

LJ INFOTECH □ ONLINE DATABASES □

BY CAROL TENOPIR

Retooling Online Services

FACED WITH COMPETITION from the Internet and from consumer systems such as America Online, CompuServe, Prodigy, and the Microsoft Network, traditional online systems are rethinking and retooling their online future. Lower costs, friendlier interfaces, and more powerful search engines are in vogue in an online environment that is becoming increasingly commonplace among customers who bring higher expectations.

Over the last few years big online systems such as DIALOG, LEXIS/NEXIS, and Westlaw have added more powerful relevance ranking search engines (see "Target, Freestyle, WIN... Searching Takes on a New Look," *Online Databases, LJ*, March 1, 1994, p. 34,36). Other systems, notably STN, have developed Windows-based graphical user interfaces (GUI) to serve as friendlier front ends (see "Online Images on STN," *Online Databases, LJ*, February 1, p. 31-32).

This year there are even more changes afoot by companies, in an attempt to attract end users. Knight-Ridder has announced a series of Windows search front ends to DIALOG and DataStar that are geared to end users in specified subject areas such as business and science. BusinessBase, ScienceBase, and ProBase will lead targeted users through the search process for a set monthly fee plus output charges. NewsNet will have a new interface and search engine called "Baton."

Perhaps more than any other traditional online system, DataTimes has made drastic changes in order to better position itself for the future. DataTimes has rethought, redesigned, and repriced its online service, launching a new search interface and a new search engine with a glitzy new marketing campaign aimed at end users.

What is DataTimes?

DataTimes has been a traditional online search service for 15 years, most noted for its regional newspapers and its search connection to the Dow Jones News/Retrieval Service. It has offered command-language searching with the standard Boolean and proximity operators to a variety of full-text and bibliographic databases that focus on business and news information.

Oklahoma Publishing Company has owned DataTimes since 1984. Its original focus on regional newspapers greatly expanded in 1989 when DataTimes and Dow Jones/Retrieval launched reciprocal searching of their online sources. Although this relationship was terminated last year, in those five years DataTimes built itself into an important source of business and news information. This focus on full texts of business and news materials continues today, as DataTimes offers access to more than 5200 newspapers, newsletters, TV news transcripts, journals, magazines, and wire services.

The DataTimes source list looks like a smaller version of NEXIS, with journal, magazine, and newspaper titles grouped by subject area, geographic area, or as individual titles. Most titles are full text (or selected full text), but only abstracts are available for some (including the *Wall Street Journal* since the elimination of Dow Jones searching from DataTimes).

The Oklahoma City-based DataTimes posted revenues of \$30 million in 1994, quite respectable but far behind DIALOG's \$280 million or the \$606 million claimed by LEXIS/NEXIS. Last year DataTimes decided to take a running leap at its bigger competition with a redesigned service and much lower prices. EyeQ from DataTimes may augur the new generation of online research systems.

Graphical user interface

EyeQ uses a Windows-based GUI that liberally uses color and icons. A welcome window offers the choices of "Search," "Business Analyst," "Private Eye," "Today's News," "Executive Reports," "Customer Service," and "Help." Each is represented by an icon (Search, for example, is a dart hitting a bullseye, Private Eye

is a magnifying glass, Help is a question mark). A "Bulletin Board" window notifies you of news or updates when you log on.

A consistent menu bar and a tool bar carry throughout EyeQ. The menu bar offers printing or downloading, logging in, customizing setup, finding out about sources available for searching, reading help, etc. The tool bar's icons provide for nine basic tool functions, including returning to the welcome window, printing, downloading, searching, going into various special services, disconnecting, reading help, etc.

Executive Reports and Business Analyst functions are intended to make it easy for a business executive to get information on companies or stocks. (As of July the Business Analyst function was not yet operational.) Each report option is set up to go automatically to appropriate business sources such as Disclosure, TRW credit reports, Standard & Poor's sources, and the like. The user chooses a desired function (such as company reports or business directory), and the system will prompt for whatever information is needed to build a customized report.

Private Eye is a current awareness/selective dissemination of information (SDI) function. Users create search profiles that are stored in Private Eye folders. Each time you log on, the profile will be matched to updates in the system. Private Eye updates can be delivered online or by FAX.

Search engines

EyeQ offers a choice of two search modes: a Boolean search system or a relevance ranking/natural-language system. The relevance system uses the Personal Library System (PLS) software as search engine with an interface developed specifically for EyeQ. Underneath a number of systems these days you will find PLS. It is the relevance search engine for America Online, Dow Jones News/Retrieval, NewsNet Baton, Grolier's CD-ROM encyclopedia, and many other online and CD-ROM systems.

If your user preference is set to "natural-language searching," clicking on the Search icon will bring up a "who, what, when, where" screen. Users enter words or phrases in the "who" and the "what"



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boxes, separating concepts with commas. People (who) or topics (what) are both searched throughout documents. "When" defaults to this year and last but can be altered with a menu choice of time periods or by entering an exact date. "Where" defaults to a global search of all DataTimes sources but can be changed by the source selector either as a setup feature of user preferences or at the time of a search.

When a search is complete, the Bulletin Board displays how many matches were found. The results are also displayed graphically in a relevancy ranking bar chart that shows how each document compares in a likelihood of relevance. Documents that are most likely to be relevant will be displayed first when the "view documents" icon is selected. Users can decide how many documents they want to view.

Searches that include multiple terms or very specific terms tend to be the most successful. The search for "copyright, electronic documents" in the "What" box retrieved 11 million records. It seems my search picked up every document that included a copyright notice! None of the top ranked documents were relevant. By adding the name "bruce lehman" in the who box (the head of the Department of Commerce's Copyrights and Trademark Division and author of the department's electronic copyright report) the top ranked order became more relevant. Putting in "bruce lehman" in that order retrieved him only as a subject in the text, not as an author. Just adding "lehman" didn't help; it then picked up articles from the Wooster newspaper about a family-owned department store named Lehman's.

If too many documents are retrieved, the "Mentor" function (represented by an icon of Albert Einstein) can help improve precision. Mentor uses the word frequency counting feature of PLS to display lists of words found in retrieved documents. Lists of words are sorted into industries, companies, sources, and suggested words. When the user selects terms from any of these categories, the system uses them to revise the search to make it more restrictive.

I tried several searches using this feature and found it worked quite well as long as I was highly selective in the terms I used and as long as the original search set wasn't too large. Mentor didn't help on my search for information about copyright of electronic documents without "lehman." In the search with "bruce lehman" my precision was greatly improved by choosing words like "violation" and "illegal" from the mentor's suggested word list; other words such

as "index" or "analysis" didn't help much.

When the View Documents icon is selected, documents are first displayed without charge in a spreadsheet-like chart. This free display includes item number, the DataTimes source where it was found, the publication date, a title or a headline, the type of source (newspaper, magazine, etc.), and the estimated number of pages. Clicking on an item highlights it for document delivery or online display.

Default output order is by likelihood of relevance, but users can ask for output

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to be sorted by source, date, or type. Users pick the format for final paid display—full, cite, or KWIC—with the most costly full format being displayed by default.

Boolean searches can also be done in EyeQ. Although the software recommends Boolean only as an advanced search method, the EyeQ interface leads the user by the hand to input the search statement. There are pull-down menus that list sources to search, connectors, fields, dates, and categories. Each of these can be folded into the search window. Boolean AND, OR, and NOT or proximity operators can be entered directly by the searcher or can be highlighted in the connector box and inserted between terms.

Subscription pricing

DataTimes has lowered prices and has switched to a pricing scheme that combines a fixed monthly subscription price with a charge for each article downloaded or printed. A monthly fee of \$39 covers unlimited searching. In addition, users pay \$3 per full-text article, 50¢ per citation, and \$1 per lead paragraph or KWIC display. The free format contains only document title, publication date, and source.

Frequent searchers will find costs can add up, however, due to the additional "minimal" telecommunications fee of 20¢ per minute (\$12 per hour) in the United States or 80¢ per minute internationally. Private Eye "Folder fees" of \$15

per month per folder, document delivery fees for FAX or postal delivery, and portfolio update fees also can be incurred.

Reports in the Business Analyst are priced separately. Full executive reports of U.S. or international companies range from \$25 to \$35 per report. Annual reports from Disclosure are \$25 apiece; quarterly reports are \$5. TRW Credit Reports cost \$7.50 each, and stock performance reports from IDD Tradeline are \$1.25.

More difficult than expected

Not everything about the switch to EyeQ is positive for DataTimes or DataTimes customers. Some longtime DataTimes users have been grumbling on LIBREF-L (the reference librarians list-serv on the Internet), claiming the GUI is not intuitive and response time is slow. Some have said searching was easier with the old DataTimes system.

I found EyeQ to be slow. DataTimes recommends running EyeQ on a 386 or higher PC with 4MB of RAM, 10MB of free hard drive space, a VGA graphics adapter or better, Windows version 3.1 or higher, and a 2400 baud modem or higher. I tested it on a 90MH Pentium, with 16MB of RAM, a 64-bit VGA display adaptor, Windows for work group version 3.11, and a 9600 baud modem. Since EyeQ was still very slow at times with this more robust configuration, I wouldn't want to run it on a 386.

Retrieving and downloading documents will probably take some time, and, admittedly, the Mentor function is a computer-intensive process for the DataTimes computer. However, a busy executive may not be willing to tolerate the long waits required for almost every EyeQ action. There can even be a delay for the function labels on the tool bar icons to appear. When the system is busy doing something (often without the hourglass being displayed), you just have to wait.

In November 1994, DataTimes announced EyeQ would be released in January 1995; the EyeQ software was not delivered until late spring. Even this version was preliminary, with many functions not yet in place and some bugs still unresolved. The task was obviously larger than anticipated, so additional major enhancements were planned for the summer and fall of 1995. (Software updates can be downloaded when logged on to an EyeQ account.) Internet access is promised soon.

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