

A Dome Spatial Ontology

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Abstract

A conventional search engine cannot interpret the sense of the user's search, not all the documents that discuss the search concept can be retrieved and often the ambiguity of the query leads to the retrieval of irrelevant information. The conventional search engines that match query terms against a keyword-based index will fail to match relevant information when the keywords used in the query that are different from those used in the index, despite having the same meaning. Dome and related concepts have been used by different peoples with different contexts around the world. Ontology; explicit formal specifications of the terms in a domain and the relations among them; is a widely accepted tool in web and information domain. The main advantage of ontology is sharing common understanding of the structure of dome among users, devices and services to enable semantic interoperability. In the framework of this research a prototype dome spatial ontology is designed and implemented. A prime goal of this ontology is to make explicit the spatial categories embodied in the architecture properties.

Keywords Dome, Spatial, Ontology, Semantic, information system