Ontology Summit 2013 Symposium:
Ontology Evaluation Across the Ontology Lifecycle

Track D:
Software Environments for Evaluating Ontologies

Review and Discussion

May 2, 2013

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Ken Baclawski (Northereastern U)
Peter P. Yim (Ontolog; CIM3)
Track-D: Mission Statement

Through this track, we aim to coordinate the following:

- provide a venue to bring together individuals and communities who can help define and advance the state-of-the-art in software and systems for evaluating ontologies

- the collection and enumeration of software environments and tools for evaluating ontologies (with emphasis on those that are open efforts and those that are publicly available)

- investigations and development work (software prototyping and implementation) focused on the ontology evaluation theme, leading to interim presentations at the symposium, and possibly continued after this Ontology Summit

  ... this is now partially deferred to the Hackathon-Clinics Activities Team
Track-D: Work Products

Captured on our track synthesis page - see:
http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2013_Software_Environments_For_Evaluating_Ontologies_Synthesis

- we mounted two virtual panel sessions, inviting stewards of exemplary software environments to share their insights – see:
  - 2013.02.14 - panelists: MichaelGruninger, JeanneHolm, GavinMatthews [proceedigs]
  - 2013.03.21 - panelists: AdamPease, TillMossakowski, TaniaTudorache, MichelDumontier, KingsleyIdehen [proceedigs]

- we designed, developed and ran the OntologySummit2013 Survey on "Software Support for Ontology Quality and Fitness" (more on the next slide)

- we provided support to the Hackathon-Clinics program team (more to report tomorrow)

- We pulled together some thoughts and insights and presented them during the Summit Synthesis-II session, and contributed those to the Communique
The survey of software capabilities is divided into a general section and a section for each ontology lifecycle phase shown in the tabs below:

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 Ontohub in each phase. You may explain the software capability further in the text box to the right of the question. If a capability of Ontohub 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 Ontohub

Ontohub is a repository engine for managing distributed heterogeneous ontologies. The distributed nature enables communities to share and exchange their contributions easily. The heterogeneous nature makes it possible to integrate ontologies written in various ontology languages.

Ontohub link: http://ontohub.org
Ontohub home page: http://about.ontohub.org
Ontohub download page: https://github.com/ontohub/ontohub/
Author(s): Till Mossakowski, Oliver Kurz, Christoph Lang
Contact: ontohub@informatik.uni-bremen.de
Institutional sponsor: SFB TR 8 "Spatial Cognition", University of Bremen
License (IPR): AGPL
Mailing List(s):

Now continue with the next tab and answer the questions for that ontology lifecycle phase.
### Summary of Survey Results

**Summary of Survey Results**
http://ontolog-02.cim3.net/wiki/OntologySummit2013_SurveySummary

#### SurveySummary

[ hide purple numbers ]

<table>
<thead>
<tr>
<th>Question</th>
<th>15926Editor</th>
<th>COLORE</th>
<th>HyQue</th>
<th>Macleod</th>
<th>NCBO_BioPortal</th>
<th>Ontohub</th>
<th>OntologyTest</th>
<th>OntoQA</th>
<th>OOPS</th>
<th>OOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accept validation test sets or inputs?</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Apply a style of ontological analysis to design?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Assess accuracy, correctness, and completeness of ontology terminological content?</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Assess and enforce consistency and completeness of inverse</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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a Survey of Software Support for Ontology Quality and Fitness

We are soliciting support and the responses from developers and operators of Ontology Tools, Systems and Software Environment:

- See Survey questionnaire and list participants at: http://ontolog-02.cim3.net/wiki/Category:OntologySummit2013_Survey

- Those who have responded include:
  .15926 Editor Macleod  OntologyTest OOR SigmaKEE
  COLORE NCBO BioPortal OntoQA OpenLinkVirtuoso
  HyQue Ontohub OOPS! RepOSE

- of particular interest to this group is that, by doing it on our psmw platform, we have captured the semantics of the responses, making it easy for us to display or query the results in the future.

- Results are being displayed at: http://ontolog-02.cim3.net/wiki/OntologySummit2013_SurveySummary
For discussion today ...

- (1) What are the greatest barriers today to having
  (i) system architects/designers, and
  (ii) software engineers,
  ... employ ontology in their work

- (2) what features need to be improved/added to
  software tools and IDE's to take down the above
  barriers

- (3) what else are needed on software tools and
  IDEs to help improve the ontology development
  process and the quality of the ontology and
  ontology-driven applications?