

Semantic Search Engine on R&D Information

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Abstract. Although information available on the Web rapidly increases, improvement of search engines does not satisfy the needs of researchers for surveying R&D information. Even Google Scholar usually shows about one million documents for a given research topic such as “neural network” and “information retrieval.” OntoFrame 2008 aims at improving such confusing situation by introducing the Semantic Web technologies, e.g. URI (Uniform Resource Identifier) and reasoning, and text processing technologies, e.g. extraction of topic keywords and the relations between two topics. When the user enters a query or a part of it, this engine automatically recognizes the type of the query and shows candidates by types in auto-complete. A search result page would be generated by calling reasoning engine, search engine, and open APIs simultaneously. An important point of OntoFrame 2008 is that the components of the page are quite different according to the type of the user’s query. For example, if the query is a kind of topic keywords, then the page shows topic trends, topic hierarchy, researchers, institutions, and search results. For a person name, it shows researcher information, similar researchers, and search results. This is an enhanced feature of vertical search. Current, we collected and refined about 453,000 journal papers and 340,000 topic keywords. The total RDF (Resource Description Framework) triples reach to about 283 millions. We hope this semantic search engine contributes on helping researchers to survey R&D information with ease.

Keywords: Semantic Search, OntoFrame 2008, Semantic Web, Vertical Search