ONLINE DATABASES

BY CAROL TENOPIR

Online Law

THE HEADLINE in the entertainment section of my newspaper read "Last episode of *LA Law* this week." On that same day in May, the headline in the Business section proclaimed, "Mead offers LEXIS/NEXIS for sale." Is this to be the last episode of one of the two major players in online law or a move that will strengthen its traditionally strong ratings?

By the time you read this, Mead Corp.'s sale of Mead Data Central, which owns LEXIS/NEXIS, may be complete. LEXIS/NEXIS may become part of any one of a handful of long-distance telecommunications giants including AT&T, MCI, or Sprint; a division of one of the baby Bells; or even the information showpiece of an electronic publisher. Ironically, as the digital revolution proliferates, Mead has decided to stay with its roots, selling paper and paper products, which account for almost 90 percent of its business.

To pay an asking price reported to be between $750 million and $1.5 billion or more, the purchaser will have to be a firm believer in online information retrieval and have money to spare.

Mead Corp. bought what became Mead Data Central (MDC) in 1968 for $6 million. The company offered just the LEXIS legal service until 1981, when the NEXIS service expanded its offerings to full-text news sources. In 1993, MDC showed earnings of $50.4 million on sales of $551 million, with approximately 300,000 customers. Sales were up from the $495 million of 1992, but earnings were down slightly from $50.6 million.

More than 400 MDC employees were laid off in 1993, and rumors of the parent company's lack of commitment were buzzing. The pending sale was a well-kept secret, however, and no word of it was breathed even at the National Online Meeting in New York the week before Mead's announcement.



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LEXIS/NEXIS in libraries

The LEXIS/NEXIS system remains one of the most heavily used commercial online systems in the library and information technology fields, second only to DIALOG. The database's exclusive deal for full text of the *New York Times* and thousands of other legal, medical, and general full-text products is attractive to many different types of libraries.

MDC has showered special services and marketing attention on special librarians in the last few years, helping them justify online access and library services to corporate management and providing videotapes and training materials geared to business library users. Until cutbacks were announced in 1993, Mead had expanded its educational program to include library schools, business schools, and journalism schools.

In the months before the announced sale, in addition to staff cutbacks, Mead had severely restricted the educational program; implemented systemwide changes to its menu and file names before adequately documenting those changes; and prematurely launched FreeStyle, its non-Boolean search engine, before testing was complete.

Many general libraries use the system for its news side (NEXIS), but the bulk of its revenues and usage comes from LEXIS, the service that offers the full text of a variety of legal and regulatory materials.

The legal market is one of the largest segments of the online industry. Liberal law school educational programs imbue the online habit in lawyers from the very beginning of their education and careers. Law libraries are heavy users of online services for their students and faculty. In the full-text legal resource market, LEXIS and its main competitor, WESTLAW, dominate.

WESTLAW

WESTLAW's fortunes have been rising of late, at the same time that the LEXIS fortunes are waning. Coincidentally, at the time of the Mead announcement I was in Minnesota attending West Publishing's "An Inside Look" for legal technology writers.

At a time when LEXIS is plagued by uncertainty and a lack of commitment from its long-time parent, West's electronic products are expanding its market share, leading all online services in innovative new products, and showing strong confidence in its past, present, and future.

WIN

Last year I wrote about WESTLAW Is Natural (WIN) in depth ("Online Databases," *LJ*, November 1993, p. 54, 56). Made available in 1992, WIN is West's attempt to make online searching easier for the novice searcher. Searches can be typed into the system just as they would be spoken (e.g., "find information about the liability of information brokers"). WIN will recognize noise words ("find me information about"), identify bound phrases, do automatic stemming ("liability, liable"), recognize and correct common misspellings, and, for terms or phrases in its legal thesaurus, provide some synonyms.

Articles are ranked according to a complex formula of word occurrence and word importance, with those most likely to be relevant displayed first. WIN continues to set the online industry standard for natural-language interfaces coupled with a non-Boolean, statistical search engine and relevance ranking. DIALOG's TARGET and Mead's FreeStyle are those systems' versions.

Online usage of the WIN search engine now surpasses that of WESTLAW's Boolean "terms & connectors" search mode. So far WIN has only been available in its online system; West's PREMISE CD-ROM series of products does not yet support natural-language searching. According to West President Vance Opperman, however, "the natural-language search engine will be added to CD-ROM . . . providing a seamless

uplink to WESTLAW." No date has yet been announced, but it will happen "sometime fairly soon."

In the meantime, WESTLAW's efforts to make online searching even easier are continuing. Its latest innovation (voice-compatible WESTLAW searching) will blow you away.

*Law*Talk™ and WESTMATE

The *Law*Talk™ voice-activated link with the WESTMATE communications software makes WESTLAW the first online system that doesn't require a keyboard or a mouse. It is a completely voice-activated system, from logging on through searching and display. The *Law*Talk™ user, likely to be senior law partners who have no intention of ever putting hand to keys, need never touch a keyboard to complete an online search. *Law*Talk™ will also be a boon to the disabled.

*Law*Talk™ is being developed cooperatively with Kolvox Communications, Inc. of Toronto. Kolvox has adapted DragonDictate 2.0 voice-recognition engine for use in a law office by adding specialized legal terminology to the already large DragonDictate vocabulary. DragonDicate (produced by Dragon Systems of Newton, MA) comes with the ability to recognize more than 60,000 words, can understand pronunciation of almost 100,000 words, and has the capability of adding thousands more for special applications.

The original purpose of *Law*Talk™ was to link with WordPerfect word processing software so users could directly dictate letters, memos, and legal documents. It is not the only automatic dictation system on the market, but it is aimed at the highly specialized legal market that uses a discrete vocabulary. West's addition of WESTLAW commands as macros to *Law*Talk™ and connection to the WESTMATE search software create the first commercial application of a voice-activated online system.

How *Law*Talk™ works

*Law*Talk™ uses a system of "discrete utterance," which recognizes individual words it finds in the system's vocabulary, additional application-specific vocabulary, commands, or letters of the alphabet. Words must be spoken with about 1/10 of a second delay between each word, with normal effective dictation speed of about 60 words per minute.

Macros can be added to speed up the input process. West has added macros to correspond to WESTLAW commands. Users can enter others, for example, a macro of "enter password" could automatically input the user's WESTLAW password, or "sign on" could be modified to complete all of the logging on and password processes.

As the user speaks, the recognized words are displayed on the screen. In addition, menus pop down with words that sound like the one being spoken. If the computer recognizes the word correctly, these menus can be ignored, but if it types a wrong word, the user says the command "oops" and asks the system to back up to the wrong word. The pop down choice box can then be accessed and the correct word chosen by line number. If no correct choice is available, the user can speak the word again, then dictate the correct spelling letter-by-letter. From this point on, the system will recognize the newly input word.

Training *Law*Talk™

Each new user of *Law*Talk™/WESTMATE must train the computer to recognize his or her voice. A tutorial that takes approximately two hours teaches you how to use the sytem, at the same time it allows the system to sample your voice. This sampling is integrated into the tutorial, so at the end it has a model of how you speak.

More than one person can use the system, but each must go through the tutorial to train the computer to his or her voice. Recognition gets better the more you use the system. It learns and adapts to your pronunciation, the background noise of the room, and the vocabulary you use often.

*Law*Talk™/WESTMATE can be used with WESTLAW's command searching, but it makes most sense with the WIN system. Entering queries in natural spoken sentences begins to make online searching truly user-friendly for anyone.

Don't be surprised if *Law*Talk™ users begin to anthropomorphize their computers. Already, "go to sleep" turns the microphone off, "wake up" turns it back on again. The system could be trained to recognize "get going!" as a command to log on to WESTLAW, or "we're out of here" to download results, save a search, and logoff. With the ability to add macros, the possibilities are endless.

*Law*Talk™ is now available for IBM-DOS systems, with a WINDOWs version being developed. West recommends a minimum hardware configuration of a 486 processor with 16MB of RAM. The suggested price of $1,795 includes an audioboard and software. Prices are expected to be lower for WESTLAW customers. Already this price is down from an anticipated price of $2,995 in January. DragonDictate prices have been dropping steadily since it was first introduced and are expected to continue to drop.

Strategic alliances

West's effort with Kolvox is not its only cooperative venture. It has an agreement with DIALOG Information Systems to provide WESTLAW users access to DIALOG databases through the WESTMATE software. This gateway arrangement allows those familiar with WESTLAW to search DIALOG databases with the WESTLAW commands. This helps West compete with the NEXIS side of LEXIS/NEXIS by providing easy access to DIALOG's many full-text newspapers, magazines, and directories. (As yet, the WIN system cannot be used when searching DIALOG databases.)

The day after Mead announced its proposed sale of LEXIS/NEXIS, West announced an agreement with Dow Jones & Company to offer integrated gateway access to Dow Jones News/Retrieval (DJNR), which will become a standard menu option on WESTLAW. WESTLAW users will be able to use either Boolean terms and connectors searching or WIN to search any of the hundreds of full-text, directory, and numeric sources available on DJNR. Full-text access to the *Wall Street Journal* and *Barron's* should be especially popular. West's primary market is the legal profession, including law libraries, law firms, and courts. With its gateways to DIALOG and to Dow Jones News/Retrieval, its market hardly need go anywhere else for online access to all types of information. With easy-to-use systems such as WIN and *Law*Talk™, WESTLAW has plenty to offer the legal end user as well as the search professional.

The prospective new owners of LEXIS/NEXIS have a challenge on their hands. Competition is good for everyone in the online industry—I hope they are up to the task.

For more information about any West products, call West customer service at 800-WESTLAW or contact West Publishing, 610 Opperman Dr., Eagan, MN 55123.