

been given to starting duplicate subscriptions because the journals were obviously needed by other researchers. However, there appeared to be no ready source of library or university funding for the duplicate subscriptions.

Online searching used in a non-traditional manner provided a fast and efficient solution under tight time constraints. Information gathered from the searches done on this project would have been

impossible to obtain by hand in time to meet the deadline. This same approach could also serve well in similar situations that demand that journal collections be evaluated. One question must first be answered: is the evaluation important enough to offset the cost in time and money of doing the online searches? If the answer is yes, online searching will generate meaningful results quickly. ■■

Scientific literature: Producers and consumers

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Is there a crisis in science publishing?

There is much smoke these days about a crisis in academic and scientific publishing. From some quarters, especially from librarians, but occasionally from scientists and publishers, the word is there is too much literature that is too expensive and too little used. From other quarters, including many publishers and scientists, comes word that all is fine. Is there need for a brigade to put out the fire generating all this smoke, or is it just a smoke-screen? Let's listen to what librarians, publishers and scientists are saying and then formulate some questions.

Many prominent librarians say we are experiencing a crisis caused by, among other things, a half-dozen profiteering publishers who are gouging a captive academic library market.

The publishers say that price increases have occurred for good reasons. Higher subscription rates

are due to the devaluation of the dollar, or because a title has grown in size providing more words and information for more dollars, or because of inflating production costs. High subscription rates also subsidize new titles that are losing money. Publishers say that new and expanded titles are needed because scientists want to be published and if publisher X doesn't accept the manuscript, publisher Y will. Very occasionally publishers say they need to increase subscription rates to make more money! (Commercial publishers return a profit to stockholders, non-commercial publishers provide services to association members.)

The library profession has responded to this perceived crisis in a number of ways. ARL prepared a statement which summarizes the library profession's concerns and proposes some long term solutions. Institutions have strengthened resource shar-

ing plans, and have questioned their commitment to comprehensive collecting. Librarians have passed resolutions, organized task forces, met in committees and have held conferences. The literature is full of articles which analyze journal cost by almost every conceivable variable.

But what do the scientists who produce and use this "over-abundant and overpriced" literature think? Do the researchers think there is a crisis? Within the last few months several interesting items have been published. A July 1988 article in the *New Scientist* asserts that scientists are swimming not drowning in the tide of research and that the noise of a crisis is being made by librarians and information scientists who don't even use the literature. Other scientists differ. Contrast this attitude with the recent actions of the Harvard Medical School. The July 29 *Science* headline reads, "Harvard tackles rush to publication." Harvard guidelines substantially reduce the number of papers (now between 5-10) required for promotion and tenure. These actions intend to reduce fraud and error and to emphasize the quality of publication over quantity. Scientists have analyzed the costs of their literature, but do they generally believe that there is too much scientific literature being published, and that it costs too much?

Whether or not there is a crisis in science publishing triggers other questions which may facilitate consideration of the issues:

1) Is information a free market commodity that should be priced at what the market can bear? What is the role of the private merchant in the information market?

2) Is use of the library for cutting-edge research low or non-existent? It seems that in these hot areas of research the cost and size of the literature is increasing rapidly. If so, why?

3) Tenure requires peer review and recognition, but does it require expensive journals? The tenure promotion process requires a large number of papers for which the university pays twice: the university pays the authors and the university buys the journals.

4) Are there less expensive ways to provide more information to researchers and at the same time support the important uses of journals, e.g., interdisciplinary research and confirmation of prior work? Can the transferring of information be separated from the archiving of information?

5) How can library staff and faculty work together to change the current relationships between publishers, faculty, and university libraries so that university resources are not so strained?

Stanford University Libraries have initiated a series of actions designed to assess faculty interest in discussing these issues and to involve them in crafting and implementing an action plan. A small number of librarians and faculty have been invited to discuss the rising costs of scientific information and what the Stanford community should be doing about them. Our hope is that the interest generated for the specific issues surrounding the price of science information will broaden into an examination of the overall relationships among researchers, the academic community and publishers. We would very much appreciate hearing how other institutions are addressing these issues. ■■

Looking backward, 1989-1955

A very interesting article in the July 1955 issue of *College & Research Libraries* made some predictions about what the future of academic libraries would be fifty years hence, in 2005. Haynes McMullen, then associate professor of library science at Indiana University, foresaw many trends that have since come to pass (changes in student study habits, changes in faculty research procedures, changes in the governance and administration of university libraries, an interest in collecting popular culture), but he missed on a few important points. With the 20/20 hindsight available to us in 1989, we can now take a look back to those simpler days before future shock became commonplace.

McMullen wrote: "It is unlikely that the typical university library staff of 2005 will employ any mechanical devices which are not already in existence in 1955. There will be three reasons for this apparent lack of future progress: (1) recently developed instruments such as indexers, transmitters, translators, and copying devices may require many years

before they can be developed to the stage where they can be economically used in a variety of libraries; (2) some entirely new instruments will be invented during the next 50 years, but they quite probably will be so expensive in 2005 that only a few libraries will be able to afford them; (3) there may be a limit to the amount of speed and efficiency faculty members will accept.

"Librarians will not approve of this apparent backwardness on the part of scholars, but it will be the result of habits of thought which are hard to change. If a man is going to spend a period of six months to six years in producing a piece of research, it cannot make much difference to him if the librarian is able to assemble and to present him with the material he needs within a period of two days instead of a period of two weeks."

Upon reading this one recognizes with a shiver how wrong some of our own confident statements about future trends may be. ■■