

Acquisitions Overkill in Science Collections —and an Alternative

Science libraries buy many unneeded books in the effort to provide all needed books. Since books are the least-used source of information for physicists and other scientists, highly selective, objective criteria need to be developed and applied to book selection so as to limit acquisitions to items really needed. At the same time science libraries should increase their provision of the awareness services that researchers need.

LIBRARIANS HAVE LONG RECOGNIZED that the volume of acquisitions is outgrowing available library space. Incredibly, their proposed solutions to the space problem have centered around weeding and storage techniques rather than analysis of selection criteria. Librarians are treating the symptoms instead of the cause of the problem while they continue to indulge in acquisitions overkill. Even in today's tight economy, while austerity measures are being applied in the "management of decline," librarians have not been motivated to examine their library goals and their acquisitions policies as part of the problem.¹ Their solution is now one of handwringing about the lack of funds to buy still more materials. They might better consider Buckland's comment that "as with cooking, expenditure on ingredients does not guarantee the quality of the product."²

It is true that during the last two decades of affluence and growth, libraries have been awarded prestige and recognition for quantity, but only because, as De Gennaro notes, there are no established measures of quality for libraries.³ Selection policies that try to keep up with *Books in Print* have resulted in collections of which only a small percentage are essential to support users' needs. When space and funds are limited, and quantity does not insure quality, is the addition of the one-millionth volume to the collection today cause for celebration, relief, or embarrassment?

Most science library patrons would agree that the librarian's role is one of service. Chen reports that academic physicists in the greater Boston area "view the librarian . . . mainly as housekeeper, organizer, and manager of library materials."⁴ This perception of the librarian is probably as commonly held by librarians as by patrons. Trying to maintain such a service image, librarians set themselves the goal of satisfying the readers who want their books "now." That is, the book has been purchased, cataloged, and is already sitting

Olivia Opello is assistant librarian, State University of New York at Albany. Lindsay Murdock is science writer/editor, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Boulder, Colorado.

on the shelf when the patron requests it.

To achieve this goal, as long as the money lasts, librarians sift through thousands of advertisements and write out hundreds of order slips, following an acquisitions program whose purpose, in part, is to get as much material as possible into the library and onto the shelf. Most succeed in getting the wanted books bought, so that the patron will find the title in the card catalog even if the book is not on the shelf. The librarian is satisfied when a wanted book is thus "available." However, to achieve this goal, libraries buy, process, and use up shelf space with a multitude of other books that are *not* wanted.

USE OF COLLECTIONS

Trueswell found some years ago that a library's holdings might be reduced by as much as 60 to 80 percent and still satisfy at least 90 percent of user requirements.⁵ His research and that of Fussler and Simon have provided foundations for weeding and storage theories.⁶ Regardless of the kind of library, the criteria for weeding and storage are developed from the following: expert opinion regarding the importance of book to subject area; subject content of book (interdisciplinary approach or highly specialized topic that may be covered or duplicated in more extensive studies); professional reputation of author; language of book; publication date; circulation record.

The circulation record is relied on most heavily for deciding, first, which books should be placed in storage and then, later, for testing the decision on the basis of how many times a stored book has been retrieved. Most studies show that after an initial burst of circulation, usually during the first year after a book is acquired, circulation drops dramatically. This has been especially true for books in scientific subjects, although it has been less so for humani-

ties and social science subjects. Buckland reports that "it has been found consistently that the annual usage of books declines with age in a negative exponential pattern."⁷ Fussler and Simon found that objective tests of usefulness, such as circulation and publication date, agreed with subjective opinions about economics and chemistry materials.⁸ There was less agreement, however, for language and literature publications.

During a weeding project at the library of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Boulder, Colorado, a library whose holdings are primarily in mathematics and physics, it was found that there was almost total agreement between scientists' opinions and objective criteria (set by librarians) recommending books to be withdrawn from the collection. A study of circulation records of books purchased between July 1971 and June 1973 also supports other findings that after initial interest the circulation of the majority of new books drops close to zero. At the same time, a few long-held titles continued to circulate at a steady rate.

It is recognized that circulation cannot give a complete record of a book's use. However, there does appear to be a consistent relationship between book circulation and total book use. Recent studies have estimated ratios between numbers of books circulated and books consulted in the library.^{9,10} The data indicate that out-of-library use generally exceeds in-library use.

THE COSTS

How much does a science book cost? According to the *Bowker Annual of Library and Book Trade Information*, 1975, the average price of a science book in 1974 was \$20.83, an increase of 73 percent from the \$12.67 figure listed for the 1967-69 period. It should be evident to any administrator providing

funds for libraries that more money, and lots of it, is immediately needed. But how would that same administrator respond if he realized that \$20.83 is only the cost of the actual volume and that the real cost to the library is closer to three to four times the cost of the book after the library adds the cost of selection, ordering, cataloging, new item preparation, collection storage (shelf-space), and maintenance (card-filing).¹¹ It might be wise to wait until next year before asking that administrator for special funds to weed the collection and place that \$60.00-\$80.00 book in storage!

INFORMATION NEEDS

What do scientists need from a library, and what do they get? Are they the same thing?

The National Research Council has analyzed the needs of physicists and described their information requirements for the future in *Physics in Perspective*.¹² This study indicates that physicists spend approximately fifteen hours a week receiving scientific information or discussing it. Most of their information comes from browsing the journal literature. This finding is corroborated by Chen and Hagstrom.^{13, 14} Physicists' other important information source is oral and/or written communication with colleagues. Surprisingly (to a librarian), books and reviews provide only a small fraction of scientists' leads. Discussion of book materials in *Physics in Perspective* reflects this, being limited to a few paragraphs, with note of the need for "Progress . . ." titles and a hope that conference proceedings will be published more extensively in the journal literature rather than in isolated books. While such a brief concern indicates a limited need for books, as opposed to journals, the focus of the concern is a good clue to what few books will prove useful.

Physicists emphasize their need for interdisciplinary works and review liter-

ature. The point is made that awareness of relevant literature in areas neighboring the specialty of a typical physicist is inadequate mostly because of the rapid rate of production of new information. In addition, advancing knowledge is continually establishing relations between fields that were previously unrelated.

Getting a copy of a needed item is not the scientist's real communications problem; rather, it is being aware of what exists.

IMPLICATIONS FOR SELECTION POLICIES

If a constant concern of librarians is to establish criteria for weeding books and if physicists and other scientists are less likely to use books than any other mode of information transmission, the implication is that libraries are buying books no one needs. When we ask ourselves if we need to keep that book, we are revealing that we should have asked earlier if we needed to buy that book. (In weeding programs, one circulation in thirty-six months may save a book from storage but the real question is: Should the book have been bought originally?)

The challenge to science librarians is to develop objective selection criteria, applicable to most standard advertisements, that will predict usefulness of a book quickly, easily, and accurately. With such selection criteria, book purchases would be limited by true and effective selectivity. For example, book purchases might be limited to reviews and collections; a few publishers' series; conference proceedings; "new" subjects; treatments of "new" relationships; and works by noted authors in relevant subject areas.

That's not too different from what is done now, is it? Except for the "introduction to . . ." and a few "How to's," and some other really interesting titles like *Future Shock*. They loved *Future Shock*, you say? So did we, in the

public library. But, you say, there are some books with really good scientific titles; lots of them are purchased every year. We think we understand. Are those now in the 80 percent you could put in storage? A lot of them are, according to research findings; and they are the ones that are unnecessarily ruining your budget and your supply of shelf space.

Physics in Perspective suggests that "an innovation that would reduce by X percent the total time physicists need to spend in all types of communications to get a given yield of useful information would be equivalent to augmenting the man-years employed by an amount two or three times now spent in communications."¹⁵ Such an innovation would represent a savings of millions of dollars.

Can that innovation be a change in the kind of service libraries now provide? If the scientists' real difficulty is not getting a copy of the journal or report they need but, rather, keeping aware of what is currently available, cannot the librarian do more to keep them aware of the new literature?

Both current awareness services using the data bases available through on-line information retrieval and the more traditional abstracting and indexing tools can keep the scientist up to date in journal and technical report literature. The library can supplement these services by obtaining a copy of what the researcher wishes to see. Librarians functioning as information transfer specialists can maximize use of the library's resources and services by more direct interaction with departments, classes, laboratories,

etc.¹⁶ Librarians need to get out from behind the reference desk if they hope to make the library's resources a more integral and viable part of research and education. Such an approach will call for a shift in library priorities. The first priority will now be keeping the scientist aware; provision of material will follow. Those librarians who fear that extensive information retrieval service will erode the traditional demands made on libraries will be pleased at reports indicating information retrieval services have brought new users to the library and produced an enhanced awareness of the total range of library services.¹⁷

The cost of on-line information retrieval systems is prohibitively expensive for individuals but not for libraries. Most libraries could support, individually or jointly, on-line information retrieval with their savings from sensible acquisitions policies. Like any basic reference service it could and should be done at no extra cost to the patron. (If someone asks you the chairman's name of an academic department, do you tell him it's a 25-cent question and when he deposits his quarter you'll give him the answer?)

Library patterns can change. We have seen services such as the Ohio College Library Center make obsolete the concept of extensive local original cataloging. We must consider the possibility that library service which only provides a book "now" is also obsolete. Librarians can continue to be housekeepers, or they can support their organizations by contributing to the real needs of research.

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