

Theme I. Description

Topic
Word Sense Disambiguation in Ontology

Methods	Research area
Optimization Programming	Semantic Web and Data Ming

Description
<p>Background Semantic Web is the most active area, which mostly benefits from the Ontology and AI technology. However, there is lacking of a real formal domain Ontology and to build such Ontology is tedious or impossible task. Currently, heterogeneous Ontologies developed by different systems are using. Therefore, several important challenges come up, e.g., Ontology building, merging, and mapping. One basis thing what we care is how to specify the right meaning of ontological concept, for in different context concept has different meanings. With the right understanding of concept, the precise of ontology mapping or merging will be greatly improved. Thus, how to do word sense disambiguation in Ontology is significant and a great challenge.</p> <p>Task Our group has already build prototype (named WSAO), one part of which is called, <i>oWSD</i>, an eclipse plug-in for doing word sense ambiguity in ontology. That is, it imports ontology in WSMML language to get its concepts and to find the right senses of the concepts. What we need is to enrich it by adding new interfaces and transfer it to a web-based tool. The future version of it will be able to import XML or RDF format ontologies, and works with WordNet 3.0. The other technologies used includes WSMX-0.5, jwordnet3.0, powerswing0.3, log4j, JAVAX Swing, JComponent class;</p>

Prerequisites	Desirable priories knowledge
Programming skills in Java Eclipse, Web-based programming;	Semantic Web and Ontology

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