Making use of Ontologies: Tools, Services, and Techniques

Ontology Summit 2014

http://ontolog.cim3.net/cgi-bin/wiki.pl?
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Mission Statement

The Web of Data provides great opportunities for
ontology-based *services*, but also puts challenges to
tools for editing and using ontologies, and to *techniques*
for ontology engineering.

Mission: Services

Services can now draw on a large pool of knowledge:

- user-generated content (e.g. social networks)
- sensors
- public sector information
- creative works

The promise and risks of Big Data:

- **Promise**: more data and more links ⇒ higher chance to meet the user's needs with up-to-date information!
- **Risk**: messy, incomplete, erroneous, irrelevant, contradicting information (requires pre-processing or filtering)

Mission: Tools

Big Data requires scalable tools:

- How to keep reasoning tractable?
- How to keep even editing, browsing and visualization manageable
  . . . when ontologies no longer fit into the main memory?

Mission: Techniques

Traditional ontology engineering techniques &
methodologies maybe not applicable to Big Data:

- How to learn an ontology from incomplete/messy
  data spread all over the Web?
- How to refactor an ontology whose instance data
  grow continuously?

Deliverables

- How can tools and techniques scale to the Web?
- How can services benefit from tapping into the Web?
  How can they help to make Big Data manageable?
- Identify candidate tools/techniques for scaling up
  (→ Hackathon)