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# Systems for End Users: Are There End Users for the Systems?

By Carol Tenopir

THE SIXTH NATIONAL Online Meeting held in New York this spring provided information on many topics of interest to online searchers. One topic—software and systems for easing end user searching—dominated the discussions, exhibits, contributed paper sessions, and the keynote speech. The potential of a large market for online databases is intriguing to database producers and to intermediaries.

The keynote speech by Martha Williams and the opening panel discussion which followed it focused on software or systems for end users. User friendly substitutes for system manuals and documentation attempt to make the commands or quirks of the host system "transparent" to the user.

Williams pointed out that the proliferation of online hosts combined with their attempts to penetrate the end user market make such transparent systems necessary. The terminology used to differentiate different types of transparent systems may be confusing, however. Williams differentiated between the various terms commonly in use.

User friendly *front-ends* are software packages that stand between the user and the target system. Front-ends can aid the novice searcher who does not know the host system command language by replacing commands with a simple series of menu choices. The menu choices are then translated into the appropriate system commands by the front-end software. Although front-ends remove some of the interactive power of online searching, they provide a good way to overcome initial hesitation to online searching. A well known

example of a front-end is *In-Search* for *DIALOG* searching.

*Intermediary* systems replace the human intermediary searcher in some ways. Typi-

cally, a series of menu prompts guides the user through the search negotiation process. They include help with word stems, Boolean combinations, and unique features of specific databases. Williams defined intermediary systems as those that are database specific or limited to a family of related databases. They are often designed by the database producer to encourage wider use of their databases. Examples are Disclosure Inc.'s *MicroDisclosure* and Information Access Company's *SearchHelper*.

*Gateway* systems allow users to connect to any of several host systems by passing the user from a single gateway computer through telecommunications lines to various online vendors. The gateway eliminates the need for remembering different network procedures, memorizing logon protocols, and having personal accounts with each of the systems. Some include a front-end procedure that simplifies online searching on multiple systems. *INET* in Canada and *Easynet* are examples of gateway systems.

Williams emphasized the positive and negative sides of transparent systems. On the positive side, they decrease the time and cost spent online, decrease the need for intermediaries for simple searches, decrease the cost of keeping up with documentation and systems, and decrease the amount of keyboarding required. On the negative side, they remove some beneficial differences among different online vendors, decrease search power, increase the distance between users and online vendors, and increase the distance between users and intermediaries.

Still, Williams and many others believe that transparent systems "are a must if we are going to reach large numbers of users."

## **BRS/BRKTHRU**

BRS recently introduced a menu option for accessing their system that

they hope will attract large numbers of end user searchers. With the initial success of their evening and weekend menu system (*BRS/Afterdark*) BRS has added an all-hours system that provides similar menu-driven searching. Unlike *Afterdark*, *BRKTHRU* is available the same lengthy hours as the familiar *BRS/Search* command system. Night time connect hour rates on *BRKTHRU* are substantially lower than the daytime prices, although they are still generally higher than *Afterdark* rates.

*BRKTHRU* allows users to choose detailed or abbreviated instructions that summarize menu options. The menus will look familiar to anyone who has tried *Afterdark*, but more features are supported on *BRKTHRU*. (For example, the *STEM* option to look at words in the basic index.)

The search process itself relies on searcher knowledge rather than menu choices. Searchers must know the basics of BRS search features or read the *BRKTHRU* manual to be able to enter search terms, to understand the use of Boolean operators or proximity features, to properly use truncation, to use field delimiters, or to revise search strategy. *BRKTHRU* simplifies the mechanics of interacting with an online system, but like most front-end systems at this stage in their development, leaves the user on his own at the actual point of searching. Luckily, the *BRKTHRU* manual is clearly written, contains many examples, and concisely explains many of the intricacies of the search process.

*BRKTHRU* allows access to more databases and search features than *Afterdark* but it is also considerably more expensive. The menu system requires more time to be spent online than with the command-driven *BRS/Search* system. Daytime users are thus likely to be members of targeted professional groups searching in their offices and who are willing to pay for information.



Another possible group of users are library patrons who conduct self-serve searches in a library setting. According to BRS "for the busy librarian, *BRKTHRU* will mean more time to spend on complicated, in-depth searches that require professional expertise, as patrons discover they can perform many of their own day-to-day searches." For more information on *BRS/BRKTHRU* contact: BRS Information Technologies, 1200 Route 7, Latham, NY 12110.

### **Easynet**

Occasional searchers will perhaps be more interested in the gateway system *Easynet* (described in my January 1, 1985 column, p. 62-63). A user dials the *Easynet* computer which in turn switches him to an appropriate database on one of seven host systems. Subjects are indicated to the system by responding to a series of menu screens. The user then inputs words or phrases to search and *Easynet* translates the input into the command language and requirements of the host system accessed (including truncation, field tags, etc.). The switching and translating are transparent to the user.

If no hits are retrieved in a search there is no cost to the user, otherwise *Easynet* costs \$1 to enter the system and \$8 per database. Charges can be billed to an institutional account or to a personal credit card.

To help with search strategy formulation *Easynet* has a 24 hours a day "SOS" service. When a user types "SOS" while connected to *Easynet* a search specialist comes online to offer expert interactive help in search strategy formulation or database selection. This personal intermediary service is available at no cost. Write to *Easynet*, 134 North Narberth Ave., Narberth, PA 19072.

### **Is there an end user market?**

Designers of transparent systems such as these assume there is a vast untapped market of end users who are now discouraged from using databases because the systems are too complicated to use. While information professionals are excited about the many new and innovative interfaces appearing, one can ask if this vast end user market actually exists today.

Some creators of databases and front-end systems related lessons they had learned from experience in the past year in attempting to tap the end user market. They learned that the *potential* of an end user market is great, that good transparent systems are necessary if this potential is to be tapped, but that most of the people in this potential market don't yet realize they need access to databases.

Stephen Arnold of Data Courier

Inc. discussed his company's attempts to conduct seminars for end users. They found that "end users don't know that they are end users" and "information consumers are tough to locate." Marketing to these people is expensive because no one really knows who the potential users are. Data Courier discovered that often the corporate personnel who were the target of promotion campaigns passed the information on to intermediaries and that intermediaries were the ones who came to the seminars aimed at end users. Data Courier learned the hard way "to never forget the intermediary and corporate library." Intermediaries are the ones who not only know the value of databases, but know who the likely end users are.

Intermediaries can indirectly help the end user by helping the database producers identify this market and target materials for them. They can help by passing on well-written information about databases or online systems and let potential users know the value of databases that meet their particular information needs.

Barbara Newlin of Menlo Corporation described the creation and growing pains of *In-Search*, Menlo's front-end software package. *In-Search* was introduced in 1984 as a front-end to make *DIALOG* searching easier for end users. They soon found that many people did not understand what *DIALOG* was, that "*In-Search* was ahead of its time, that Menlo had come too early to a job that was too big for any one company. The end user market had not yet generated a groundswell demand for online information. People wouldn't buy *In-Search* until they could understand why online information was important to them, why it was worth paying for, and, finally, how *In-Search* simplified the search and retrieval process. The effort to educate its market had nearly exhausted Menlo's resources."

The unexpected high costs of marketing and unrealized end user market, together with the problems of keeping up with the many changes in the *DIALOG* system, led Menlo Corporation to cut their sales and marketing staff and instead focus on new product development. They realized that an established market that was of limited size (intermediaries) is more profitable than a market that is theoretically unlimited but is now only potential (end users). Consequently, Menlo redirected their efforts to create a front-end package for professional searchers. This product (*Pro-Search*) is now available for the IBM-PC. In addition to serving as a communications package and front-end access to BRS and *DIALOG*, *Pro-Search* allows searching in the native command mode of the systems and produces accounting reports. For more in-

formation contact: Menlo Corporation, 4633 Old Ironsides, Suite 400, Santa Clara, CA 95054.

Phil Williams, Userlink Systems Ltd., described some things that are needed to attract end users in great numbers to online searching. The most important of these is informing people how the information in databases can help them in their jobs. Marketing efforts by database producers are certainly one way to achieve this, but based on the experience of Data Courier, the efforts and input of intermediaries may be even more crucial at this early stage.

Awareness and education are not enough, however, according to Williams. Practical problems must be overcome, including: making it easy to initiate contact with an online system or multiple systems, devising simple and consistent charging schemes, and making all systems accessible from a multi-purpose microcomputer work station. Intellectual barriers to wide spread end user searching include the need for: assistance with search formulation (automatic or human), assistance with database selection, tutorial assistance in formulating the initial search, and assistance in revising and improving the search.

Intermediaries who have introduced end user searching in their organizations or communities report enthusiasm for searching once the need for information is perceived and the search process mastered (mastery takes less time but is still required when a gateway or front-end is used). The role of the information professional in this process—in generating initial enthusiasm and in translating this enthusiasm into searching skills—should not be underestimated. The database and software producers who candidly reported their experiences recognized that important contribution.

As Barbara Newlin summed up the *In-Search* experience:

Even given a product as well-designed, well-reviewed, and well-marketed as *In-Search*, end users will not storm the computer stores and turn themselves into *DIALOG* searchers . . . . The curious and adventurous among them may do a *DIALOG* search from time to time, but they will not (and cannot) duplicate what we do as information professionals . . . . When they find out about databases and come looking for gurus, we'll be there."

Intermediaries of course need not wait for end users to somehow find out about databases and "come looking." We can play an active role in informing and educating the people in our communities and organizations.

Proceedings of the Sixth National Online Meeting (1985) are available for \$50 from: Learned Information Inc., 143 Old Marlton Pike, Medford, NJ 08055.

