

SMART SEARCH SYSTEM TARGETED AT LARGE DATA SETS: AN ONTOLOGY BASED APPROACH

Nigel Gunawardene

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Abstract

An Ontology is a collection of concepts in a particular domain, and the properties and relationships between these concepts

An Upper ontology, also known as top-level ontology, is an ontology that takes the general terms which are common to most ontologies, and acts as a bridge across said ontologies. The most important function of an upper ontology is to ensure semantic interoperability across a wide range of ontologies specific to a variety of domains. It provides a foothold towards the capability of sharing information across a variety of ontologies.

Datasets are a core component in the field of research and development, yet the methods of finding a dataset relevant to a specific need is tedious.

To address this issue, an ontology-based approach is proposed. The implementation of tiered ontology, and the use of an API to expose the functionality is capable of providing a potentially beneficial service and contribute to the existing knowledge base.

This project aims to implement an upper ontology as a method of achieving interoperability of a large number of domains in order to provide a new approach to solving the problem posed by the difficulties of finding a relevant dataset.

Keywords

Ontology Upper Ontology Dataset Recommendation Application Programming Interface