Abstract

In this paper, we propose a new approach for locating and retrieving documents; the search process is guided by the ‘AnimOnto’ domain ontology that we have constructed for this purpose. This ontology is used at two different stages: First, for the semantic indexing of documents, in this stage the representative concepts of each document are selected by a projection of the
ontology on the document by attaching their terms to the ‘AnimOnto’ concepts. Then, during the semantics queries reformulation; in this stage we exploit the semantic links between concepts to expand the initial query. To validate these proposals, we have implemented the ‘AnimSe Finder’ tool (Animal Semantic Finder) which materializes the different phases of the proposed approach. The obtained scores show that the semantic indexing and the queries reformulation have generated a gain of 13.06 in terms of recall and 16.13 in terms of precision, which significantly reduces the documentary noise and silence.

Reference


Index Terms

Computer Science
Semantic Web
Key words

Information retrieval ontology semantic indexing
semantic reformulation. AnimOnto
AnimSe Finder