

## IAOA Education Committee Term List<sup>1</sup> Development

### Report - Volunteership service to the discipline/community

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9/9/2018, 9/16/2018, 9/22/2018, 9/28/18

#### SUMMARY

- *Added* text to page description
- Added 4 terms to the term list
- Added various definitions to various terms in the list
- *Problem Observation (Pre-contribution)*: few definitions, many were from a single applied ontology project.
  - → **Recommended Solution**: more definitions from diverse sources needed. Benefit: make the term list more semantically rich, varied, and neutral with respect to terms and definitions of terms.

*Result Observation (Post-contribution)*: The term list now has more definitions, and is more neutral. However, more are needed.

#### **SUGGESTIONS for improving the list**

- (S1) Where available, mention the specific definition/sense of a linked term that is found in a definition of another term
- (S2) Make 'individual' and 'particular' separate, not synonyms
- (S3) remove 'mass' from the list
- (S4) I suggest agreeing on a formats for labeling, listing and referencing definitions. Currently definitions are being displayed differently across terms. Some use 'D1', others numerical sequence, others bullet-points, etc.

#### CONTENT ADDED & COMMENTS/SUGGESTIONS

- Added "The terms are listed in alphabetical order." to term list introduction section
- Added term 'CIDOC CRM' and below definition to "Particular Ontologies" subsection of "Terms Naming Particular Entities" section.

"The CIDOC Conceptual Reference Model (CRM) provides definitions and a formal structure for describing the implicit and explicit concepts and relationships used in cultural heritage documentation. The CIDOC CRM is intended to promote a shared understanding of cultural heritage information by providing a common and extensible semantic framework that any cultural heritage information can be mapped to.

<http://www.cidoc-crm.org/>"

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<sup>1</sup> Website URL= <http://iaoaedu.cs.uct.ac.za/pmwiki.php?n=IAOAEdu.TermList>

Work by Robert Rovetto, IAOA Education Committee, Term List page on Wiki site

- Added the following to the “Web References” subsection...  
[CIDOC CRM]  
<http://www.cidoc-crm.org/>
- Added term ‘Abstract Entity’
  1. An abstract entity may be one constructed by the mind through the process of ABSTRACTION. But the term is also sometimes used for entities regarded as being outside space and time (p.1-2, The Routledge Dictionary of Philosophy, Fourth Edition)
  2. an object lacking spatiotemporal properties, but supposed to have being, to exist, or (in medieval Scholastic terminology) to subsist. Abstracta, sometimes collected under the category of universals, include mathematical objects, such as numbers, sets, and geometrical figures, propositions, properties, and relations. (p.3, The Cambridge Dictionary of Philosophy, Second Edition)
- Added term ‘Concrete Entity’
- Added the following definitions (and their sources) to terms...
  - ‘Category’
 

“# A division within a system of classification  
# Any of several fundamental and distinct classes to which entities or concepts belong  
Source: Merriam-Webster Collegiate Dictionary 2004 v.3.1 electronic edition. URL=  
<https://www.merriam-webster.com/dictionary/category>”
  - ‘Class’
 

“a group, set, or kind sharing common attributes [term](#) (Source: Merriam-Webster's Collegiate Dictionary. URL= <https://www.merriam-webster.com/dictionary/class>)”
  - ‘Entity’
 

“# something that has separate and distinct existence and objective or conceptual reality (Source: Merriam-Webster's Collegiate Dictionary)”
  - ‘Role’
 

a function or part performed especially in a particular operation or process (Source: Merriam-Webster's Collegiate Dictionary electronic version 3.1)
  - ‘term’
 

a word or expression that has a precise meaning in some uses or is peculiar to a science, art, profession, or subject (Source: Merriam-Webster's Collegiate Dictionary, electronic version 3.1)
  - ‘Disposition’
 

prevailing tendency, mood, or inclination (Source: Merriam-Webster's Collegiate Dictionary)

a tendency of an object or system to act or react in characteristic ways in certain situations. (p.238 'disposition' in The Cambridge Dictionary of Philosophy, Second Edition)

○ 'Event'

1. something that happens : occurrence (Source: Merriam-Webster's Collegiate Dictionary. URL= <https://www.merriam-webster.com/dictionary/event>)
2. Generally regarded as either a change, usually of short duration, in the qualities or relations such as spatial relations of a thing, or as the possession of a property or relation by something at or for a time. Many of the problems about events concern how they are related to other things (Source: p.129 The Routledge Dictionary of Philosophy, Fourth Edition)
3. something that happens at a given place and time
4. a phenomenon located at a single point in space-time
5. a phenomenon that follows and is caused by some previous phenomenon (Source: Wordnet URL= <http://wordnetweb.princeton.edu/perl/webwn?s=event>)
6. a wholeness type which has unity. It is not Open-ended in the sense that it has specified either starting or ending or middle(pass-by event) events. It can't change. It is state-less. It is not disjunctive. Every existence is an instance of an event. Any object cannot exist without participating in an event. For example, Mr. A, an instance of human cannot exist in the real world as it is alone, but must exist as a participant slot filler of an event/process instance with some action which he might be performing at all times. It is different from an instance of an action which is a process and is a part of an event instance. It is a bare event that exists independently of human recognition(before recognition). It follows B-series of time. (Source: YAMATO URL= [http://hozoviewer.ei.sanken.osaka-u.ac.jp/HozoWebXML/?file\\_name=YAMATO20120714.xml](http://hozoviewer.ei.sanken.osaka-u.ac.jp/HozoWebXML/?file_name=YAMATO20120714.xml))
7. a temporal slice of a processual (Source: Wonderweb Deliverable 18, p.66. URL= <http://wonderweb.man.ac.uk/deliverables/documents/D18.pdf>)

○ 'Function'...

In ordinary language, a function roughly means a purpose or role. In logic and mathematics, a function is a particular kind of relation in which given any object or objects (called an argument of the function), another object (called the value of the function for that argument) will be yielded. A function has one or more variables, which can take different arguments. (Source: p.273, 'function', The Blackwell Dictionary of Western Philosophy, 2004)

○ 'individual'

In a standard sense, an individual is something that can be individuated, that is, counted or picked out in language and thus be distinguished from other things. In logic, individuals are things that can be subjects of sentences in the first-order predicate calculus, in contrast with predicates or functions. (Source: p.339 'individual' in The Blackwell Dictionary of Western Philosophy 2004)

**Proposal (RR, 2018-09-15):** According to philosophical sources, individual is not the same as particular. Therefore, remove the terms from being synonyms.

○ 'inherence'

A relation sometimes hastily confounded with that of occurrent to continuant--which I will call inherence--is the relation of substantive to adjective, which I call characterisation. (p.66 Logic Part III The Logical Foundations of Science, W. E. JOHNSON, M.A., F.B.A., 1924)

- 'Object'
  1. Literally, what 'lies before' something. What is experienced (the object), as opposed to what experiences it (the subject). Anything which has independent existence (qualities, etc., have dependent existence); or, and perhaps more commonly in philosophy, what a change is instigated to produce, or a mental attitude is 'directed at' (p.281 'object' in The Routledge Dictionary of Philosophy, Fourth Edition)
  2. generic term for whatever is the bearer of a proper name, or whatever can be referred to or designated, approximately identical with "thing." (Source: p.482 'object' in The Blackwell Dictionary of Western Philosophy 2004)
  
- 'Ontology'
  1. a particular theory about the nature of being or the kinds of things that have existence
    - Merriam-Webster online: <https://www.merriam-webster.com/dictionary/ontology>
  2. a catalog fo the types of things that are assumed to exist ina domain of interst D from the perspective of a person who uses a language L for the purpose of talking about D.
    - P.492 "Knowledge Representation - Logical, Philosophical, and Computational Foundations" by John F. Sowa (2000)
  3. The catalogue of concepts (constants, relations, functions, etc.) used to represent knowledge about a problem domain
    - p.44 "KNOWLEDGE REPRESENTATION AND REASONING" by Ronald J. Brachman and Hector J. Levesque (2004)
  
- 'Universal'
  1. exist as thoughts or concepts formed by the knowing mind. They are mental representations or ideas, conceptualized out of the particular things to which they apply. Their main function is to serve as principles of classification. (p.128 'Conceptualism' in The Blackwell Dictionary of Western Philosophy)
  2. common names (p.128)
  3. names rather than entities in their own right (p.474 'nominalism').
  4. are terms invented by the mind to talk about similarities (p.475)
  5. Something is universal if it pertains to all members of a class or is unlimited, such as a universal law. [...] A universal expresses abstract features, such as justice, beauty, wisdom, and goodness (p.714 'universal')
  6. Realism claims that universals are mind-independent objective entities, which can in principle be exemplified or instantiated by a number of different things. On the basis of this objective entity, predicate expressions can be applied to many subjects. (p.714)
  
- 'taxonomy'

D1 the study of the general principles of scientific classification  
[https://www.merriam-webster.com/dictionary/taxonomy?utm\\_campaign=sd&utm\\_medium=serp&utm\\_source=jsonld](https://www.merriam-webster.com/dictionary/taxonomy?utm_campaign=sd&utm_medium=serp&utm_source=jsonld)

- COMMENT: Some term definitions link to other terms. Each term has more than one definition/sense from different sources. That linking is potentially problematic because a given definition may only be related to a specific definition of the linked term. So without explicitly pointing to the specific definition/sense of the linked term, the reader will not necessarily know which linked definition to consider.

SUGGESTION 1: state which sense, if any, of the linked term is the intended sense for a given term definition.

- SUGGESTION 2 (referencing **Proposal (RR, 2018-09-15)**): According to philosophical sources, individual is not the same as particular. Therefore, remove the terms from being synonyms.
- Comment in 'mass'...

RR: why is 'mass' a term? It seems like it is a physics-specific term.

SUGGESTION 3: remove from the list

Approximate time spent 9/16/18: at least 4 hours researching my own library, and online. I then edited the website accordingly. 9/22/18: at least 2 hours.