

Hackathon Project (HC-04):
Ontology Summit 2013 Content Hack
Leveraging Semantics on OntologPSMW

Ken Baclawski
Marcela Vegetti
(co-champions)

Background

- Collection of independent projects
- Common theme: Infrastructure development related to ontology evaluation across the ontology lifecycle
 - Survey existing tools dealing with ontology quality and fitness
 - Develop collaboration tools for the Ontology Summit on ontology evaluation
 - Semantically annotate content related to ontology evaluation
 - Develop tools for querying and presenting ontology evaluation content

Intersection

- Common basis for the projects is the Ontology Summit website
- Website platform is Purple Semantic MediaWiki
- The Ontology Summit survey is a semantic form that allows for dynamically maintaining information about tools for ontology quality and fitness.
- The Ontology Summit website is a semantically annotated wiki

Ontology Summit 2013 Content Hack

- The Ontology community wiki content is

Projects

- Purple Semantic MediaWiki (PSMW) Project
- Ontology Summit 2013 Survey Team
- Ontology Summit 2013 Website Team
- Ontolog Forum Content Migration Project
- Integrated Collaborative Object Model (ICOM) Mapping Project

Purple Semantic MediaWiki

- MediaWiki is the technology of Wikipedia and related web sites.
- Semantic Media Wiki is a large (\$100M+) EU project based in Karlsruhe.
- The Halo project provided the Halo extension.
- Purple numbers provide fine-grained access via the PMWX project at Northeastern University.

Ontology Summit 2013 Survey

- Now uses a semantic form
- Integrated with Ontology Summit website
- Large number of questions grouped into tabs
- Different appearance than rest of website
- Semantic annotation of content

Category:OntologySummit2013 Survey



This is a survey of the capabilities provided by software environments and tools to assess or promote the quality and fitness of ontologies.

You will need to login first (for your input to be captured) using your OntologWiki username and password. If you do not have an OntologWiki username, use "guest" with "ontolog-guest" as the password.

To record the capabilities provided by your software environment or tool, enter its name below and click the button. This will create a webpage for your software which you may update at any time by entering its name below and clicking the button.

Pages in category "OntologySummit2013 Survey"

The following 15 pages are in this category, out of 15 total.

1	O	O cont.
<input type="checkbox"/> 15926Editor	<input type="checkbox"/> Ontohub	<input type="checkbox"/> OpenLinkVirtuoso
	<input type="checkbox"/> OntologyTest	
C	<input type="checkbox"/> OntoQA	R
<input type="checkbox"/> COLORE	<input type="checkbox"/> OOPS	<input type="checkbox"/> RepOSE
H	<input type="checkbox"/> OOR	S

Views

- [♦ Category](#)
- [♦ Discussion](#)
- [♦ View source](#)
- [♦ History](#)

Personal tools

- [♦ Log in](#)

SEARCH

TOOLBOX

LANGUAGES

Edit OntologySummit2013 Survey: OOR

The survey of software capabilities is divided into a general section and a section for each ontology lifecycle phase shown in the tabs below:

General Exploration Management Design Build Validation Integration and Use Maintenance [edit]

Each ontology lifecycle phase may be supported by software capabilities that evaluate or promote the quality and fitness of an ontology. Please indicate those capabilities that are delivered by OOR in each phase. You may explain the software capability further in the text box to the right of the question. If a capability of OOR that addresses ontology quality or fitness in a phase is not listed, please add it to the text box at the bottom of the tab for that phase.

Full name of OOR

Description of OOR

OOR link

OOR home page

OOR download page

Author(s)

Contact

Institutional sponsor

Last version

License (IPR)

Mailing List(s)

Now continue with the next tab and answer the questions for that ontology lifecycle phase.

Ontology Summit Website Project

- Organize the Ontology 2013 Summit content in a way that encourages and facilitates access to and (re)use of the material
- Annotate the content produced by the summit with a subset of the ICOM ontology
- Provide / enable new functionality / views in terms of accessing / querying resources, events, people that are hosted on the website
- Develop and deploy constructs (such as forms and templates) to capture some of the material being uploaded Ontology Summit 2013 Content Hack according to the ICOM ontology⁹ for presentation of content and interoperation

WikiHomePage



[[hide purple numbers](#)]

Search

Contents [hide]

- ▣ 1 The Ontolog Community
 - ▣ 1.1 News & Announcements
 - ▣ 1.2 Discussion Forum Archives / File Workspace & Repository / Meetings & Conference Calls
 - ▣ 1.3 Charter of Ontolog (a.k.a. the "Ontolog Forum")
 - ▣ 1.4 Communities of Practice Initiatives, Projects & Programs
- ▣ 2 Ontolog Community Wiki
 - ▣ 2.1 Getting Started
 - ▣ [2.2 Noteworthy Events from the Past](#)
 - ▣ 2.3 Membership
 - ▣ 2.4 Community Process
 - ▣ 2.5 Publications & Deliverables
 - ▣ 2.6 Resources
 - ▣ 2.6.1 More about Collaborative Work Environments ("CWEs")
 - ▣ 2.7 Tools
 - ▣ 2.8 Intellectual Property Rights (IPR) Policy
 - ▣ 2.9 Credits/Acknowledgement

Views

- ◆ [Page](#)
- ◆ [Discussion](#)
- ◆ [Edit](#)
- ◆ [History](#)
- ◆ [Delete](#)
- ◆ [Move](#)
- ◆ [Protect](#)
- ◆ [Watch](#)
- ◆ [Refresh](#)

Personal tools

- ◆ [KennethBaclawski](#)
- ◆ [My talk](#)
- ◆ [My preferences](#)
- ◆ [My watchlist](#)

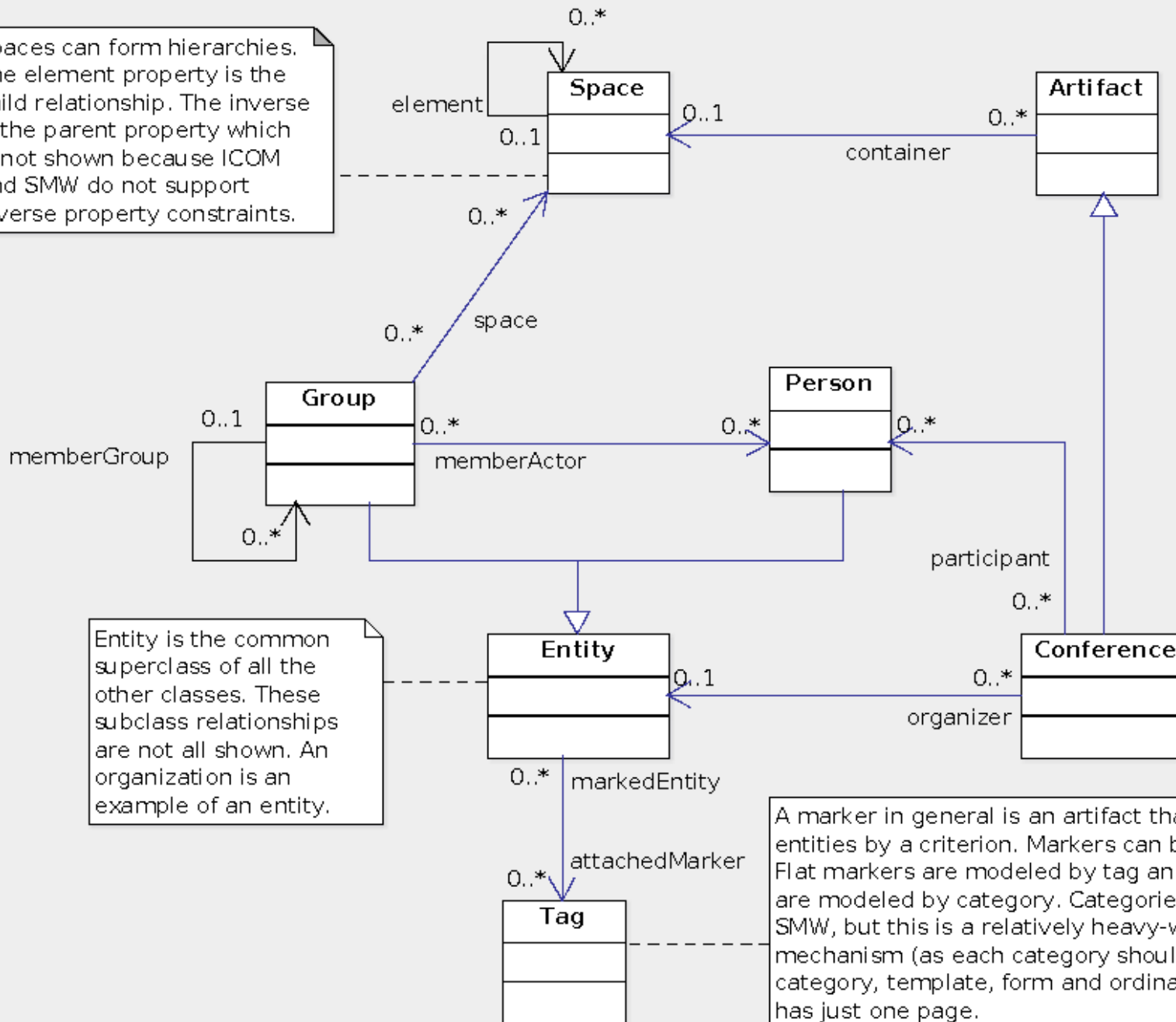
Ontolog Content Migration

- **Ontolog Collaborative Work Environment**
 - Dynamic knowledge repository for the Ontolog community since its establishment 11 years ago
 - The Ontolog wiki is an integral and highly visible part of the Ontolog environment.
 - Includes the entire body of knowledge from previous Ontology Summits
 - Currently based on Purple Wiki
- **Migration to PSMW will add many new features**

Mapping from ICOM to PSMW

- Ontology is a subset of the ICOM ontology together with the `OntologySummit2013_Survey` class.
- For each class in the ontology:
 - Template (to specify the properties of the class)
 - Form (to create new instances of the class)
 - Category (SMW classification mechanism)
 - Ordinary page
- For each property in the ontology:
 - Property (for defining the type of the property)
- Translator uses web services to upload/update the generated pages.

Ontology Summit Website Ontology



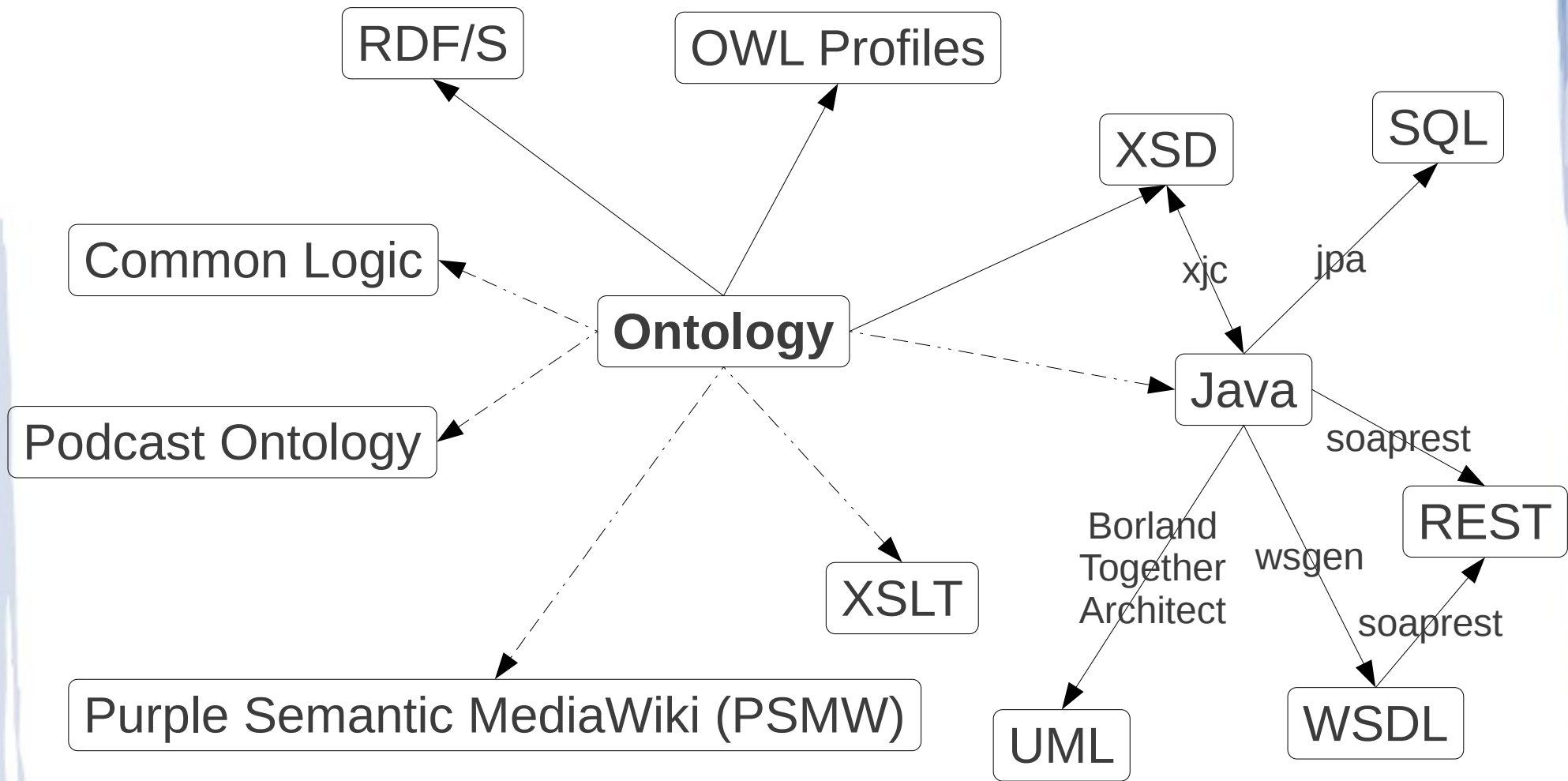
Spaces can form hierarchies. The element property is the child relationship. The inverse is the parent property which is not shown because ICOM and SMW do not support inverse property constraints.

Entity is the common superclass of all the other classes. These subclass relationships are not all shown. An organization is an example of an entity.

A conference is a meeting which is usually a virtual (teleconference) meeting but could also be face to face. By making it a subclass of Artifact, a conference may have associated documents and can be contained in a space.

A marker in general is an artifact that groups together entities by a criterion. Markers can be flat or hierarchical. Flat markers are modeled by tag and hierarchical markers are modeled by category. Categories are supported by SMW, but this is a relatively heavy-weight classification mechanism (as each category should have four pages: category, template, form and ordinary), while each tag has just one page.

Integration and Interoperation with Ontology Mappings



Participants

- Ken Baclawski (Northeastern University, USA)
- Marcela Vegetti (INGAR-Development and Design Institute, Argentina)
- Ali Hashemi (University of Toronto, Canada)
- Soledad Sonzini (INGAR-Development and Design Institute, Argentina)
- Michael Denny (MITRE, USA)
- Tejas Parikh (Northeastern University, USA)
- Peter Yim (ONTOLOG; CIM3, USA)
- Mike Dean (Raytheon BBN Technologies, USA)