

## Collaborative Discussion 2: KRR: Ontologies for WWW

by Maria Ingold

### Summary Post

While I am usually the first to post an initial post, Ramos (2024) was the first this time. That let me consider someone else's thoughts before embarking on mine. Furthermore, I was pleasantly surprised by the structure of his post, which inspired me to build on his four-section design. I found his pros and cons very succinct and clearly tying back to the objective—evaluating ontologies for use by software agents on the World Wide Web (WWW).

I first broke down Kalibatiene and Vasilecas' (2011) ontology description to its key words—formal, explicit, shared and conceptualisation—so I could compare those points for Knowledge Interchange Format (KIF), Resource Description Framework (RDF), Web Ontology Language (OWL) Lite, and OWL 2.

I realised in my analysis, that the ontologies came out at different times, so I reorganised them into a timeline. That helped me clearly establish relevance as KIF predated the semantic web, both OWL Lite and OWL 2 were built on RDF, and OWL 2 excluded OWL Lite (W3C, 1997, 2012; Cuenca Grau et al., 2008; Kalibatiene & Vasilecas, 2011; Slimani, 2015).

We both found OWL 2 to be most suitable, and discussed that relevance depended on use-case. However, he argued that OWL Lite could be suitable, whereas my research demonstrated it was excluded for a reason, namely computational complexity. His most resonant comment was that "As the agent evolves, its language needs might too!" While I had considered the starting point, I had not considered evolution.

Overall, my initial post was stronger for first having seen his, and our debate both reinforced my learnings and confirmed that OWL 2 was the correct solution in this case, however, RDF might be more suitable for simpler structured data. This was an insightful exchange that highlighted the potential of collaborative discussion.

### References:

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