Ontology Matching

OM-2018

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 translation, 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 academic 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 investigated how the ontology matching technology is going to evolve, especially with respect to data interlinking, process mapping and web table matching tasks.
- To conduct an extensive and rigorous evaluation of ontology matching and instance matching (link discovery) approaches through the OAEI (Ontology Alignment Evaluation Initiative) 2018 campaign[2].
- To examine new uses, similarities and differences from database schema matching, which has received decades of attention but is just beginning to transition to mainstream tools, or the emerging process matching task.

The program committee selected 5 submissions for oral presentation, treated as long technical papers in the proceedings, and 9 submissions for poster presentation, out of which 3 are treated as short technical papers and 6 as posters in the proceedings. 19 matching systems participated in this year's OAEI campaign. Further information about the Ontology Matching workshop can be found at: `http://om2018.ontologymatching.org/`.

[1] `http://www.ontologymatching.org/`
[2] `http://oaei.ontologymatching.org/2018`

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[3] http://www.taslab.eu
[4] http://www.openlivinglabs.eu
[5] http://www.trentinodigitale.it
[6] http://www.seals-project.eu
[7] https://project-hobbit.eu/challenges/om2018/
[8] http://www.pistoiaalliance.org/projects/ontologies-mapping/
[9] http://research.ibm.com/labs/watson/

Organization

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Long Technical Papers

Short Technical Papers

[10] Paper published in Emerging Topics in Semantic Technologies. ISWC 2018 Satellite Events. E. Demidova, A.J. Zaveri, E. Simperl (Eds.), ISBN: 978-3-89838-736-1, 2018, AKA Verlag Berlin

OAEI Papers

Posters