

### **Semantically organized lexical network and searching the Internet**

The goal of this present project is to develop a novel technology based on a semantically organized lexical database that can help content retrieval on the World Wide Web. The new search technique and the application make traditional queries more lifelike and also faster. This goal is to be achieved through exploring and creating the possible connections of the already developed building blocks of the lexical network, the so-called meaning centers. A meaning center is a structured unit of linguistic designators (words, phrases, sentence-like expressions) that converge on a particular meaning. The semantically organized and communicative lexical network will be developed by linking the meaning centers to each other on the basis of criteria that enable them to effectively function in language technological applications (natural language processing systems, interpreting information retrieval from digital documents and structured bodies of text, content monitoring, machine translation, context- and style-sensitive spelling checkers.)

The meaning-centered dictionary databases previously developed by the team (as the surfacing points, or communicative linguistic reflections of the meaning centers), and application to be developed in this project will make it possible for the user to select and identify the search word in its single intended meaning. This will lead to a higher rate of legitimate hits, while reducing the number of false hits, because the existing search engines that base their queries on character strings will search only for the lexical elements connected to an identified and selected single meaning center.

The expected good results of the project offer the promise of the advent of real content retrieval through the use of semantic fields and interpretation of meaning, as demanded by the evolving needs of information technology and its users.