SERVICE

In ancient Greece King Augeas was the ruler of Elis who had difficulties with his housekeeping. By skilful attention to an acquisition program with his bulls zestfully engaged in their own activities, he had managed to accumulate immense herds, but somehow never got around to cleaning his stables. By the time Hercules was given the task of policing the area, the Augean establishment was overflowing with thirty years of deposit collections.

Good King Augeas and his stables kept returning to mind as I considered my topic for this paper: the problems of arranging and servicing a large serial collection. Even more than other aspects of libraries, the serial and periodical collections present a vast and seemingly immovable presence. Once processed, our busy attention to them, like that of Augeas, has often been diverted elsewhere. Unfortunately, while Hercules had the River Alpheus to help him cleanse the stables, our torrent of proliferating periodicals and serials pours in at a new flood level each year—and never runs out again!

Being no Hercules, I have concentrated on only a few considerations of serial service in our Augean establishments that seem to me to warrant special attention.

First, let me try to assuage the feelings of those who have already reacted to my implication that librarians have not been handling periodicals as well as they might. I have no doubt librarians’ hearts are Herculean in the desire to be of service, but their attempts have, as yet, not been overly effective. I say as yet because there are current developments which promise help, some of which librarians have initiated, and many of which they must begin to more actively investigate and try.

Librarians have only begun, for instance, to learn how research users approach serial and periodical materials. This is a standard criticism, but a valid one. Librarians know even less of how research users become acquainted
with sources of information in general. The library profession has provided subject access to books and a proportion of the symposiums and published conference proceedings, but despite the significant advances in indexing and abstracting services, it has not provided anywhere near the simple and direct access to *all* journal articles that is needed. Are there any new arrangements in periodical display that can be tried? What is being done with the problem of "current awareness"? What is happening with circulation?

In this paper I would like to discuss a number of the points I have just mentioned and draw some subjective and personal conclusions. Patterns of use of periodicals by the reader would seem an appropriate place to begin. There have been some studies of this, primarily on information requirements by scientists, but obviously more of this type of investigation is necessary. This is an area in which library schools might do more, but their studies would not release us from specific local investigations in how faculty, students and other users approach large collections. There is a particular need to determine the comparative importance of the different means used by the researcher in locating information. I refer here not to evaluations of abstracting journals and indexes or to lists of the most cited journals in specific fields. Instead I refer to the type of study cited by Melvin Voigt in his monograph, "Scientists' Approaches to Information." *How much* of the literature "is located by regular reading, by recommendations of colleagues, by references in other publications,"1 or by other means?

Voigt reports that:

More printed information sources than were obtained by any other means, probably one third or slightly more, were obtained or used *without any bibliographical reference*. That is, they were come upon, and read or used, as part of a regular or irregular practice of browsing through or reading the most important journals in the immediate field of interest.1 (Italics added.)

Abstracts and indexes supplied only from 4 to 7 percent of the references used by scientists. These and other means of surveying the literature become more important at the beginning of an experimental program or when a researcher prepares the results of his work for publication.2 In any case, these needs occur relatively infrequently in comparison with the total time spent by scientists using current, or what Voigt terms "everyday," approaches to the literature.

A Case Institute study of physicists and chemists concluded that slightly more than 50 percent of their total reading was undirected browsing—only 10 percent of it done in the library. Another study found that industrial technologists sought material apparently more for stimulation than for reference.3

It is not my purpose to explore this aspect too deeply here, but it does point out the reliance of at least the scientific researcher upon regular browsing through a limited number of the most important journals in his field. Some librarians have attempted to meet this need by routing the most current or next to most current issue of certain journals to the faculty. The benefits of this sort of service are appreciable as a personal convenience, but
short of very heavy duplication it can lead to undue harrassment of other faculty as well as of the student community.

At my own institution we have just terminated a routing service that had been in effect for many years. Previously, we had been circulating more than 485 journal titles to approximately forty-seven departments. On a small campus this may be sufferable; on our large campus it had reached the point where substantial difficulties were being constantly encountered. Many faculty and departments would return journals quickly; others were retaining issues for as long as two months because of genuine interest and internal circulating practices of their own. Fines had some effect, but were becoming onerous only to the individual departmental representative who had been assigned as the point of contact.

The librarian, at the present stage of technology and funding, is thus placed on the horns of a very severe dilemma. Can there be a substitute for the routing practice, one that will in its own way serve, if not a similar purpose, a more limited fulfillment of needs? I should add here that we have had little or no substantial reaction to the cessation of our routing. Some of the reasons for this may be that it was stopped just as we opened a new library addition with more room and facilities for in-building use, and because we contemplate offering some substitute services.

One such substitution might be the introduction of a "table-of-contents" service tailored to a specific university campus. This could be made available to all departments, not the scientific departments alone, that at least in our case, made the heaviest use of the actual journal routing service. The titles of an initial maximum of approximately fifteen journals considered most important by that department's faculty could be solicited from each major teaching department or administrative unit. A single photocopy of the contents pages from these journals could then be regularly distributed to each department for "current awareness" purposes. A certain amount of flexibility could be exercised based upon demand, the number of journals in a given field, the size of department and other factors. Correlation of demand could also be used statistically to determine where we might duplicate subscriptions within the main collection or even within departmental collections.

The purchase of multiple copies of the various "Current Contents" publications could be a more expensive variation of this service. There are now some six of these weekly pocket-size guides, covering journals mostly in the sciences. Two recent ones cover agriculture - food - veterinary sciences, and engineering - technology. Such guides do not presently cover all academic fields, but they do range widely and extensively in many pure and applied fields. Use of multiple subscriptions to "Current Contents" publications of course, could continue to supplement and expand the local departmental coverage; we could begin by making available whenever possible the core offered by them and then concentrate on the peripheral titles and those fields not yet available in commercial publications.

A second variation might be a canvassing of the publishers of heavily used periodicals to see what reprint service they offer and making more of the faculty aware of these so they would have an opportunity to secure desirable
reprints at a reasonable cost on their own. The current contents publications provide alphabetical listings of authors and their current addresses to facilitate reprint requests.

While these services may be of particular help to the scientist and engineer, it is not certain whether it would have the same applicability to the humanist and the social scientist. The "current awareness" aspect, however, should certainly be tempting to any department, and would represent the library as going "out" to the reader as it should, rather than waiting for the reader to come "in" to it. Such a program would allow us to provide the core of the routing arrangement, permit us to assist faculty, especially scientific faculty, in regularizing their browsing habits, and still retain the actual periodicals centrally for the greatest number of users.

One foreseeable user objection to this might be that article titles are often not sufficiently descriptive to give the user a true indication of what the article itself is about. Ultimately the real answer would seem to lie in the selective dissemination of information approach via user profiles and magnetic tapes. In the meantime, the "table-of-contents" service might be a workable substitute, expanding on the base of what is presently available.

Beyond the need of the researcher for current materials is his need for older serial sets. For librarians this is the problem of conventional shelving as opposed to storage for periodical back sets, and of knowing where the break can legitimately be made within a set to divide active volumes as opposed to those lesser used. Prediction of use has been explored by Fussler and Simon,4 but the fact that more libraries are restricting circulation of periodicals poses problems of ascertaining recorded use.

One approach we might take is to accumulate fresh and reliable "citation-of-use" lists of journals similar to the American College and Research Libraries' study done a decade and a half ago by Charles Harvey Brown.5 Special libraries have done some of this, but there is a positive need for a study of the differences between, for instance, the stable disciplines, the literature which becomes obsolete more slowly, and those disciplines dependent on fresh data because of new problems (such as the applied fields). We can readily agree that removing to storage the important works of humanists on the basis of frequency of use would render humanistic libraries ineffective and seriously hinder historians of science. However, the same is clearly true of the comparative sciences that accumulate durable references and remain more stable over longer periods of time. In this we can include back sets in such fields as mathematics, economics, geology, chemistry, botany and parasitology. Burton in his study of the "half-life" of scientific literatures and their rates of obsolescence also notes that it is quite possible for certain journals even within less stable disciplines to contain larger proportions of what he terms "classic" references and to be retained for longer active use than might be supposed from the activity of the field itself.6

Further, an investigation of patterns in these areas must include studies of intralibrary use in depth—studies of shelf-return tallies, data on serial units handled by photocopy, interlibrary loans and supplementary interviews of users (although the latter is always a tough one to handle). Raisig suggests
that a real start might be made in this by choosing the first few hundred serials ranked in a valid citation list. These most valuable and most used items could be thoroughly analyzed for not only out-of-building use or interlibrary loan use, but also for comparison of intralibrary use, even to the degree of attempting to identify frustrated wants and how these were handled.  

Reports on student use of periodicals have been especially rare, but when they are published, they do seem to offer some clues to improving serial services to this group. A recent study of 338 graduate students and their use of periodical literature at the University of Michigan reveals, as we would suspect, substantial use. Peterson reports that 84 percent of the students surveyed attested to use of periodicals during the given school term. Sixty percent reported use at least once weekly, and periodical use was almost as heavy in non-science libraries as in science libraries. He also notes that students using periodicals at least once weekly comprised 79 percent of all users of science libraries, and 68 percent of all users of non-science libraries. The interesting point is that the subject approach was the primary one used by graduate students. They located their material mainly through indexes or abstracting services, and far less frequently consulted serials by publishing society, country, language or even age of periodical. An overwhelming number, Peterson reports, came well prepared to find the article they needed, and the majority used periodical literature for research purposes.  

While this heavier and encouragingly self-sufficient reliance on indexes and abstracting tools centers on the graduate student, there is an indication that undergraduates are making use of the more common of these same tools. This would seem to be evidenced by the increasing number of newer undergraduate facilities that are adding back sets of the more usual periodical indexes. Actual use has not yet been reported, but libraries are attempting to provide increased opportunity for use of indexes by duplicating sets for undergraduates. Stanford's Meyer Library for undergraduates has a collection of general indexes near its reference center and more specialized subject indexes on its upper floors in reference alcoves which serve as entryways to the subject collections. Maryland will provide in its new undergraduate library a small reference collection with considerable duplication at each service desk, including major bibliographic tools and indexes. In its undergraduate service area, Iowa State duplicates selected back sets of major indexes. Apparently this effort is being made by these libraries so that students may have the proper references in hand when they go on to use the backup resources of the main library research collection. A secondary benefit is the chance to teach the use of these indexes to undergraduates when they are motivated by a definite inquiry.  

This increased use of indexing aids suggests an attractive possibility for better periodical service in the larger collection itself. Especially frustrating to a student, and indeed to anyone, is finding himself on a stack floor, seemingly miles from the periodical indexes and abstracts usually housed only in the reference or periodical room. To compound this sense of loss, add the injury of a student suddenly discovering that his periodical reference is erroneous or incomplete, or that the one article for which he has a reference and which he has found has set him off on a brand-new search for other articles on other topics.
Why could we not provide selected, duplicate sets of indexes and major abstracting services in what might be called "index stations" strategically located throughout the library? For a start, these might consist of only a five or ten-year file within reasonable distance of appropriate periodical back files, reasonable being defined as back sets no further away than a maximum of one or two floors. As an added convenience, we might even add several dictionaries, both in English and foreign languages, an atlas or two, and a few other basic reference tools. Naturally, this means duplication and expense, but think of the time saved for the user and the elimination of frustrations, to say nothing of the succor of inspiration otherwise discouragingly nipped in the bud. If we are concerned about the "wandering" index that might grow mysterious feet and disappear, it is conceivable that these volumes might be fastened into a clamping rack similar to those used in telephone centers to hold large out-of-town directories.

Obviously, this sort of help is suited to the library where periodicals are classified and distributed throughout the collection, but there well may be some value in trying a number of "reference and abstract stations" in a very large monographic collection.

Since we have broached the perennial subject of classified versus unclassified collections, let us discuss it briefly. Is there a "best" shelving arrangement for periodicals through one or the other of these methods? This is a question well calculated to raise the hackles of many otherwise mellow librarians. Any proper answer, of course, depends as always on the library's avowed purposes and objectives. Unfortunately, as with choosing one's ancestors, the decision to classify or alphabetize has probably been decided long ago for the individual librarian.

Nevertheless, some situations do arise when there is a chance to break the mold, or at least review the possibilities of change. Such occasions might be the establishment of a new library, or the occupying of a new building or addition. Conceivably, we could institute a self-generated local review of whether to classify or alphabetize even without a new building or addition, but, admittedly, to the librarian of a large institution any major change in arranging the bulk of his periodical collection would seem to assume the semblance of rebuilding the Great Wall of China.

A thoughtful article by Joseph Borden\(^9\) presents a good view of both sides of the fence. From the reader's viewpoint, which is the one in which I assume librarians are interested, Borden describes the classified collection as one that distributes the periodicals, generally the bound volumes, by subject throughout the stacks. Thus the reader finds his periodicals for a given subject located relatively close to one another; there is a greater possibility of back files being shelved together despite title changes, transactions and proceedings of the same organization can better be kept together, and non-indexed periodicals are somewhat more accessible. However, the reader must also first search out a call number, and if he is concerned only with periodical references, he will find his potential sources more widely scattered among the books of the library.

In the alphabetical arrangement, the user has a more direct approach. The periodical collection is usually maintained in one centralized area, and
materials can be located by title without further preliminary checking. If his interest is in periodicals alone, he can ignore the rest of the collection. The disadvantage of transactions and proceedings being shelved apart can be corrected by shelving under corporate author, but this may tend to work against the journal-oriented scholar not searching for the name of the issuing organization.

These are some of the physical advantages and disadvantages of classification, but the intellectual level of the collection also affects its use. In the case of the research library, I think librarians could agree that the greater the number of scholarly periodicals, the greater the percentage of periodicals capable of fairly specific classification and thus capable of being shelved closer together. This is suggested by Pierson who also notes the probability that in the larger library there will be a greater number of periodicals not indexed in the currently available indexing media. Relevant also is that the larger the research collection, the greater the number of other serials which would already have been classified. For these reasons the user of the research library will probably find the collection more serviceable if it is classified.

Pierson says the reverse might also be true. He asks: Why not alphabetize the undergraduate collection which would be smaller and less scholarly-oriented? He also points out that for undergraduates it may be more important, however, to appeal to interest levels and subject motivation, thus requiring classification even for the undergraduate library. Another point that must be made is that if the research library classifies, then probably so should the undergraduate library in order that a student may more easily transfer his search for a given periodical from one library to the other. This is especially pertinent for undergraduate collections since their periodical back files are normally at a minimum with the research library forming the main resource.

We cannot really resolve this question of the two systems, but a survey conducted several years ago indicates a degree of preference for classified systems. Of sixteen large university libraries selected, twelve had classified periodical collections, two classified some periodicals, and two did not classify any. Most of those classifying periodicals used the same classification scheme for the remainder of the research collection.

We have said nothing so far of the shelving problems of current issues as distinguished from bound back sets. A common arrangement is that the central periodical room is used for current numbers with back sets shelved elsewhere. Some libraries have shelved the most recent bound volumes near their current issues, with older sets in still another location. This type of “third” location has some undesirable features, yet the increasing number of storage facilities makes some version of this inevitable as older and lesser-used titles are transferred out of the “active” library entirely. Some of the onus, incidentally, could be removed from extramural storage if a “browsing capability” of some sort were retained at the “inactive” location. Still another version has the most heavily-used current unbound titles maintained in a separate periodical area while lesser-used unbound issues are shelved beside bound back sets in the stacks.

Would it be desirable to shelve all current issues and their back files together, perhaps via a pamphlet box at the end of each title? From a
reference standpoint this has some advantages, but it immediately destroys the possibility of a general periodical display, as well as scattering issues and providing no security for the more popular and fast-disappearing titles. Some compromise has been suggested by shelving current issues facing reading areas with back files in adjacent ranges. The variance in shelving requirements for individual back runs, however, would prohibit any systematic or economical consecutive shelving under this arrangement.12

The divisional plan does permit some retention of current issues close to back files, but there are many titles of an interdisciplinary nature that could fit one place as well as another. This underlines in part the continuing need of a common periodical room for *generalia*.13

Aside from keeping all current issues in a central periodical room, is there some way that libraries can combine the positive assets of current issue display with reasonable proximity to back files? I am, of course, assuming in my answer that librarians are in favor of displaying important periodicals, that they have classified their periodical collection, that they have open shelves, and that they are not on the divisional plan. These assumptions could describe a good proportion of our larger libraries. Normally, the current periodical area and the bound periodical collection are some distance removed from each other. In the completely classified collection the bound volumes are quite scattered in relation to a central current issue display.

What if libraries divided current issues by broad subjects and established smaller versions of a periodical room throughout the stack collection? How would such a system work?

Librarians could first select those periodicals in the significant disciplines which receive the heaviest use, or are considered worthy of being seen regularly by those who work within that discipline. For display, stack areas could be adapted into periodical alcoves with sufficient lounge and small table seating for comfortable browsing. We would not have an alcove on every floor, but we might plan a sufficient number to accommodate subject periodicals in fair proximity to five or six of the largest subject divisions of the collection. We could have, for instance, a literature alcove near the language and literature collection, or one for life sciences close to monographs and bound volumes in botany, biology, zoology and bacteriology.

In each alcove could be maintained the “index station” already mentioned, as well as a small working reference collection. Presumably, only those indexes with applicability to the titles on display and/or the bound volumes on that floor or nearby floors would be duplicated.

Control would demand attention, but current issues wander discouragingly in any case. Since some central periodical room for more general periodicals, including the most popular ones, would have to be retained, it could also house those journals most interdisciplinary in scope or which experience shows come under such heavy use as to require a more controlled arrangement. In either the LC or Dewey classifications, the general periodical room would still concentrate on the AP’s or the 050’s, leaving more specific subjects dispersed. In the case of the central periodical room there would be the advantages of display; the removal of the barrier of form
(present arrangements in effect, say, to the user that he must read only current periodicals here and bound volumes there); it promotes the subject cohesiveness of the collection; and it might even seduce some students into reading journals which they may never have read before.

There are ready arguments against such a system, the most damning the one of control. Libraries are, however, already utilizing some aspects of this dispersed arrangement in departmental collections or divisional plans. Why should the subject-oriented person be diverted to several locations simply because of the form in which material appears? For the same reason, I am also a firm believer in dispersed microtext collections for the reader’s benefit, decentralizing them on the basis of alliance—newspapers and periodicals on microfilm, for instance, close to the newspaper and general periodical collection and not in some distant basement room. After all, is the centralized current issue periodical area with its raggedly filled shelves the only way of attacking this old problem?

So that it may be known that I am practicing what I preach, we are experimenting with just this sort of arrangement at Iowa State. We utilize periodical alcoves on three open floors and on three alternate levels of a new multi-tier stack, seven alcoves in all. To form these alcoves which allow us to display approximately 120 current titles, we have sacrificed four double-faced sections on the end of five stack ranges and four single-faced sections on the inward site of two additional ranges; on the open floors devoted to the humanities and social sciences we have utilized three bays at corridor entrances on two floors to accommodate lounge seating, tables and display shelving for several hundred current titles. Two smaller alcoves are intended for our topmost floor. Directories indicate what is shelved in each alcove, and copies of a computer-produced current serials list distributed around the building also list the periodical alcove locations for these titles. We still maintain a general periodical and newspaper room, but we now shelve within it our entire Library of Congress “A” classification. This permits us to have both current issues and all back sets to the most popular periodicals, which seem to fall within this classification, in a suitable reading room under supervision. Thus our most heavily-used periodicals are controlled, are given at least some on-the-spot reference service, and the heavy traffic they generate is kept to one location.

If the experiment fails, it is simple enough to retreat in the tiers by adding more stack supports and by reshelving with regular shelves, and by using the display shelves from both tiers and open floors elsewhere. As for the displayed periodicals, we can also easily expand the current issue display within the general periodical room which we have retained.

Restrictions on periodical circulation come as close to blasphemy on the university campus as anything can. A librarian tampering with long-established and liberal circulation practices for periodicals assumes the appearance of Beelzebub tampering with Holy Writ. And yet, there is indication that more libraries are limiting periodical circulation, or at least considering it more seriously, than ever before.
Among fourteen midwestern university libraries of large size which we surveyed recently, there was almost unanimous agreement on building use only for unbound issues, with the exceptions permitting only overnight circulation. For bound volumes, eight of the fourteen libraries restricted circulation to either the building or overnight borrowing. Faculty members received somewhat more liberal treatment in six institutions, with one library offering extended loan, one a one-month loan, and four ranging downward from two weeks to two days. Among graduate students, two weeks was the longest period of loan for bound volumes, and this only for older periodicals at one institution. Undergraduates were allowed two weeks for the same journals at the same university, but ten libraries restricted circulation to two days or less. Or those institutions that permitted limited circulation, the stress was on older volumes, usually those older than five years or with publication dates before 1960. One library restricted science loans for faculty and graduate students to three days for volumes from 1955 to date. Another recent and wider survey of smaller-sized academic libraries reported that forty-five state and private universities did not allow periodicals out of the library for more than three days, while a fair proportion indicated only overnight circulation was permitted. Some librarians contacted personally admitted with reluctance that the time had just about come when something had to be done to keep the periodical collection as consistently available as the reference collection.

There is a tendency to assume that departmental libraries or other subject collections outside the main building are more liberal in their circulation practices. Conversations with library administrators at various universities indicate that this may not really be true any longer. At Princeton, for example, the science libraries tend to be much more restrictive in journal circulation than the main library. With minor exceptions none of the departmental libraries circulate journals, bound or unbound, at all. The exceptions are mathematics-physics, which permits overnight use only, and geology, which has a one-month rule. In the past ten years, Princeton reports that all of the science and technology libraries have tightened their rules dramatically.

Two reasons why restrictions may be working in some departmental collections are a reliance on greater duplication of heavily used titles and the availability of photocopy. Princeton, in addition, has been working on a system of coordinated binding so that at least one copy of each duplicated journal is available somewhere all the time. An important assist to such restrictions are pressures from graduate students and a growing number of faculty who want periodicals available on a more regular basis within the library.

After a considerable period of quite liberal loans at Iowa State University, we have recently restricted periodical circulation of both bound and unbound issues to overnight use only. This was accomplished at the same time we opened a new addition to the building which provided vastly larger and more comfortable in-building facilities. Our reasoning was based on the increasing problem of recalling materials and on the ever-rising criticism of the
earlier, more liberal system by both faculty and graduate students. After several months, we have had relatively few problems with the change and a significant amount of support. We do, of course, try to remain flexible in individual situations to answer urgent needs.

As an indication of faculty support for this change, I would like to quote from a memorandum from the chairman of an important science department on the campus. He writes:

I find (as do most of my colleagues) that the occasional inconvenience of not being able to remove a volume from the Library is trivial compared with the frustration of not being able to find a volume in the Library. Even limited (24-hour or 3-day) circulation would restore the frustration in many cases.

I realize that others may have different requirements, and that it may some day be necessary to modify these restrictions. If that day comes, you will have my support if you give ground very grudgingly!

Restrictions on periodical circulation in the main library as well as in the departmental library place renewed demands on fast copy service. Coin-operated machines offer effective answers as long as copies are procurable at a low cost, and machines are in sufficient supply and on a constant maintenance schedule. Partial subsidies of coin-operated machines might well be encouraged so that a maximum number are available throughout the library proper and at other locations.

Photocopy is particularly advantageous to the science researcher since scientific and technological articles tend to be shorter and simpler to copy. Lucke suggests that, “scientists tend, in general, to write shorter articles and more of them.”15 Humanistic articles, on the other hand, tend to be longer and more costly to copy, which may be another reason why the humanist argues that he needs a periodical loan period of greater duration than the scientist. Unfortunately, the science researcher often has some fund support to pay his photocopy bills, whereas the humanist is in the position of a perennial Mother Hubbard. Where the path lies that will lead us from this dilemma is hard to predict, short of free photocopying, which would send everyone into panic.

Photocopying in the case of mutilations and missing issues is now also an accepted practice, as is the photocopying of articles for interlibrary loan. Bound volume lending for interlibrary loan has almost ceased entirely. It may even be that mutilation is less serious today than it was ten years ago simply because of the advance of the copying machine. More libraries are resorting to copying out-of-print single issues to complete volumes for binding since the search for single issues through the second-hand market is so time consuming and costly, even provided they can be found.

A growing development which has been adopted by several libraries and which may offer some real assistance to others is the location or relocation of the serials staff closer to public access and reorganization of them into a collecting, processing and reference unit. In his new book on planning library buildings, Ellsworth refers to the duplication found in work and record keeping by both the processing and public service departments, and to the fact that some
libraries are not only combining the public records into a central serial record, but also placing this public office close to the reference desk. The University of Iowa has a serials information window adjacent to its reference desk, and Louisiana State University has placed its public serials records just off an entrance lobby and close to the catalog and bibliography area. Princeton is contemplating a relocation of its serials division staff and combining it with a new single collection of all general periodicals now held within its main library. Stanford has long had a serials information desk adjacent to both its circulation and reference desks. The basic idea for all is to centralize receiving, acquisition and a point of reference service.

In terms of the computer, the current serials printout in use at a good many libraries provides valuable reference help by duplicating an alphabetical list of current serials, together with call numbers, locations and holdings, and maintaining these at strategic building locations. The old and cumbersome visible public card files, annoying to use and difficult to maintain, are thus reproduced in book form, greatly expanded to include all current titles and not just a sampling, and made available in several locations rather than in only one. Some institutions have printed annual or biennial compilations from the same format. Such individual serial lists, if programmed compatibly from the beginning, provide a natural source for state or regional union serial lists, as well as later incorporation into local or regional data banks.

In addition to the list of titles for the public, the computer can also produce a serials shelflist printout if the original input is comprehensive enough. Important elements that can be included in these are cost, frequency, source, and country of origin. The resulting dividend allows not only many copies of a master list of titles, but individual lists by subject, jobber, location or any other permutation, for collection evaluation, desiderata lists and other similar aids.

A brief word about microforms. These certainly have charms to soothe the savage growth of serial collections in matters of space, handling and duplication, if not necessarily in cost. They offer libraries vast opportunities to fill retrospective gaps and acquire basic back sets. Their latest development, color, has intriguing aspects for the fields of fine arts, architecture, interior design, and even entomology and botany, to say nothing of the potent possibilities for the undergraduate now that Playboy is available in living color on microfilm.

For the infrequently-used serial or periodical the microtext is not only highly practical but the only possible way many newly-established libraries or re-emerging institutions can provide for comprehensive collections. The older, larger libraries have, however, already found it cheaper to store the old, bound volume than to convert it all to microfilm, at least against that day when the micro-image can be placed in the reader's hand by the computer. Proper indexing tools, or the lack of them, is a service problem for many microform areas, and adequate service must still depend heavily on the skilled reference librarian. Let us also insist that our architects play fair to readers in the microtext reading room by allowing sufficient outlets to accommodate individual reading lights, some tables designed for typewriters, if desired, and
some partitioning to give the user some opportunity for privacy. At the moment our microfilm rooms look very much like the Bijou on Saturday afternoon, without the popcorn.

Also the ability of microtext to duplicate a back set in little space offers possibilities toward increasing the comprehensiveness of the departmental library. This edges librarians again, though, toward studies of obsolescence, and the question of when would it be wiser to simply deliver a microform from the main library? If departmental libraries are limited, as they probably should be in most cases, to current and frequently-used materials, the hard copy subscription will undoubtedly predominate except where materials are available in no other way than microform. If a two-to-four-year period is the range of current interest for many periodicals within departmental collections, is there any imperative to binding these if at least one complete set is available in the main library in hard copy or on microform? Why not retain unbound issues until the microtext is available for the volume year and then discard, or return them to the main library as duplicates? Certain selected sets could continue to be bound, but the greater majority would not. There will always be those readers for whom microtext is anathema and who insist on bound volumes. Hopefully, with motorized film-drives, improved optics and better resolution of image, our present undergraduates, who will become our next generation of researchers, may turn to microtext as a daily tool as readily as our bibliothecal ancestors pushed aside their papyri rolls when the codex became commonplace.

Mere provision of duplicate copies in microtext may, nevertheless, not always be the successful answer. In theory, the duplication of popular titles on microfilm for use by undergraduates who are aware of the delights of technology sounds quite workable. In actuality, I would like to report the disappointing results of one experiment at Iowa State. We attempted to provide back files of several general periodicals on microfilm for use in a distant men’s residence hall library. Fifteen periodicals of the Time-Life variety, heavily used by undergraduates in the main building, were purchased and maintained with back sets of approximately two or three years each, immediately adjacent to a microfilm reader and publicized through on-duty staff. Current, unbound issues of the same titles were also provided. After two years we are removing both the reading machine and the microfilm since its use by undergraduates as a resource tool was too slight to be worth continuing. Some good has arisen from this since we have simply transferred these duplicate sets of popular titles to our general periodical room.

The computer search services and SDI (selective dissemination of information) has, I believe, the most significant potential for improving serial service of anything that has come along in years. There is undeniable benefit for users in the computer’s ability to search a file of 5,500 items a week and to pick out specific articles on a reader’s “interest profile.” For librarians it permits extension of highly specialized, direct services in a manner that has been beyond their previous economic capabilities.

SDI allows the computer to browse the literature for the reader and match articles, titles and abstracts with words selected by the reader that
describe his specific areas of interest, his "interest profile." Of considerable importance in the SDI system is that many publication sources are included, rather than only the core journals which most researchers in a field read regularly anyway. Sources in allied or dissimilar fields, peripheral areas, or obscure materials can thus be searched with a greater sense of confidence that what has been published has been covered than a reader could expect in our libraries using the conventional limited indexing and abstracting media. Users can be thus made aware of a far wider spectrum of publication and, by continually modifying their profiles, keep the program tailored to their new interests as these occur. Periodically a personal bibliography can be provided for the individual user, which lists in chronological sequence everything selected that was of interest. One commercial service prepares bibliographies on a three-month basis, including in this a subject bibliography, an author index and a key word (KWOC) index.

Problems so far have usually been ones of cost and the availability of data. The advantage at present lies heavily on "current awareness" aspects, but as more materials come to reside on magnetic tape, the retrospective search possibilities will become increasingly more important.

Certainly in the scientific disciplines the variety and quality of magnetic tape services being offered to the serial user are diverse and increasing. There are available, among others, the following: Chemical Abstract Condensates, Biological Abstracts, the Plastics Engineering and Electrical/Electronics Engineering tapes from Engineering Index, MEDLARS, NASA and the very large Institute of Scientific Information and the Pandex Service magnetic tape files. A copy of magnetic tape containing the material included in the document résumés printed in Research in Education is also now available on a two-week loan basis without cost from ERIC.

Many universities through their computer centers are already participating in these services, but it is still the library with its major files of periodicals that provides the basic resource for the largest proportion of these. At the moment the emphasis is on science and technology, but sooner or later the humanists and social scientists will be opening their doors to this through such programs as those being studied by the American Council of Learned Societies and the National Foundation for the Humanities. When these are actualities, libraries must be ready to tap into them so that their enormous serial collections can be utilized to the fullest extent, far more then they are now being used.

In terms of specific cost and service, perhaps a brief look at the Ames SDI system may be helpful. This current-awareness literature retrieval system was first developed at the Ames Laboratory of the Atomic Energy Commission and is now being offered to all faculty at Iowa State on a cost-sharing basis through the Iowa State University Computation Center. The search tapes are subscribed from a magnetic tape service giving access to the literature of science, technology and medicine. The approximate cost is $50 to $100 per year per profile and the service is available to individuals at cost or through departmental funds. There is a charge of $2 per quarter for profile change; the user is free to use those terms which best describe his interests in
preparing his profile which is to be matched against the spectrum of journal articles on tape; the cost per word in the profile is ten cents. There is every expectation that there will be an increased load on library photoduplication services for reproducing these articles for SDI users. Some 2,100 to 2,300 domestic and foreign scientific journals are searched via this system, with approximately 75 percent of these available currently and in back sets in the Library.

In summary, I have been urging a fresh sense of attention and as much unfettered experimentation as possible in arranging periodical and serial collections and providing service for them. Efficiency in technical processing, reducing costs and getting extensive masses of serial material ready for the reader are vital, of course, but libraries also need to employ an enlarged sensitivity to the way they make available periodicals to people. In the words of Daniel Bergen, we must establish "library conditions that are psychically satisfying to users."

The library's Augean stables are obviously going to be around for some time to come, even with the Age of Armchair Availability presumably just around the corner. The immediate task is to provide a more reader-oriented type of serial service—one that reaches out imaginatively and experimentally even if the cost is higher.

There is always danger of beating a metaphor to death, but I trust you will bear with me when I say the Old Paint, the periodical, is still the workhorse of the library's stables. The thoroughbred monographs can make easier bids for attention, and even the permuted indexes are infinitely more glamorous, but they are only the racetrack around the farm. Old Paint's form may change, he may become just a ghostly image on ultramicrofiche or a flash in the computer, but he is still essential component in the larger library. Despite his unprepossessing appearance, he is indeed a horse of another color, and a pretty faithful one at that. Libraries owe him every chance at a new pasture.

References

2. Ibid., pp. 29-30.


