Ontology Matching

OM-2023

Proceedings of the ISWC Workshop

Introduction

Ontology matching[1] is a key interoperability enabler for the semantic web, as well as a useful tactic in some classical data integration tasks dealing with the semantic heterogeneity problem. It takes ontologies as input and determines as output an alignment, that is, a set of correspondences between the semantically related entities of those ontologies. These correspondences can be used for various tasks, such as ontology merging, data interlinking, query answering or navigation over knowledge graphs. Thus, matching ontologies enables the knowledge and data expressed with the matched ontologies to interoperate.

The workshop had three goals:

- To bring together leaders from *academia*, *industry* and *user institutions* to assess how research advances are addressing real-world requirements. The workshop strives to improve academic awareness of industrial and final user needs, and therefore, direct research towards those needs. Simultaneously, the workshop serves to inform industry and user representatives about existing research efforts that may meet their requirements. The workshop also investigates how the ontology matching technology is going to evolve.
- To conduct an extensive and rigorous evaluation of ontology matching and instance matching (link discovery) approaches through the OAEI (Ontology Alignment Evaluation Initiative) 2023 campaign[2].
- To examine similarities and differences from other, old, new and emerging, techniques and usages, such as process matching, web table and knowledge graph matching tasks or knowledge embeddings.

The program committee selected 12 submissions for the presentation during the workshop. 14 matching systems participated in this year's OAEI campaign. Further information about the Ontology Matching workshop can be found at: om2023.ontologymatching.org.

[1] ontologymatching.org
[2] oaei.ontologymatching.org/2023

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[3] trentinodigitale.it
[4] dwslab.github.io/melt
[5] pistoiaalliance.org/projects/current-projects/ontologies-mapping
[6] research.ibm.com
[7] mn.uio.no/sirius

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