# **DAML Ontology Library**

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## DAML Ontology Library

- Created early in the DARPA Agent Markup Language program
  - Organize content
  - Promote reuse
  - Demonstrate adoption
- 282 DAML+OIL and OWL ontologies submitted from October 2000 – December 2003
- Cited in several ISWC papers
  - Property (Feature) use across libraries
- Largely replaced by Ontaria and SchemaWeb
- Available at <a href="http://www.daml.org/ontologies/">http://www.daml.org/ontologies/</a>
  - daml.org now archived at W3C

### Structure

- Web-based submission
- MySQL database containing metadata and descriptive information
- Servlet user interface for browsing

# Example

### Ontology http://reliant.teknowledge.com/DAML/SUMO.owl

### Link

http://reliant.teknowledge.com/DAML/SUMO.owl (hyperdaml) (dumpont)

### **Description**

Standard Upper Merged Ontology proposal to the IEEE Standard Upper Ontology effort

### **Point of Contact**

Adam Pease of Teknowledge Corporation

### **Submitter**

Adam Pease of Teknowledge Corporation

### **Submission Date**

2001-06-05

### **Keywords**

upper ontology

### **Open Directory** Categories

### Classes

AbnormalAnatomicalStructure Abstract Adjective

### **Properties**

AbsoluteValueFn AbstractionFn

### **Namespaces Used**

http://reliant.teknowledge.com/DAML/SUMO.owl http://www.w3.org/1999/02/22-rdf-syntax-ns http://www.w3.org/2000/01/rdf-schema http://www.w3.org/2002/07/owl

### **Funding Source**

Other: Army

### **Notes**

Army funding was used to create the ontology, DAML funding was used to create a translator which allowed it to be expressed in DAML

### Lessons Learned

- Curation/quality control
  - Many users desired some indication of use and quality of the ontologies, e.g. user ratings
- Cacheing
  - Many links subsequently became unavailable
  - Desirable to store (and make available) local copies

### Suggestions

- Validate inputs/updates
- Indicate language dialect and/or complexity
- Manual review may be necessary to reduce SPAM and duplicates
- Provide a SPARQL endpoint for querying content

## Swoogle

- http://swoogle.umbc.edu
- Semantic Web crawler and search engine
  - Focused more on ontologies than instances
- Over 10,000 ontologies
- Widely cited
- Tim Finin and others at UMBC are interested in continuing development

## Swoogle Examples

Want more results? Login ontology document term more >> RDF version Swoogle Search swoogle search 1 - 10 of total 21 resultsfor Abnormal Anatomical Structure in 0.19 seconds list terms (URI references) matching term search swoogle trackback AbnormalAnatomicalStructure http://www.micra.com/ontologies/COSMO.owl#AbnormalAnatomicalStructure, metadata submit url **AbnormalAnatomicalStructure** DOCUMENTATION [TYPE] [rdfs.Class=37] http://reliant.teknowledge.com/DAML/SUMO.daml#AbnormalAnatomicalStructure, metadata <u>AbnormalAnatomicalStructure</u> [TYPE] [rdfs.Class=3] http://reliant.teknowledge.com/DAML/SUMO.owl#AbnormalAnatomicalStructure, metadata <u>AbnormalAnatomicalStructure</u> [TYPE] [rdfs.Class=1] http://www.ontologyportal.org/translations/SUMO.owl.txt#AbnormalAnatomicalStructure, metadata LOGIN FORM <u>AbnormalAnatomicalStructure</u> Username [TYPE] [rdfs.Class=1] http://www.ontologyportal.org/translations/SUMO.owl#AbnormalAnatomicalStructure, metadata Password **AbnormalAnatomicalStructure** [TYPE] [rdfs.Class=1] □ Remember me http://ontologyportal.org/translations/SUMO.owl.txt#AbnormalAnatomicalStructure, metadata Login <u>AbnormalAnatomicalStructure</u> Lost Password? [TYPE] [rdfs.Class=1] http://coli.lili.uni-bielefeld.de/~felix/lehre/ws04 05/ontologischeRessourcen/beispiele/uebergreifende-No account vet? ontologien/sumo.owl#AbnormalAnatomicalStructure, metadata Register BSQ SITESTATS SUMMARY **AbnormalAnatomicalStructure** [TYPE] [rdfs.Class=1] Site Stats Summary http://www.schemaweb.info/webservices/rest/GetRDFByID.aspx?id=94#AbnormalAnatomicalStructure, metadata

http://codespeak.net/svn/z3/zemantic/branch/tseaver-distutils\_reorg/data/sumo.rdf#AbnormalAnatomicalStructure, metadata

<u>AbnormalAnatomicalStructure</u>

Abnormal Anatomical Structure

[TYPE] [rdfs.Class=1]

**Swoogle** 

swoogle statistics

Hits Visitors

Today 4132 380

Week 47063 3302

### **Swoogle's Statistics of the Semantic Web**

### Swoogle Today

	admin_dt	2008-02-28 00:02:57	Datetime Watched
	url_total	6,933,746	Number of URLs being discovered
	url_pinged	3,904,308	Number of URLs being pinged
	total_swd	2,418,811	Number of Semantic Web Documents (regardless of embedded or containing some errors) be comfirmed.
	total_swd_strict	1,349,050	Number of error-free pure Sematic Web Documents
	total_swd_embed	867,346	Number of documents (except SWDs, PDF, and JPEG) embedding Semantic Web Data
	triple_total	585,366,088	Number of triples could be parsed from all Semantic Web Documents.

manual o news o faq o web-service o submit-url o sw-archive o feedback o swoogle2005

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### Ontaria

- http://www.w3.org/ 2004/ontaria/
- Ontology and data directory
- Developed by Sandro Hawke at W3C
- Currently in disrepair



### **Ontaria**

**Easy Access to the Semantic Web** 

The Ontaria Server is down for a major overhaul. We apologize for the inconvenience.

#### **About Ontaria**

#### **Summary**

Ontaria is a searchable and browsable directory of semantic web data. Our focus is RDF vocabularies with OWL ontologies, but all the RDF data we index is visible. The site is primarily intended for people creating RDF content who want to better understand which vocabularies are available and how they are being used. Beyond this, Ontaria may be useful for finding and exploring arbitrary RDF content.

Like most web directories and search engines, Ontaria gathers its information from other web sites, which it learns about via links and submissions.

Ontaria began as a project of W3C Semantic Web Advanced Development and moved to the Decentralized Information Group as part of a re-organization. It has been funded by DARPA's DAML program. Principal Investigator: Tim Berners-Lee. Lead Developer: Sandro Hawke.

#### Internals

Ontaria is an installation of SemWalker. ("Ontaria" refers to a web-based service offered by the W3C; "SemWalker" refers to the software used to offer that service. The Ontaria installation is customized for browsing ontology data.)

SemWalker is open source, available under the W3C license, from our CVS repository. It's a little early for anyone else to seriously try using the code, but it's there

#### **Acknowledgements**



Ontaria is a service of the W3C, managed under the Semantic Web activity.







### SchemaWeb

- http://www.schemaweb.info
- Directory of RDFS and OWL vocabularies
- Developed by Victor Lindesay
- Announced to www-rdf-interest on 19
   November 2003
- Browsing shows about 200 vocabularies (a nice, relatively current collection)

## SchemaWeb Examples

### SchemaWeb



Home | Browse | Search | Query | Web Services | Submit a Schema | Contact | Login

#### Search SchemaWeb Directory

AbnormalAnatomicalStructure

Search

#### Search Results

Suggested Upper Merged Ontology (SUMO)

This ontology is being created as part of the IEEE Standard Upper Ontology Working Group. The goal of this Working Group is to develop a standard upper ontology that will promote data interoperability, information search and retrieval, automated inferencing, ...

Mid-Level Ontology (MILO)

The Mid-Level Ontology is a bridge between the abstract content of SUMO and the rich detail of the various SUMO domain ontologies.

### SchemaWeb



Home | Browse | Search | Query | Web Services | Submit a Schema | Contact | Login

#### Suggested Upper Merged Ontology (SUMO) :: Schema Details

[ Classes and Properties | RDF | TriplesML | TriX | RXR ]

Name: Suggested Upper Merged Ontology (SUMO)

Description: This ontology is being created as part of the IEEE Standard Upper Ontology Working Group. The goal of this Working Group is to

develop a standard upper ontology that will promote data interoperability, information search and retrieval, automated inferencing, and

natural language processing.

Namespace: http://reliant.teknowledge.com/DAML/SUMO.owl#
Location: http://reliant.teknowledge.com/DAML/SUMO.owl

Website: http://www.ontologyportal.org

Contact Name: Adam Pease

Contact Email: adampease@earthlink.net Local Version: 22/07/2006 07:15:36

[ RDF ]