Ontology Summit 2012

Track 4: Large-Scale Domain Applications

Part 2: Biomedical, earth & environmental science & engineering

Co-Champions

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Mission Statement

- This track will help to ground the discussions in the other tracks and bring key challenges to light by **describing current large-scale systems** and systems of systems that either use, or could use, ontologies in their deployment. "Large-scale" can mean either very large data sets, very complex data sets, federated systems, highly distributed systems, or real-time, continuous data systems.

- Examples of large data sets might include scientific observations and studies; complex data sets could be technical data packages for manufactured products, or electronic health records; federated systems could include information sharing to combat terrorism, highly distributed systems includes items such as the smart electrical grid (aka Smart Grid), and real-time systems include network management systems. Of course, some big systems might include all five aspects.

Today’s examples

- Oil
- Clinical genomics
- Plant science
- Hydrology
- Earth Sciences

Speakers

- Mr. DavidPrice (TopQuadrant)
  - "Experiences from a Large Scale Ontology-Based Application Development for Oil Platforms"
- Dr. MikeKellen (Sage Bionetworks)
  - "Collaborative Clinical Genomics Data Analysis with Sage Bionetworks Synapse"
- Dr. DamianGessler (iPlant Collaborative) & Dr. BlazejBulka (Clark & Parsia)
  - "The iPlant Collaborative Semantic Web Platform: Using OWL and SSWAP (Simple Semantic Web Architecture and Protocol) for On-Demand Semantic Pipelines"
- Dr. IlyaZaslavsky (SDSC)
  - "Managing observation semantics in CUAHSI Hydrologic Information System"
- Dr. LinePouchard (ORNL)
  - "Linked Earth Science: a producer and consumer of Big Data"