

Annotation Ontology for Semantic Web Development

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Abstract : The main purpose of this paper is to examine the concept of semantic web and the role that ontology and semantic annotation plays in the development of semantic web services. The paper focuses on semantic web infrastructure illustrating how ontology and annotation work to provide the learning capabilities for building content semantically. To improve productivity and quality of software, the paper applies approaches, notations and techniques offered by software engineering. It proposes a conceptual model to develop semantic web services for the infrastructure of web information retrieval system of digital libraries. The developed system uses ontology and annotation to build a knowledge based system to define and link the meaning of a web content to retrieve information for users' queries. The results are more relevant through keywords and ontology rule expansion that will be more accurate to satisfy the requested information. The level of results accuracy would be enhanced since the query semantically analyzed work with the conceptual architecture of the proposed system.

Keywords : semantic web services, software engineering, semantic library, knowledge representation, ontology

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