# Ontology Summit 2012

## Track 3
## Challenge: Ontology and Big Data

**Co-Chairs**

**Mary Brady**

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# Mission Statement for Track 3 - Challenge: Ontology and Big Data

**Identify appropriate objectives for an Ontology and Big Data challenge, prepare problem statements, identify the organizations and people to be advocates, and identify the resources necessary to complete a challenge. The goal is to identify major issues big data is facing and will be facing and to select challenges to address these issues.**

# Action Plan

- **Define problems**
- **State objectives**
- **Identify advocates**
  - **Organizers**
  - **Organizations**
  - **People**
- **Identify resources**
- **Perform Ontology and Big Data Challenge**

# Meeting Big Data Challenges through Ontology

- The mission of this track is to identify appropriate objectives for an "Ontology and Big Data" challenge, prepare problem statements, identify the organizations and people to be advocates, and identify the resources necessary to complete a challenge. The goal will be to select a challenge showing benefits of ontology to big data.
- One of the NCO's goals is to enhance collaboration and accelerate agencies' adoption of advanced IT capabilities. NITRD seeks to accelerate deployment of promising research technologies; share protocol information, standards, and best practices; and coordinate and disseminate technology assessment and testbed results. NITRD coordinates federally supported IT research under the leadership of OSTP. Ontologies and the semantic web support Open Government Directive.
- The goal of "**Meeting Big Data Challenges through Ontology**" Track 3 is to identify issues that can be addressed using an ontology challenge. Challenges can take many forms and target many issues.

# Examples of Potential Challenge Goals

- **Increase the number of qualified personnel to facilitate the growth of the ontology technologies**
- **Accelerate agencies' adoption of semantic and ontology capabilities, i.e., help spread the use of ontologies**

# Process

- **Process can benefit from Challenge organizations**
- **Identify organizations, interests, and establish agreements**
- **Select Data Sets**
- **Set rules for their use during the challenge**
- **Define products**
- **Set competition period, i.e., one day, three weeks, etc.**
- **Evaluate and Post results**

# Panelists

- **Tim Finin and Anupam Joshi**
  - **Making the Semantic Web Easier to Use**
- **Kyoung-Sook Kim**
  - **Use cases of cyber-physical data cloud computing**
- **Mike Folk**
  - **HDF5 (Hierarchical Data Format) is a suite of technologies used widely in science and engineering for working with high volume, complex data. The presentation will describe how HDF5 supports metadata as well as data and give an example.**
- **Mario Paolucci**
  - **FuturICT: Global Participatory Computing for Our Complex World.**
- **Ursula R. Kattner**
  - **On-going work on the Materials Genome Initiative, and in particular, focus on the data standards' needs.**
- **Edin Muharemagic**
  - **Machine Learning, types of problems, and how it might apply to Ontology.**