full potential of the new system. Once a short list of potential systems has been selected, it is important to gain hands-on experience of each system, and to take the opportunity to discuss the details of the systems with their suppliers. At this stage an appreciation is needed of the capabilities of each package's operating system; its file structure; estimated storage needs; need for various files; growth capacities; security capabilities; and networking possibilities.

In the academic library environment, the serials module is likely to be a segment of a total integrated library system, probably supported by a systems librarian. Even in this situation, however, some basic knowledge is useful of how the software works, and how it might be applied to achieve the objectives of the serials department. Experience seems to indicate that a better final product will emerge in circumstances where the librarian knows a little about computers, than in those where the systems specialist knows a little about serials librarianship!

A few cautions are in order at this point. Firstly, the serials collection manager should consult with staff handling serials on a daily basis, right from the early planning stages. Their knowledge and expertise of routine procedures and processes may help to avoid expensive and time-consuming problems at a later stage of implementation. Secondly, if the new system provides an OPAC screen display of full, or partial, serials records, sample records should be shown to public services staff to ensure that the format is clear to library users and that records can be accurately interpreted. Some of the more abstruse technical services terminology may have to be abandoned. Finally, as previously mentioned, it is important to become familiar with the standards to be used for the bibliographic expression of the title and its holdings statement. A tendency exists to express the title as it appears on the journal's cover for ease of identification at the time of check-in, and to shape the holdings statement in a manner unintelligible to users. Use of formal MARC standards will certainly bring about greater long-term clarity. And, as Boss observed 'If properly constructed, the bibliographic database may prove to be the most lasting component of an automated serials system'.[10]

Once installed, serials automation of almost any type should enhance the management of a serials collection. This will be particularly true when operating in a network environment, where online public access to serial titles and their holdings and, increasingly, to the full text of journals is available. Library users generally find that OPACs are a considerable improvement over manually produced serials lists, which become out of date so quickly. Depending on the flexibility of the system's software and display screens, and on the expertise of the serials and systems staff, information may also be displayed regarding issues received; missing and claimed issues; special locations for certain issues or titles; details of which issues are routed; and which volumes have entered the binding process.

SERIALS ACQUISITION

PRINTED JOURNALS

The acquisition of both current and back issues of serials is a major responsibility of the serials collection manager. Despite the forecasts of some librarians that automated serials control systems would make the task of ordering serial subscriptions direct from the publisher much easier, most collection managers continue to use subscription agents for the bulk of their serials orders. Traditionally, agents have assisted librarians by providing a range of services, such as: a minimum number of invoices in one currency; invoices tailored to special requirements; prepayment plans; assistance in budgeting and financial management; and monthly update bulletins. More recently, many of the major

national and international vendors have offered various automated options to their clients ranging from personal computer-based serials control systems to electronic transmission of orders and claims. Given current staffing and financial considerations in academic libraries, if the agent were to be bypassed in favour of direct ordering, it is unlikely that any money saved would compensate for the increased workload which would fall upon the serials department.

An important task for the collection manager is to determine which agent, or agents, will supply journals at the best price with the most appropriate supporting services. The value of costs versus service has been argued about for many years. The only changing factor has been the transition from selecting the lowest discount, to eliciting the lowest service charge. The reduction in the amount of discount publishers offer to subscription agents is a matter of serious concern, not only to agents, but also to librarians. Most agents would hope to achieve an overall profit of about 11 per cent, but the worldwide publishers' discount averages out at 6 per cent; therefore, to maintain profitability, the agent needs to make a service charge to the librarian. Indeed, if the steady erosion of discounts were to continue to its logical conclusion, libraries would be faced with a minimum service charge of 10 to 11 per cent.[11] It is imperative that the collection manager gains a thorough understanding of each agent's charging policy, and ensures that all relevant details are clearly displayed on invoices. Net price, service charge and total for each individual title should be the norm on every invoice.

A relatively new phenomenon is the journal purchasing consortium. Many UK university libraries now belong to a purchasing consortium which negotiates on behalf of its members the best possible deal from a subscription agent – backed up by the combined total purchasing power of all member institutions. Invitations to tender are drawn up by the consortium, in consultation with university purchasing officers, and issued via the EU *Official Journal*. The three main aspects which should be covered in a tender document are pricing mechanisms, service criteria and track record of supplier.[12]

An interesting serial acquisition initiative in the UK arose as a direct consequence of the Follet report, the first major review of academic libraries for fifteen years.[13] Known as the Pilot Site Licence Initiative (PSLI), it was an attempt by the higher education funding bodies to negotiate on behalf of libraries with journal publishers, to reduce the cost of serial acquisition (for both print and electronic journals) for a three-year period. (See also Chapter 4, page 110)[14] Four publishing companies were involved – Institute of Physics Publishing, Academic Press, Blackwell Publishers and Blackwell Scientific – each offering different economic acquisition models. On average, libraries saved some £11 000 of their serials budget in each of the three years of the initiative.

The most suitable method of payment needs to be negotiated in detail with the vendor. Some librarians opt for a one-line invoice which may be issued in June or July of one year, to cover the following year's subscriptions. One-line invoices frequently attract a discount for early settlement, and in addition they ensure that no extra charges are incurred during the financial year, as credits or debits are adjusted in the next year's one-line invoice. A disadvantage is that exact subscription prices of titles are not known until relatively late in the financial year, when the full definitive invoice is received. Thus, libraries with local serials financial control systems are unable to enter data and generate reports. Other types of pre-payment plans also need careful consideration. In some circumstances, a library may arrange with a vendor to pay an agreed sum of money (usually at the beginning of the library's financial year) which is then invested by the vendor and accrues interest at an agreed rate until such time as an invoice is raised for the following year's subscriptions. The collection manager must ensure that such a deal is in accordance with institutional regulations; many organizations do not allow such transactions, arguing that higher interest rates can be obtained by the institution itself investing the money. Such investment, of course, rarely benefits the library directly.

An attractive cost package may make a vendor, but nothing will break the relationship faster than bad service. At what point does the manager decide to change subscription agents, bearing in mind that any change involves a significant amount of extra work and inconvenience? If the agent's financial, service or communication patterns fall below the highest standards of honesty and integrity, it should be axed immediately, if at all possible. Other service matters can often be corrected after discussion with the appropriate people in the company. Service of claims, rapid initiation of new subscriptions, and various financial and management reports can often be obtained, or improved, if needs are clearly articulated and some patience exercised. If, however, matters cannot be sorted out to mutual satisfaction and the agent's service must be terminated, the prudent collection manager must consider in advance the selection of a new agent, preferred time of transfer, and the ways in which local records will be updated to reflect the change in source.

If faced with selecting a new subscription agent, what factors might the collection manager, or indeed the consortium, consider? In an increasingly competitive and shrinking market all agents offer a price quotation service, and librarians are encouraged to submit lists of titles to which the agent responds with the relevant price information. This can be a useful starting point, but must be viewed with caution. Unscrupulous agents can, and do, undercut prices for the first year in order to obtain business, and then proceed to increase prices once subscriptions are established. Managers should view with suspicion any agent who makes extravagant discount offers which vary substantially from the norm; they must also resist pressure from institutional finance departments to accept the lowest quotation. In addition to the previously mentioned questions of ethics, charges and services, there are a number of holistic elements to examine when selecting

an agent. These include the company's history and reputation, the opinion of other librarians using the firm, its vision of future developments within the trade, and the level of professionalism displayed by all members of the company.

Discussion so far has concentrated upon the acquisition of journals where a subscription charge is levied by the publisher. However, all serials collections also contain a proportion of material which is received free of charge, either by exchange or donation. When offered to the library, such 'free' material should not automatically be accepted by the serials manager: it is just as important to apply selection criteria to this material as it is to purchased titles. Research by MacDougall calculated the cost of zero subscription ('free') material in terms of processing, collection maintenance, storage and binding, demonstrating that significant resources are often committed to such material.[15]

ELECTRONIC JOURNALS

Purchasing e-journals can often be as problematic as identifying their existence.[16] The first challenge facing the librarian is to establish which of several subscription models applies to the title or titles. Access to most e-journals – particularly those from commercial publishers – is currently tied to a subscription to the print version. Subscription models include: free with print subscription; a surcharge on the cost of the print subscription (typically between 10 per cent and 25 per cent); available as part of a regional/national consortium deal; or available through a local/regional/national site licence agreement. Although subscription agents claim to handle e-journal subscriptions, very few libraries currently subscribe to e-journals through agents – exceptions being those titles which are automatically available upon purchase of the print subscription and those titles where the publisher makes a straightforward surcharge on the electronic version providing that the print subscription is maintained.

Because of the slow response of agents to the handling of e-journal subscriptions, many libraries are currently setting up e-journal subscriptions either individually, or via consortia, directly with publishers. This is, without doubt, a retrograde step, given the increased workload associated with this method of purchase. It is to be hoped that developments with the National Electronic Site Licence Initiative (NESLI), another three-year project initiated by the higher education funding bodies and started in 1998, will improve the situation for UK higher education libraries.[17]

HOUSEKEEPING

A major part of the serials collection manager's function is the establishment and maintenance of effective and efficient housekeeping routines. This aspect of collection management is of fundamental importance: if basic housekeeping activities are not carried out well, then the collection will not meet the needs of library users to maximum effect. Thus, procedures for accurate and timely ordering and check-in of serial parts must be devised, introduced and supervised, together with routines for claiming missing issues, binding completed volumes, and reshelving and tidying the collection.

If the library has not automated its housekeeping processes, this will entail optimum deployment of staff time to ensure that parts received are recorded on a Kardex, Kalamazoo, or other manual system as soon as they arrive in the library, and that missing parts are claimed as soon as their due date has passed. Such operations (particularly claiming) are performed more quickly and efficiently in an automated environment, but staff time still needs to be organized to ensure that all published serial issues are made available to users with minimum delay.

CLAIMING

It is essential to exert well-organized and consistent effort to locate missing issues quickly and effectively, and chase those titles whose receipt has ceased entirely. As publishers print fewer and fewer issues in their print runs, the expeditious identification of missing issues is critical. An automated system can be of great assistance in locating claims, preparing the printed claim, or creating a file for electronic transmission directly to a subscription agent. A great mistake, however, is to assume that the claim identified from either a manual or automated system is valid; whenever possible, a check of the shelves should be made before the claim is despatched. The validity of claims is likely to be enhanced by several per cent if this is done.

Claiming for missing issues may, indeed, be an art rather than a science, and many factors surrounding a journal's publication and distribution must be taken into account. For example, has the journal established a trend of running late in its publications schedule? Were the publisher, the postal system or the dock workers on strike? Is there a varying number of issues per volume and volumes per year? Does the supplier have the correct mailing address? Was the title properly renewed and payment made? It may be necessary to claim for an invoice in addition to the missing issues. Many automated systems set a default claim period for different serial frequencies; for example, the system might allow 12 days to elapse before generating a claim for a monthly title, and 30 days for a quarterly publication. Clearly it is important that this default period may be overridden manually, to allow for the idiosyncrasies of individual titles. If no action is forthcoming after two routine claims, then a personal telephone call is often highly effective.

BINDING

In many libraries the preservation, or binding, programme falls within the administrative responsibility of the serials collection manager. In small and medium-sized colleges and universities, the serials manager frequently assumes this responsibility simply because the bulk of material to be bound comprises journal or serial volumes. Supervising the binding programme implies a knowledge of budgets, the application of automation, when available, and the technical characteristics of the bound volume. It also implies the ability to decide between the various possibilities of binding, rebinding, or permanent acquisition in microform or electronic format.

Although many of the day-to-day binding processes will be handled by library assistants, the serials manager usually has the responsibility and authority for the establishment of a contract between the library and the commercial binder. In both the US and the UK, a few of the largest academic and research institutions have highly skilled departments for conservation and preservation within the institution. More usually, however, a library will enter into a contract with a commercial binder. In such cases it is the task of the collection manager to negotiate appropriate levels of service, such as the length of time material will be held by the binder; quality of materials; price; quality control guarantees; and special services. Extensive binding programmes consume a significant portion of the library budget and it is important to recognize that the same patterns of decision-making and ethics apply in the selection of a binder, as in the selection of a subscription agent.

Many automated serials systems now offer binding modules which have eliminated much of the drudgery of journals binding. The provision of system-generated pickup slips, notifying when a completed volume is ready to be bound, is a particularly useful feature: such slips can be annotated to include information about the provision of contents and title pages, and indexes. The preparation of the 'rub' (a sample of the spine lettering and numbering), and any special instructions, can be reduced to a few bytes of information and stored away until either printed out on a bindery instruction form or loaded onto a floppy disk for transfer to the binder. Online records provide both users and reader services staff with up-to-date information about the progress of individual titles as they undergo the various stages of binding; here the serials manager must cooperate with public services staff to ensure that online binding data are clear and unambiguous. Commercial library binders have also taken advantage of automation with stamping machines using locally stored data, or data supplied by the library, as well as automated invoicing procedures.

For centuries the decision to bind a completed journal volume has been almost automatic. With the emergence of new types of sewing and glues, new binding techniques, and sophisticated methods of treatment for acid paper, the serials manager possesses a greater array of possible means for preserving the library's journal collection in some form of appropriate binding. For example, in US libraries, a movement towards the flatback bound volume, and away from the rounded and backed volume, seems to provide a more durable product in the face of the photocopier's punishment. Even cheaply and poorly produced serials with narrow margins, or on low quality paper can now be preserved if required. Today, however, new forces are playing upon the decision to bind. With the democratization of university education and the proliferation of the photocopy machine, what has not been stolen, mutilated, or battered through heavy use, will not be automatically despatched to the binders. A variety of alternative forms of access to journal literature is now available, and the collection manager may decide to discard the printed format entirely and provide access via replacement microform, or online Internet access or CD-ROM full-text databases. Alternatively, in the case of low use material, a decision may be made to provide an on-demand service through interlibrary loan or other document delivery services. There is no correct solution to the problem of ownership versus access, and the debate within the profession is likely to continue unabated.

FINANCIAL CONTROL AND BUDGETING

The serials collection manager needs little reminder of the complexities surrounding serials budgeting and financial control. Serial prices have risen alarmingly in the last ten years, a fact which is well illustrated by examining Blackwell's annual survey of periodical prices published in the *Library Association Record*. For example, the survey shows that in 1988 the average price of a periodical was £127.42; by 1998 this figure had risen to £358.16. This, and similar surveys published in the professional literature, provide useful broad studies of national and worldwide prices from which valuable data may be extracted and manipulated for local use.

Such price rises, combined with static and decreasing library budgets, have meant that libraries are spending more money to acquire fewer titles. This in itself is an area of extreme concern for all librarians, but unfortunately the problems do not stop there. Unlike books, which are paid for as and when published, serials are paid for well in advance of publication. As discussed previously, a library will typically pay for one year's issues in the September or October of the preceding year. Budget formulation takes place even earlier – certainly well before publishers' official prices are announced. Thus, most serials budgets in the past have been derived from the previous year's figures, with an amount (achieved by guess-work) added on for inflation. Such formulation of next year's budget has all the

logic of 'looking back to the future'. In recent years this dilemma has eased somewhat with more data being made available on forthcoming prices – data employed by the major subscription agents to forecast remarkably accurate future price trends. The cooperative efforts and understandings sought by UKSG, NASIG and other professional bodies are facilitating the sharing of such information.

A major factor affecting budget preparation and allocation is the effect of exchange rates on journal prices, as many libraries, particularly in the UK, acquire a high proportion of US and European titles. American publishers normally set one price in US dollars; thus the price paid by British librarians depends upon the prevailing strength or weakness of the pound sterling at the time of purchase. Some British publishers have in the past acutely annoyed American librarians by applying an inflated US dollar rate to American libraries (commonly known as 'price gouging'), claiming that the extra charge is made to cover risk of losses from currency conversion, air freight, and the additional cost of postage and claims.

Although libraries, like all organizations, are subject to worldwide economic forces, the collection manager can assist the budget formulation by producing foreign currency exchange-rate reports and forecasts related to local holdings, and ensure that these are distributed to all library staff involved in collection development. In addition, close liaison with subscription agents will reveal which agencies are working the system to best effect by buying in foreign currency at appropriate times to provide a cushion against the worst effects of currency fluctuations.

A variety of regularly produced financial reports will benefit both the collection manager and collection development staff. Financial reports are clearly easier to produce in an automated environment, and most serials control systems will generate basic reports relating to fund accounting and total expenditure, and lists and totals of outstanding bills. More sophisticated reports required by individual libraries may be available through system programming, and, once again, the collection manager may be required to demonstrate programming skills. In libraries which operate manual serials systems, financial reports may be more difficult to produce. Access to PC-based spreadsheet and database packages can help considerably in this respect. Data from the national and international surveys previously mentioned may be utilized, and increasingly subscription agents will provide reports relating to local financial data in printed format on disk.

ACCESS AND EXPLOITATION

Management of serials collections implies decisions about the way in which a library's serials holdings are accessed, in order to offer maximum convenience and benefit to library users. Should, for example, printed serials be shelved as a collection separate from monographs and other library material? Should print and electronic titles be grouped by subject? Should current paper-based issues of serials be shelved separately from back runs? What access is provided to e-journals? The answers to these questions will vary from library to library, and depend in part on the nature of the space available to house the collection as well as the provision of computer terminals within the library buildings and across the institution. For example, multi-site libraries are far more difficult to manage than single-site libraries; purpose-built libraries far easier than old converted buildings. Space and IT constraints apart, librarians should be concerned to provide access to serials literature in a manner best suited to the majority of the library's users.

ACCESS TO PRINTED JOURNALS

The physical housing, storage and preservation of printed serials also raises different problems from those encountered with monographs. Long runs of bound journals, large numbers of flimsy unbound issues and deteriorating copies of newspapers, all present particular difficulties for the collection manager. Guidelines need to be established for the maintenance of the serials collection which take into account shelving, tidying, retention, conservation, and de-selection. Shelving and maintaining order in a serials collection is a major staff-intensive activity in academic libraries, aggravated by the size of the collection and the constant flow of material onto and off the shelves. Even if overall use of the serials collection is perceived to be low (and in most libraries it is rarely quantified), a library subscribing to thousands of current daily, weekly, monthly and quarterly titles has a significant management task in ensuring that new material is shelved, and existing material is re-shelved, as quickly as possible. Library users, after all, expect to find serials in their correct places on the shelves, not in the serials office or on a distant table. A further point which should be emphasized is that the signing and guiding of the serials collection must be of a high standard to enable users to locate material quickly and easily.

Many academic libraries, both in the US and the UK, provide a current periodicals area, or reading room, which may be physically adjacent to the serials department and administered by the serials collection manager. It may be argued that a reading room offers a better service to users by providing centralization of current, heavily-used issues, improved security, and provision of staff assistance. The manager must ensure that serials records accurately reflect the location of current issues; while the library user may believe that all current journal issues are placed in the reading room, this is rarely true, except in the smallest of libraries. A major problem in current periodicals reading rooms is created by newspapers. Their vigorous use and subsequent untidy mess mean that special care must be taken in displaying and tidying these titles on a frequent and regular

basis. Once again, records control is an imperative, to give accurate information on whether newspapers are discarded or stored until a microform, CD-ROM or Internet replacement is received.

ACCESS TO ELECTRONIC JOURNALS

Underpinning the whole question of access to e-journals is the suitability of an organization's IT infrastructure as explored in Chapter 4. What is the level of hardware provision within the organization? This does not just mean how many machines, but also their age and state of maintenance. Older, low specification machines may not be able to provide access to some of the more recent versions of e-journals. Furthermore, it may be that, in a large university for example, each academic and researcher has a machine on his/her desktop. But what about undergraduates – where do they access e-journals? If library policy is to move towards electronic access it must not be more difficult for any user to gain access to electronic information than to printed information.

A further question relates to the software available on the network. Currently most e-journals require Adobe Acrobat for viewing the full text, and although this software is freely available to any individual wishing to load it onto his or her own machine, arrangements do need to be made to ensure that it is also available on the institutional network. The updating of software – including browsers – (the software used to perform online operations) is critical to the provision of an e-journal service and close cooperation between library and computing services staff is essential for a successful service.

Once the appropriate hardware and software are in place, attention should be given to providing easy access to available titles. As described earlier, many libraries have set up e-journal Web pages to provide a starting point for access to a range of different titles – and also to provide information on required user names and passwords. In addition, those with Web-based OPACs are providing hypertext links directly to either e-journal contents pages or publishers' Web pages. Freely available Internet titles are, superficially, the easiest titles to access. They do not require passwords (although some do require registration) and a link can be set up to the journal title page. However, such titles tend to be unstable and frequently move sites without notice. It is therefore advisable to instigate some system of URL monitoring to prevent the frustration of repeated error messages.

E-journals from commercial publishers can be tedious to access. Although most publishers are moving away from password authorization to IP address checking, thus making life easier for the user in that respect, it is still the case that for many e-journals, access is via their publisher's top level Web page. Thus users must work their way down a series of Web pages before they actually find the title they wish to consult. A potential solution to the problems outlined above is to use one of the many aggregator e-journal services, such as Blackwell's Electronic Journals Navigator, SwetsNet, OCLC or possibly (in the UK) NESLI. These services are intended to be a one-stop-shop for e-journals. The aggregators negotiate with publishers to make their e-journals available and develop appropriate software to enable users to access the service with one common password, and then search either for individual titles or across all titles using subject and keyword searches. The drawback with these services at present is that not all publishers are participating – a notable exception being Elsevier who provide their own e-journal service Science Direct. Until aggregator services offer access to a critical mass of titles, the dream of the one-stop-shop cannot be attained.

EXPLOITATION

Reader services activities are vital elements in the process of making serials, and the information they contain, available to library users. A carefully selected and well-maintained collection is not fulfilling its purpose if it is not exploited to maximum advantage. Users need to be aware of how they can find out what is included in the collection, and how to locate specific titles and information. The introduction of the OPAC has made the retrieval of information about the serials collection much easier and more effective and this, of course, is enhanced if full-text material is also available.

Other aspects of reader services to which the serials collection manager needs to give attention are the provision (or not) of print and electronic current awareness services; the routing of newly received serial parts to interested users; and Web-based promotion – particularly for e-journals. Manual current awareness services, such as the distribution of photocopies of contents pages, are not undertaken to any great extent in most academic libraries, for the familiar reasons of economic constraint and staff shortages. There is, however, increasing demand for externally generated online current awareness services – UnCover Reveal, for example – and for publishers' table of contents services (TOCs). The setting up of such services would not normally involve serials staff, but the provision of such services does generate further demands for access to serial literature. Routing of serial parts to users is also usually done sparingly: any such operation denies access to current serial issues to the rest of their potential readership, often for unacceptably lengthy periods.

Most academic libraries restrict at least their current serial holdings, and sometimes the whole collection, to use in the library only. The reasons for this are two-fold: firstly to ensure that current issues are accessible, and secondly for security. Serials go out of print very rapidly and it can be extremely difficult, very often impossible, to replace missing current issues or older volumes. When available, the cost of second-hand volumes of serials from dealers is high. (It is

unfortunate that the reverse situation does not hold true. Libraries wishing to sell back runs of journals frequently experience difficulty in finding a buyer, and where one is found, the price offered is generally low.)

Exploitation of the information contained within serials is normally undertaken by reference or information staff assisting users in manual, online or CD-ROM searching. Abstracting and indexing services are the main tools for this activity, and the acquisition of both printed abstracts, CD-ROM and networked databases will almost certainly be a task for the serials department. Once again, decisions regarding, for example, the classification, location and binding schedules of printed abstracts must be made in close liaison with subject specialists and information staff. Provision of public-access CD-ROM workstations, and the issuing of non-networked CD-ROM disks, manuals and instructions will also need careful consideration.

CONCLUSION

Serials present a range of problems to the collection manager. New titles are constantly being published in printed format, and the range and scope of electronic formats continue to increase. Spiralling serial prices force many libraries into unwelcome cancellation exercises, which in turn deny access to serial literature to users and reduce subscriptions to unacceptable levels for publishers. Concern about the low use of many journal titles within library collections has also prompted many managers to question the cost-effectiveness of current provision.

In terms of academic library collection management, it is likely for all the above reasons that there will continue to be a shift of emphasis from acquisition and collection building to the provision of access to information. Nevertheless, the basic commodities, the journal articles and research reports, will still be required by library users. Electronic publishing may alter the storage medium, but users normally require a convenient printed output.

Management and financial expertise, knowledge of automation and policy development skills are all expected of the serials manager. Each of these characteristics has its own validity, but the most important and most forgotten is humanity. Without a basic commitment to staff and library users, the serials manager will fail, whatever the size of the library's budget or computer. Moving the electrical outlet, shifting a desk closer to the window, encouraging personal development and the participation of staff in the process of policy formulation, all strengthen morale and teamwork within the serials department, and contribute to successful collection management.

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