BY CAROL TENOPIR

Four Options for End User Searching

FOR LIBRARIES that want to offer end user searching, four options (end user search systems, front-end software, gateway services, local databases on floppy diskettes or optical discs) are summarized below.

Access to an online system designed specifically for end user searching is the option chosen so far by most academic or public libraries. (For a bibliography and list of libraries see: Richard V. Janke, "Online After Six: End User Searching Comes of Age," *Online*, November 1984, p. 15-29.)

End user systems

The two most popular systems are *BRS/Afterdark* (BRS Information Technologies Inc., 1200 Route 7, Latham, NY 12100) and DIALOG's *Knowledge Index* (DIALOG Information Services Inc., 3460 Hillview Ave., Palo Alto, CA 94304). Both systems provide access to a limited number of the most popular databases that are available on the parent system. *BRS/Afterdark* offers 70 databases including bibliographic and many full text in a variety of subject areas. *Knowledge Index* offers approximately 30 databases, including many on business, computers, news, and science and technology.

Both systems are available only after 6 p.m. local time or on weekends, but the connect-hour rates are considerably lower than the parent systems. *BRS/Afterdark* charges between $6 and $31 per hour with a $12 monthly minimum and a one-time $75 fee. All *Knowledge Index* databases are $24 per hour with no monthly minimum and a $35 per hour start-up fee that includes two hours of search time. Both systems offer direct and credit card billing.



Carol Tenopir is Assistant Professor at the Graduate School of Library Studies, University of Hawaii, Manoa

BRS/Afterdark uses a simple menu-driven interface that allows even inexperienced users to search. *Knowledge Index* uses a simplified version of DIALOG's command language so reading the manual or some instruction is needed.

These systems offer several advantages: the relatively wide range of databases available (there will be some material of interest to most library users); and the library staff is often familiar with the databases because they are the same as on the parent systems. Cost advantages are: either a microcomputer or a dumb terminal can be used to search; like the parent BRS and DIALOG systems, the library or user pays only for the time spent online, so start-up and ongoing costs may be relatively low.

There are several disadvantages to choosing this option. Only a small portion of the databases on the parent systems are available and some topics are not well covered. For example, DIALOG's humanities databases are absent from *Knowledge Index*. Also, library staff often will need to help users select databases and formulate searches. Instruction in Boolean logic seems to be particularly important. The connect-hour pricing option is more difficult to budget and may not be attractive to high-volume users. Telephone lines are needed and the quality of the connection will vary. Finally, the restricted hours of access may require staffing changes and limit which users can take advantage of the service.

A daytime alternative to *BRS/Afterdark* is *BRS/BRKTHRU*, which offers menu-driven searching of all 110 BRS databases. Costs are significantly higher than *Afterdark* but there is no monthly minimum. Users of the regular *BRS/Search* system can also search with menus instead of commands by requesting "MENUS" instead of a database name.

The end user system option is popular, especially as an extension of existing online reference service. It is particularly popular in academic libraries which traditionally have evening-hour service and are familiar with the full DIALOG and BRS.

Front-end software

Another end user option is to purchase microcomputer software that makes it easier to search the full online systems. Good front-end software allows searches to be formulated offline and assists with such things as database choice, term selection, and Boolean logic. The software then connects to the desired host system and uploads the stored search. Once the search is run, most software allows the users to make modifications and download the search results.

Some of the best front-end packages for end user searching are: *Sci-Mate Searcher*, *Pro-Search*, and *WILSEARCH*, all available for the IBM PC and some other computers.

The *Sci-Mate Searcher* helps with searching BRS, DIALOG, NLM, SDC ORBIT, and Questel. It provides menu-driven search strategy development and includes information such as field tags for selected databases on each host. The biggest advantage of *Sci-Mate Searcher* is that it is one part of a three-part system. Downloaded searches may be transferred to the *Sci-Mate Manager* to create in-house databases and to the *Sci-Mate Editor* to create formatted bibliographies. The *Sci-Mate* package is especially good for special libraries or for academic faculty when personal files and reformatting are important. Price: $399 per module or $999 for all three (ISI, 35001 Market St., Philadelphia, PA 19104).

Pro-Search, a front end for searching BRS and DIALOG, includes information about most DIALOG and BRS databases and assists search strategy development. It is a visually attractive package that makes good use of windows, function keys, and help screens.

Personal Bibliographic Software, Inc. (PBS) acquired *Pro-Search* this year from Menlo Corporation. The package is now marketed in a "Searcher's Tool Kit" with the

PBS *Pro-Cite* and *Biblio-links* packages that can be used to download and create formatted bibliographies. Like *Sci-Mate*, *Pro-Search* is good for special and academic libraries, especially when reformatting is desired. *Pro-Search* alone is now $495, or all three packages may be purchased for $995 (PBS, P.O. Box 4250, Ann Arbor, MI 48106).

WILSEARCH provides simplified access to the *WILSONLINE* system, including search strategy development, automatic logon, and downloading results. *WILSEARCH* automatically disconnects from *WILSONLINE* after downloading results; the connection must be made again if a search is to be modified.

Unlike the other two packages mentioned, the purchase of *WILSEARCH* provides the option of prepaid search time. Prepayment plans vary with a maximum of $2000 that will buy 2000 searches, each retrieving up to ten references. If a library does not prepay, searches of up to ten references cost $5 each. There is no charge if no references are retrieved. An annual software licensing fee of $150 is also required. *WILSEARCH* is especially good for school libraries, general public libraries, or undergraduate libraries where Wilson indexes are heavily used and precise, low-cost searches are desired (H.W. Wilson Company, 950 University Ave., Bronx, NY 10452).

The main advantage of using a front end is that all of the databases on the host system are accessible. Some packages offer access to more than one host. Front-end programs are useful for intermediary searchers and end users. Despite the initial cost, online connect time will be reduced, saving money in the long run. In addition, several of the packages interface with other software that allows editing of downloaded records or creation of in-house files.

Disadvantages include the need to have microcomputer and telecommunications links. Libraries that have used these packages report that most users need help formulating queries and interacting with the software. At first, most users do not find them simple to use. Databases are charged at the regular connect-hour rate and the library must get accounts with all systems to be accessed.

Gateway services

Gateway services connect a user through a host computer to the computers of one or more online vendors. The most valuable gateways for end user searching also serve as front ends by adding many of the search-assistance features offered by microcomputer front-end packages.

The gateway service most appropriate for end user search services in public or academic libraries is *EASYNET*, which can be accessed with either a microcomputer or a dumb terminal. When a user dials 800-EASYNET or selects *EASYNET* from CompuServe menus, they are connected to the *EASYNET* system which helps with search strategy development and database selection. *EASYNET* then connects to one of over 700 databases on 13 systems.

Cost is $8 per search for up to ten citations on one database, plus a surcharge for some databases (no charge if no citations are retrieved). *EASYNET* has direct or credit card billing (EASYNET, 134 N. Narberth Ave., Narberth, PA 19072).

The main advantage of a gateway is the ability to access many databases on many online systems. With *EASYNET*, the library does not need accounts with the different online systems. Charges are made only when a search is done and citations are retrieved. Start-up costs are low.

Disadvantages, as with all remote online services, include the need for telecommunications access and unpredictable costs that vary with the amount of use. At a minimum of $8 per search, the cost of a simple search may be higher on *EASYNET* than through other options. A gateway service such as *EASYNET* is a good end user option for public libraries that want low start-up costs, have a variety of types of users, and need access to different types of databases and vendors.

Local databases

The final option for end user searching is to house the database system in the library. In-house, local databases are available from a variety of database producers in several formats (see my columns, May 15, 1985, p. 42-43 and March 1, 1986, p. 68-69, for more details). Although magnetic tape versions of databases for loading on a local mainframe have long been available from database producers, they are not cost effective or practical for most libraries. New subsets of databases for use with a microcomputer are practical for almost all libraries. Subsets of several hundred records are sold on floppy disks for such databases as *BIOSIS*, *ERIC*, *Microcomputer Index*, and *Medline*.

Much larger complete databases or subsets of databases are available on 12-inch or compact optical discs (CD-ROM). Now available or planned soon are: Information Access Company's *InfoTrac* (to be reviewed here in September); *ERIC*, *PsycLit*, *AV-Online*, *PAIS*, *LISA*, and *Excerpta Medica* from SilverPlatter; *NTIS*, *COMPENDEX*, and *Chemical Abstracts* from DEC; *INSPEC* and *Dissertation Abstracts* from University Microfilms International; and some of the H.W. Wilson databases.

The main advantage of locally held databases is the set subscription price. Libraries can budget for these services as they do for journals. No matter how much the database is used, the price remains the same (unless an additional microcomputer work station is added). Libraries that do not want to charge patrons for end user seaching will find this option attractive. Other advantages: These systems do not use telecommunciations. Access is not dependent on host system hours or poor local telephone connections.

A disadvantage is that locally held databases are less frequently updated than online databases. Discs are only updated monthly, quarterly, or annually, so current information is often inaccessible. Another disadvantage, especially for small libraries, is the cost. Database subscription fees and hardware costs must be paid annually whether or not the system is heavily used. Libraries must be commited up front to the price of the product, each typically costing several thousand dollars per year, so these databases may replace subscriptions to expensive print indexes rather than online databases.

A final disadvantage is that most of the databases do not use the same search software. Library users must thus switch search tactics for different databases and the library may need to set up separate microcomputer workstations for each.

Still, the in-house database option holds great promise for end user searching in many types of libraries. Libraries that have heavy use of one or two indexes will find this option particularly attractive.

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