

## Online '83 in Chicago

By Carol Tenopir

FOR THE SECOND YEAR the theme of the Online meeting (Online '83) sponsored by Online, Inc. was microcomputers. The three days of Online '83 in October addressed all areas of interest to online searchers, however, and a practical emphasis on what is currently happening in online searching predominated. Online '83 provided an opportunity to assimilate new and planned developments from all of the major online vendors and to reflect on the main online issues and events of the year.

### DIALOG

DIALOG continued to add more databases this year, but its 20-22 new additions in 1983 were only about half as many as were added in 1982. In his address at Online '83, DIALOG Information Services President Roger Summit said DIALOG will try to fill in with databases, some major ones, in areas not now covered, but the pace of adding databases will not again reach the 1982 level. DIALOG's thrust will be "to make the databases we do have more accessible through database and system enhancements."

A major rewrite of the system software to accomplish this (creating "DIALOG 2") has been going on this year and new features should become available throughout 1984. Summit assured DIALOG users that DIALOG 2 will be completely "backward compatible" with the present system, so commands and techniques currently being used will not become obsolete.

DIALOG 2 attempts to incorporate useful features suggested by users to provide greater processing efficiency, and "provide greater flexibility for incorporation of new features in the future." Some of the benefits users will

see in 1984 will be larger consolidated databases, simplified multi-file searching, and optional security passwords.

DIALOG is also currently developing their own private telecommunications network. DIALNET, targeted to be available by mid-1984, will allow better response time, increased reliability, higher access speeds, and special services such as automatic SDI with overnight printing on your local terminal.

These new directions from DIALOG are possible because of Lockheed's decision this year to make DIALOG part of the Company's new Information Systems Group rather than to sell it.

Several new products and services developed by DIALOG in 1983 will be available in mid- to late 1984. "Report" will be a menu driven system that will allow extraction of data from different DIALOG financial files to produce reports using the information across those files. A new feature will allow output from a search on directory files such as the Electronic Yellow Pages to be printed on labels. Knowledge Index, DIALOG'S evening service for end users, has been operating for a year now. Summit indicated that DIALOG is investigating the development of a similar simplified end user service to be available during prime time hours for full DIALOG prices.

Electronic mail will be available by mid-1984. Summit, like many of us, hopes offline prints will be obsolete when electronic delivery of prints and SDI can replace mail. DIALOG is working toward this end.

The full texts of the *Harvard Business Review*, *Commerce Business Daily*, UPI newswire, and Public Relations newswire were added on DIALOG this year. Summit indicated that DIALOG will continue to test and add all types of databases including the full texts of journals, encyclopedias, handbooks, directories, and news. The texts of *The Academic American Encyclopedia*, *Everyman's Encyclopedia*, and *Marquis Who's Who* are now being loaded. A full text development that could be very significant to libraries is the announcement that Information Access Corporation is working on providing access to

the full text of their *Magazine Index* and *National Newspaper Index* online with DIALOG in 1984.

### BRS

In 1983, BRS made major progress in the provision of full text databases. In addition to *Harvard Business Review*, BRS added the complete texts of chemical journals, encyclopedias, medical textbooks, and other reference works or journals (see my columns in the *LJ* issues of May 1, p. 885; and October 15, p. 1932). Of the three search systems (DIALOG, ORBIT, and BRS) most commonly used in libraries, BRS has an early lead in the provision of full text databases.

BRS added several print and display capabilities that help when using their full text databases. The "occurrence table" feature displays the paragraph (field) label and exactly where in each paragraph a search term occurs. Each paragraph of text is assigned a subfield number in BRS and these subfields are listed as separate fields in the occurrence table. BRS suggests using the table as a relevancy aid. Articles that have search terms which appear in different fields (e.g., title, abstract, and text paragraphs) or many times throughout the text can be expected to be more relevant.

The new "print hits" feature on BRS allows the display or printing of only those individual paragraphs that contain the search terms. Searchers can go directly to the paragraphs of text that discuss their search topic rather than scanning each entire document. "Print hits" is also useful in compiling bibliographies on a topic. Cited references in articles or textbooks can be searched on BRS as the "CR" (for cited reference) field. If a search is restricted to the cited reference field, the "print hits" command will print only those references in the bibliographies of the online documents that contain the search terms. A new composite bibliography can be assembled online and printed.

Watch for more full text databases on BRS and the eventual addition of an optical disc capability so graphics can be stored and displayed.

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BRS expanded their customer base in 1983 with BRS/After Dark, their end user after-hours search system (see my column in the March 1 *LJ*, p. 471). BRS/Colleague systems target specific special interest end user groups by offering a simplified search system for searching databases on specific topics. BRS/Colleagues for medicine, business, and education are being developed (see my October 15 *LJ* column, p. 1932). It is too early to assess the success of these new products and targeted marketing schemes, but BRS has made concerted efforts in 1983 to attract the end user market. To reach those who wish to create their own, local, in-house databases, BRS has entered the market by offering a microcomputer version of the BRS/Search software.

New price and charging schemes may be coming from BRS. They are considering charging per character output rather than by connect hour. All the vendors seem to agree that new pricing schemes must be considered to counter faster transmission rates and the possibility of downloading. In 1984, vendors should move away from straight per-hour search charges and as the database producers try to increase profits from online products to reduce their traditional reliance on print products for profits.

### SDC's ORBIT

SDC "changed direction" in 1983, expanding their information services products. SDC says that the ORBIT search service is still the mainstay of their information services, but special consulting services and new software products gained prominence this year.

The ORBIT search service has been emphasizing its specialization in science, technology, and patent databases, a specialty that seems to have solidified in 1983. Marketing strategies, database offerings, and training are targeted to this specialization.

Among the most important software enhancements made to ORBIT in 1983 was the continuing addition of word proximity capabilities on a file-by-file basis. "Timeprompt" has replaced the sometimes irritating time overflow messages that required repeated searcher response to the question "continue search?" for searches that took too much computer time.

"Timeprompt" allows a user to specify whether or not they want to be prompted when their search is a lengthy one as part of their permanent terminal profile.

An interface between ORBIT and the SAS statistical package is currently under development. When available, this will allow statistical manipulation and generation of graphs or tables from data in ORBIT databases. The interface will be available online through the reg-

ular ORBIT search service and will also be sold as a microcomputer product.

The development of microcomputer software is ORBIT's most important change of direction in 1983. Although the ORBIT mainframe software has been available for purchase for several years, ORBIT is also beginning to develop microcomputer products. *Searchmaster*, the first of these, was exhibited at Online '83.

*Searchmaster* is a front end software package for microcomputers, but it is not a common online search language. It will log a user on to any one of the major search systems, but once connected, the searcher must know the command language and features of the host system. *Searchmaster* can be used to access the Telenet, Tymnet, and Uninet telecommunications networks and the BRS, DIALOG, ORBIT, Dow Jones, and NLM search systems.

What *Searchmaster* does on these systems is contained in four basic programs. 1) *Presearch* is a menu driven program that lets the user set up search parameters and "scripts" (search strategies) to be run automatically on the host system after log on. 2) *Runsearch* is a communication program that dials the host system of choice, logs on, and executes scripts. 3) *Highlighter* (still under development) will highlight search terms in the citations resulting from a search. 4) *Trackmaster* is a billing aid that will allow a billing code to be assigned to each search.

Special function keys are used for common functions such as break, change database, print, log off, etc. These standard functions will work in any host search system. Other functions are specific to the ORBIT system and work only when the searcher is logged on to ORBIT.

*Searchmaster* software for the IBM-PC, Burroughs B-20, and Apple II microcomputers will be available soon at prices expected to range from \$400 to \$800.

*Markmaster* is a user-friendly interface to the ORBIT system that was developed for the U.S. Patent and Trademark Office. The graphic image of trademarks are part of the system, an important feature that may in the future become a part of some databases on the regular orbit system. *Markmaster* also has a phonetic search feature that allows searching for homonyms or similar sounding words (e.g. tyre or tire) regardless of spelling variations. This feature may also be eventually incorporated into ORBIT.

### NEXIS/Information Bank

One of the major online developments in 1983 was the exclusive licensing of the New York Times Information Bank by Mead Data Central, producers of NEXIS (see my June 1 column in *LJ*,

p. 1111). The Infobank is now one "Library" on the NEXIS system, the only library that provides indexing and abstracting of news stories instead of the full text only. Although NEXIS transferred the *New York Times* files several months ago, many librarians at Online '83 were still quite vocal in their concerns regarding that issue.

Representatives at a National Online Circuit (NOC) meeting urged librarians to write letters to Mead to "continue to keep the heat up." In their opinion, Mead has not been responsive to their concerns; Mead trainers are not aware of Infobank features so they slight it during NEXIS training; and, since former users of Infobank (many libraries) are a small percentage of NEXIS customers, "Mead doesn't really care" about them.

NOC representatives expressed worries about the continuation of indexing support of Infobank if it is not being used enough on NEXIS, something they feel is likely because of what they perceive as unfairly restricted access to Infobank because of the NEXIS dedicated terminal policy. They complain that NEXIS charging schemes are difficult to estimate when searches must be billed back to library users.

Mead's announcement that the IMB-PC, IBM Display Writer, and IBM 3105 terminal can be adapted to operate as NEXIS hardware did little to placate many former Infobank users who object to the NEXIS dedicated terminal. Mead is investigating other hardware configurations as well, but many librarians still feel access should be available through any standard terminal.

Not all former *New York Times* customers view the changeover with such pessimism. Lucinda Conger of the State Department Library said, "those of us who already had NEXIS contracts in place were delighted to receive the news that the Information Bank was going up on NEXIS." For the first time, all Information Bank files from 1969 to the present can be searched in a free text mode using a single online search system. (The old files were split between BRS software, new Information Bank software, and the old menu driven *New York Times* system that allowed only controlled vocabulary searches.)

NEXIS terminals are easy to use and DIALOG can also be accessed though them. Function keys on the terminals substitute for memorizing commands and the NEXIS search software has powerful search features. When an indexed recent story is found in the Information Bank library, a user can easily switch to the full text of the story in the extensive NEXIS library.

At Online '83, NEXIS representatives seemed to realize that many search intermediaries are unhappy with

policies and pricing and they demonstrated at least a willingness to listen. An average cost of two dollars per minute is recommended for libraries that charge for searches, but NEXIS says they are "in the process of reevaluating their pricing scheme." They promise to try to "be responsive in the next year or so."

NEXIS offers some search help features that all systems should consider. It automatically searches for equivalents to common acronyms, British/American spelling variations, and variations in the romanization of Chinese.

Thus it is the computer and not the searcher that remembers that OSHA stands for the Occupational Safety and Health Administration, that labor can be spelled "labour," or that Peking and Beijing are the same city. Plurals and possessives are searched automatically.

Conger summarized the case in favor of library use of NEXIS: "Much as it pains me to say it, NEXIS does seem to have a corner on the databases for current events. Besides the Information Bank and the full text *New York Times* and the other *New York Times*

databases, *Deadline Data on World Affairs*, and *Advertising/Marketing Intelligence Service*, along with the full text of [many newspapers], NEXIS has the full text of *Newsweek*, the *Economist*, the *Latin American Newsletters*, the *Editorial Research Reports*, and *Facts on File News Digest*."

In terms of future competition to NEXIS, we will have to see how well Information Access Corporation and DIALOG fare with their proposed full text enhancement to the indexing and abstracting services of *Magazine Index* and the *National Newspaper Index*.

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## SYSTEMS, AUTOMATION, & LIBRARIES

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# Maintenance of Automated Library Systems

By Susan Baerg Epstein

ONCE you've acquired an automated library system it would be wonderful if you could take "turnkey" literally and never have to worry about the system again. In the real world, unfortunately, this never happens. A library has to worry about keeping a very delicate piece of equipment operating, making certain that the software is still doing what it originally did, and providing for upgrades and improvements to the operating software. Instead of turning the key on the system and forgetting about it, the library must be concerned with maintenance.

### Maintenance by the vendor

In the data processing environment the usual method for providing maintenance is to purchase maintenance contracts for both software and hardware. With library automation, software maintenance is usually provided by the vendor from which you bought the system, but hardware maintenance can be purchased either from that vendor or from the hardware manufacturer, the choice depending upon your normal arrangements with the vendor. No matter who is the actual provider of the maintenance, it is always better to attempt to purchase all

of it from your vendor, thus making that vendor responsible for the maintenance level and health of your system. When the vendor does not directly provide hardware maintenance, attempt to make a contract for it with the vendor and then allow the vendor to sub-contract for hardware maintenance while retaining responsibility. The fewer maintenance contracts for the system, the better. If the original vendor is responsible for the software, the hardware manufacturer for the central site equipment, the terminal manufacturer for the terminals, the modem and multiplexor manufacturer for the telecommunications equipment, and the telephone company for the data lines, the library is likely to find itself in the middle of a finger-pointing episode whenever the system is inoperable, with each vendor blaming the others for all of the problems. The library should try to avoid the situation where it must decide which component of a system is at fault. One reason the library purchased a turnkey system in the first place was to avoid having to develop this type of expertise in-house.

### Contracts & costs

The original maintenance agreement should be negotiated at the same time as the original purchase agreement, since this is the point at which the library has the most leverage. Once the system is installed and the purchase price paid, it will be very difficult, if not impossible, to obtain changes in the

standard maintenance contract. This maintenance contract should specifically state expected reliability levels, and include definitions of downtime for all central site equipment and terminals as a percentage of possible total system operational time. (One of 20 terminals not operating is a far less important problem than an inoperable disk drive which could keep the entire system from operating.) When the system reliability consistently falls below the level defined in the contract, the contract should provide for rebates on the maintenance payments and, in extreme cases, liquidated damages.

The contract should be re-negotiated annually and should contain a limitation on the amount of the increase in cost from year to year. Provisions should also be made for the library to be notified of price increases far enough in advance for the increase to be included in the next year's budget. Even 90 days notification is of little help if the library's annual budget has already been approved for the next fiscal year.

The library must decide what level of maintenance it wishes to purchase. The costs of different levels of maintenance support should be balanced against the costs to the library if the system is inoperable. Any backup devices such as portable terminals or microprocessor support should be considered in assessing the effects of system downtime. The base price for hardware maintenance usually includes service five days a week during the vendor's normal business hours (rarely those of

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