

Trends for the Next Five Years

EARLIER THIS YEAR, in a fit of millennium fever, I asked a dozen or so representatives of online companies what they think will be the major trends in the library marketplace in the next five years. As marketing representatives for their companies, none of these insiders made radical predictions, but they did provide a helpful picture of the types of products and services likely to be introduced to libraries in the next few years.

Integration and aggregation

The distinctions among types of content and even distribution media will continue to be blurred as companies aim toward integrated information systems. Online companies will strive to market more products that mix bibliographic and full-text information and that mix web site access with proprietary content and even some government resources.

According to Eric Shively, public relations group leader of Chemical Abstracts Service (CAS), "CAS sees growing demand for bringing together valuable sources of information from the web and other sources, including the integration of secondary databases and full-text documents. Many participants in the information industry and even government agencies will pursue plans to effect this kind of coalescence."

The need and desirability of closer integration of full-text and bibliographic information and of web resources with traditional articles and indexing resources was echoed by nearly everyone. Carole M. Myles, director of U.S. sales and customer service at SilverPlatter Information, foresees more "integration of traditional abstract and index content with quality web-based resources" and

that "linking of multiple types of data will become more common—secondary publishers will link to primary content; primary publishers will link to each other."

These are, of course, two related but separate issues. Linking between indexing and full text generally relies on agreements between multiple secondary and primary publishers and usually involves licensing agreements and additional fees paid by libraries. It requires compatible standards and software but also complex legal agreements between companies.

On the other hand, integrating proprietary content with access to no-fee web resources is more a matter of selecting, editing, cataloging, creating good links and pointers, and good interface design. Most libraries already use their OPACs to point to valuable web sites in addition to library-purchased materials, although the web resources may not be integrated through subject access to other resources. Less separation among types of resources and more focus on an integrated subject search will likely be easier in new products.

Linking indexing and full texts

Linking full texts with indexing is already widespread, and, in the future, an indexing-only product may be rare. Deborah V. Loeding, VP of product management, the H.W. Wilson Company, believes that full-text electronic resources are "vital with the increase in distance learning programs and remote library users." Lynne Karle, project manager of Information Quest, believes that "as database products evolve, linking will become the key to usability."

Smart companies now make linking agreements with as many publishers and competitors as possible. Information Quest (IQ), for example, has signed linking agreements with Cambridge Scientific Abstracts, Chemical Abstracts Service (ChemPort), SilverPlatter, and Dialog. It also partners with the National Library of Medicine's new PubMed database for related records and abstracts.

Almost all companies have created

similar multiple linking agreements with a variety of for-profit, not-for-profit, and government information companies. Such linking does not begin and end with commercial or government products. Libraries also want to have links directly from their OPACs or library homepages to full text articles.

CrossRef, the new standard linking agreement among publishers (described in "Trekking Through Exhibit Halls," *Online Databases*, LJ 9/1/00, p. 152, 154), and large government online services that rely on linking (such as PubMed and PubSCIENCE) are some large-scale steps to making ubiquitous links possible. Products and services through online systems designed specifically for libraries from companies such as OCLC, SilverPlatter, and EBSCO are another approach. Libraries must use a variety of approaches.

Beyond digital texts

Integration of content may even go beyond digital resources. Amy Del Torchio, public relations coordinator of EBSCO Publishing, foresees a more closely integrated mixture of print and digital access: "We believe that the aggregator of the future will integrate both types of journals (print and electronic) with both types of databases (full text and abstract-only). If a library has paid for an online journal, its users should be able to access that journal from its abstract-only databases (such as Sociological Abstracts, PsycINFO, and ERIC, etc.). The same thing is true for journals available in full-text databases. That same content should also be automatically linked to abstract-only databases."

Licensing agreements that allow libraries to provide access to electronic versions of journals when they subscribe to the print version (for a modest additional cost only) will help make the first part of this vision more of a reality. Agreements among primary publishers, secondary publishers, and aggregators that allow two-way linking between indexes and full-texts will help achieve the rest.

So far, most of these companies are



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focusing on providing access to articles and the indexing/abstracting publications that describe them. Most of the articles exist in printed form, and the online versions mimic print, whether they are in PDF, SGML, HTML, or plain ASCII formats. Going beyond a print-based view of information was not mentioned by many of these representatives, although it may be in the back of their minds as something to be considered in the long term.

Jennifer Hartzell, manager of corporate communications at the Research Libraries Group (RLG), foresees the "demand for more information in more formats (3-D, audio, video, etc.)." Even as more viable technologically becomes available, providing access to nonprint information products presents new "challenges to suppliers in their presentation, integration, pricing, terms and conditions of use, and maintenance." Perhaps even more than radio, television, or CD-ROM, the web has brought the issue of multimedia information resources to our attention.

Issues from the web

That the web will continue to be the primary means of digital information distribution for the next five years almost goes without saying. Many of the information industry experts interviewed elaborated on the web theme. Wilson's Loeding sees how the ubiquity of the web as an information distribution mechanism emphasizes issues such as the "expectation of continuous updating, licensing of full text with images," and "customization of the services offered on the web."

SilverPlatter's Myles foresees the phasing out of "other access methods" as the web becomes the primary method of distribution. Among the many issues that are important as a result will be a growing concern about "privacy of personal data collected by web-based publishers" and "protection against piracy of noncopyrightable material prepared by electronic publishers." Although no one mentioned it, surely concerns about security and making systems "hacker-proof" go hand-in-hand with concerns about privacy and copyright violations.

The trend toward integrating external and internal information and providing both proprietary information and access to commercial web sites through the library's online system exacerbates the concerns of privacy and security (not

to mention copyright). Companies that specialize in the corporate market in particular are offering products that make it easier to tie external resources into a company's intranet.

Scott Yates, Dialog's U.S. public relations manager, sees the web extending its reach as we see an "evolution of Internet and intranet delivery products and the increasing number of web-based access options to specialized content."

Customization and a better search

Customized products, individualized interfaces, and friendlier online systems are goals of both librarians and the information industry. Working within the framework of the web as a distribution mechanism, several of the reps interviewed predicted vast improvements in systems design within the next five years.

The need to add value to information products and services should be on the mind of any information intermediary

The goal that many are working toward is articulated by Lynne Karle of IQ: "Over the next five years, access to information will become even more centralized and personalized. Utilizing seamless links from one site to the next, users will increasingly rely on 'intermediaries' to allow personalization of user features so that the particular nuggets of information can be found instantly."

Thomas Brickel, public relations coordinator of SIRS Mandarin, Inc., has an optimistic view that "in the future, we will see an appreciation that quality information surpasses sheer quantity in value." Also, "search engines and user interfaces will evolve into more intuitive, interactive, stimulating tools for revealing useful information."

But what does personalized and seamless access do to the role of the librarian? Do we have a role beyond selecting and paying for the systems that allow personalization and access to quality content? As RLG's Hartzell puts it, there will be "increased autonomy of

users and researchers in how resources are used—but with libraries and educational institutions still footing the bill."

Both librarians and companies that market to them need to work together to define this changing role. Beth Dempsey, corporate communications manager, Gale Group, feels "library patrons are increasingly savvy, with greater and greater access to information. Library publishers need to secure the role of the library as the knowledge center by providing products that add value to the services offered by the library. For example, powerful search engines that integrate myriad databases, making searching simpler, faster, more straightforward."

The need to add value to information products and services should be on the mind of any information intermediary, whether from libraries or database companies. From the company viewpoint, according to Myles, this is because "we will continue to compete with 'free data' offerings and increasingly need to add value to the search experience. Aggregators and [abstract and indexing] publishers will need to continuously enhance the level of value-added to compete with various services." The same can be said of libraries.

Archiving and the future

Finally, a few company representatives mentioned that we need to face the tough issue of archiving electronic resources. An OCLC spokesperson noted that "libraries are concerned that electronic information will be here today and gone tomorrow. And libraries remain keenly aware that the vast majority of the world's information is not in electronic form.... Libraries are becoming increasingly concerned with ongoing access to the resources their users have come to depend on." There is no one solution to archiving, but libraries, primary publishers, and aggregators must work together to find safe, equitable, long-term fixes.

Each of these companies (and others in the information industry) will likely be introducing new products or enhancing old ones that address these issues of archiving, value-added, better software, and integration of content and formats. Solutions will not be instantaneous, and products will evolve. It is up to all of us to let the companies know if their predictions of future trends match what libraries need and want.