

Ontology Summit 2021

Ontology Generation and Harmonization

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Welcome

- This is the 16th Ontology Summit!
- This introduction will attempt to
 - Motivate the summit (Why)
 - Relate this summit to prior summits (Whence)
 - Describe the summit organization and procedures (When, Where and How)
 - Synthesize and produce a Communiqué (Whither)
 - Introduce the track co-champions (Who and What)

Motivation

- Ontologies are increasingly being **generated** rather than being manually built.
 - Track C: Neuro-Symbolic Learning Ontologies
- Ontologies are proliferating, producing a **landscape** of many types for many purposes.
 - Track A: The Ontology Landscape
- The large variety of ontologies has made it difficult to communicate about them and between them. There is a need for **harmonization**.
 - Track B: Definitions
- It isn't enough to construct ontologies, they must be **sustained**.
 - Track D: Sustainability of Ontologies

Track A The Ontological Landscape

- 2006 - "Upper Ontology Summit"
- 2007 - "Ontology, Taxonomy, Folksonomy: Understanding the Distinctions"
 - Ontology Assessments <http://bit.ly/3jj6usc>
 - Ontology Survey Issues <https://bit.ly/2MJQjrA>
- 2010 - "Creating the Ontologists of the Future"
- 2011 - "Making the Case for Ontology"

Track B Definitions

- 2009 - "Toward Ontology-based Standards"
- 2018 - "Contexts in Context"
- 2019 – "Explanations"
 - Communiqué <http://bit.ly/2TDdyTG>
 - Special issue to appear soon

Track C Neuro-Symbolic Learning Ontologies

- 2012 - "Ontology for Big Systems"
- 2014 - "Big Data and Semantic Web Meet Applied Ontology"
 - Special Issue <http://bit.ly/39GXZ6O>
- 2017 - "AI, Learning, Reasoning, and Ontologies"
- 2020 - "Knowledge Graphs"
 - Special issue is being developed

Track D Sustainability of Ontologies

- 2008 - "Toward An Open Ontology Repository"
- 2013 - "Ontology Evaluation Across the Ontology Lifecycle"
- 2015 - "Internet of Things: Toward Smart Networked Systems and Societies"
- 2016 - "Framing the Conversation: Ontologies within Semantic Interoperability Ecosystems"

The 3 Pillars of Sustainability



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- For an ecosystem to be sustainable, it must satisfy the 3 pillars.
 - Economic Viability (supported)
 - Social Equity (unbiased)
 - Environmental Protection (maintainability)

Organization

- Every Wednesday at Noon US/Canada Eastern Time at the same Zoom URL <https://bit.ly/3i1uPRI>
- The same chatroom: <https://bit.ly/39PzQJW>
- Meeting pages and resources on the wiki. The main page is <https://bit.ly/3gKukvC>
- There will be 12 track sessions
 - Multiple speaker sessions will be for 1.5 hours.
 - Single speaker sessions will be for 1 hour.
- There will be 2 general (1 hour) sessions
- There will be 2 synthesis (1 hour) sessions

Communiqué

- All participants are invited to participate on and contribute to the Communiqué
- The Communiqué sessions will begin in June.

Co-Champions

- Track A: The Ontological Landscape **Ravi Sharma** and **Todd Schneider**
 - 4 sessions
- Track B: Definitions **Gary Berg-Cross** and **Alex Shkotin**
 - 3 sessions
- Track C: Neuro-Symbolic Learning Ontologies **Douglas Miles, Cassiopeia Miles** and **Ram D. Sriram**
 - 3 sessions
- Track D: Sustainability of Ontologies **Leia Dickerson** and **Mark Underwood**
 - 3 sessions