OntologySummit2010:

Creating the Ontologists of the Future

Panel Session 4: Template for Ontology Training Programs

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Why we are doing this?

Multiple industrial, government and academic bodies are recruiting ontologists to address data silo problems

Ontology has no identifiable body of shared knowledge, techniques, standards, criteria for evaluation

Formal and informal training programs are sparse and poorly coordinated

Proposal: take advantage of the need for trained ontologies, and invest effort in improving ontology training as a strategy for establishing the requisite shared body of knowledge

What does it mean to train an ontologist?

- Someone with the knowledge and skills required to create and apply ontologies in addressing data silo problems
- Not: knowledge engineers who know how to capture knowledge in heterogeneous heads
- Not: computer sciences who know how to manipulate ontologies as digital artifacts
- Not: philosophers who know how to argue metaphysics

Ontology

- Ontology Science vs. Ontology Engineering --- we create better engineers if we have science (theoretical content) on which we rely
- Ontologies are formal-logical artifacts subject to painstaking manual review --- such artifacts are more difficult to create; but the evidence, for example from biology, suggests that the investment pays rewards
- They are not folksonomies or tag clouds

Ontology Training Programs

- OntologySummit2010_Survey

  http://ontolog.cim3.net/forum/ontolog-invitation/2010-02/msg00004.html

- Creating the Ontologists of the Future" - Panel Session 2: "Training Content for Future Ontologists“

  http://ontolog.cim3.net/cgi-bin/wiki.pl?ConferenceCall_2010_01_14

If ontology is to work, there needs to be not just a common body of shared knowledge, but also a common terminology (or a common understanding of the multiple terminologies in play)

DL	W3C stack (RDF, OWL, ...)
FOL	Protégé
CL	Knowledge representation
Enterprise modeling	Conceptual modeling
Bioontology	Philosophical ontology community

Two kinds of expertise

- Expertise related to human beings
  - ontologies need human-readable definitions and documentation which enable human beings to understand, maintain, review and use them
  - ontologists need to be able to work in multidisciplinary teams
- Expertise related to software
  - ontologies need formal definitions, documentation which enable their application in reasoning systems
  - ontologists need to be able to create ontology content that is formally coherent