

Ontologiekritik: OntoClean von Nicola Guarino

"Taxonomies are an important part of conceptual modeling, they provide substantial structural information, and are typically the key element in integration efforts, however there has been little guidance as to what makes a proper taxonomy. We have taken several notions from the philosophical practice of Formal Ontology, and adapted them for use in Information Systems. These tools, identity, essence, unity and dependence, provide a solid logical framework within which the properties that form a taxonomy can be analysed. This analysis helps make intended meaning more explicit, improving human understanding and reducing the cost of integration."¹

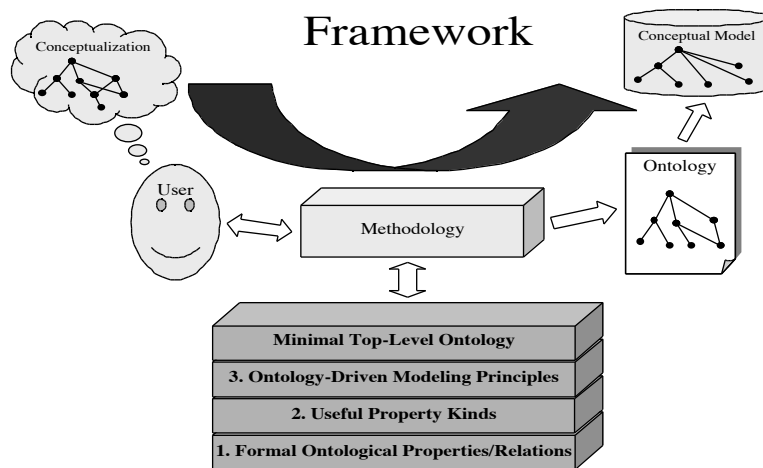


Figure 1: Overview of the methodology.

1. Meta-Properties & Relationen: Identity (I), Unity (U), Rigidity (R), Dependence (D), Subsumption

2. Useful Property Kinds:

+O	+I	+R	+D	Type	Sortal				
			-D						
-O	+I	+R	+D	Quasi-type		Sortal			
			-D						
-O	+I	~R	+D	Material role			Sortal		
			-D	Phased sortal					
-O	+I	~R	+D	Mixin				Sortal	
			-D						
-O	-I	+R	+D	Category					Non-sortal
			-D						
-O	-I	~R	+D	Formal Role	Non-sortal				
			-D						
-O	-I	~R	+D	Attribution		Non-sortal			
			-D						
+O	-I	~R	+D	incoherent			Non-sortal		
			-D						
+O	+I	~R	+D	incoherent				Non-sortal	
			-D						
+O	+I	-R	+D	incoherent	Non-sortal				
			-D						

Table 2: All possible combinations of the meta-properties.

¹ Zitat, Graphiken und weiterführende Informationen: Guarino & Welty: Supporting Ontological Analysis of Taxonomic Relationship, Data & Knowledge Engineering 39(1), S.51 - 74. (www.ladseb.pd.cnr.it/infor/ontology/Papers/OntologyPapers.html)

3. Useful Notions: Backbone Taxonomy, Stratification

