

# ONTOLOGY FOR THE INTELLIGENCE COMMUNITY

Towards Effective Exploitation  
and Integration  
of Intelligence Resources

December 3-4, 2008  
George Mason University



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2008



# Schedule of Events

## Wednesday, December 3

8:00 a.m.-8:45 a.m. Breakfast

8:45 a.m. - 9:00 a.m. Welcome

### **Dr. Kathryn B. Laskey**

Associate Director of Center of Excellence in Command, Control, Communications, Computing and Intelligence (C4I Center); Associate Professor of Systems Engineering & Operations Research

9:00 a.m.-10:00 a.m. Keynote Address

### **Deborah McGuinness**



Deborah L. McGuinness is the Tetherless World Senior Constellation Chair and Professor of Computer Science and Cognitive Science at Rensselaer Polytechnic Institute. She is one of the creators of the OWL Web Ontology Language. McGuinness was previously Acting Director and Senior Research Scientist at the Knowledge Systems, Artificial Intelligence Laboratory at Sanford University. She is a leading expert in knowledge representation and reasoning languages and systems and has worked in ontology creation and evolution environments for over 20 years. Most recently, Deborah is best known for her leadership role in semantic web research and applications of semantic web technology, particularly for scientific applications.

10:00 a.m.-10:15 a.m. Coffee Break

10:15 a.m.-12:00 p.m. Plenary Paper Session

#### Leveraging Emergent Ontologies in the Intelligence Community,

Jim Starz, Jason Losco, Brian Kettler, Rachel Hingst and Christopher Rouff.

#### Automatic Ontology Creation from Text for National Intelligence Priorities Framework

(NIPF), Mithun Balakrishna and Munirathnam Srikanth.

#### Semantics for Information Sharing and Discovery in the Intelligence Community,

Martin Thurn.

#### Semantic Wiki for Tactical Intelligence Applications: A Demonstration,

Daniel Reininger, Jeff Mershon, Jef Armstrong, Ray Kulberda, Andrew Cohen, P. Robert Bullard and David Ihrle.

12:00 p.m.-1:15 p.m. Lunch

Wireless Access

Username: oic

Password: oic2008

# Schedule of Events

## 1:15 p.m.-2:30 p.m. Plenary Paper Session

### Ontology of Evidence,

Kathryn B. Laskey, David A. Schum, Paulo C. G. Costa, and Terry Janssen

### The Ontology of Systems, Kristo Miettinen.

### Ontology-based Technologies— Technology Transfer from Bioinformatics?,

Fabian Neuhaus.

## 2:30 p.m.-2:45 p.m. Coffee Break

## 2:45 p.m.-4:00 p.m. Plenary Paper Session

### Intelligence Analysis Ontology for Cognitive Assistants,

Mihai Boicu, Gheorghe Tecuci and David Schum.

### Improving Situational Awareness with Ontologically-Enhanced Graph Matching,

Eric Little and Kedar Sambhoos.

### Information Model for Non-Hierarchical Information Management,

Christian Mårtenson and Pontus Svenson.

## 6:00 p.m.-9:00p.m. Dinner and Presentation

### Marco Polo Restaurant

245 Maple Ave. Vienna, VA 703-281-3926

Dr. Leo Obrst



Dr. Leo Obrst is principal artificial intelligence scientist in the Information Discovery and Understanding department at MITRE's ([www.mitre.org](http://www.mitre.org)) Command and Control Center, where he advises the Information Semantics group (semantics, ontological engineering, knowledge representation and management). He is also currently involved in many US federal government efforts, including the intelligence community, to establish Communities of Interest (COI) vocabularies and ontologies for information sharing, including the development of universal and common models which span those COIs. Leo was a member of the W3C Web Ontology Working Group that developed the Web Ontology Language OWL, 2002-2004. He co-founded the Ontolog Forum (<http://ontolog.cim3.net>) in 2002, co-championed the Open Ontology Repository effort and is a co-authored the book *The Semantic Web: The Future of XML, Web Services, and Knowledge Management*. He has published many refereed book chapters, conference and workshop papers, and reviews, and has organized or been a program committee member for many conferences and workshops, including the OIC., the Ontology Summits at NIST, the Formal Ontology in Information Systems conference, and is the local organizer for the International Semantic Web Conference (ISWC) 2009.

# Schedule of Events

## Thursday, December 4

8:00 a.m.-8:45 a.m. Breakfast

8:45 a.m.-9:45 a.m. Keynote Address

**Michael Grüninger**



Michael Gruninger is a member of the faculty of Mechanical and Industrial Engineering at the University of Toronto. His research focus is in the design and formal characterization of ontologies and their application to problems in manufacturing and enterprise engineering. Dr. Gruninger's talk will focus on practical issues in ontology design. An increasing number of ontologies are being designed and deployed on the Semantic Web and knowledge-based software applications. Although this is good news for the ontological engineers, it can be overwhelming to the ontology end-user, who must choose among a panoply of ontologies and even ontology languages. This talk will provide some guidance for such users and will outline some of the criteria that they can use to select the right ontology for their needs.

10:00 a.m.-10:15 a.m. Coffee Break

10:15 a.m.-12:00 p.m. Plenary Paper Session

[Common Logic for an RDF Store](#), Bob MacGregor.

[Unification of Geospatial Reasoning, Temporal Logic, & Social Network Analysis in an RDF Database](#), Jans Aasman.

[Toward an Open-Source Foundation Ontology Representing the Longman's Defining Vocabulary: The COSMO Ontology OWL Version](#), Patrick Cassidy.

[ICD Wiki – Framework for Enabling Semantic Web Service Definition and Orchestration](#), Dean Brown and Dominick Profico.

12:00 p.m.-1:15 Lunch

1:15 p.m.-3:00 p.m. Plenary Paper Session

[Intelligence Analysis and the Semantic Web](#), Brock Stitts.

[An Ontology Based Approach to Flexible Automated Video Analysis and Retrieval](#), Dru McCandless and Steve Matechik.

[Model Driven Ontology: A New Methodology for Ontology Development](#), Mohamed Keshk and Sally Chambless.

2:30 p.m.-2:45 p.m. Break

2:45 p.m.-4:00 p.m. Panel Discussion