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BY CAROL TENOPIR

Reflections on Two Decades

THIS COLUMN marks my 20th anniversary with *Library Journal*. For those whose awareness of online databases began with the web in the mid-1990s, 20 years ago was the dark ages of information access and retrieval. Yet when I began writing this column in 1983, online systems already had a decade-long history.

The scene in 1983 and 1993

In 1983, the hottest issue was the entry of the end user. Throughout the previous decade, expert searchers were the only ones with their hands on the keyboard. The widespread acceptance of the personal computer in the early 1980s spurred new expectations. End user versions of major intermediary systems heralded the beginning of the end user revolution. By 1993, end users were accomplished searchers but most likely on CD-ROM versions of databases. Libraries were building elaborate CD-ROM collections and networks, wondering if CD-ROM had made remote online access obsolete.

Although the Internet wasn't new even in 1993, it was limited to research and military use. The introduction of the World Wide Web, combined with the opening of the Internet to commercial organizations and virtually all users, quickly turned the question "Will CD-ROM make online obsolete?" to "Will the web make CD-ROM obsolete?"

New versions of software, systems

From 1995 to 2002 nearly every online system redesigned its software at least once. Creating web-compatible versions was the main impetus, but building an interface that appealed to end users was another. In the last decade we've gone from intermediary online to CD-ROM to web systems. Along the way, we've seen plain command language interfaces, colorful and fancy GUI interfaces, and the return of plain "dialog box" interfaces.

Much of today's redesign helps befuddled researchers who may end up searching a dozen or so online systems in a day. If the systems are too confusing, it is tempting to rely just on Google, so many new versions offer a Google-like simplicity to lure web-savvy users.

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Full text, e-journals, linking

The mergers and acquisitions in the database industry over the past decade will have a long-term effect on selection, pricing, and library relations with the information industry. But it is the joint ventures and cooperation, coupled with technological enhancements, that affect us immediately.

One of the most significant impacts of cooperation is the convergence that is making full texts readily available. E-journals and links to e-journals or e-articles are possible owing to advances in technology such as improved scanning software, increased bandwidth, and the web. Standards have contributed also, notably publishing standards such as SGML, HTML, and XML, as has the cooperation among publishers, particularly in the CrossRef initiative that facilitates linking among indexing/-abstracting databases, e-journals, and full-text databases of articles.

Linking and e-journals immediately heighten expectations. Users now expect links between bibliographic information and full articles, demand that full texts be instantly available, and seek access from their desktops. Indexing and abstracting databases without links may not last long in this full-text world. Expectations for e-books have been slower, but are surely coming, too. In particular, patrons will begin to rely on e-versions of reference books, manuals, and textbooks.

Pricing and other issues

Changes in pricing algorithms and an increased reliance on site-license negotiation changed the jobs of many acquisitions and electronic services librarians this past decade. Life was much simpler in 1993—print serials and most CD-ROM bibliographic databases were purchased on a yearly subscription basis, print and CD-ROM books were purchased with a one-time flat fee, and online databases were pay-as-you-go. Today, site licenses require negotiation of the best formula for each library. Pricing may be based on number of users in a community, potential users of specific content, a set number of simultaneous users, or other factors. Things are not likely to get any less complex.

Another big change is the growing number of low-cost or free alternatives. E-print services such as arXiv.org (originally at Los Alamos National Lab and now at Cornell), the PrePrint Network (from osti.gov), and PubMed from the National Library of Medicine provide free alternatives for libraries and users.

More, but better

Even though librarians today have many more decisions to make, online life has gotten better. Because the web is a model platform, users are demanding online content, linking is widespread, and online resources are the most important part of a library's collections and services. Chat and e-mail reference services are bringing librarians to the online patron.

The next decade will see additional challenges, including continued pricing negotiations, more alternatives to commercial products and reference services, and more multimedia materials in digital collections. We've come a long way, and I look forward to another decade of Online Databases.



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CORRECTION: The correct name for CAS, mentioned in "Oldies but Goodies" (*LJ* 11/1/02, p. 36,38), is Chemical Abstracts Service; its web address is www.cas.org.