# Making use of Ontologies: Tools, Services, and Techniques

## Ontology Summit 2014

`http://ontolog.cim3.net/cgi-bin/wiki.pl?`
`OntologySummit2014_Ontology_Tools_Services_`
`Techniques_Synthesis`

## Christoph Lange[1]

[1]Enterprise Information Systems,
University of Bonn / Fraunhofer IAIS, Germany

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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
  ($\rightarrow$ Hackathon)