



D19 v0.1 Ontology Comparison

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1. Introduction

Building an ontology is always a difficult task and very much context related. In this deliverable we want to compare two ontologies which were developed in different research projects in the field of Semantic Web this year.

The first one is the Portal ontology from Knowledge Web KW [3] consisting of the following ones: Documentation, Event, Organization, Person and Project ontologies. The second one is the Portal Ontology from the Semantic Web Portal Project SWP [1], [2] done by DERI. This focuses mainly on Agent, Event, Location and Publication.

2. Comparison

In order to compare the two ontologies from Knowledge Web KW and the Semantic Web Portal SWP we start with the listing of concepts and try to find matching ones. The listing is done in the order of the KW ontologies and then alphabetically in the left column. The entries from SWP are in the right column.

2.1 Documentation - Publication ontologies

Concept name (KW Documentation Ontology)	Concept name (SWP Publication Ontology)
Additional Documentation	
Agenda	
Annex	
Article	Article
Article in Book	
Article in Conference	
Article in Journal	
Article in Workshop	
AudioConference Minutes	
Book	Book
Contract	
Cost Statement	
Deliverable	Deliverable
Documentation	
EC Templates	
Fax	
Final Report	
Mail	

Management Documentation	
Manual	
Master Thesis	Master Thesis
Meeting Minutes	
Minutes	
Periodic Report	
PhD Thesis	PhD Thesis
Project Proposal	
Proposal	
Publication	Publication
Six Month Report	
Slides	
Technical Documentation	
Thesis	Thesis
Year Report	
Templates	
Two Month Report	
	Document
	Dated Publication

	Booklet
	Misc
	Proceedings
	Techreport
	Unpublished
	Inbook
	Inproceedings
	NewsItem
	Item
	PublicationContainer
	channel
	Journal
	Series

2.2 Event - Event ontologies

Concept name (KW Event Ontology)	Concept name (SWP Event Ontology)
Review	
Education Area Meeting	
EPMB Meeting	
Event	

Industry Area Meeting	
International Conference	Conference
International Workshop	Workshop
KW Area Meeting	
KW Plenary Meeting	
Management Project Meeting	
PMB Meeting	
Research Area Meeting	
	HandsOnLecture
	Lecture
	Presentation
	Tutorial
	Event

2.3 Organization/Person - Agent ontologies

Concept name (KW Organization Ontology)	Concept name (SWP Agent Ontology)
Organization	Organization
Company	Company
	PublishingCompany
	SoftwareCompany

Research Institute	ResearchInstitute
University	University
	Group
	Cluster
	Agent
	TemporaryGroup
	Project
	Initiative
	WorkPackage
	Workgroup
Concept name (KW Person Ontology)	
Administrative Staff	AdministrativeStaff
Assistant Professor	
Associate Professor	
Company Staff	
Full Professor	
Manager	
	ManagementStaff
Master Student	

Person	Person
PhD Student	
Professor	
Project Officer	
Student	Student
Technical Staff	TechnicalStaff
Undergraduate	
	ResearchStaff
Junior Researcher	
Researcher	Researcher
Senior Researcher	
University Staff	
	ClericalStaff

2.4 Project - ... ontologies

Concept name (KW Project Ontology)	
Milestone	
Network of Excellence	
Task	
Workpackage	

workpackage workload	
Activity	

2.5 ... - Location ontologies

	Concept name (SWP Location Ontology)
	Continent
	SubContinent
	Country
	SubCountry
	Region
	SubRegion
	City
	SubCity
	PostalAddress

2.6 ... - Other ontologies

	Concept name (SWP Other Ontology)
	List
	Statement
	Tool

3. Conclusion

The direct concept comparison in section 2 shows the differences between the two

ontologies:

- Some fields are named variably like Documentation - Publication but contain in parts the same concepts.
- Some fields are named the same like Events but the overlap between the concepts is very poor.
- Some part ontologies only exist in on of them like Project in KW or Location in SWP.

The Knowledge Web Ontology contains 75 concepts in 5 field, the Sematic Web Portal Ontology contains 64 concepts in also 5 fields so far.

Due to the other point of view in the two ontologies the overlap is only 18 out of 75, which is 24%.

	Concepts	Instances	Ad-hoc relations
Knowledge Web Ontologies	75	98	51
Semantic Web Portal Ontologies	64		

The instances and Ad-hoc relations are not analysed in this paper for the SWP ontology. Maybe this can help to increase the overlap at a higher level.

References

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