OntoHub Perspectives

The Ontohub team

12.12.12

Deutsches Forschungszentrum für Künstliche Intelligenz GmbH

SFB/TR 8 SPATIAL COGNITION

Time plan

10h	Intro / Motivation / Know-How
10.30h	Ontohub and its background (OntoIOp 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

Ontologies

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Open Ontology Repository (OOR)

- 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.
- lot of OOR presentations at conferences
- regular Skype conferences
- implementation: only through Bioportal, only for OWL
- `http://www.oor.net`

Ontology Integration and Interoperability (OntoIOp)

- 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`

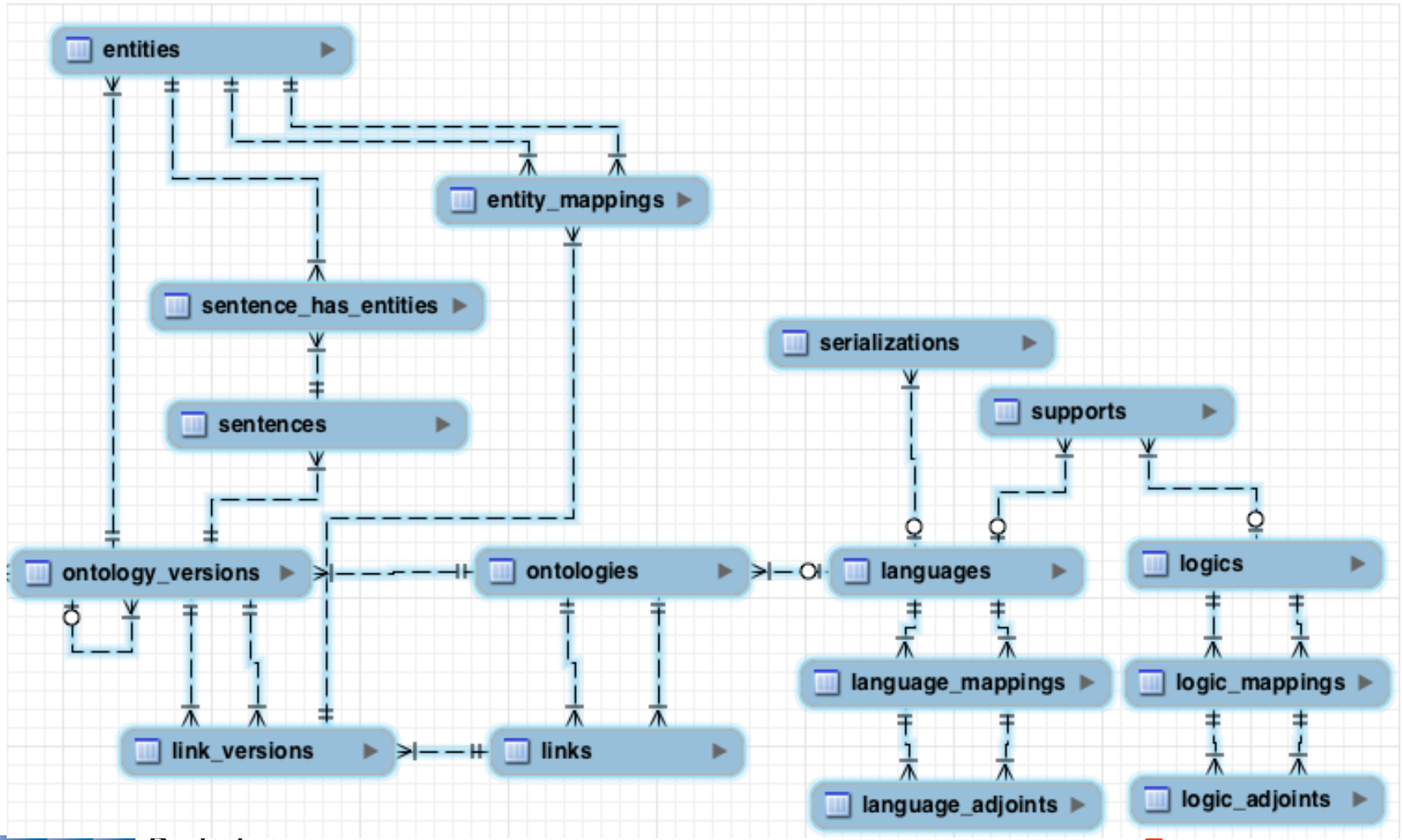
Heterogeneous Tool Set (Hets)

- Logic backend for OntoHub
- can parse an analyse all involved languages
- interface to about 15 proof tools
- `http://www.dfki.de/cps/hets`

OntoHub mission

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

Ontohub architecture and data model



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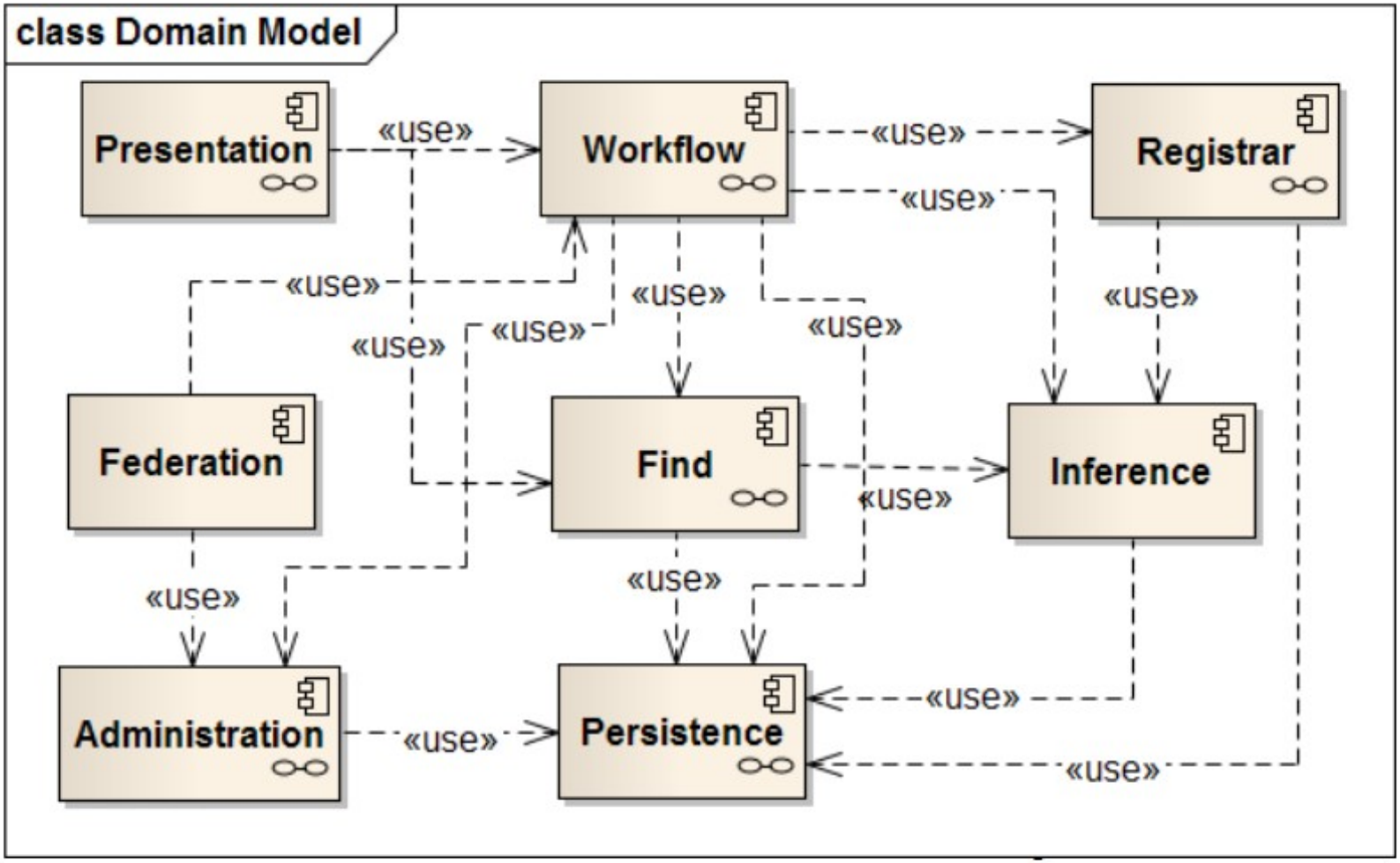
OntoHub short-term and long-term goals

- 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

OOR architecture

Revised Architecture



Git backend

- 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

Organisation

- who does what?
- meetings
- shared office in Cartesium