Collaborative Discussion 2: KRR: Ontologies for WWW

by Maria Ingold

Peer Response

Thank you, Dewyn, for a well-written and informative initial post. I like the simplicity of your design, breaking down each section into its key pros and cons as related to the assignment. I also concur with you, that OWL 2 is the most likely candidate. I think the further point you raise between balancing expressiveness and computational efficiency is also valid.

I have little to add other than I would like to see more references inline, however, from a purely stylistic perspective I can see why you did not include them.

I was inspired by your neat structure, which is like the logical breakdowns I use. However, I ordered mine chronologically from release as I realised there was a timeline evolution. KIF is earliest of the four and not designed by DARPA with web in mind in 1992. DARPA later extended to web with DARPA Agent Markup Language (DAML) in 2000, however (Kalibatiene & Vasilecas, 2011; Slimani, 2015).

OWL Lite is part of OWL 1. OWL 1 and OWL 2 extend RDF. However, OWL Lite is the only OWL 1 class not carried forward to OWL 2, as both Full and DL are present alongside EL, QL and RL profiles (Cuenca Grau et al., 2008).

We agree, with caveats if OWL 2 is not suitable for a particular use case.

References:

Cuenca Grau, B. et al. (2008) OWL 2: The Next Step for OWL, *Journal of Web Semantics* 6(4): 309–322. DOI: https://doi.org/https://doi.org/10.1016/j.websem.2008.05.001.

Kalibatiene, D. and Vasilecas, O. (2011) Survey on ontology languages, *Lecture Notes in Business Information Processing* 90 LNBIP: 124–141. DOI: https://doi.org/10.1007/978-3-642-24511-4_10.

Slimani, T. (2015) Ontology Development: A Comparing Study on Tools, Languages and Formalisms, *Indian Journal of Science and Technology* 8(24). DOI: https://doi.org/10.17485/IJST/2015/V8I1/54249.