

# Knoodl, a web-based semantic web development tool

Guoxing Fu & Weinian Rao

CSC8711

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# What is knoodl ?

- Knoodl is a tool for creating, managing, and analyzing RDF/OWL descriptions.
- Knoodl is hosted in the Amazon EC2 cloud and can be used for free.
- <http://www.knoodl.com/ui/home.html>

# Features of knoodl

- Semantic Collaboration Tool
  - Full-featured OWL editor with import/export and support for SPARQL
  - Integrated wiki functionality
  - Community-oriented
  - Entirely web-based; nothing to install
  - Role-based security
- Semantic Application Platform
  - Scalable back-end triple store enables management of large RDF datasets
  - Cloud based for quick hardware scalability when needed
  - Enables quick deployment of semantic applications
  - Interfacing through JAVA APIs or SPARQL Endpoints

# Knoodl is community-oriented

- Knoodl facilitates community-oriented development of OWL based ontologies and RDF knowledgebases.
- All content in Knoodl is organized into Communities.
  - Create new communities
  - Join somebody else's community
- What can we do with community?
  - Wikis: allow users to collaborate more effectively and add rich document
  - Vocabularies: Each vocabulary represents an ontology. An OWL based ontology editor (Creat new or upload existing vocabularies)
  - Every resource (class, property, and instance) in the ontology has its own page in the Vocabulary.
  - Store quires
  - Manage permissions for community members

# Work with vocabularies



Knoodl.com

Knoodl My account Community File RSS Feeds

Community Summary: F

This Community contains a number of resources that are p  
including people, documents, and organizations. There is als

- New wiki
- New vocabulary
- Import a vocabulary
- Import an archive

## Vocabularies

- SWEET Units** - The Semantic Web for Earth and Environment  
[Edit the description](#) [Delete the vocabulary](#)
- SWEET Data** - The data ontology provides support for dataset  
[Edit the description](#) [Delete the vocabulary](#)



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## FOAF

Community Resources vocabulary FOAF

Classes Properties

- + C Agent [ http://xmlns.com/foaf/1.1/agent ]
- + C Agent-3 [ http://xmlns.com/foaf/1.1/agent-3 ]
- + C Document [ http://xmlns.com/foaf/1.1/document ]
- + C OnlineAccount [ foaf ]

- New wiki
- New vocabulary
- Import a vocabulary
- Import a file
- Import an archive
- Export an archive
- Export this vocabulary
- Export as OWL
- Export as XSD

Note: The

# FOAF

Community Resources vocabulary FOAF

Classes Properties

- Agent [ http://xmlns.com/wordnet/1.6/ ]
  - Person [ foaf ]
- Agent-3 [ http://xmlns.com/wordnet/1.6/ ]
  - Agent [ foaf ]
    - Group [ foaf ]
    - Organization [ foaf ]
    - Person [ foaf ]

View Graph RDF Discussion Edit History

The graph shows a central node 'owl:Thing' with three outgoing edges. The top edge is labeled 'http://xmlns.cc', the middle edge is labeled 'http://xmlns', and the bottom edge is labeled 'http://xmlns'. There is also a partial edge labeled 'fo:'.

## Namespaces

### Prefix Definitions

- daml : http://www.daml.org/2001/03/daml+oil#
- dc : http://purl.org/dc/elements/1.1/
- foaf : http://xmlns.com/foaf/0.1/
- owl : http://www.w3.org/2002/07/owl#
- rdf : http://www.w3.org/1999/02/22-rdf-syntax-ns#
- rdfs : http://www.w3.org/2000/01/rdf-schema#
- vs : http://www.w3.org/2003/06/sw-vocab-status/ns#
- wot : http://xmlns.com/wot/0.1/

Save all changes to this page

## Ontology Metadata

### Ontology Name

http://xmlns.com/foaf/0.1/

### Comments

### Label

### Defined by

### Version Information

### See also

### Annotations

# How to query the data

- Knoodl supports querying of Vocabularies using SPARQL. It offers two ways to do this:
- **The ASK function:**
  - A simplified form of SPARQL but has lot of predefined parameters.
- **Ontology Guided Search**
  - User-friendly
  - Use the “Instances” tab to list all the instances of a class.
  - Use the 'Find Instances' option under the 'Edit' menu at the top of the page, within any Vocabulary. This will lead to a simple query builder which enables users to search for specific instances within a Vocabulary, based on their attributes.

# Ontology Guided Search

The screenshot shows an ontology editor interface. On the left, a class hierarchy is displayed under the 'Classes' tab. The 'Person' class is expanded, showing properties like 'currentProject', 'family\_name', 'firstName', 'geekcode', and 'img'. On the right, the 'Relationships' section is active, with a text box containing '?instance'. Below it, the 'Filters' section is visible, showing a table with columns 'Object or property', 'Filter', and 'Filter value'. A red dashed arrow points from the 'firstName' property in the hierarchy to the 'Filters' section.

The screenshot shows a close-up of the 'Filters' table. The table has three columns: 'Object or property', 'Filter', and 'Filter value'. The first row shows '?instance' in the 'Object or property' column, 'is equal to' in the 'Filter' column, and '"Jim"' in the 'Filter value' column. The second row shows '<foaf:firstName>' in the 'Object or property' column, and the 'Filter' and 'Filter value' cells are empty.

Object or property	Filter	Filter value
?instance	is equal to	"Jim"
<foaf:firstName>		

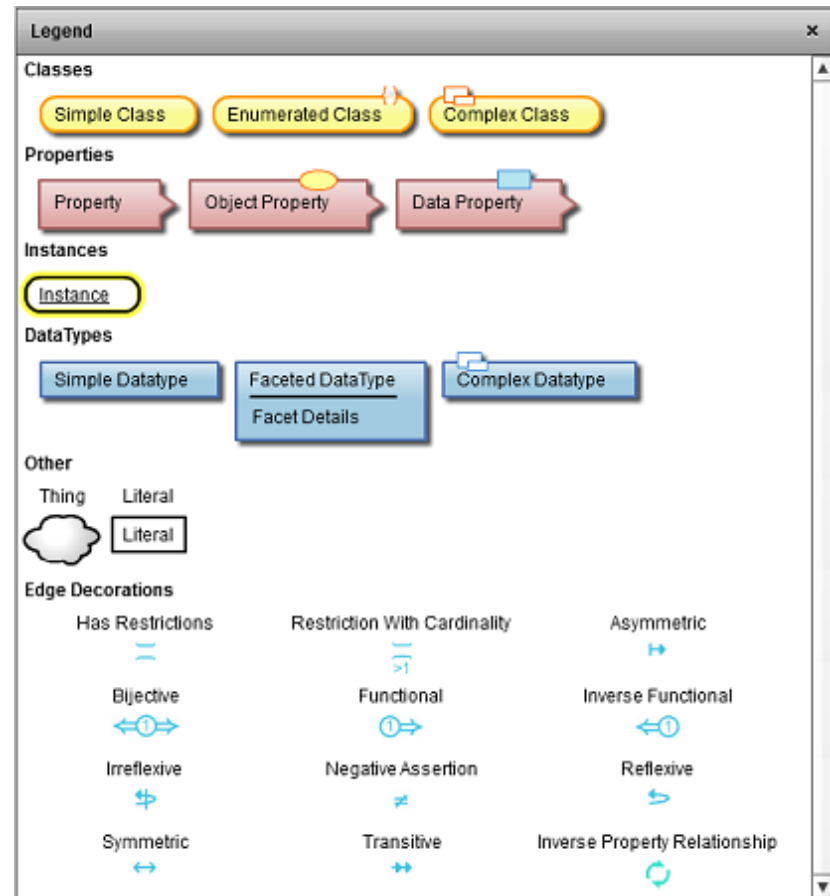
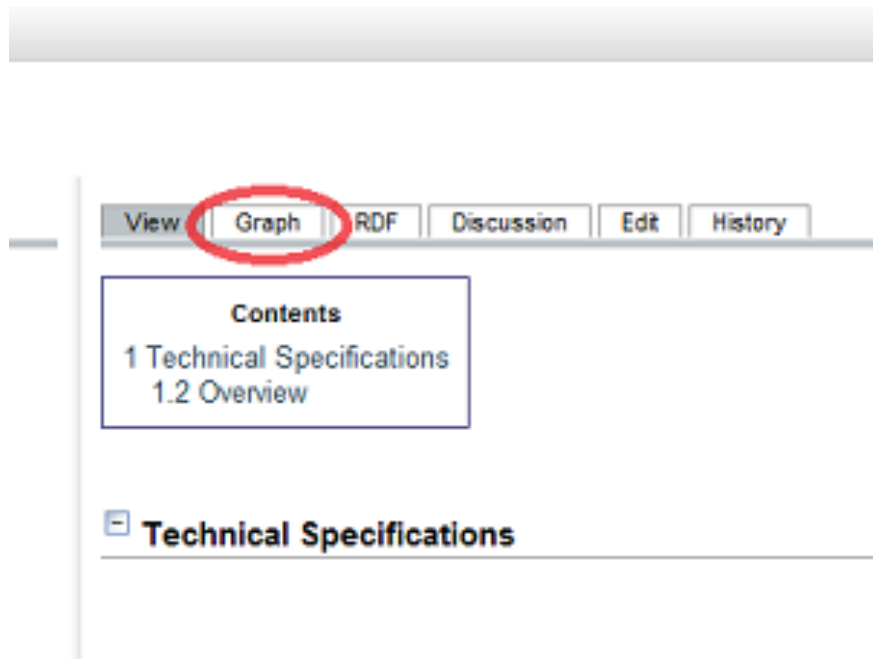
The screenshot shows the SPARQL query editor. The 'SPARQL' tab is active, and the query is displayed in a text area. The query is as follows:

```
PREFIX fn: <http://www.w3.org/2005/xpath-functions>
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
PREFIX owl: <http://www.w3.org/2002/07/owl#>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
SELECT ?instance
WHERE {?instance foaf:firstName "Jim" .}
```

Below the query, the 'Relationships' section is active, and the 'Filters' section is visible, showing the same filter as in the previous screenshot.



# Graphic view of OWL ontologies



# Class Tree of Nobel.owl

