

# OOR Progress, Federation, and Other Thoughts

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Joint Ontolog-OOR Panel on BioPortal  
and Related Ontology Repository Implementations and Development

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# Progress

- I appreciate OOR progress to date
  - Particularly the enormous contributions of the BioPortal Team, CIM3, and regular telecon participants
- Cross-referencing proposed projects seems to be off to a good start
- I'd still like to work more on notions of composable modules and making it easier to standup specialized OOR instances (public or private)

# Federation

- I'm particularly interested in federation of registries/repositories
  - Potential discriminator for OOR
- I've recently worked with
  - Knoodl at VoCamp DC
  - Semantic MediaWiki+ (SMW+) on a DARPA seedling
- I've long considered both as good candidates for federation with OOR
  - People will want to continue to use their current collaborative vocabulary editing environments

# Capabilities

- Knoodl supports OWL DL
  - Collaborative support for “standard” ontology editing
- SMW+ supports ~RDFS
  - Vocabulary is generally a side-effect of domain-specific Wikipedia-style collaboration (but may contain valuable information)
- Some work in combining these tools

# Approaches

- Both support SPARQL endpoints and RDF/OWL export
- Possible (non-exclusive) approaches
  - CONSTRUCT query/ies to map metadata into OMV
  - CONSTRUCT query/ies to map relevant aspects of vocabularies: (sub)classes, (sub)properties
  - Export vocabularies and re-import into OOR
  - Import the RDF/OWL export link
- BioPortal questions
  - Ability to link back to an external authoritative source?
  - Versioning, bulk import of changes

# Multi-File Ontologies

- Issue came up when I started to import Dublin Core (?) into the OOR sandbox
- Some ontologies are divided into multiple files/pages
  - This partitioning often reflects modularity or other significant attributes
  - Often hierarchical
- How should these be handled?

# Possible Approaches

- Load each file independently
  - Possibly provide some metadata associating them (beyond any internal references/imports)
- Load a single file that imports the other files
  - May lose internal structure
- Directly support a notion of multi-file ontologies
- What does BioPortal currently do?

# Rules

- I'm now working on [SILK](#), a new rule language
- I'd like to eventually integrate it with OOR
- New requirements (similar to Common Logic)
  - Support for rules
  - 3+-arity predicates
- SILK will be interchangeable using [W3C Rules Interchange Format \(RIF\)](#), so OOR support for RIF might be a good, standard stepping stone