

OntoHub Perspectives

The Ontohub team

12.12.12

Time plan

10h	Intro / Motivation / Know-How
10.30h	Ontohub and its background (OntoOp ISO standard, OOR community, Hets community)
11h	Ontohub.org web portal demo
11.30h	Ontohub architecture and data model
13h	Lunch
14h	Aims
14.30h	Motivation / Know-How / Work areas
15h	Organisation (regular meetings, programming sessions, github, issue tracker)
15.30h	Setup of development environment
ca. 16h	End



- ambitious goals:
 - establishing a hosted registry-repository;
 - enabling and facilitating open, federated, collaborative ontology repositories, and
 - establishing best practices for expressing interoperable ontology and taxonomy work in registry-repositories.
- lots of OOR presentations at conferences
- regular Skype conferences
- implementation: only through Bioportal, only for OWL
- <http://www.oor.net>

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Most Viewed Ontologies (October, 2012)

Ontology	Views
National Drug File	8441
SNOMED Clinical Terms	6277
International Classification of Diseases	4638
MedDRA	4144
NCI Thesaurus	1759

Statistics

Ontologies	329
Terms	5,484,331
Resources Indexed	28
Indexed Records	4,567,151
Direct Annotations	2,342,121,419
Direct Plus Expanded Annotations	17,816,182,671

Latest Notes

[Suggest synonym removal \(Human disease ontology\)](#) about 1 month ago by ceyockey
Suggest removing "cancer of prostate" as a synonym and associate this with the present term's par...

[Please use the tracker for this ontology to make notes \(Zebrafish anatomy and development\)](#) about 1 month ago by cervus
Please make comments, new term requests, issue reports etc for this ontology using the official t...

[Languages \(BRENDA tissue / enzyme source\)](#) about 1 month ago by anonymous
does the ontology contain terms in different languages?

[Terms \(BRENDA tissue / enzyme source\)](#) about 1 month ago by anonymous
How many terms does the BTO include?

[Please use the tracker for this ontology to make notes \(Uber anatomy ontology\)](#) about 1 month ago by cmungall
Please make comments, new term requests, issue reports etc for this ontology using the

Latest Mappings

[Neoplasm of uncertain behavior of testis \(MedDRA\) => Neoplasm of uncertain behavior of testis \(International Classification of Diseases\)](#)
NLM UMLS (MRMAP) 11/05/12 loom

[BALANITIS \(COSTART\) => Balanitis \(MedDRA\)](#)
NLM UMLS (MRMAP) 11/05/12 loom

[Poisoning by bromine compounds \(International Classification of Diseases\) => Poisoning by bromine compounds \(MedDRA\)](#)
NLM UMLS (MRMAP) 11/05/12 loom

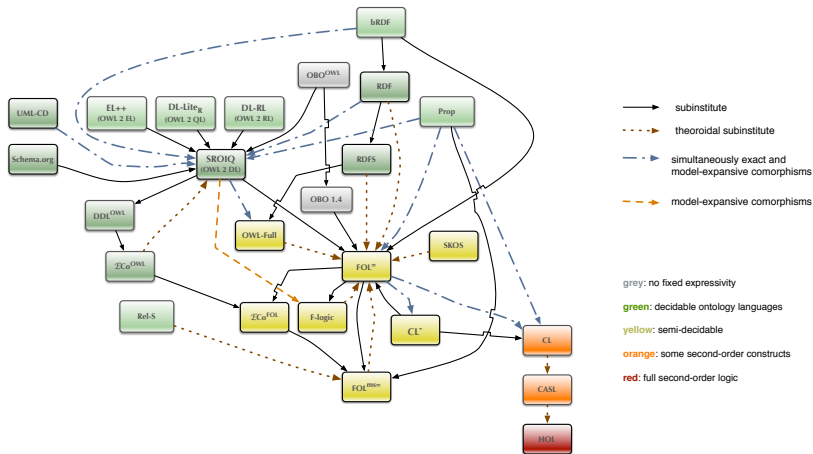
[Radial styloid tenosynovitis \(MedDRA\) => Radial styloid tenosynovitis \(International Classification of Diseases\)](#)
NLM UMLS (MRMAP) 11/05/12 loom

[Hair transplant \(International Classification of Diseases\) => Hair transplant \(MedDRA\)](#)
NLM UMLS (MRMAP) 11/05/12 loom

Ontology Integration and Interoperability (OntoOp)

- ISO Standard 17347 (currently: working draft)
- Distributed Ontology Language (DOL)
 - OWL (Web Ontology Language)
 - RDF (Resource Description Framework)
 - EER (Enhanced Entity-Relationship Diagrams)
 - Common Logic
 - UML (Unified Modeling Language)
 - ...
- Community of 10-15 experts
- bi-weekly Skype conferences
- <http://ontoiop.org>

OntoOp Logic Graph

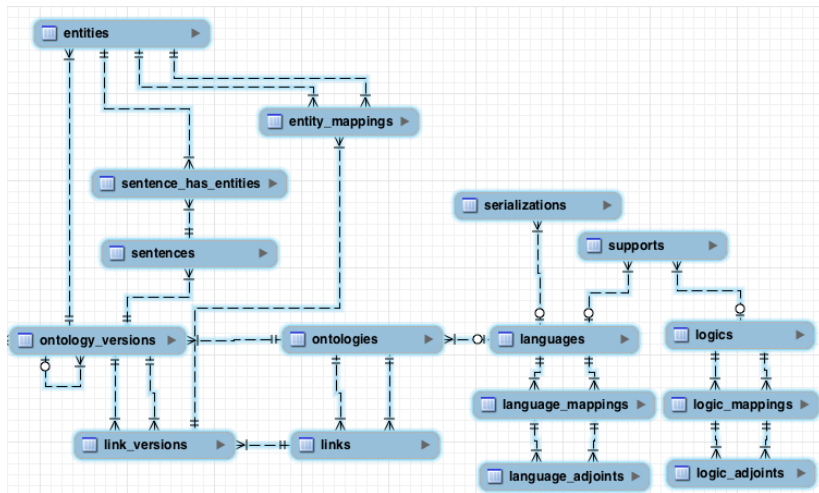


Heterogeneous Tool Set (Hets)

- Logic backend for OntoHub
- can parse and analyse all involved languages
- interface to about 15 proof tools
- anchored in algebraic specification community (WADT, CoFI, IFIP WG 1.3)
- <http://www.dfki.de/cps/hets>

- provide a repository for *heterogeneous* ontologies
- generalise Bioportal and OOR to heterogeneous ontologies
- provide a repository for OntoOp/DOL
- provide a web-frontend for Hets

Ontohub architecture and data model



Deutsches
Forschungszentrum
für Künstliche
Intelligenz GmbH



SFB/TR 8

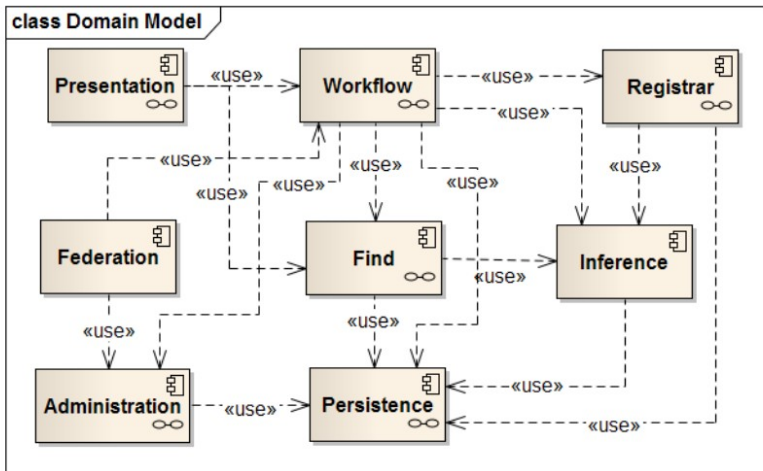
SPATIAL COGNITION

OntoHub short-term and long-term goals

- Keep functionality through tests
- CRUD functionality for logics, translations, ...
 - read in logic graph from RDF registry
- display graph of ontologies and links (and logic graph)
 - use graphviz / dot
- Reasoning
- Git backend (distributed development of ontologies)
- long-term goal: OOR architecture



Revised Architecture



- New Rails model “repository”, which simultaneously provides namespace for ontologies
- underlying git or svn repositories
- permissions per repository (not per ontology)
- only contents of master branch is displayed in Ontohub
- store who has pushed when what
- server side git hooks



SPATIAL COGNITION

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