

The (Continuing) Search for the Electronic Publishing Business

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In May 1984 the Washington Program of the Annenberg Schools for Communication gathered a group of Annenberg faculty and other experts to consider the prospects for electronic publishing. The time seemed right: Specialized online information-retrieval services like LEXIS and Dialog were starting to make a profit. New designs for electronic “books” were being proposed, and consumer markets for personal computers and software publishing were growing. Rising cable television subscriptions heightened the expectations for new broadband services. And American media firms were experimenting with videotex and teletext systems modeled after those in Europe and Canada.

Electronic publishing looked like an ideal use for new systems

that merged telecommunications and computing, famously dubbed *télématique* by French consultants Simon Nora and Alain Minc (1981 [1978]; translated as “telematics” in English). Proponents envisioned fast, easy access to information stored in computer databases all over the world, via telephone, cable, and satellite links. Vast libraries without physical collections, “an Alexandria without walls” (Smith, 1980, p. 316) would eliminate the need for newspapers and book



publishing. Panelists at the Annenberg meeting discussed the implications for intellectual property, public libraries, censorship, and privacy.

There was more to telematics than document delivery, however. Conference organizer Martin Greenberger titled the edited collection of meeting papers, *Electronic Publishing Plus*, because “the term ‘publishing’ is too narrow in context to convey the full meaning of what is taking place” (Greenberger, 1985, p. xiii). Unlike mass media, new media systems delivered information *on demand*. A user could request price quotes, sports scores, or weather data, and the system would deliver it to her specially modified TV set or computer terminal.

This order-and-delivery feature, characterized as “interactivity,” intrigued industry planners and policy makers who imagined large untapped markets for pay-per-use information retrieval. Although interpersonal messaging systems like email might be part of the mix, most experts had fee-based content delivery, information retrieval,

and commercial transactions in mind. In fact, Annenberg conferee Fred Williams observed that “Transaction services may be experiencing more rapid growth than electronic publishing in general” (Greenberger, 1985, p. 149). Electronic messaging was only 1 of 15 other information-delivery services available on most videotex and teletext systems in 1982 (Tydeman, Lipinski, Adler, Nyhan, & Swimpfer, 1982). Since the Internet became widely accessible in the 1990s, some of the early predictions have been realized. PC and software companies have become cornerstones, even “robber barons,” of the new economy. Roughly half of American households, and a far larger share of workplaces, have computers with Internet access. Specialized information-retrieval services have proliferated, including government documents, scientific data, library catalogs, grocery shopping, travel booking, and stock trading.

However, in other respects, “electronic publishing plus” has not met expectations. Videotex, the brightest star in the electronic publishing universe in the early 1980s, burned out quickly. When the demand for household videotex subscriptions was slow to materialize in Britain and Germany, system operators shifted their focus to commercial services like “teleshopping” and “teleshopping” for both homes and businesses. The most successful videotex system, the French Teletel, offered simple services like telephone directory assistance as well as personal messaging and chat groups similar to those available via the (mainly English-language) Internet. Millions of small “Minitel” terminals were distributed free to French homes and businesses between 1983 and 1990, but in the 1990s, Minitel use has declined in favor of the Internet (Schneider, 2000). In the U.S., several major media firms conducted videotex and teletext trials in the 1980s (Tydeman et al., 1982). However, subscriptions lagged behind expectations and sponsors soon abandoned the technology. Some participants at the Annenberg meeting had warned that markets for videotex would be difficult to create and maintain.

Electronic books have also faced resistance. At the 1984 meeting, Herb Dordick noted, “It is not a sufficient entry condition to have an inventory of print information that can be converted for delivery by electronic means” (Greenberger, 1985, p. 207). Despite the increasing sophistication of hardware and interfaces over the past 2 decades, most people still prefer reading print on a page to text on a screen. Some titles (e.g., textbooks, encyclopedias, dictionaries) are suited perfectly to computerized search and display capabilities, but publishers are unsure whether an audience for mass-market e-books yet exists. Digital library projects have also moved ahead, though the “Al-

exandria without walls" ideal is not yet in sight. Standards for metadata (identifying labels or tags, such as author, title, length, format, and indexing terms) that allow documents and other materials to be shared across systems have been extremely difficult to develop, especially for nontext items like visual arts, sound recordings, and motion pictures. Adequate memory is a problem: Even the largest computer systems can store no more than a tiny fraction of the holdings of a typical university library. And, citing intellectual property and revenue concerns, some publishers have chosen to strictly control the distribution of their digital materials.

What might account for the uneven fortunes of "electronic publishing plus"? In retrospect, several factors stand out. First, analysts assumed that broadband services would provide homes and workplaces with plenty of inexpensive bandwidth (channel or signal capacity) for content and services. Coaxial cable, Ethernet, fiber-optic, and, more recently, cable modems and digital subscriber line (DSL) technologies have all been promising and are used in many large organizations. But price, industry regulatory concerns, and persistent technical problems have kept broadband out of most U.S. households (to the annoyance of anyone who has ever attempted to capture "streaming media" through a regular modem). Currently, cable modems are available to less than half of U.S. homes, and just one fifth have DSL access. Only 3% of U.S. households actually subscribe to any type of broadband services (*Economist*, 2000), though in "rich suburbs full of wealthy nerds," like those around Boston and San Francisco, that figure is closer to 25% (*Economist*, 1999).

Second, as some dot.com firms have recently discovered, the pay-per-use model of online information retrieval is a hard sell, especially when comparable information is available elsewhere. At the Annenberg meeting, Herb Dordick entitled his remarks, "The Search for the Electronic Publishing Business." He pointed out that except for affluent professionals with highly specialized or technical interests, "Research findings indicate only a fringe audience for purposeful information-seeking from the home"

(Greenberger, 1985, p. 205). In the last decade, Web browsing has flourished in part because most information online is available without charge. E-commerce, the successor to the teleshopping and telebanking of the 1980s, has grown more slowly than predicted because online customers have encountered problems with security, privacy, reliability, and value for money. Shoppers tend to use the Internet more to find out about products and to comparison-shop than to actually purchase goods. In a move reminiscent of videotex in the 1980s, the hopes for e-commerce have shifted from "B2C" (business-to-consumer) to "B2B" (business-to-business) applications like inventory control, wholesaling, and back-office services.

Finally, from a communication standpoint, calling the order-and-delivery function of telematics "interactivity" may overstate the case. Certainly, compared to the ostensibly "passive" reception of mass media, the new systems seem to "require a high degree of individual involvement. A person must actively choose the information content that he or she wants" (Rogers, 1986, p. 31). However, it might be more accurate to say that most telematics systems and services, including many of today's Internet services, are *transactional*, not interactive. Users send simple queries or commands to databases; software retrieves and delivers the information back to them. Significantly, most Internet surveys indicate that electronic mail, chat rooms, and instant messaging consistently dominate online traffic: Interpersonal interactions, more than transactions, drive Internet use.

Like many other industries, publishing has been profoundly affected by telematics. However, realizing the full vision of "electronic publishing plus" may depend on overcoming persistent bandwidth shortages, the focus on transaction-based services rather than interpersonal interaction, and the pay-per-model of information access.

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Deadline Set for Graduate Teaching Award Nominations

April 1 is the deadline for receipt of nominations for teaching excellence awards given by the ICA Instructional and Developmental Division. Any department may nominate any one of its graduate students for the award. Recipients will be recognized during the IDD business meeting at the annual convention in May, receive an award certificate, and have his or her name added to the division's permanent roster of outstanding graduate student teachers.

To nominate an outstanding graduate student with an excellent teaching record, departments should send the following information:

- (1) name (as it should appear on the certificate), mailing address, and email address of the graduate student nominee;
- (2) name, department, institution, address, and email address of the person submitting the nomination.

Information may be submitted either via email to Thomas@ohiou.edu or via mail to Candice Thomas-Maddox, ICA IDD Secretary, Ohio U-Lancaster, 1570 Granville Pike, Lancaster, OH 43130. Remember: All nominations must be received by April 1, 2001.