**An Experimental** Web-based Collaboration and **Semantic Knowledge Management Approach** in Hospital Environment

Z & V Papeš, D. Bengez, P. Konjevoda, Z. Rešetar, N. Gotovac, S. Večerina Volić, T. Ibrahimpašić



# Wiki-wiki Why, Why Blog, Why Semantic Web, **Onthologies** and Semblog, and Why **Croatian Education Learn** Slooooooooow

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# BARD

RSA public key on ssh2 protocol, HTTPS Web-based e-mail

Content recenzents
(management, other bodies,
experts, third party)

http://www.kbsm.hr http://moodle.kbsm.hr



# SCFT (read-write Web collaboration and management tools)

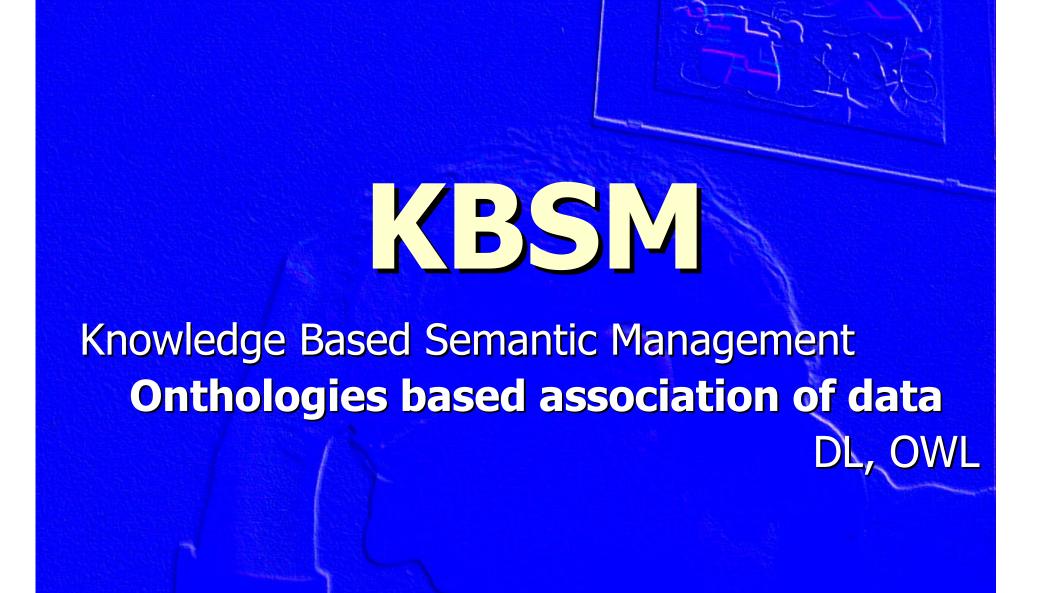
Wiki-wiki Why,
Why Blog,
and Semblog
Forums,

http://wiki.kbsm.hr http://wp.kbsm.hr http://portal.kbsm.hr http://forum.kbsm.hr



http://hupnoz.blog.hr

etc...

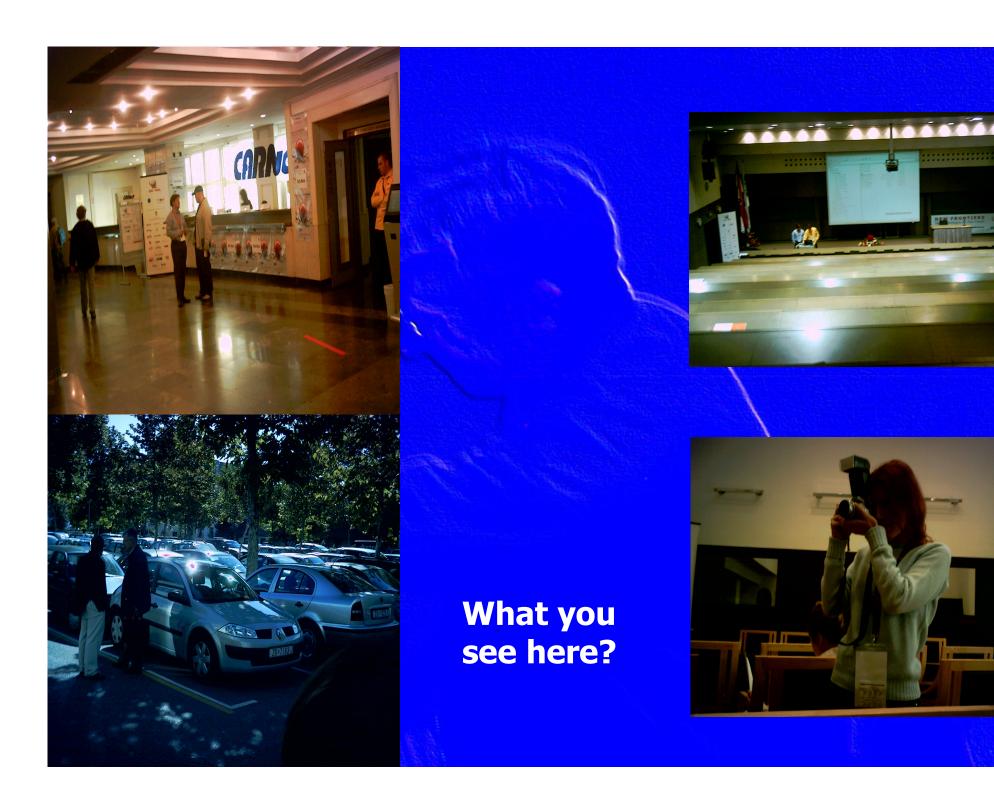


# Every onthology is aspect, or domain, specific

There are no universal onthology

Mapping onthologies is matter of investigation

Most decisions in real lifes are







### Research

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### The Lexical Grid

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Standards

Tools

### Content

Sources

LexGrid Index

Formats

LDAP Server

LDAP Resources

### Content

Without content, all of our standards and tools have little use. For this reason, we also provide as much terminological content as we can. We have nearly a dozen terminologies currently available on this site. We do our best to keep the terminologies up to date, and complete. However, we also don't have the time to maintain all of them by ourselves. This is why the LexGrid model is built around distributed terminologies - if the authors of each terminology were responsible for keeping and publishing the LexGrid formatted version of their terminology, then it would be immediately available for everyone.

Since we haven't reached that goal yet, we currently use a lot of different tools to transform terminologies and ontologies from their native format into the LexGrid format. If you write any tools to transform other terminologies into the LexGrid format, please send them to us, so they can be shared. Also, we would welcome volunteers to take over the maintenance of individual terminologies. Please contact us if you would like to volunteer.

### 3.7.2. Related

# Simple Knowledge Organisation Systems skostrelated property hierarchy

```
skos:semanticRelation
|
+--skos:related
```

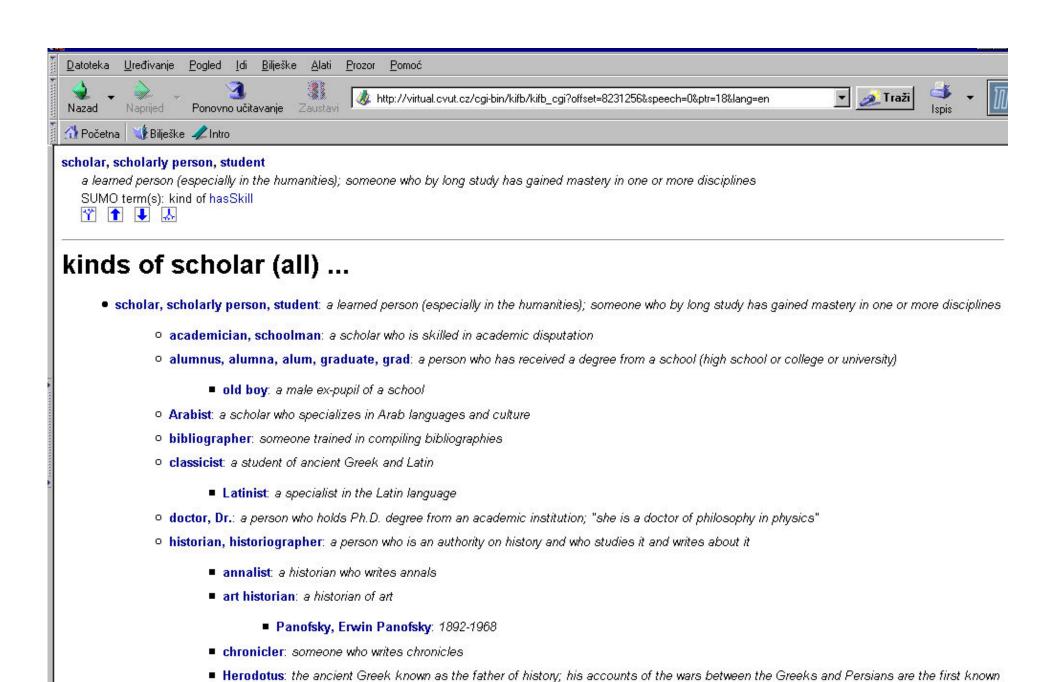
The skos: related property allows you to create associative links between concepts. Again, this property carries weak semantics - it expresses the fact that two concepts are in some way related, and that the relationship should NOT be used to create a hierarchy. Essentially, this property allows you to create links between branches of a hierarchy of concepts.

Example of using skos:related

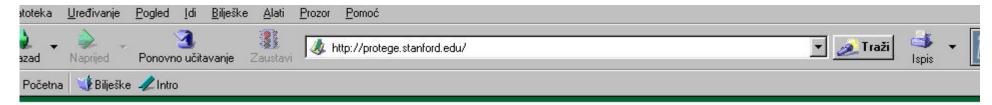
```
<rdf:RDF
       xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
       xmlns:skos="http://www.w3.org/2004/02/skos/core#">
        <skos:Concept rdf:about="http:/example.com/Concept/0002">
                <skos:prefLabel>English cuisine</skos:prefLabel>
                <skos:altLabel>English dishes</skos:altLabel>
                <skos:altLabel>English food</skos:altLabel>
                <skos:inScheme rdf:resource="http:/example.com/thesaurus"/>
                <skos:related rdf:resource="http:/example.com/Concept/0003"/>
        </skos:Concept>
        <skos:Concept rdf:about="http:/example.com/Concept/0003">
                <skos:prefLabel>English pubs, cafes and restaurants</skos:prefLabel>
                <skos:altLabel>English eateries</skos:altLabel>
                <skos:inScheme rdf:resource="http:/example.com/thesaurus"/>
                <skos:related rdf:resource="http:/example.com/Concept/0002"/>
        </skos:Concept>
</rdf:RDF>
```

The two examples above give a concept scheme with the following structure:

Diagram of concept structure



examples of historical writing (425-485 BC)



### Protégé-2000



What is it?



How do I get it?



How do I use it?



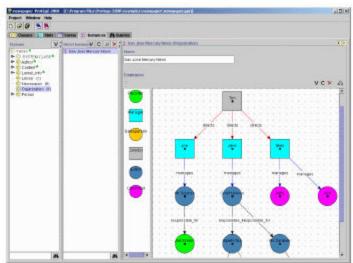
How do I participate?



How do I extend it?

### 7th International Protégé Conference July 6-9, 2004 Bethesda, Maryland





Protégé is an ontology editor and a knowledge-base editor.

Protégé is also an open-source, Java tool that provides an extensible architecture for the creation of customized knowledge-based applications.

Protégé's OWL Pluq-in now provides support for editing Semantic Web ontologies.

Release 2.1.2 August 4, 2004 August 20, 2004 Beta 3.0

Protégé Community Statistics					
Registered Users	20015				
users list members	8837				
discussion list members	2564				
discussion list messages	10268				
Plug-ins	85				
Updated Septer	mber 10, 2004				

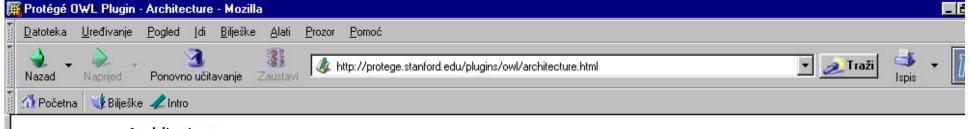
### tégé Affiliates Program

tégé is a national resource for biomedical ontologies and knowledge bases supported by the National Library of Medicine

syright @ 2003 Stanford Medical Informatics

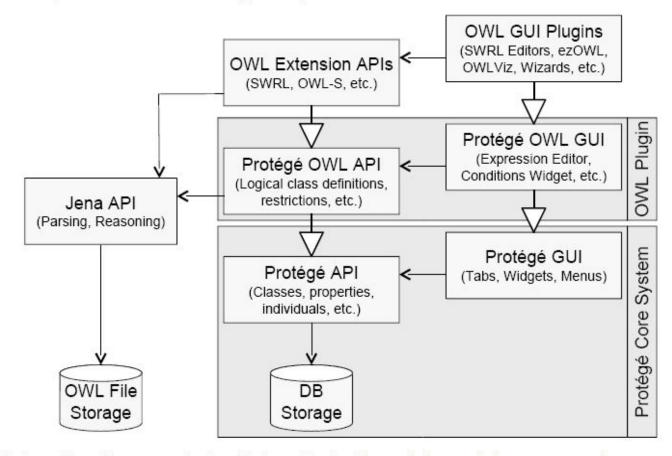




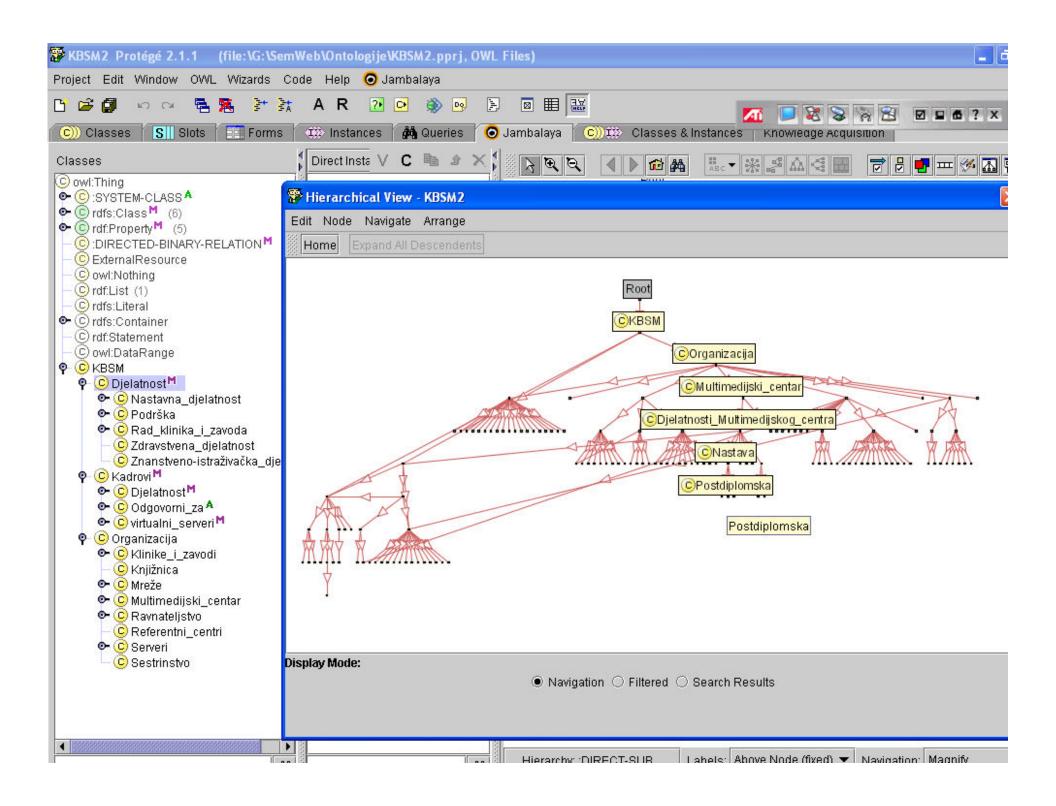


### Architecture

The OWL Plugin is an extension of the Protégé core system.



Details about this architecture can be found in the publication "<u>The Protégé OWL Plugin: An Open Development Environment for Semantic Web Applications</u>"





## Ontology Portal

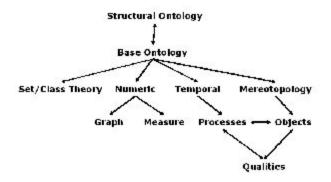
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The Suggested Upper Merged Ontology (SUMO) and its domain ontologies form the largest formal public ontology in existence today. They are being used for research and applications in search, linguistics and reasoning. SUMO is the only formal ontology that has been mapped to all of the <a href="WordNet">WordNet</a> lexicon. SUMO is written in the <a href="SUO-KIF">SUO-KIF</a> language. SUMO is free and owned by the IEEE. The ontologies that extend SUMO are available under <a href="GNU General Public License">GNU General Public License</a>. <a href="Adam Pease">Adam Pease</a> is the Technical Editor of SUMO.

Find an I SUMO:	anglish word and its o	corresponding formal ten	m in
English Word:	water	Noun 🔻	Show
Word:	į.		

### Features

- · Mappings to all of WordNet
- <u>Language generation templates</u> for Hindi, Chinese, Italian, German, Czech and English
- Tool support for browsing and editing
- Largest free, formal ontology available, with 20,000 terms and 60,000 axioms when all domain ontologies are combined. These consist of <u>SUMO</u> itself, the <u>MId-Level Ontology (MILO)</u>, and ontologies of <u>Communications</u>, <u>Countries and Regions</u>, <u>distributed computing</u>, <u>Economy</u>, <u>engineering components</u>, <u>Geography</u>, <u>Government</u>, <u>Military</u>, <u>North American Industrial Classification System</u>, <u>People</u>, <u>physical elements</u>, <u>TransnationalIssues</u>, <u>Transportation</u>, <u>Viruses</u>, <u>World Airports</u>. Additional ontologies of terrorism and weapons of mass destruction are available on request.
- Richly axiomatized, not just a taxonomy. All terms are formally defined.
   Meanings are not dependent on a particular inference implementation. An inference and ontology management system however is provided







Are we enough careful?

"Our life is not based on syllogistic logic"

Clay Shirky's Writing About the Internet
"The Semantic Web, Syllogism, and Worldview"
7.11.2003. Network, Economics and Culture mailing list
http://www.shirky.com/writings/semantic\_syllogism.html



