Abstract

The rapid use of ontology in distributed systems as a knowledge representation mechanism, has led to a demand for ontology alignment process due to the heterogeneity arising between two or more ontology describing the same domain. Although many alignments tools have been proposed to reinforce the interoperability between different ontologies, most of them use fixed
weights, supplied by domain experts, in order to rate between similarity measures of two ontological entities. In this work we present FOAM++. It is a framework implemented as a java API, which aims to enhance the quality of ontology alignment process. In order to apply our method, we have extended FOAM API utilizing one of its prototypes (NOM). Our alignment method benefits from soft computing (Genetic Algorithms) methodologies in order to learn the used weights dynamically.

Reference

- “Ontology alignment evaluation initiative (oaei),” 2009.

Index Terms

Computer Science  Distributed Systems

Key words

ontology  ontology heterogeneity
ontology alignment
FOAM
FOAM++
NOM
OAEI