Extracting knowledge for intermediary expert systems:
the selection of search keys

Raya Fidel
(Graduate School of Library and Information Science
University of Washington, Seattle)

Intermediary expert systems (IES) function like online searchers in that they mediate between end-users and complex information systems. No currently existing IES, however, uses knowledge based on the performance of human intermediaries. As a result, IES are unable to deal with the large variety of elements present in an information search. As a first step in acquiring knowledge from human experts to apply to IES, a study is currently being carried out that aims (1) to uncover the rules used by online searchers for the selection of search keys, whether free-text terms or descriptors; and (2) to check the effect of searching style on these rules.

Using the case study method, with observation and interviews of experienced searchers performing their regular searches, each incident of search key selection is examined, and checked against a set of rules determined by previous searches. The result is a selection routine, that is, a decision tree for the selection of search keys.

This study can qualitatively advance the performance of IES: using the selection routine, systems can identify problem areas, elicit pertinent information and act upon it to make an optimal selection of search keys, or, they can search in a selected style.

Findings of the study will be presented at the conference.