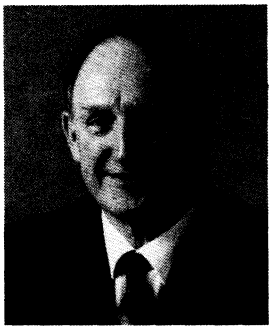

University Libraries and Scholarly Communication

The title of this editorial is the title of a study prepared for the Andrew W. Mellon Foundation by Cummings et al.[1] This is a very important report that we should all read; but if nothing else, please read the foreword by William G. Bowen and the synopsis by Ann Okerson. I say we should all read it because the content should be of interest and the conclusions of concern to all readers of *Optical Engineering*.

Optical Engineering is committed to the communication of advances in optical science and engineering and is a scientific and technical archival publication that serves an international community. We sincerely hope that libraries will continue to carry this premiere journal in our field, or at least provide ready access to its contents to students and professional scientists and engineers. We do have the advantage, of course, of a very wide readership, with distribution to all our members. My own interest and concerns about the future of libraries, and particularly scholarly libraries, are multifaceted. Certainly, I have an interest from the point of view of *Optical Engineering* to make sure that the important information that it contains is widely disseminated. As many of you know, I also act as the series editor for the SPIE Milestone series, again a series that attempts, successfully I hope, to make available selected papers from the world's literature on various subdisciplines in our field. My work as the editor for a book series on optical engineering that began in 1982 and continues today, published by Marcel Dekker, is also important to me. Finally, I should add my other interest as the chair of the Editorial Board of the University of Rochester Press.

Having said all that, I then put on my other hat as Provost of the University of Rochester, a university with three major libraries. I worry each year about the budget for collections, how we can cope with the ever-increasing costs of publications, and how to change our point of view from one of collecting materials to one of providing access to materials, whether they are on our shelves, someone else's shelves, or only in the computer. For many years now we've been told that the electronic publishing age is here, yet books and journals still appear in hard copy. There is no doubt, however, that things are changing. Headlines pronounce "Publication by Electronic Mail Takes Physics by Storm"[2] and "Libraries Shift From Books to Computers"[3] to quote but two recent ones.

So back to the Mellon Foundation document report and my attempts to persuade readers of this editorial to read the report. The "principal findings or observations of the Mellon study" are listed in the synopsis that I mentioned earlier. Each finding or observation is highlighted and is followed by a short but meaningful discussion. I merely list the fifteen headings here:

1. Libraries have not taken a larger percentage of the university budget; their percentage has shrunk.
2. Materials and binding: These acquisitions-related expenditures have remained a remarkably constant percentage of total library expenditures as a whole, but make a significant reallocation between books and serials.
3. Books (nonserials): In the 1970s and 1980s, the rate of increase in volumes added at university research libraries virtually halted, while domestic and international publishing continued to produce greater and greater numbers of new titles each year.
4. Serials: Many speak of a "serials crisis" at the heart of library difficulties today, and it is prices, and in particular science journal prices, that drive the crisis.
5. Salaries as a percentage of total library expenditures have declined over the last two decades, while "other operating expenditures" (heavily reflecting computerization) have risen markedly.
6. The pressures described in the first part of this report will need to be addressed in many ways, but the possibilities of a significant increase in the role

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of electronic text distribution, maintenance, and use have the potential for being the most dramatic.

7. Until very recently, automation in libraries had addressed itself to existing internal functions (circulation, cataloging, and acquisitions), but the range of uses is becoming much broader.
8. At the present time, electronic publishing comprises many different kinds of information dissemination.
9. Scholarly publishing is closely tied to academic prestige, a link that exercises a conservative force on new arrangements.
10. Options for distribution of electronic texts are numerous and their costs at the present time uncertain.
11. Campus computing and telecommunications infrastructures will need to be upgraded to make the new technologies possible.
12. Traditional roles in the publishing process will undergo transformation.
13. Consistency of standards and of protocols has not yet been found.
14. Adaptation of current copyright practices to the new electronic environments poses numerous difficulties.
15. In the end, larger social issues will need to be addressed.

In conclusion, let me again stress the importance of the report and the importance of being involved in how we think about the library of the future. It is physically and financially impossible for the library of the future to be an expanded version of the library of today.

As an epilogue, I would also suggest some additional reading that came to my desk on the day I wrote this editorial. It is the second part of a two-part report by the Research Libraries Group titled "Preferred Library Futures II: Charting the Paths."[4]

References

1. A. M. Cummings, M. L. Witte, W. G. Bowen, L. O. Lazarus, and R. H. Ekman, "University Libraries and Scholarly Communication," The Association of Research Libraries for the Andrew W. Mellon Foundation, p. 205 (1992).
2. "Publication by Electronic Mail Takes Physics by Storm," *Science* **259,** 1246–1248 (February 1993).
3. "Libraries Shift From Books to Computers," publication unknown.
4. R. M. Dougherty and C. Huges, "Preferred Library Futures II: Charting the Paths," p. 27, The Research Libraries Group, Inc., Mountain View, CA (1993).

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