External Dialog and Internal Structure of an Iconographic Database

Abstract: Our team is currently involved in a research program to study how knowledge produced by scholars can be assimilated by a non-specialist audience. In particular we are analyzing the conditions under which Information Technologies can facilitate the organization and communication of knowledge. Our investigation is based on an actual case study: an iconographic database of the history of Northern France produced by scholars and available for the general public via the Internet. We assume that the end-user will be able to reach specialized information without preliminary knowledge of the scholarly terminology or investigation methods if he/she is given a general view of the collection and its organization by means of metaphors derived from ordinary experience. We are currently testing these assumptions through experiments carried out on a representative panel of users.

The prototype

The interface that we propose to offer to the user is based on metaphors which present various overviews of the collection. They have been chosen according to the nature of the collection and the historical approach which governed the creation of the database. The internal structure of the database is used to generate the interaction spaces: a geographical map is generated both from the geographical thesaurus and the corresponding field in the documents; in the same way, a 3D-tree of concepts is built from the iconographic thesaurus and the associated field in the descriptive note. The user browses these spaces simultaneously. Any interaction with one of them affects the presentation of the documents in the others. Because of the ease with which the metaphors we have selected can be understood, the user can intuitively carry out multicriterion requests and develop sophisticated search strategies without preliminary knowledge of the field or specific skills in information retrieval. In addition, contrary to traditional systems, he/she is immediately placed at the center of the indexing space: the terms of the request are provided through the interface and the user continually sees how many documents will answer his/her request. Moreover he/she can enrich his/her knowledge of the field and its terminology. In this way, instead of being a tool useable only by the specialist and only incidentally proposed to the ordinary user, the thesauri, at the heart of the interface, make it possible for anyone to access information originally reserved to a small number of experts. The neophyte can deal with all the terminology of the field; hence develop more refined, accurate, and fruitful queries.

References