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Changes and Choices in the Online Year

IF I WERE to pick a theme that summed up commercial online systems in 1994, it would be "changes and choices." In the past year, online systems have been busy changing policies, ownership, and offerings. Online searchers have more choices in how they choose to access systems, what they choose to do with the information they access, and how they choose to pay for that access. Running throughout many of the changes in the online world is the influence of the Internet.

Internet as a force for change

Many people separate traditional online searching from Internet searching, even though in reality the Internet is the largest online system or online system of systems in the world, by far. Even if a distinction is made between "traditional" commercial online systems and the Internet, a discussion of choices and changes can't ignore the Internet.

The Internet is important as a *conduit*—a less expensive way to reach commercial systems through a telnet connection; as an *alternative* or *first choice*—a less expensive way to reach certain materials; and as a *force for change*—as commercial online services, database producers, and searchers react to the first two and change the way they do things because of it.

Alternative search engines

A more specific change this year has occurred in the way we search commercial systems. Until recently, Boolean logic was a de facto standard for such systems, but we have long had a love-hate relationship with Boolean logic. On one hand, experienced searchers prefer the control it provides over a search, allowing them to pinpoint the information needed and present results in an easy-to-

understand reverse chronological order.

On the other hand, studies have shown repeatedly that novices have trouble with Boolean; it is counterintuitive (a grammatical AND includes more things, not fewer like a Boolean AND); and it makes no distinction between relevant and marginally relevant items.

Alternatives to Boolean have been around for many years in the laboratory, in software for in-house databases, and more recently for CD-ROM databases. But the addition of these alternatives to the major commercial online systems is a recent phenomenon that started with *Congressional Quarterly's* use of the Personal Librarian search engine and with Westlaw Is Natural (WIN). These processes were followed in 1994 by DIALOG's Target, Mead's FreeStyle, and others.

As we near the end of 1994, the controversy over Boolean alternatives has calmed somewhat, and these alternatives are being used on a regular basis alongside traditional Boolean logic-based searching. West Publishing teaches end users first to search WIN and advocates the traditional Boolean method for more advanced searching. Several articles have appeared in *Online* relating what types of searches work best for which type of search engine. It seems now that good textual online systems should employ both, and it is up to searchers to choose the appropriate search.

Alternative interfaces

Alternative interfaces may be introduced in conjunction with an alternative search engine, such as West Publishing did with the natural-language interface of WIN. Most of the impetus for alternative interfaces comes from wooing the end user market.

Good natural-language interfaces strip out or downplay noise words ("search for," "information," "about") and work best with relevance ranking where records are displayed in order by how many of the input terms appear. When users are able to input a search phrase such as "find me information

about how the fear of hurricanes affects tourism to Hawaii," online systems seem less mysterious or threatening.

The next logical step is to allow this natural language to be spoken, so even the executive who wouldn't dare touch a keyboard can access information. Westlaw's *LawTALK*, a joint venture of West Publishing and Kolvox voice systems, is the first such voice-input interface. Voice-input interfaces for other online systems are sure to follow, although probably not as quickly as the non-Boolean search engines did (see "Online Law," *LJ*, July, p. 36,38).

Voice input is not the only new interface on the immediate horizon. OCLC will introduce a graphical user interface for FirstSearch early in 1995 and more will follow. Friendlier versions of many online systems have been available for several years now, but in 1994, DIALOG revamped its MENU's interface, and new and prettier access software was distributed by West, Mead, Dow Jones, STN, and others. Most systems that distribute or sell micro software to access their systems now have Windows versions.

Full text

Users are also demanding instant access to more and better-looking full texts. Libraries and online systems are responding to the demand in a variety of ways. One is to provide more convenient delivery of documents. Document delivery systems such as CARL's UnCover and the Association of Research Libraries' (ARL) Ariel continue to improve and grow. Systems such as AT&T's RightPages and UMI's ProQuest PowerPages promise improved delivery of articles to the desktop. OCLC, CARL, and others are providing Table of Contents current awareness services.

Images are beginning to come online as transmission speeds increase. Already an important phenomenon in Internet files (and, of course, long possible with CD-ROM), dial-up availability of images is steadily emerging.

This summer STN introduced online images of articles to complement the ASCII articles in its CJACS (Chem-



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ONLINE DATABASES

ical Journals of the American Chemical Society) file. Images of articles from more than 20 technical journals can be accessed online (or customers can order a FAX or paper mail version).

Another trend with online full texts is the building of links between bibliographic records and full texts. Starting next month OCLC will provide links from bibliographic files to full texts in FirstSearch. Initially the links will be from bibliographic files produced by UMI (such as ABI/Inform and Periodicals Abstracts) to the UMI-supplied ASCII texts. Links from other producers' files to the UMI texts are in the works. Unfortunately, the ASCII texts will not be searchable; they are retrievable through a link and can be displayed or downloaded only.

Alternatives to pricing

Another area of change this year is in online pricing. We have seen a number of systems rethinking ways to charge for their services (see "Connect-Time Variations," *LJ*, October 1, p. 30,32). Pricing adjustments are based on either subscription pricing or output-based pricing.

New subscription plans were offered by DIALOG and Dow Jones joining those by FirstSearch, Mead, and consumer online systems such as Prodigy and CompuServe. As attractive as they are, subscription plans on the research online systems should not be confused with unlimited online searching.

Both DIALOG and Dow Jones base subscription prices on what you have used in the past, with a certain percentage added on for anticipated increase in use. If your actual use in a subscription year is greater than what was anticipated, your subscription fees will go up in subsequent years—though not by as much as you would have paid for actual usage. Output-based pricing is an attempt by online services to rectify the problems and inequities of connect time-based pricing but without forcing the major commitment of a subscription. With connect-time pricing, the time you spend online bears no relationship to the value you receive. Charging for what you actually retrieve and view ties the cost to the value.

Dow Jones has eliminated connect time completely in favor of what it calls "information pricing." DIALOG has not eliminated connect time, although it is working in that direction. Connect-time costs have been lowered while per record charges have increased and a viewing fee has been added. NewsNet has also lowered connect time and sim-

plified full text viewing charges.

Connect-time pricing was a historical accident that is being slowly but surely eliminated. Most searchers want it to go—we can never be truly comfortable online when that meter is running. Overall, however, prices will need to come down if searchers are to be expected to stick with traditional online systems rather than finding information elsewhere.

Integrated information systems

Pricing alternatives are being driven in part by the final trend. Librarians in the corporate environment and large academic libraries are leading the way in the design and development of organizationwide integrated desktop information systems.

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Corporate users, in particular, want a single workstation that allows them access to their own sources (word processing files), to sources within their organization (corporate reports), and to external information sources.

Many of the aforementioned trends are contributing to the goal of a single workstation. The document delivery systems and table of contents services are designed to tie into local networks; subscription pricing options allow more use; better search engines and easier-to-use interfaces allow numerous end users to search without a lot of instruction.

Myriad other barriers are involved in tying external information completely to in-house information systems, but partial solutions to barriers are emerging. DIALOG's ERA (automatic copyright payments system) begins to tackle the copyright obstacle to the vision; database producers and online systems are paying more attention to ANSI standard Z39.50, which promises greater interconnectivity of databases from a variety of hosts and allows a single search interface; client/server architecture is allowing the creation of customized products and ser-

vices; better filtering software will help deal with information overload on a personalized level.

New owners

The final change this year is one over which the customers of online systems have little control. Unless you have \$1.5 billion to purchase LEXIS/NEXIS as Reed Elsevier did recently, you are not likely to be able to influence who purchases the online companies that are on the market.

Searchers survived Knight-Ridder's purchase of DIALOG and then DATA-STAR; we survived Orbit's sale over and over again (although there was a time when it looked like Orbit wouldn't survive); we survived BRS's sale and conversion to CDP Online (although BRS didn't); and we will survive the sale of whatever else will be put on the block.

In many ways, the buying and selling of online franchises is healthy. It shows interest in the online industry and in many cases has resulted in the transfer of information services into the hands of organizations that are more interested in information. Perhaps it even gives us the chance to influence new owners who haven't tired of listening to their demanding customers.

The line between forms of electronic delivery is blurring as well. Former *online-only* systems such as DIALOG and West have sold CD-ROMs for quite a while, but now diehards such as CompuServe are getting into CD-ROM; CD-ROM vendors such as SilverPlatter and CDP now have online systems and locally loaded products; library automation companies such as OCLC, CARL, and NOTIS are offering reference products.

Countless choices mean complexity and, sometimes, even chaos. But choices, complexity, and even chaos mean that searchers have the opportunity to be in control. This control may be manifested in the search engines and interfaces we use; the pricing options we select (or if we don't like any of them, getting the information elsewhere); and the form, format, and appearance of the information we retrieve. Our ultimate form of control is always having the choice to select which online systems we choose to continue to search.

The above is based on a presentation at the Online/CD-ROM '94 Meeting held in San Francisco, October 1994. The speech transcript and slides will be published on CD-ROM by Online, Inc.