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
- http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2013_communique

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

Mission Statement

- 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

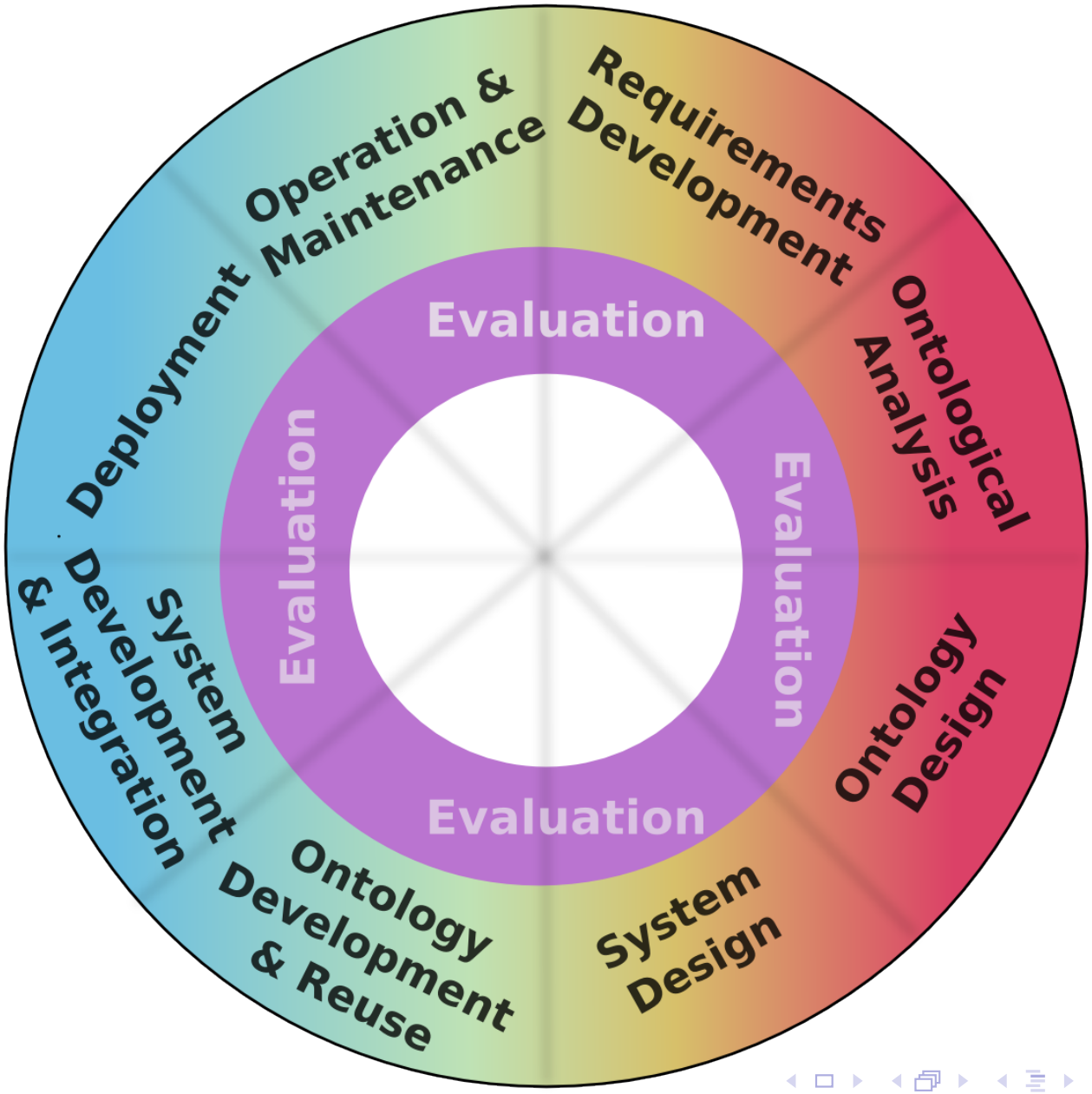
What are we evaluating against? Characteristics

- 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?

When are we evaluating? (Disclaimer)

- 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 I

- 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

Publication

- Ontology Wiki page
- “Applied Ontology”

Endorsement

- Why endorse?
- Please endorse now