

Ontology Summits: Retrospective

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Impact

- Ontology Summits have been influential in shaping the applied ontology community in the past 20 years.
- They have driven research directions, but in some cases have fallen short of their initial promise.
- In this talk, I will review some of my personal favourites and discuss their impact, both past and future.

My Favourite Ontology Summits

- Upper Ontology Summit (2006)
- Ontology, Taxonomy, Folksonomy: Understanding the Distinctions (2007)
- Toward an Open Ontology Repository (2008)
- Toward Ontology-based Standards (2009)
- Making the Case for Ontology (2011)
- Ontology Evaluation Across the Ontology Lifecycle (2014)

Upper Ontologies: Initiatives

The first Ontology Summit eventually bore fruit in some substantial efforts:

- FOUST
- ISO 21838

Upper Ontologies: Regrets

- Upper ontologies are still siloes, and there is still not enough work on understanding their relationships
- Modularity of upper ontologies is ignored
- Evaluation of upper ontologies – verification / validation?
- Is there community consensus on the characteristics of upper ontologies?

Ontology, Taxonomy, Folksonomy: Regrets

- The Summit produced a framework to encompass a wide variety of artefacts under the umbrella of “ontology”
- Did we end up with a definition so watered down as to render it useless?
- To this day, people still ask –
“What is an ontology?”

Ontology repositories: Initiatives

- Creation of oor.net (initial set of repositories , including COLORE)
- First step towards FAIR principles for ontologies

Ontology repositories: Regrets

- Lack of adoption (outside of COLORE?)
- Dead links (after Peter Yim's passing)
- Should IAOA host a comprehensive ontology repository?

Ontologies and Standards: Initiatives

- Ontologies are increasing in profile within ISO
- Besides efforts such as ISO21838 (which explicitly standardize ontologies and/or ontological analysis), there are numerous ontology-based projects within organizations such as ISO and OMG.

Ontologies and Standards: Regrets

- The adoption of ontologies within standards organizations is chaotic and ad hoc
- There are multiple (dozens?) definitions for “ontology”
- No reuse among different projects – the City of a Hundred Siloes

Making the Case for Ontology:

- Highlighted the impact of ontologies
- Ontology Application Framework

Making the Case for Ontology: Regrets

- We need more case studies to validate ontologies
- There is no systematic or coordinated effort to collect case studies

Ontology Lifecycle: Initiatives

- First steps towards the foundation of ontology engineering as a discipline
- Recognition that ontologies are artefacts designed with respect to semantic requirements

Ontology Lifecycle: Regrets

- Ontologies continue to be designed without explicit specification of semantic requirements, driven by ideology rather than logic.

Conclusion

- Each Ontology Summit is a unique opportunity to explore the frontiers of applied ontology.
- Future of ontologies?