



Kno.e.sis

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FROM INFORMATION TO MEANING

On the Uptake of Semantic Web Technologies

Pascal Hitzler

Kno.e.sis Center

Wright State University, Dayton, OH

<http://www.pascal-hitzler.de/>



2006

Gartner on “Semantic Web” and “Corporate Semantic Web”:

5 to 10 years to mainstream adoption

2006

The Advent of Linked Data

**Transition from focus on *ontologies*
to focus on *RDF Data***

2010

Linked Data yields added value.

But there are quality issues.

2012

Linked Data yields added value.

But there are quality issues.

Benefits:

- **Low barrier for finding and reusing data.**
- **Naïve combination of data easy.**
- **Become part of the Linked Data research train and hype.**

Cautions:

- **Not much help for semantic interoperability.**
- **Links to be taken with care.**
- **Best practices, methods, and tools not sufficiently developed.**

Summary

- **Immediate added value at low cost.**
- **Limited added value if it stops there.**

Rapid adoption may lead to

- **underspecified data (due to missing or unclear ontological commitments)**
- **overloaded vocabulary terms, i.e. terms with multiple meanings in datasets, so that endowing them with a deeper semantics “later” becomes virtually impossible**

Possible consequences:

- **Substantial added value through semantification remains out of reach.**
- **Strengthening of semantics of vocabulary “later” may be very expensive.**
- **Data curation may no longer be feasible (e.g. due to loss of provenance- and other metadata).**

Reduce overhead by

- **reusing existing high-quality ontologies and ontology design patterns,**
- **having a clear understanding of the formal semantics of the adopted ontology language (e.g., OWL) and its implications, even if not fully used initially,**
- **beginning to plan the deep semantification *already in the early stages of the adoption of Semantic Web Technologies.***

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