Ontology Repositories

UI Design Considerations
Topics

- Ontology Repositories
- Recognizability
- Macro-Structure
- Content/Action Types
- Widgets
Ontology Repositories

Welcome!

Latest ontologies

- **OntoHub**
  - Title: DACF
  - Date: March 9th, 3 months ago
  - Description: The Open Biological and Biomedical Ontologies (OBO) Foundry

About Ontohub

Ontohub is a repository engine for managing distributed heterogeneous ontologies. The distributed nature enables communities to share and exchange their ontologies.

Wikipedia

WordNet

The Princeton University lexical database of English

The Open Biological and Biomedical Ontologies

OK, 7 entries found

Ontology repositories

Ontology repositories are usually more specific. The semantic web search engine and other viewer/search interfaces can vary greatly. They offer tools that may be specific to the type of application the repository was designed for.

BioPortal

BioPortal is a repository of over 3200 biomedical ontologies and includes tools for working with these ontologies.

Available at: http://bioportal.bioontology.org/

TTONS Ontology Repository

Welcome to the TTONS ontology repository.

BioSense-Navigator

About

This repository is primarily designed to be a central location for ontologies that might be of use to tools developers for testing purposes.

Usage

The repository can be browsed via the BioSense-Navigator. To access an ontology directly (e.g. to open an ontology directory as text or as a OWL file) the following scheme should be used:

http://www.swoogle.ualberta.ca/RDF/owl/ontology?format=owl

Ontology file formats

What is WordNet?

The Princeton University lexical database of English

Tuesday, September 17, 13
Recognizability

Logo

No Logo

Bioportal
Swoogle
Tones
Vivo

Ontohub
Wordnet
Schema.org
OW3 Ontology Repository*
OBO Foundry*
Macro-Structure

By Action

By Content

Mixed

Bioportal

Ontohub

Swoogle

Wordnet

Schema.org


OBO Foundry

Tones

Vivo
Action Structure

- Filter by category
  - Ontologies* (browse)

- Search by name
  - Term in Ontologies* (search all ontologies)
  - Term in Resources* (search resources)
  - Ontology

- Search by keywords
  - Term* (annotator)
  - Ontology* (recommender)

- List
  - Last Notes
  - Last Mappings
  - Most Viewed Ontologies
  - Ontologies* (alphabetically ordered not paginated)
  - Projects* (alphabetically ordered not paginated)
  - Resources* (alphabetically ordered not paginated)

- Add/Update in edit mode
  - Project

- Add/Update with file upload
  - Ontology
Content Structure

- Ontology
  - Search
  - Add/Update with file upload
  - List latest
  - Test with Oops
- Symbol
  - Search
- Logic
  - Search
  - Add/Update with form
- Language
  - Search
  - Add/Update with form
BioPortal

• Fits 90% screens
• Logo (icon+name)
• Action structure
• Content Types
  ♦ Ontology
  ♦ Resource
  ♦ Term
  ♦ Project
• Action Types
  ♦ Search, Filter, List, List Latest, List Most Viewed
  ♦ Add, Update, Delete
  ♦ Login, Register

http://www.w3schools.com/browsers/browsers_display.asp
Ontohub

• Fits 99% screens
• No Logo (name)
• Content structure
• Content Types
  ✦ Ontology
  ✦ Symbol
  ✦ Logic
  ✦ Language
• Action Types
  ✦ Search, List Latest
  ✦ Add, Update, Delete, Test with Oops
  ✦ Login, Register

(1024x768) 9% Resolutions in Jan 2013

http://www.w3schools.com/browsers/browsers_display.asp
Widgets
void rotate(widget, oldPhoto) {
    widget.lock();
    newPhoto = oldPhoto.clone();
    newPhoto.d++;
    server.update(newPhoto, new Callback() {
        void onSuccess() {
            widget.setPhoto(newPhoto);
            widget.unlock();
        }
        void onFailure() {
            widget.unlock();
        }
    });
}
Small Widgets
Symbols

Melanoma - National Cancer Institute Thesaurus
http://ncicb.nci.nih.gov/xml/owl/EVS/Thesaurus.owl#C3224
A malignant, usually aggressive tumor composed of atypical, neoplastic melanocytes. Most often, melanomas arise in the skin (cutaneous melanomas) and include the following histologic subtypes: superficial ...
details - visualize - 34 more from this ontology

Class <http://www.coode.org/ontologies/pizza/pizza.owl#American>  Class <http://www.coode.org/ontologies/pizza/pizza.owl#American>

- S: (n) man, adult male (an adult person who is male (as opposed to a woman)) "there were two women and six men on the bus"

Person - schema.org
This class contains derivatives of IPTC rNews properties. rNews is a data model of publishing metadata with serializations currently available for RDFa as well ...

schema.org/Person
Small Widget
Proposals

EVALUATION
detailed, comprehensive
stable, up-to-date
useful, well-organized

**Person** - **Ontology Masters Thesaurus**
ontologymasters.org/thesaurus#Person
A conscious being capable of exchanging information, services and/or goods. It may be a human, a robot, a corporation, an institution, a deity or a character in a story.

**Ontology Masters Thesaurus** (OMT) OWL2/DL
ontologymasters.org/thesaurus
A complete ontology of everything that exists in the world and everything that one has thought of during the whole existence of mankind. It also includes impossible worlds and undeterminable...
Small Widgets
Ontologies

<table>
<thead>
<tr>
<th>National Cancer Institute Thesaurus (NCIT)</th>
<th>Public</th>
<th>99,305</th>
<th>16</th>
<th>1</th>
<th>14</th>
<th>08/13/2013</th>
</tr>
</thead>
</table>

Select an Ontology

- national can

National Cancer Institute Thesaurus (679556)

- nci

National Cancer Institute Thesaurus (NCIT)

Pizza

OWL2 | 114 Symbols | 1054 Sentences

file://db/seeds/pizza.owl
Large Widget
Class Symbols
Large Widget Ontologies

National Cancer Institute Thesaurus

Details

<table>
<thead>
<tr>
<th>ONTOLOGY ID</th>
<th>1032</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRONYM</td>
<td>NCIT</td>
</tr>
<tr>
<td>VISIBILITY</td>
<td>Public</td>
</tr>
<tr>
<td>BIOPORTAL PURL</td>
<td><a href="http://purl.bioontology.org/ontology/NCIT">http://purl.bioontology.org/ontology/NCIT</a></td>
</tr>
<tr>
<td>STATUS</td>
<td>Production</td>
</tr>
</tbody>
</table>

Metrics

| NUMBER OF CLASSES: |
| NUMBER OF INDIVIDUALS: |
| NUMBER OF PROPERTIES: |
| MAXIMUM DEPTH: |
| MAXIMUM NUMBER OF SIBL |

SingleOntology Pizza unknown / OWL2

file://db/seeds/pizza.owl


Test with OOPS!

Classes 99   ObjectProperties 8   Individuals 5   AnnotationProperties 2   Sentences 1054
Large Widgets
Proposals

Space for Discussion
One last thing!

Server-Side UI

- Wordpress
- Drupal
- Joomla!
- Moodle
- Typo3
- ExpressEngine
- MediaWiki

Client-Side UI

- GWT
  [http://www.gwtproject.org](http://www.gwtproject.org)
- YUI*
  [http://yuilibrary.com](http://yuilibrary.com)
- JQuery*
  [http://jquery.com](http://jquery.com)

*These frameworks require a server side minimum.