

The Online Future at ASIS

By Carol Tenopir

THE 12TH MID-YEAR Meeting of the American Society for Information Science was held in Lexington, Kentucky during May. Under the theme "The Online Age—Assessment/Directions," the sessions concentrated on a variety of issues pertaining to the present and future of online searching. Topics addressed in the technical sessions included: management of online information systems, online systems design, education and training of online personnel, library applications of online systems, the role of the end user, specialized online systems, numeric databases, online public access catalogs, evaluation of online systems, and specialized databases. ASIS mid-year meetings are planned and organized by a local committee. The Lexington meeting was cosponsored by the University of Kentucky College of Library and Information Science and the Southern Ohio Chapter of ASIS. Trudi Bellardo of the University of Kentucky served as chairperson.

The opening keynote session and panel discussion at conference end touched on many of the issues that were in evidence at the technical sessions and brought them into focus and

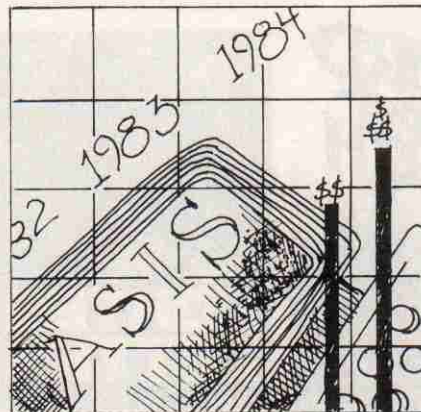
context. The keynote address by Charles Bourne of DIALOG on "Issues and Challenges for the Online Industry" and the final panel of experts chaired by W. David Penniman of OCLC, together served to put the issues of the "Online Age in Perspective." Panel members included Donald Hawkins, Bell Labs; Mary Berger, Cuadra Associates; H. Boyle, Chemical Abstracts; and Donald King, King Research. These two sessions highlighted the major issues in online searching that we will all be most concerned with in the next few years. Several of these issues were covered in a bit more depth in my June 1 column (*LJ*, p. 1111-13), and others will be examined more carefully in future columns. This column will summarize several of those issues and their potential impact on the near future. Nontechnical issues that grow out of technical innovations and changes are seldom given as much attention as they warrant.

The experts seem to agree that the issues in the following list are of growing importance:

Increasing costs

The currently changing financial aspects of online searching will continue to change. Because of royalty increases by the database producers, the cost of searching will continue to increase. Bourne pointed out that there is a five percent erosion rate of hard copy subscriptions regardless of online availability, but many database producers fear that the five percent rate will climb with more widespread availability of the online versions of their products. A fallacy in this, according to Bourne, is that since many libraries operate with fixed budgets, when money allocated for online searching is depleted, they simply do not search anymore. (The fallacy in this fallacy is, of course, that many libraries pass on higher charges to their patrons through online searching fees.)

There will be a shift from the current methods of charging based on online connect time to output pricing. The user will be charged more for information taken from a database (through online types, downloading, and offline prints) than for online connect time. With faster terminal speeds and downloading, database producers will be forced to find new ways to get revenues, and output pricing is a fair alternative. Online services may also find it necessary to charge differential connect time rates based on different access speeds. DIALOG can now be pro-



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cessed through dialup at 4800 baud, and 1200 baud terminals are becoming widespread through the telecommunications networks. Differential connect time rates together with output pricing will provide both the database producers and the online service vendors a more equitable pricing structure. This structure is now used with many numeric databases where the information content of each record is much higher than on bibliographic databases.

Bourne also predicted an increase in the number of databases charging monthly minimums and start-up fees, but pervasive changes in pricing structures will take five to ten years because there are many long-term license agreements. Large scale changes cannot happen overnight.

End user searching

End user searching will continue to increase, but intermediaries will not disappear. Boyle said that in the larger industrial organization the role of information specialists is becoming more important, not less. When end users are trained to do their own searching, their respect for intermediaries goes up and they begin to treat the information specialist as a co-professional.

Boyle also mentioned that end user searching is coming along very slowly, because in a research group one or two people who enjoy searching become local information specialists who do searching for the others. Herb White, Indiana University, commented from the audience that the number of people interested in doing their own searching has been consistently overestimated. Most people would rather delegate than do a search themselves. King also believes intermediaries won't be a thing of the past, because many people will still want to delegate their searches.

Currently, over 100,000 people do online searches for other people. This number is not likely to decrease. Of DIALOG's current customers, 95 percent are professional intermediaries. Although DIALOG is beginning to tap the market for end user searches, the dimensions of that market are still largely unknown. Intermediaries should not be afraid of end user searching because there is room for all levels of searching. Simple searches to find some information quickly should often more properly be done by the end user, while the more complex and comprehensive searches can be better done by an experienced intermediary.

Industry changes

There will be changes in the size and organization of the online service industry. More database producers are becoming online services. Companies and organizations such as Pergamon,

Chemical Abstracts, and the Institute for Scientific Information (ISI) now offer access to their databases through their own search software and computer facilities. This growth is tempered somewhat by the highly competitive nature of the industry, resulting in the discontinuation of other online services such as the New York Times Information Service. The variety of vendors and producers with healthy competition is a sign of a mature industry, according to Hawkins.

It has been said that the online industry is recession-proof. Bourne said that this is probably because some industries, such as medicine, are recession-proof, so increases and declines in online use balance out. (The growth experienced by the online industry has been stable and constant, not explosive.) The acquisitions of online services and databases by publishers and continued competition will mean continued change in the online industry, while overall growth is maintained. Berger said that there are currently approximately 240 online services, 800 database producers, and 1600 databases.

Online education

Online education and training will be reexamined and changed in the near future. Bourne reminded the audience that most online training is being done by the online industry, not the schools. DIALOG trains more people in one month than all the schools in the world do in one year. Several people in the audience questioned the comparability in depth or quality of the different levels of training. The questions of "education" vs. "training" and the kinds of education and/or training for online searching required now and needed in the future must be addressed.

Boyle listed four aspects of education in online searching that must always be present: 1) subject knowledge, 2) understanding of database content, 3) an understanding of what the online vendor did to the data when it was loaded onto the online system, and 4) search system mechanics. Although all four are important to the ability to do a good search, Boyle believes that there has been too much emphasis on search system mechanics in most education or training programs. Merely training someone on the mechanics of searching (or masking the mechanics with front-end software) will not make a good searcher.

As the roles of intermediaries change, more attention will have to be paid to the quality of the data in systems and to comparisons of the quality among databases, according to King. This has important implications for effective online education. King also emphasized the need for subject knowl-

edge in online searching, but Anthony Debons of the University of Pittsburgh reminded the panel that general practitioners and subject specialists are both needed in online searching as they are in medicine.

Education and training of the end users of the data will be another important issue in the near future. King said that educating end users in online searching and databases is more important than training them in the skills of searching, while Boyle said that active training of end users makes the role of the information professional more important. White disagreed with many of the panel's comments on end user training by challenging the assumption that the training of end users should be a goal of our profession. The goal of librarianship is to serve users, he said, not to train them to do something they would rather have us do for them.

Software & telecommunications

Developments in software and technology will have great impact on online searching in the next few years. Telecommunications will improve, and faster transmission rates will become commonplace. Bourne reported that between 1980 and 1982 there was an increase of eight percent in the number of records printed online, reflecting increased use of 1200 baud terminals rather than widespread downloading.

Downloading is a big issue, however, and was mentioned by all panel members. Martha Williams has called 1982 the year of the microcomputer in online searching, but its full impact is just beginning to be felt. As micros become common in libraries, downloading, front-end processing, and post-processing of information will increase. (Some specific software for these functions was discussed in my June 1 *LJ* column, p. 1111-13.)

Post-processing and a form of downloading may also be done in the near future without a microcomputer. DIALOG is introducing a new feature that will allow numeric data to be reformatted after a search. The ability to "tag" records of interest on a particular database through the search service has been suggested by searchers as a possible alternative to local storing of these records. We may see many of these kinds of changes in the next few years if they seem to be financially viable.

Many other technological innovations were mentioned at the ASIS 1983 Mid-Year Meeting, but they were not the focus of these sessions. The meeting was only one of several held in 1983 that were dedicated to online searching. Its emphasis on many of the non-technical issues made it especially valuable. As technology causes changes in online searching, these other issues must also be addressed.