

Ontology Repositories

UI Design Considerations

Topics

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

Ontology Repositories

BioPortal

Welcome to BioPortal! For help using BioPortal, click on this icon:

Search all ontologies: Enter term, e.g. Melanoma [Advanced Search](#)

Find an ontology: Enter ontology name, e.g. NCI Thesaurus [Browse Ontologies >](#)

Search resources: Enter a term, e.g. Melanoma

Most Viewed Ontologies (April, 2013)

Ontology	Views
SNOMED Clinical Terms	13,601
National Drug File	9,320
MedDRA	4,254
International Classification of Diseases	3,415
NCI Thesaurus	1,528

Latest Notes

New Term Proposal: small RNA-seq (EDAM Ontology of Bioinformatics Operations and Data Formats) 4 days ago by ipantano

categorizing by study type (Content Archive Resource Exchange Lexicon) 7 days ago by anonymous

Are challenge with using eTMF in academic/non-profit research institutions is that there is not c...

Four types of eye movements (Neuro Behavior Ontology) 22 days ago by anonymous

The neural control of eye movements involves

Ontohub

Welcome!

Latest ontologies

- align by henning 17 days ago
- align by henning 17 days ago
- FOAF by Christoph Lange 2 months ago
- Ontohub meta ontology by Till Mossakowski 3 months ago
- alignment-combination2 by Till Mossakowski 4 months ago
- Person by henning 4 months ago
- <http://owl.cs.manchester.ac.uk/repository/download?ontology=http://www.semanticweb.org/ontologies/propertyinferences.owl&format=RDF/XML> by Till Mossakowski 5 months ago

About Ontohub

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

PRINCETON UNIVERSITY

WordNet
A lexical database for English

What is WordNet?

Current News

George A. Miller, who began the WordNet project in the

We appreciate your comments and suggestions, especially

schema.org

Home Schemas Documentation

What is Schema.org?

This site provides a collection of schemas, i.e., HTML tags, that webmasters can use to markup their pages in ways recognized by major search providers. Search engines including Bing, Google, Yahoo! and Yandex rely on this markup to improve the display of search results, making it easier for people to find the right web pages.

Many sites are generated from structured data, which is often stored in databases. When this data is formatted into HTML, it becomes very difficult to recover the original structured data. Many applications, especially search engines, can benefit greatly from direct access to this structured data. On-page markup enables search engines to understand the information on web pages and provide richer search results in order to make it easier for users to find relevant information on the web. Markup can also enable new tools and applications that make use of the structure.

A shared markup vocabulary makes it easier for webmasters to decide on a markup schema and get the maximum benefit for their efforts. So, in the spirit of sitemaps.org, search engines have come together to provide a shared collection of schemas that webmasters can use.

We invite you to [get started!](#)

View our blog at blog.schema.org.

W3C

Ontology repositories

Ontology repositories are usually more specific than semantic web search engines and their navigation/search interfaces can vary greatly. They offer tools that may be specific to the type of applications the repository was designed for.

Contents [hide]

- 1 BioPortal
- 2 Cupboard
- 3 DERI Vocabularies
- 4 Knoodl
- 5 Ontology Design Patterns
- 6 Prefix.cc
- 7 Schemapedia
- 8 SchemaWeb

BioPortal

Description: BioPortal is a repository of over 300 biomedical ontologies and includes tools for working with these ontologies.

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

Unique strength: Holds most widely used Biomedical ontologies. Allows ontologies to be browsed, searched, and

The Open Biological and Biomedical Ontologies

Resources Participate About

The OBO Foundry is a collaborative experiment involving developers of science-based ontologies who are establishing a set of principles for ontology development with the goal of creating a suite of orthogonal interoperable reference ontologies in the biomedical domain. The groups developing ontologies who have expressed an interest in this goal are listed below, followed by other relevant efforts in this domain.

In addition to a listing of OBO ontologies, this site also provides a statement of the OBO Foundry principles, discussion fora, technical infrastructure, and other services to facilitate ontology development. We welcome feedback and encourage participation. Click any column header to sort the table by that column. The link to the term request trackers for the listed ontologies.

Title	Domain	Prefix	File	Last changed
Biological process	biological process	GO	go.obo	
Cellular component	anatomy	GO	go.obo	
Chemical entities of biological interest	biochemistry	CHEBI	chebi.obo	
Molecular function	biological function	GO	go.obo	
Phenotypic quality	phenotype	PATO	quality.obo	
Protein Ontology (PRO)	proteins	PR	pro.obo	
Xenopus anatomy and development	anatomy	XAO	xenopus_anatomy_edit.obo	

Quick Links

- Mappings between ontologies
- Download alternate formats
- About the OBO Foundry
- Current events
- How to join
- OBO Foundry paper in Nature Biotechnology, November 2007

Other Ontology Lists

- OntoBee
- Ontology Lookup Service (OLS) (OBO Foundry term lookup)

Want more results? [Login](#)

Swoogle
semantic web search 2007

ontology document term across ontologies

Swoogle Search

Searching over 10,000 ontologies

[manual](#) | [news](#) | [faq](#) | [web-service](#) | [submit-url](#) | [sw-archive](#) | [feedback](#) | [swoogle2005](#)

Swoogle © 2004-2007. [about us](#) at UMBC
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TONES

TONES Ontology Repository

Welcome to the TONES ontology repository.

Browse Repository

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 [here](#). The repository supports a RESTful interface. To access an ontology directly (e.g. to open an ontology from a tool such as Protege 4), the following syntax should be used:

<Repository URL>/download?ontology=<Ontology URI>

Example:

<http://owl.cs.manchester.ac.uk/repository/download?ontology=http://www.co-ode.org/ontologies/pizza/pizza.owl>

Ontology file formats

VIVO Ontology Repository

Home | VIVO related ontology | Online ontology repository | Other ontology repository examples | VIVO related system survey | Contact

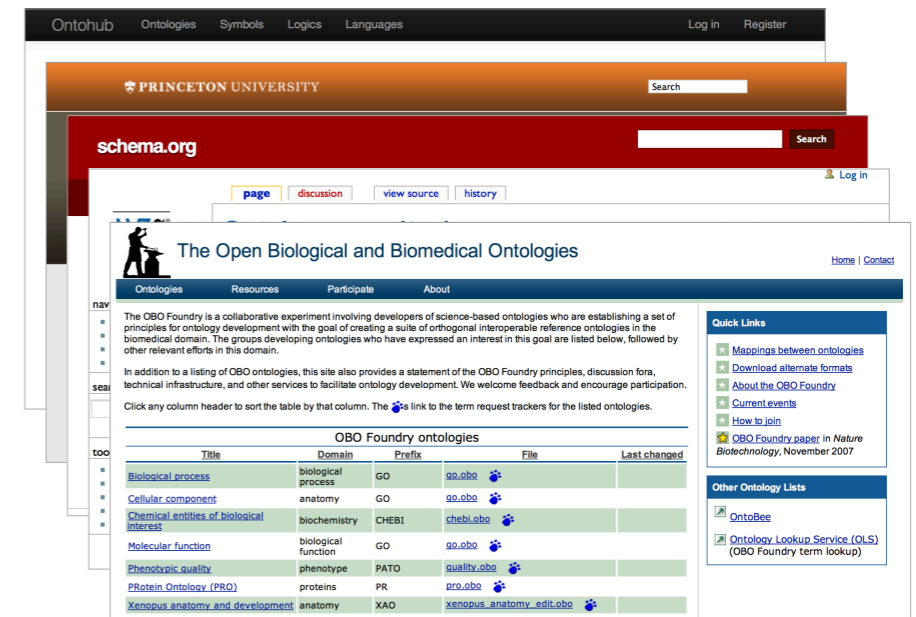
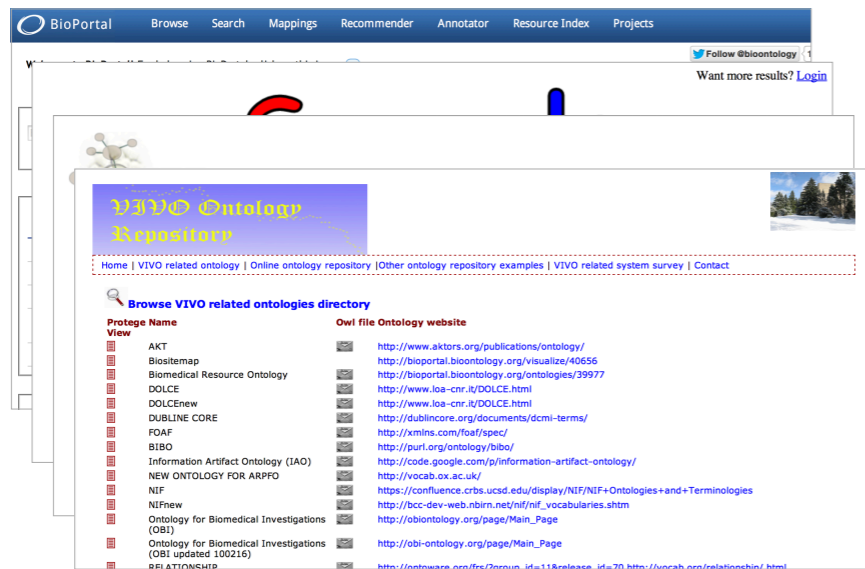
Browse VIVO related ontologies directory

Protege Name	Owl file Ontology website
AKT	http://www.aktors.org/publications/ontology/
Biositemap	http://bioportal.bioontology.org/visualize/40656
Biomedical Resource Ontology	http://bioportal.bioontology.org/ontologies/39577
DOLCE	http://www.lob-cnr.it/DOLCE.html
DOLCEnew	http://www.lob-cnr.it/DOLCE.html
DUBLINE CORE	http://dublincore.org/documents/dcmi-terms/
FOAF	http://xmlns.com/foaf/spec/
BIBO	http://purl.org/ontology/bibo/
Information Artifact Ontology (IAO)	http://code.google.com/p/information-artifact-ontology/
NEW ONTOLOGY FOR ARPO	http://vocab.ox.ac.uk/
NIF	https://confluence.crbs.ucsd.edu/display/NIF/NIF+Ontologies+and+Terminologies
NIFnew	http://bcc-dev-web.nbirn.net/nif/nif_vocabularies.shtm
Ontology for Biomedical Investigations (OBI)	http://obiontology.org/page/Main_Page
Ontology for Biomedical Investigations (OBI) updated 100216	http://obi-ontology.org/page/Main_Page
RELATIONSHIP	http://ontoware.org/frs/?group_id=11&release_id=70

Recognizability

Logo

No Logo

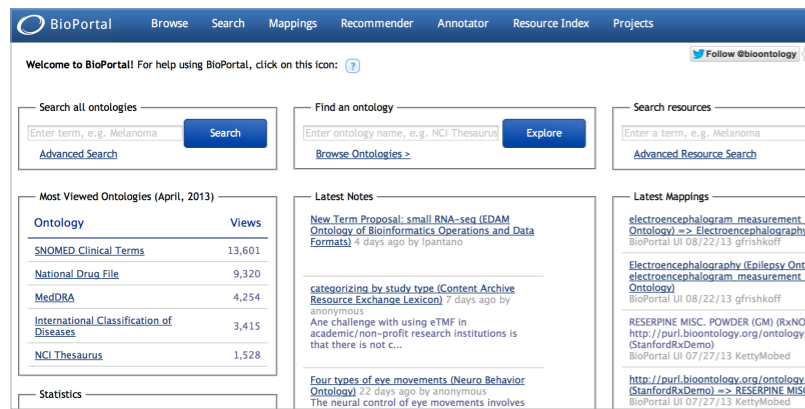


Bioportal
Swoogle
Tones
Vivo

Ontohub
Wordnet
Schema.org
OW3 Ontology Repository*
OBO Foundry*

Macro-Structure

By Action



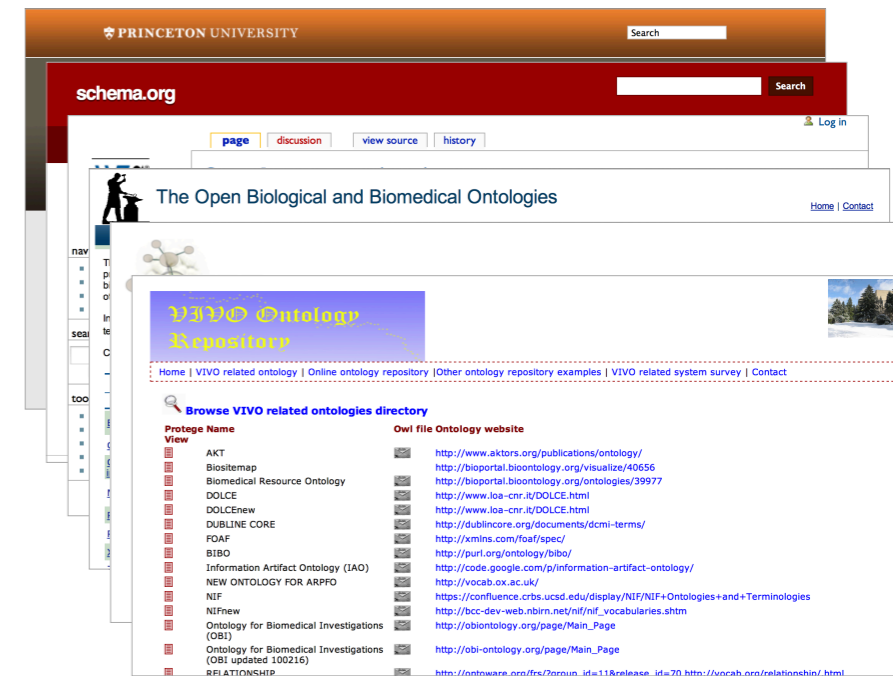
Bioportal

By Content



Ontohub
Swoogle

Mixed



Wordnet
Schema.org
OW3 Onto. Rep.
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

The screenshot displays the BioPortal website interface. At the top, there is a navigation bar with links for Browse, Search, Mappings, Recommender, Annotator, Resource Index, and Projects. Below the navigation bar, there are three main search sections: 'Search all ontologies', 'Find an ontology', and 'Search resources'. Each section includes a search input field and a search button. Below these sections, there are three columns of content: 'Most Viewed Ontologies (April, 2013)' which lists ontologies like SNOMED Clinical Terms and National Drug File; 'Latest Notes' which includes a 'New Term Proposal' and a note about 'categorizing by study type'; and 'Latest Mappings' which shows mappings between different ontologies. The interface is clean and organized, with a blue header and white content area.

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

The screenshot shows the Ontohub website interface. At the top is a dark navigation bar with links for 'Ontohub', 'Ontologies', 'Symbols', 'Logics', 'Languages', 'Log in', and 'Register'. Below the navigation bar, the main content area is divided into two columns. The left column features a 'Welcome!' heading followed by a 'Latest ontologies' section. This section lists several ontologies, each with a small icon, the name, the creator's name, and the time since it was added. The right column contains an 'About Ontohub' section with a brief description of the platform's purpose.

Ontohub Ontologies Symbols Logics Languages Log in Register

Welcome!

Latest ontologies

- [align](#) by [henning](#) 17 days ago
- [align](#) by [henning](#) 17 days ago
- [FOAF](#) by [Christoph Lange](#) 2 months ago
- [Ontohub meta ontology](#) by [Till Mossakowski](#) 3 months ago
- [alignment+combination2](#) by [Till Mossakowski](#) 4 months ago
- [Person](#) by [henning](#) 4 months ago
- <http://owl.cs.manchester.ac.uk/repository/download?ontology=http://www.semanticweb.org/ontologies/propertyinferences.owl&format=RDF/XML> by [Till Mossakowski](#) 5 months ago

About Ontohub

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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

(1024x768) 9% Resolutions in Jan 2013

The screenshot shows the BioPortal website interface. The top navigation bar includes links for Browse, Search, Mappings, Recommender, Annotator, Resource Index, and Projects. A search bar is prominently displayed with a 'Search' button. Below the search bar, there are sections for 'Most Viewed Ontologies (April, 2013)', 'Latest Notes', and 'Latest Mappings'. The 'Most Viewed Ontologies' section contains a table with the following data:

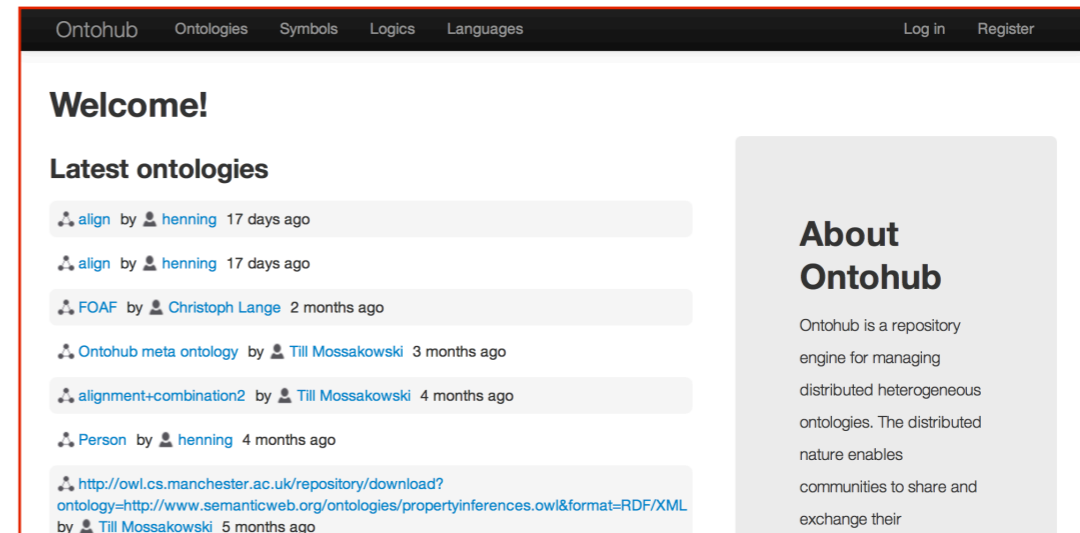
Ontology	Views
SNOMED Clinical Terms	13,601
National Drug File	9,320
MedDRA	4,254
International Classification of Diseases	3,415
NCI Thesaurus	1,528

The 'Latest Notes' section features a 'New Term Proposal: small RNA-seq (EDAM Ontology of Bioinformatics Operations and Data Formats)' and a note about 'categorizing by study type (Content Archive Resource Exchange Lexicon)'. The 'Latest Mappings' section lists several mappings, including 'electroencephalogram measurement protocol (Neural ElectroMagnetic Ontology) => Electroencephalography (Epilepsy Ontology)' and 'RESERPINE MISC. POWDER (GM) (RxNORM) => http://purl.bioontology.org/ontology/StanfordRxDemo/MM_CLASS_383 (StanfordRxDemo)'.

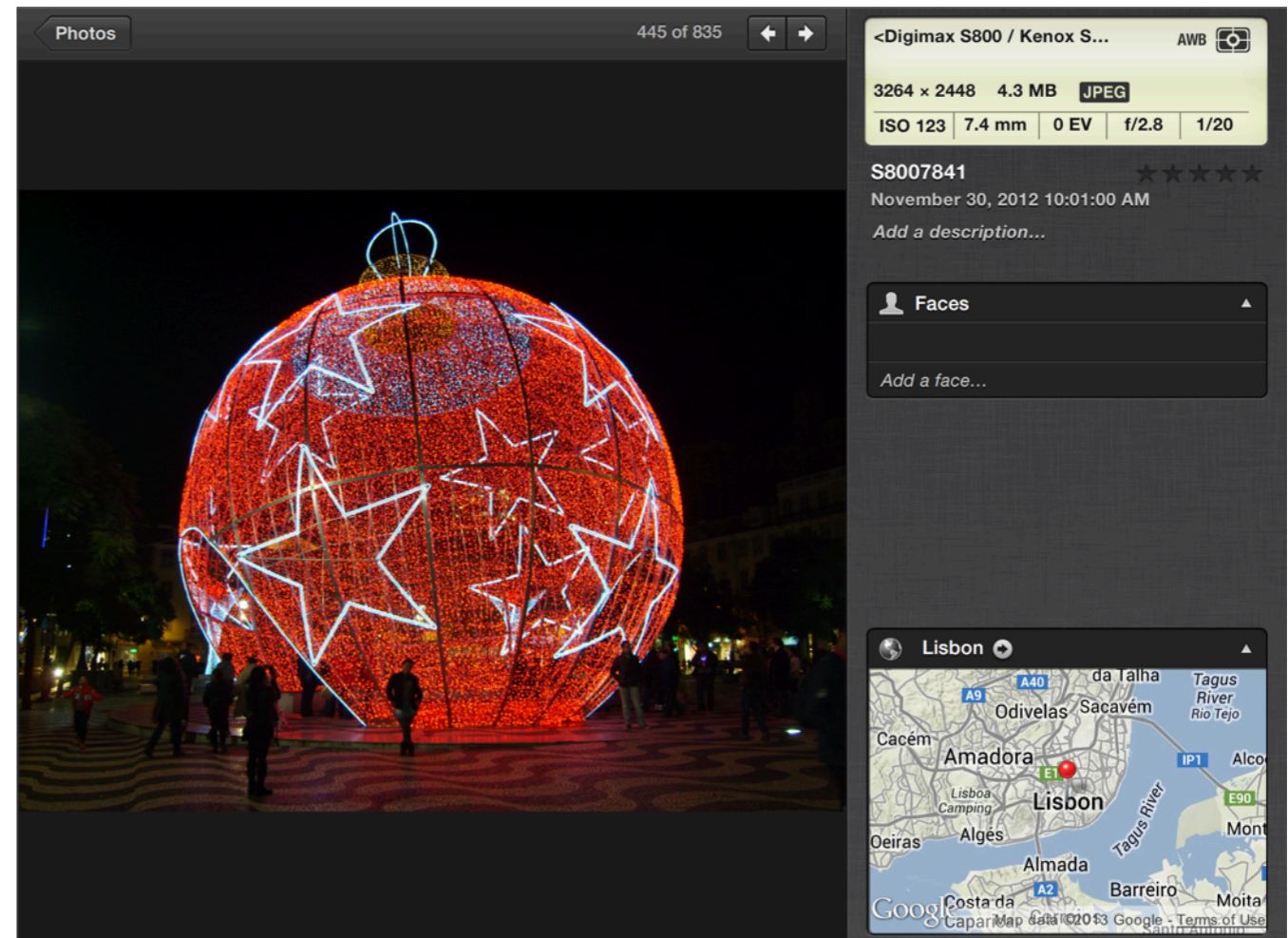
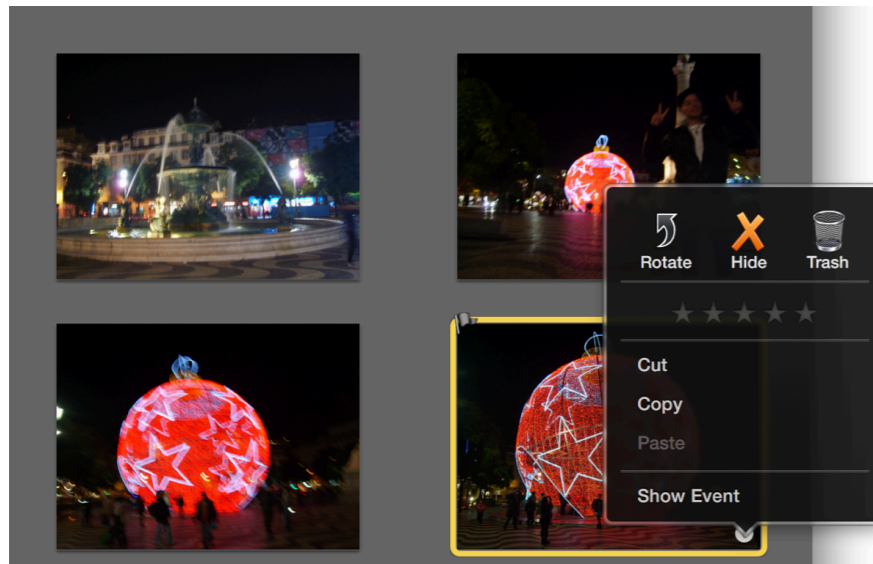
Ontohub

- 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

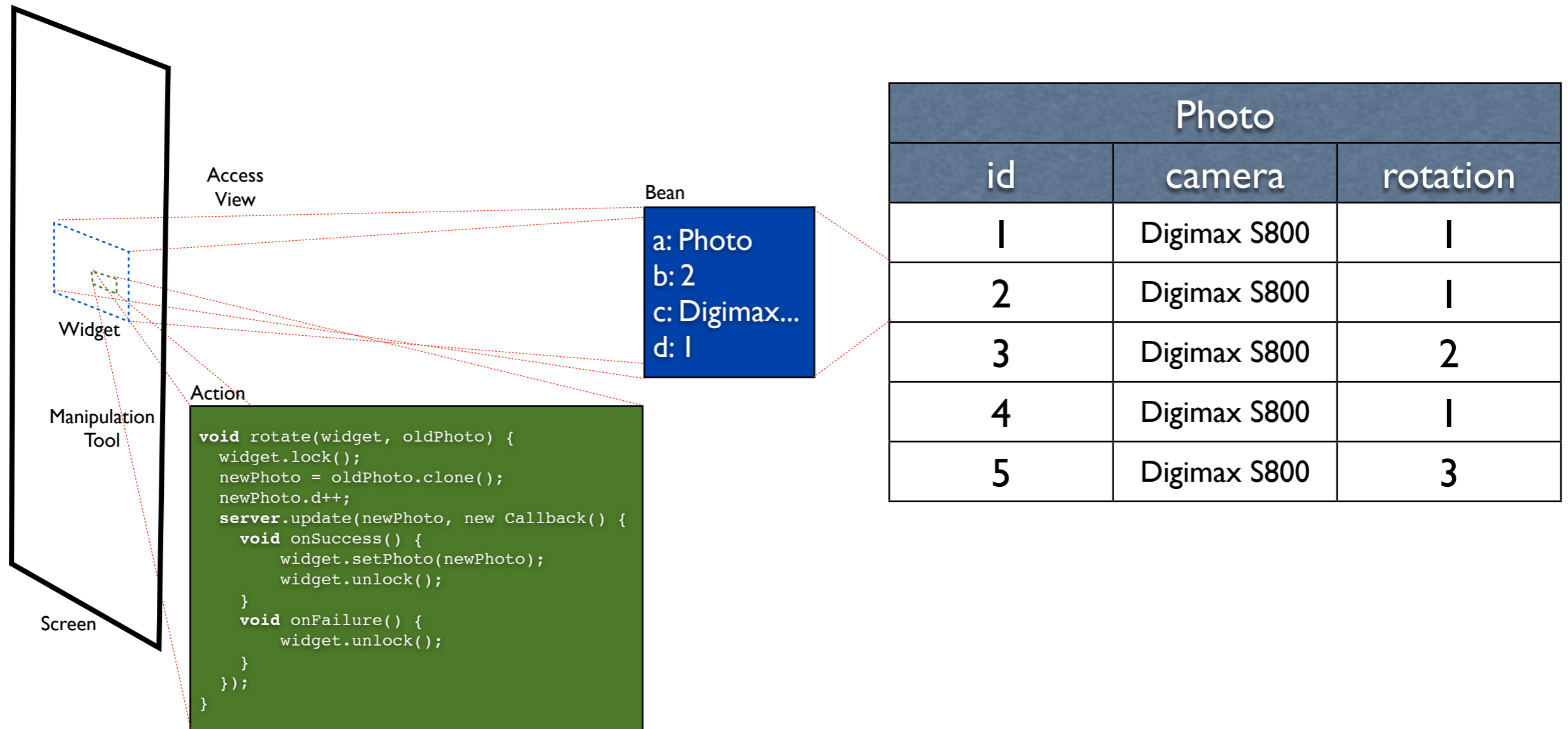
(1024x768) 9% Resolutions in Jan 2013



Widgets



Widgets



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.co-ode.org/ontologies/pizza/pizza.owl#American>>

Class <<http://www.co-ode.org/ontologies/pizza/pizza.owl#American>>

<http://www.co-ode.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

Symbol
Small Widget

[Person - Ontology Masters Thesaurus](http://ontologymasters.org/thesaurus#Person)

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
Small Widget

[Ontology Masters Thesaurus](http://ontologymasters.org/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

National Cancer Institute Thesaurus (NCIT)	Public	99,305	16	1	14	08/13/2013
--	------------------------	------------------------	--------------------	-------------------	--------------------	------------

Select an Ontology

National Cancer Institute Thesaurus (679556)
National Cancer Institute Thesaurus
(NCIT)

Pizza OWL2 | 114 Symbols | 1054 Sentences

file://db/seeds/pizza.owl

Large Widget Class Symbols

National Cancer Institute Thesaurus Terms ▾

Jump To:

Details	Visualization	Notes (0)	Term Mappings (39)	Term Resources
<ul style="list-style-type: none"> Neoplasm <ul style="list-style-type: none"> + Melanocytic Skin Neoplasm <ul style="list-style-type: none"> Melanoma + Cystic Neoplasm + Embryonal Neoplasm + Encapsulated Neoplasm + Infrequent Neoplasm + Malignant Neoplasm + Metastatic Neoplasm Miscellaneous Neoplasm Necrotic Neoplasm 				
Preferred Name <i>(Preferred_Name)</i>		Melanoma		
Synonyms <i>(FULL_SYN)</i>		MALIGNANT MELANOMA MELANOMA, MALIGNANT		
Definitions <i>(DEFINITION)</i>		A malignant, usually aggressive tumor composed of atypical, neoplastic melanocytes. Melanomas arise in the skin (cutaneous melanomas) and include superficial spreading melanoma, nodular melanoma, acral lentiginous melanoma. Cutaneous melanomas may arise from acquired or congenital melanocytes. Melanomas may also arise in other anatomic sites including the		

Thing > Person

A person (alive, dead, undead, or fictional).

Property	Expected Type	Description
Properties from <u>Thing</u>		
<u>additionalType</u>	URL	An additional type for the item, typically used for adding more specific types from external vocabularies. This is a relationship between something and a class that the thing is in. In RDF it is better to use the native RDFa syntax – the 'typeof' attribute – for multiple types. Schema.org tools have only weaker understanding of extra types, in particular those defined externally.
<u>description</u>	Text	A short description of the item.
<u>image</u>	URL	URL of an image of the item.

Large Widget Ontologies

National Cancer Institute Thesaurus

Summary ▾

Details

ONTOLOGY ID	1032
ACRONYM	NCIT
VISIBILITY	Public
BIOPORTAL PURL	http://purl.bioontology.org/ontology/NCIT
STATUS	Production

Metrics ?

NUMBER OF CLASSES:
NUMBER OF INDIVIDUALS:
NUMBER OF PROPERTIES:
MAXIMUM DEPTH:
MAXIMUM NUMBER OF SIBLINGS:

SingleOntology **Pizza** unknown / OWL2 ▾

<file://db/seeds/pizza.owl>

Repellat voluptatem ratione. Cum molestias quis perferendis repellendus suscipit est saepe. Doloremque quo quam provident. Repudiandae repellendus quam voluptatem. Voluptatum sunt alias magni provident rem voluptatem veniam.

Test with OOPS!

Classes **99** ObjectProperties **8** Individuals **5** AnnotationProperties **2** Sentences **1054**

1 2 3 4 Next Last

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>
- YUI*
<http://yuilibary.com>
- JQuery*
<http://jquery.com>

<http://www.javacodegeeks.com/2012/01/gwt-pros-and-cons.html>