

**Microcomputer-based instruction for end users:  
Experimental trials of the OAK interface for DOE/RECON**

Donald Owen Case  
Christine L. Borgman  
(Graduate School of Library and Information Science,  
University of California, Los Angeles)

Charles Meadow  
(Library and Information Science, University of Toronto)

The Online Access to Knowledge (OAK) project is an attempt to expand the use of energy-related databases maintained by the U.S. Department of Energy. Aimed primarily at a large population of researchers and administrators -- end users of energy information -- the OAK project is developing a series of interface packages for the IBM PC. These packages offer both offline tutorials in online searching and active assistance during the search. The software helps the user to expand or contract the size of the retrieved set, as desired, without the user needing to know advanced techniques or commands.

The initial software design was based upon a study of 18 researchers and 30 search intermediaries in energy-related fields. We studied their information needs and their present use of online systems, using this information to create models of typical end users and their needs. About half of the sample was later exposed to initial prototypes of the OAK software. The users confirmed the utility of this approach to end-user searching and offered many useful suggestions for improving the content and format of the tutorials. The software is now being improved and expanded.

Over the academic year 1985-86, we will be testing new versions of the microcomputer interface packages in a series of experimental trials. The information gathered in these trials -- including user errors, time taken to complete various tasks, success of searches and opinions of the software -- will be used to evaluate the project. This information will be fed back into the re-design of the software.

Our presentation will review the results of these trials and describe the next stage of the project, in which software will be field-tested and readied for distribution. The final stage of the project will be a diffusion study of the adoption and use of the OAK software, beginning in the Fall of 1986 and lasting into 1987.

In the course of our study, we have had a unique opportunity to explore the reality of end user searching. While there are many reports and predictions of increases in end user searching, little has been published about who these end users are, which databases they use and how often they search information systems. Will end-user searching indeed become commonplace? What will happen to the role of the intermediary?

Our research indicates that end user searching is likely to increase, particularly among younger professionals and regular computer users. When searching is integrated with other work tasks, such as word processing, end users are even more likely to recognize its value. The rapid spread of microcomputers, communications software and online services aimed at the professional are converging to accelerate end user searching. In response, search intermediaries will increasingly take on a training role in facilitating this trend, handling only the most difficult searches for clients who would prefer to do it themselves. However, clients who have no interest in doing their own searches will continue, we believe, to be a majority among end users for some time hence.