

Resources-Based Ontology Matching to Access Learning Resources

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Abstract : Nowadays, ontologies are used for achieving a common understanding within a user community and for sharing domain knowledge. However, the de-centralized nature of the web makes indeed inevitable that small communities will use their own ontologies to describe their data and to index their own resources. Certainly, accessing to resources from various ontologies created independently is an important challenge for answering end user queries. Ontology mapping is thus required for combining ontologies. However, mapping complete ontologies at run time is a computationally expensive task. This paper proposes a system in which mappings between concepts may be generated dynamically as the concepts are encountered during user queries. In this way, the interaction itself defines the context in which small and relevant portions of ontologies are mapped. We illustrate application of the proposed system in the context of Technology Enhanced Learning (TEL) where learners need to access to learning resources covering specific concepts.

Keywords : resources query, ontologies, ontology mapping, similarity measures, semantic web, e-learning

Conference Title : ICASLET 2016 : International Conference on Advances in Smart Learning Environments and Technologies

Conference Location : San Diego, United States

Conference Dates : January 21-22, 2016