

Integrating Ontologies

Workshop Proceedings

K-Cap Conference



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The Integrating Ontologies Workshop at K-CAP 2005

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INTRODUCTION

The Integrating Ontologies Workshop is a forum for researchers and application developers from the area of ontology interoperability to exchange knowledge, ideas, approaches, and challenges for handling multiple competing ontologies. The workshop will facilitate methodological and technical discussions.

For many knowledge domains, a variety of ostensibly “standard” ontologies have been engineered, learned, and extended. Each is an interface for a similar purpose yet uses different nomenclatures. To enable collaboration within and across application domains, software agents require transparency between the various formalisms. This requires both semantic alignment and syntactical translation. Purely manual approaches are error-prone, onerous, and insufficient to support dynamic systems interoperability.

However, recent research in ontology alignment exploits “meaning” that is explicit and implicit in these formalisms. If heterogeneity can be mitigated with minimal use of standards by way of partially or fully automated alignment, then the integration of and for commercial, non-profit, military, and government systems will be simplified and improved. This workshop will exhibit new approaches to alignment, mediation, and other methods that promise to help fulfil the vision of the Semantic Web.

Like any software research endeavor, the study of automated ontology alignment will most clearly demonstrate progress through rigorous experimentation. The ontology alignment research community has embraced this challenge, having conducted collaborative experiments to compare their respective alignment tools on a standard set of ontology pairs. The results of these experiments have established clear performance benchmarks and informed new approaches to ontology alignment.

The Integrating Ontology Workshop includes discussion of the third such experiment since 2004, following the Information Interpretation and Integration Conference¹ and the Evaluation of Ontology-based Tools Workshop.²

This workshop also features research presentations describing the latest efforts for ontology alignment and mediation.

Further information on the Integrating Ontology Workshop and the ontology alignment experiment can be found on the workshop website.³

Thanks to all the members of the program committee, authors, experiment participants and local organizers for their efforts. The workshop represents significant cooperation and progress on many levels.

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¹

<http://www.atl.external.lmco.com/projects/ontology/i3con.html>

² <http://km.aifb.uni-karlsruhe.de/ws/eon2004/>

³ <http://km.aifb.uni-karlsruhe.de/ws/intont2005>

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