ONTOLOGY SUMMIT 2014

_

OVERCOMING ONTOLOGY ENGINEERING BOTTLENECKS

_

STRATEGIES AND BUILDING BLOCKS

Matthew West, Pascal Hitzler, and Krzysztof Janowicz

February 6th, 2014

OVERCOMING ONTOLOGY ENGINEERING BOTTLENECKS

Track Mission

To identify bottlenecks that hinder the large-scale development and (re)usage of ontologies and identify ways to overcome them.

Bottlenecks include

-
- Modeling axioms or knowledge representation language fragments that cause difficulties in terms of an increase in reasoning complexity or reducing the reuseability of ontologies
-

Potential Solutions include

- _
- The development of a set of reusable patterns that can ease ontology development and alignment
- The identification of purpose-driven modeling granularities that provide sufficient semantics without over-engineering
-

STRATEGIES AND BUILDING BLOCKS SESSION

Questions that we would like to address during today's session

- How to arrive at reusable patterns? How many patterns are there? Are there types of patterns? Are all patterns domain-independent? Can we mine patterns from data?
- Who will develop and maintain these patterns? Are there measures or at least experience reports on the robustness and usefulness of patterns? Are there success stories of large-scale pattern usage?
- How to abstract from individual ontology designs? Do we need higher-level ontology modeling languages on top of knowledge representation languages? How to get community buy-in?
- How important is the selection of specific language constructs for the scalability and reuse of patterns?

SPEAKERS

Werner Kuhn

University of California, Santa Barbara

Abstracting behavior in ontology engineering

■ Aldo Gangemi

University Paris 13
Knowledge patterns as one means to overcome ontology design bottlenecks

■ Karl Hammar

Jönköping University
Reasoning performance indicators for ontology design patterns