

Ontology Categories in COLORE

Michael Grüninger

Meta-Ontology for Ontology Categories

October 8, 2013

Challenge

- What is a particular ontology about?
- How do we describe the content of an ontology?

Approach

Categorize ontologies by

- logical properties
- genericity – mathematical, generic, midlevel, domain

Logical Categorization

Within COLORE, we classify ontologies with respect to how they are merged to form new ones

- reducible
- weakly reducible
- decomposable
- nondecomposable

Categorization by Genericity

- Many ontologies in COLORE are axiomatizations of classes of mathematical structures which are used in the verification of other ontologies
- There are also generic ontologies for
 - ▶ time
 - ▶ process
 - ▶ space
 - ▶ shape
 - ▶ geometry
- Midlevel ontologies are the result of merging generic ontologies

Next Steps

How do domain ontologies fit into this framework?

- GoodRelations
- FIBO
- SCRIBE
- Foundational Model of Anatomy
- BioPAX
- units of measure
- addresses
- products
- computer vision
- enterprise modelling