

What are the main pros of property graph databases compared to triplestores?

Question posed on Quora and answered by Alan Morrison:

A few observations now on what I think the pros of RDF graphs are. RDF is optimized for global, large scale integration via unique web addresses (Internationalized Resource Identifiers, or IRIs), so there will be less reinventing the wheel, more inherent boundary crossing capability and inter-enterprise collaboration with RDF. Ontologies in the RDF/OWL world further extend this boundary-crossing capability. Thus, explicitness in RDF is arrived at via scale and model articulation and contextualization.

The scaling, power of ontologies, inferencing and the potential for model-driven development are why I'm an advocate of the RDF/OWL approach. Property graph advocates often think the RDF advocate use of IRIs is extreme and makes RDF graphs difficult to use.

To my mind, RDF is best as a means of strategic integration, and property graphs are best for tactical analytics. Property graphs have been more popular because they're easier to use, but RDF/OWL advocates would say that with more pain, there is more gain. Ontologies in particular provide the means of embedding standard, intelligent, declarative, extensible models at the data layer, where the reuse potential is substantial, including for model-driven development. I don't see how we get to the next, contextualized phase of AI without them.

The full post on Quora