

# SERUBA - A New Search and Learning Technology for the Internet and Intranets

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## Abstract

The paper describes a multi-lingual, ontology-based system for knowledge management, user support and learning. The languages implemented are English, Spanish, French and German. True semantic Cross Language Information Retrieval (CLIR) can be enabled by this system. The ontology is based on a multi-dimensional network of a dozen of precisely defined, semantic relationships. Main market is the corporate resources organization sector.

The paper describes a multi-lingual, ontology-based system for user support and learning in very large, non-domain specific, network environments. The languages implemented are English, Spanish, French and German. As a World first, true semantic Cross Language Information Retrieval ([CLIR](#)) on topics of general interest can be enabled by this system.

The technical set-up is that of a topic map inspired by the ISO standard on topic maps. SERUBA, named after its SEMantic and RULE-BASed approach, will hit the Internet market early in 2001.

The ontology described can be used in many different ways. Direct application as a search tool on the Internet is just one of them. At SERUBA, a set of a dozen or so different aspects have been developed so far, offering a surprising range of possible standard types of expressions/declarations. Six of these which can be applied most easily will be used for a commercial product on the Internet which follows the idea of paid listings. This will be the four-language, electronic yellow pages, the YELLOWTRONIC PAGES® service.

Moreover, the structures stipulated in the searches can be automatically exploited for searches and other beginnings in linguistic and knowledge engineering in many



numerous publications in the field of media libraries and information technology in general, on information market policies, profession, training and education, among them the IFRA encyclopedia on "Computers in Mass Media Libraries".

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*Jan Algermissen* - Jan Algermissen leads the SERUBA IT activities. He has a profound systems developers background and made important contributions to the design and definition of the SERUBA knowledge engineering solutions. He is SERUBA's specialist in the application of the topic map technology and particularly in the exploration of the ontological and linguistic potential offered by the new XTM standard.