The Communiqué – Some Highlights

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What is the Communiqué?

- One deliverable of the Ontology Summit
- Consensus position on topic
- Message to the ontology community and related communities
Problem

- No consensus on methodology
- No consensus on how to evaluate
- Little adoption of evaluation techniques

Result

- poor quality ontologies
- obstacle to success of ontology
Identify best practices for ontology development and evaluation.
Across the whole life cycle.
Challenges

- Confusing plurality of perspectives on ontology evaluation.
- Implicit different assumptions on
  - what is evaluated
  - what it is evaluated against
  - when it is evaluated
- No agreed on life cycle model for ontologies
What are we evaluating? Different perspectives

- Ontology as domain model for human consumption
- Ontology as domain model for machine consumption
- Ontology as a piece of software
What are we evaluating against? Characteristics

- Intelligibility: human understanding?
- Fidelity: accurate representation of domain?
- Craftsmanship: well-built ontology following design decisions?
- Fitness: ontology-as-domain-model meets requirements?
- Deployability: ontology-as-software meets requirements?
Life cycle model: grouping of patterns of activities in phases
There is no universally true sequence of activities
Activities of different phases might happen in parallel/be merged
Useful abstraction
  - input, outputs (dependencies)
  - evaluation
When are we evaluating? (Life Cycle Model)
Examples for phase outputs that are evaluated

- **Requirements Development Phase**
  - use case / scenarios
  - competency questions

- **Ontological Analysis Phase**
  - set of entities
  - disambiguated terminology

- **Ontology Design Phase**
  - choice of languages
  - structure of ontology in modules
  - top-level classes
  - design principles

- **System Design Phase**
  - system design
Examples for phase outputs that are evaluated II

- **Ontology Development Phase**
  - informal model
  - formalized competency questions
  - reference ontology
  - operational ontology

- **System Development and Integration Phase**
  - integration of operational ontology

- **Deployment Phase**
  - cost/benefits for deployment

- **Operation and Maintenance Phase**
  - use of ontology
Observations and Recommendations

- Lack of maturity of the field
- Evaluation across the life cycle
- Different outputs, different evaluation criteria
- Ontologies are part of systems
- Shortage: tools that cover requirements, life cycle
- Nevertheless, use what is available now!
Tools section + references

- Ontology Survey: updated as new tools come along
- Zotero collections: everybody to add new references
- Ontology Wiki page
- “Applied Ontology”
Why endorse?

Please endorse now