

# Computing@PNNL SEMINAR

## *Integrating Semantic Web in the Real World: A Journey Between Two Cities*

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An early vision in computer science has been to create intelligent systems capable of reasoning on large amounts of data. Today, this vision can be delivered by integrating relational databases with the Semantic Web using World Wide Web Consortium, or W3C, standards: a graph data model (RDF), ontology language (OWL), mapping language (R2RML), and query language (SPARQL). The research community has successfully been showing how intelligent systems can be created with Semantic Web technologies, now dubbed *Knowledge Graphs*.

However, where is the mainstream industry adoption? What are the barriers to adoption? Are these engineering and social barriers, or are they open scientific problems that need to be addressed?

This talk will chronicle the journey of deploying Semantic Web technologies with real-world users to address business intelligence and data integration needs, describe technical and social obstacles present in large organizations, and detail scientific and engineering challenges that require attention.