

Consolidated Comments from end-of-session High Level Concept Model

1. Ontology

A model of things and relationships in some portion of world. An ontology is a living artifact that is born inside an organizational context, has a life-cycle and is interacted with by various agents.

2. Formal Ontology

An ontology represented in a machine-readable language with a formal semantics.

3. Conceptual Ontology Model

A human-centric, human-understandable model of the things and relationships in a portion of world, expressed independently of technological implementation or machine use considerations. May be textual, graphical, or captured in any other human-friendly way.

4. Logical Ontology Model

A formal representation of an ontology using a logic-based ontology language, such as OWL 2, Common Logic, etc. A logical ontology model is subject to the intrinsic structural evaluation criteria. A subclass of Formal Ontology.

5. Physical Ontology Model

A serialized representation of an Ontology Logical Model (e.g., in RDF/XML, CLIF). A subclass of Formal Ontology.

6. Ontology Usage

An application and use of an ontology. Ontology usage has many dimensions, including users, domain, systems context, application, expected functionality, etc., and is a major source of ontology requirements. Ref:

http://ontology.cim3.net/cgi-bin/wiki.pl?OntologySummit2011_ApplicationCases_Synthesis
and http://ontology.cim3.net/cgi-bin/wiki.pl?OntologySummit2011_ApplicationFramework_Synthesis

7. Ontology Application

A particular system, piece of software, model, etc. that uses an ontology in delivering some specific functionality for a specific purpose. An aspect of Ontology Usage.

8. Ontology-Enabled System

A system incorporating an ontology as a component, and using that ontology to deliver some functionality. A type of Ontology Application.

9. Owner

A role or relationship indicating that a person, group, or organization (Agent) holds responsibility for, and/or control over, an ontology and processes related to its creation, deployment, maintenance and quality assurance. Specializations of this relationship include legalOwner, businessOwner, and others.[ref FOAF:Agent or other]

10. Stakeholder

A role or relationship indicating that a person, group, or organization (Agent) has an interest in an Ontology Model or application thereof. Stakeholders may include owners, sponsors, participants in related projects, actual or potential users, or others likely to be affected by the quality of the Ontology Model or Application.

11. Ontology Specifications

Analogous to software engineering specification (vs. requirements). An Ontology Specification is an expression of an Ontology Requirement.

12. Ontology Characteristics

Features, properties, or ways of characterizing an Ontology. Ontology Characteristics may be entirely Intrinsic to a particular Ontology Model's contents and structure, as with complexity and logical foundations; entirely Extrinsic to the contents and structure, as in ownership or security of network location; or a Relational product of interactions between the ontology contents and structure and aspects of a particular (intended or actual) Ontology Usage, as in inference performance, coverage adequacy, or Return on Investment for an ontology's sponsor or funder.

[Might leverage Ontology Metadata Vocabulary (OMV) for some characteristics ref. <http://ontolog.cim3.net/cgi-bin/wiki.pl?OMV>]

13. Intrinsic Ontology Characteristics

Ontology Characteristics that are entirely internal to a particular Ontology Model's contents and structure, as with complexity and logical foundations.

14. Extrinsic Ontology Characteristics

Ontology Characteristics that are entirely Extrinsic to the contents and structure, as in ownership or security of network location.

15. Relational Ontology Characteristics

Ontology Characteristics that are a Relational product of interactions between the ontology contents and structure and aspects of a particular (intended or actual) Ontology Usage, as in inference performance, coverage adequacy, or Return on Investment for an ontology's sponsor or funder. [Need better name. Situation-dependent? Usage-based?]

16. Verisimilitude

The degree to which a model accurately reflects that which it is intended to model.

17. Ontology Language

An Intrinsic Ontology Characteristic of Formal Ontologies. A formal, logic-based, and machine-interpretable language designed and used for the representation of Ontology Models. Examples include OWL and Common Logic.

18. Sponsor's Return on Investment

A Relational Ontology Characteristic. The Return on Investment (ROI) received by the sponsor of an Ontology Model.

19. Ontology Scope

An Intrinsic Ontology Characteristic concerning what is within the boundaries of ontology, including assumed context (e.g., other ontologies inherited from, microtheories).

20. Ontology Development Methodology

A methodology governing the creation and development of an Ontology Model. Notably, may or may not incorporate iteration and use of Ontology Evaluation during development phases.

21. Ontology Requirements

Conditions or Criteria which must be met by an ontology in order for it to be suitable for use for a particular purpose. In principle, any Ontology Characteristic might be a requirement for suitability for a particular Ontology Usage.

[Among other things, ref:

http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2011_ValueMetrics_Synthesis]

22. Extrinsic Ontology Requirements

Requirements that apply to an ontology but are independent of the technical and content characteristics of the ontology itself. Corresponding evaluation criteria can be evaluated without knowledge of the ontology details or technology.

23. Intrinsic Ontology Requirements

Requirements that apply to the internal, technical and content characteristics of an ontology. The corresponding evaluation criteria can be evaluated independently of use context.

24. Relational Ontology Requirements

(aka contextual, or mixed intrinsic/extrinsic) Requirements that apply to an ontology and that concern how the internal technical and content characteristics of the ontology relate to some feature(s) of the context in which that ontology is to be used. The corresponding evaluation criteria can only be evaluated within the context of some usage, and such evaluation requires understanding of both ontology details and the usage. [Need better name. Situation-dependent? Usage-based?]

25. Lifecycle

A LifeCycle is an iterative set of phases or stages, each of which may have particular evaluation criteria and characteristics which may apply.

26. Ontology Lifecycle

A type of Lifecycle. Similar to Software Lifecycle, this is a sequence of stages, including requirements identification, development, evaluation, deployment, maintenance and repair that may occur iteratively during the time between the time the ontology is conceived of and when it is no longer in any active or used stage.

27. Ontology Lifecycle Stage

A stage such as requirements specification, development, deployment, etc., that is part of an ontology lifecycle. That current stage of an ontology influences the evaluation criteria that can and should be evaluated, and the methods that can and should be used on that ontology.

28. Ontology Evaluation Process

A set of activities in which, in appropriate sequence, some Ontology Evaluation Methods are applied and Ontology Evaluation Metrics generated, measuring the extent to which an ontology meets some Ontology Evaluation Criteria. The outputs of an Ontology Evaluation Process can be used, and are intended to be used, by developers, sponsors, funders, adopters, and others in determining how well an Ontology satisfies some set of Ontology Requirements.

29. Ontology Evaluation Criteria

A set of criteria by which the quality & suitability of an ontology will be judged. Derived from Ontology requirements.

30. Ontology Evaluation Metrics

Quantitative units or comparative, qualitative descriptions of a specific Ontology Characteristics. By extension, units in which such characteristics can be measured, and the extent expressed to which an ontology meets some specific Evaluation Criteria.

31. Ontology Evaluation Method

A specified process for generating and gathering information about an ontology's characteristics, particularly in relation to some particular Ontology Metrics and/or Evaluation Criteria.

32. Automated Evaluation Method

An Evaluation Method that can be performed by machine.

33. Semi-Automated Evaluation Method

An Evaluation Method that is performed partially by machine, and partially requires human analysis and/or other effort.

34. Manual Evaluation Method

An Evaluation method that cannot be performed by machine, but rather requires human analysis and/or other effort.

35. Ontology Evaluation Event

An event during which one or more Ontology Evaluation Processes are executed and information about an ontology's characteristics is produced.

36. Evaluation Output

An artifact produced by an Ontology Evaluation Event.

37. Ontology Evaluation Tool

Software, methodology, analytic technique, used to determine Ontology Characteristics, for example by performing or supporting measurements according to some Ontology Metrics. May be specific to one or more Ontology Language.

Mike Dean

4:31 PM Mar 30

Selected text:

Best Practices?

This seems like a subclass of evaluation criteria.

David Whitten

3:41 PM Mar 30

Selected text:

Instance Population

Instance population according to OntoQA is used to develop metrics