

F. Wilfrid Lancaster: From Paperless Systems to Warm Librarians

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“Twenty years ago, I predicted a technological rise that others in the profession doubted. But those changes have happened and, unfortunately, not for the better.” F. Wilfrid Lancaster.

It is likely that the term “paperless society” was coined by a librarian. His name was Frederick Wilfrid Lancaster, a British-born American library educator, and he wrote extensively in the 1970s and 1980s on the shift from print-based to electronic-based systems and the role of the library and the librarian in a “paperless” age. In books such as *Toward Paperless Information Systems* and *Libraries and Librarians in an Age of Electronics*, Lancaster argued that the evolution from paper to electronic was inevitable and largely desirable. As the transition actually occurred, however, his enthusiasm for the developments and their implications waned. By the time the Internet had made many of his predictions a reality, he had in his words become “downright hostile” toward the changes brought about by technology.

F. Wilfrid Lancaster was born in 1933 in England. After studying at the Newcastle School of Librarianship from 1950 to 1954, he began his professional career in the Newcastle public library system. He left England for the United States in 1959. In the 1960s, he worked with private firms and special libraries in the development and evaluation of information retrieval systems. Among the projects he worked on was a pioneering database developed by the National Library of Medicine that indexed medical literature, called the Medical Literature Analysis and Retrieval System (MEDLARS). Lancaster’s work in the late 1960s in evaluating the performance of MEDLARS is regarded as significant, not so much for its influence on the development of that system but as an example of applying refined methods for evaluating the performance of an operational information retrieval system. In evaluating MEDLARS, Lancaster used criteria and procedures for the evaluation of systems performance that extended concepts pioneered by the Cranfield studies, a series of investigations done in the late 1950s at the College of Aeronautics in Cranfield, England.

After joining the faculty of the Graduate School of Library and Information Science at the University of Illinois in 1970, Lancaster continued to do consulting work in developing computer-based information retrieval

systems. In the early 1970s, he advised the Central Intelligence Agency on its development of a system that allowed CIA analysts to do a range of tasks in a "paperless" environment, including create and search computer-based files, receive electronic messages, and search online databases.

From his experiences with MEDLARS and the CIA, Lancaster saw potential in applying the concepts of paperless information systems more broadly. In his award-winning 1978 book *Towards Paperless Information Systems*, he argued that computer-based systems could solve several problems with the dissemination of scientific literature, such as the exploding volumes of material produced, rising print publication costs, and delays in literature reaching its audience. Distributing scientific articles electronically would make them more accessible, affordable, and timely. Lancaster mapped out a scenario for a "paperless information system" that would exist by the year 2000 in which every scientist had a computer in their office which they could use to access electronic databases and publications, keep electronic notes, compose reports, and communicate electronically with colleagues.

In writings that followed, Lancaster argued that the shift away from print on paper publications towards a "paperless society" was inevitable, the culmination of a natural evolutionary process. Many publications could be distributed more effectively in electronic form and, in fact, future economic factors would dictate that they be distributed electronically. He predicted that by 2001, journal articles and textbooks would not be available in print, print newspapers would be on the verge of extinction, and only the most popular fiction would be available in book form. For those countering that the printed book is an indispensable element in our society, Lancaster pointed to its relatively short existence 500 years is "a mere dot in the history of human communications." These ideas led Lancaster to predict that the library as an institution housing physical collections would eventually become obsolete. As electronic sources gained in importance and computers became common in offices and homes, the need to visit libraries would rapidly diminish, and "the library as an institution will begin its inevitable decline." In his book *Libraries and Librarians in an Age of Electronics*, Lancaster suggested that by the year 2000, only a few libraries would remain, "to preserve the printed records of the past."

Lancaster was somewhat more optimistic about the likely fate of librarians. Although he accused the profession of having its head in the sand in the 1970s, ignoring the rapid approach of the paperless society, Lancaster saw librarians as likely to assume increased importance in the age of electronics. He predicted that librarians would become "deinstitutionalized," freed from working within the four walls of a library to serve as information consultants to organize and exploit electronic information sources for a range of businesses and individuals. As the electronic age has unfolded, we have seen some of Lancaster's predictions come true and others not. People do all of the things with computers that Lancaster said they would, from accessing journal articles on the Internet to communicating with colleagues via email. But society is far from being paperless. In *The Myth of the Paperless Office*, Abigail Sellen and Richard Harper show that the output of the paper industry is greater than ever, that email increases an organization's paper use by 40 percent, and that people continue to like working with paper because it affords certain human actions—such as grasping, manipulating, and writing on—that electronic media does not.

Printed books still dominate library collections, and libraries still exist. In *The Myth of the Electronic Library: Librarianship and Social Change in America*, William Birdsall agrees that libraries are increasing their reliance on technology in providing services, but argues convincingly that the library as place as a physical facility that is "sensuous," appealing to the senses of the public—can continue to play an important role in a changing society.

This is a view that Lancaster himself has seemingly come to agree with. As the electronic age has come to be a reality, Lancaster's enthusiasm for its implications has faltered. In "Second Thoughts on the Paperless Society," published in 1999, Lancaster regretted that increased access to information had not led to better access: people really want access to the best information, they want quality filtering, the opposite of what has happened with the emergence of the Internet, "a monster lacking a minimum of control of content." In particular, Lancaster lamented what he described as the most adverse outcome of contemporary technologies: a trend toward dehumanization. "At many libraries now, all you see are people hunched over terminals. There's no direct, face-to-face socialization. Technology has contributed to a loss of camaraderie."

To reverse the trend, Lancaster urged that librarians reduce their preoccupation with technology and increase their concern with users and their individual needs. His closing remark showed how far his thinking had evolved: "We need more warm librarians."

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