BioPortal: A Community-Based Ontology Repository

http://bioportal.bioontology.org

The BioPortal Ontology Repository

- Web accessible repository of ontologies for the biomedical community:
  - http://bioportal.bioontology.org
- Online support for ontology
  - Peer review
  - Notes (comments and discussion)
  - Versioning
  - Mapping
  - Search
  - Resources

The BioPortal Technology

- BioPortal is a library of biomedical ontologies
- All BioPortal data is accessible through REST services
  - BioPortal user interface accesses the repository through REST services as well
- The BioPortal technology is domain-independent
  - There are installations of BioPortal for libraries in other domains
  - BioPortal code is open-source
  - Technology stack includes mySQL, J2EE, Spring, Hibernate, Ruby-on-Rails

A Library of Biomedical Ontologies

BioPortal Library

- 140 ontologies in OWL, RDFS, Protégé frames, and OBO
- 700,000 classes in the ontologies

Ontology Search

Mappings in BioPortal

- Mappings in BioPortal are concept-to-concept mappings

- Mappings are created by users or uploaded in bulk

- Bulk uploads are usually the results of automatic or semi-automatic mapping

- There is detailed metadata for provenance of mappings

- ~30,000 mappings in BioPortal now

  - The number will dramatically increase (to millions) in the coming weeks

BioPortal technology is domain-independent

- Other installations of BioPortal:
  - Marine Metadata Initiative repository
  - Open Ontology Repository

The panel today

- Carlos Rueda, Paul Alexander & John Graybeal (MBARI): "MMI Ontology Registry and Repository"

- Mike Dean (BBN): "OOR Progress, Federation, and Other Thoughts"

- Stephen Granite (Johns Hopkins University) - "Utilizing NCBO Tools to Develop & Use an ECG Ontology"

- Alex Garcia (University of Bremen) - "The Ontology Repository for Assistive Technologies, ORATE"

- Ken Baclawski (Northeastern University) - "OOR at Northeastern"