Concept structure and term meaning problems approach for user interaction with information retrieval Systems

The major aim of this paper is set a prototype for the methods applied by the users to build a concept structure, semantic term and term connecting operators when seeking information and search through in information retrieval systems, that's through developing a new model to facilitate the interaction between users and information retrieval systems. This model consists of 7 essential phases to search for information, these phases are: 1) motivation and the mental image 2) logical induction 3) cognitive 5) cognitive maps 6) Idiomatic meaning 7) and   inference 4) intellectual context finally controlled strategies. This model has been tested and examined to expolore its influence on the information retrieval system.

The study has carried out on two phases, the first depended on one of the data manipulation techniques, which is known as data mining, in this context two files has been collected and examined including the search concepts and users queries. These two files has been gathered from the proxy server available for the Egyptian universities researchers. The second phase emphasized on the practical examination to the proposed model. This study reached to a conclusion that data recovery failure was due to the users errors in using inaccurate concepts. Thus by applying the model of concept structure and term semantic research process and information retrieval has worked efficiently and the failed search strategies have achieved more success when modified according to the new model.