

The first European Summer School on Ontological Engineering and Semantic Web
(SSSW-2003)
Cercedilla, Spain
21-26 July

The summer school was divided in 4 sessions:

1. Knowledge Representation and Ontologies
2. Language Technologies for the Semantic Web
3. Knowledge Management
4. Semantic Web Services

Each session consisted of a number of lectures (given by tutors plus invited speakers) and practical assignments. Besides this we had a mini-project.

The summer school was opened by the talk of Carole Goble “Introduction to the Semantic Web”. She gave a broad and very well shaped introduction to the Semantic Web and placed all the areas represented during the school. First, she presented the vision of SW by T. Berners-Lee and compared it with the situation we can currently observe. Then the roles of metadata were outlined together with emerged need in languages for describing the metadata and methodologies for building ontologies. The automatic acquisition of annotations was presented as an issue of natural language processing techniques. Then the early applications were presented and Knowledge Management and Web Services areas were introduced.

Suggested cool links:

<http://www.disobey.com/detergent/2002/sw123>

<http://www.netcrucible.com/semantic.html>

Knowledge Representation and Ontologies

Mike Uschold

Ontologies and KR for the Semantic Web

Part 1: Machine-Accessible Meaning

Part 2: OWL: Representing Ontologies on the [Semantic] Web

Part 3: Creating Semantically Integrated Communities on the WWW

In general Part 1 and Part 2 were not new to me. The useful information I got from there was the summarized differences between OWL layers (OWL Lite, OWL DL and OWL Full). As I pointed out in the evaluation (feed-back to the organizers) the information missing there (this was more or less common opinion shared by many participants) was an introduction to Description Logic and Frame Logic. They both are frequently mentioned in the papers about KRL and ontologies, but many usually even do not know the difference between them.

Part 3 contained basically general views on the semantic interoperability. In my opinion nothing really valuable was done yet in this area.

Asuncion Gomez-Perez

Ontological Engineering: Methodologies

The presented methodology can be very helpful during building and evaluating ontologies. It could give some guidelines and reasons for taking decisions while building an ontology.

Ontological Engineering: Ontology Tools

The criteria for selecting an ontology editor were reviewed and types of ontology tools were represented.

Ontology development tools (some of them were new to me):

1. **KAON** from AIFB and FZI at the University of Karlsruhe <http://kaon.semanticweb.org>
2. **OilEd** from University of Manchester <http://oiled.man.ac.uk/>
3. **Ontolingua** from KSL (Stanford University) <http://www-ksl.stanford.edu/>
4. **OntoSaurus** from ISI (USA) <http://www.isi.edu/isd/ontosaurus.html>
5. **OntoEdit** from Karlsruhe University <http://ontoserver.aifb.unikarlsruhe.de/ontoedit/>
6. **Protégé 2000** from SMI (Stanford University) <http://protégé.stanford.edu>
7. **WebOnto** from KMI (Open University) <http://kmi.open.ac.uk/projects/webonto/>
8. **WebODE** from UPM <http://webode.dia.fi.upm.es/webODE/>

I think that some details about these tools might be interesting (to be added here)

Suggested paper: *Methodologies, tools and languages for building ontologies: Where is their meeting point?* O. Corcho et. al.

Language Technologies for the Semantic Web

Paul Buitelaar (DFKI GmbH, Language Technology Lab, DFKI Competence Center Semantic Web, Saarbrücken, Germany)

Language Technology in Ontology Learning and Knowledge Markup

An introduction to automatic linguistic analysis and ontology learning from text on the example of OntoLT plug-in for Protégé 2000.

Fabio Ciravegna (Natural Language Processing Group, Department of Computer Science, Univ. of Sheffield, UK)

Knowledge Markup through Information Extraction

An introduction to the information extraction as an approach to document annotation.

Knowledge Management

Hans Akkermans

Basically the content of the talk was not new to me. Much of the material I knew from the Knowledge Management course at VU.

Semantic Web Services

Terry Payne, University of Southampton

Dissecting DAML-S

John Domingue, The Open University

The UPML Framework and IRS-II

The whole session was completely new to me. I got the general idea about the state of the art in WS. The Terry's talk was very engaging that motivated me to find out more about Web Services. I also got a bit of understanding about how the service should be constructed and published.

Practical sessions (its useful parts):

- We played around with AKT ontology written in OCML;
- I have completely changed my opinion about the usefulness of Protégé 2000 - it has a lot of handy features which I will explore more when I need an ontology editor;
- We were using an ontology editor for annotations with adaptive information extraction engine. The assignment showed that it is indeed quite costly to annotate documents manually,

but in the same time the tool learned fast and after 15 annotated documents was able to make right suggestions.

Mini-project

The general task for the mini-project was to investigate how the AKT ontology can be extended in order to allow semantic search. Then we focused our interest at the Web Services part of the project. We implemented the small service sending queries to Sesame. We published it using IRS-II.