Welcome!

OWL: Experiences and Directions
OWLED 2009
OWLED Series

• OWLED 2005, Galway, Ireland
  – Proposed OWL 1.1 member submission
• OWLED 2006, Athens, GA, USA
  – Decision to initiate a W3C working group
  – First implementations of OWL 1.1 extensions
• OWLED 2007, Innsbruck, Austria
  – Start of the W3C OWL Working Group
• OWLED 2008DC, Washington, USA
• OWLED 2008EU, Karlsruhe, Germany
  – Discussion of extensions beyond OWL 2 (description graphs)
• OWLED 2009, Washington, USA
  – OWL 2 will be a W3C Recommendation (very) soon.
OWLED Series

• **Community** event
  – Users, developers, industry

• **Interaction**

• Think about:
  – Future of OWL session
  – Business Meeting
    • Steering Committee member
    • **OWLED 2010**: Where, when, what and how

• **Scribe** for Future of OWL and Business Meeting
Quick Overview

• Wireless Conference Code: 03DBE7
• Workshop website http://www.webont.org/owled/2009
• Papers http://www.ceur-ws.org/Vol-529/
• Posters and/or demos
• Registration includes breakfast, lunch and dinner (Fairfax Dining Room)
Day 1

Session 1 – **Tools**  
*break*

Session 2 – **Extensions to OWL**  
*lunch*

Session 3 – **Extensions to OWL** (cont’d)  
*break*

Session 4 – **Extensions to OWL** (cont’d)

Session 5 – **The Future of OWL**

**Dinner**
Day 2

Session 1 – **OWL Full and Rules** (and ICs) 09:00-10:30
  
  *break*

Session 2 – **Experiences** 11:00-12:25

  *lunch (only 45 minutes!)*

Session 3 – **Experiences, Queries** and **DB’s** 13:15-14:50
  
  *break*

Session 4 – **Change, Time** and **Visualization** 15:15-16:25

Session 5 – **OWLED Business Meeting** 16:25-17:00
The Future of OWL

Interactive Session
The Future of OWL Interactive Session
“You’re all individuals!
You’re all different!”
1,410 visits came from 55 countries/territories
Session Setup

• Deciding on topics

• Breakout
  – Groups
  – Until approx. 5pm

• Presentation & Discussion
  – Wrap up
Taskforces

• Specifications
  – SPARQL/OWL
  – Rich Annotations
  – OWL/Controlled NL

• Reports
  – DL Safe SWRL Rules
  – Imports management
  – Databasesque features
  – Syntaxes with macros
  – Uncertainty and OWL
  – Education
  – User Requirements

• Requirements collected,
• Resources gathered,
• Progress was made...

See http://wiki.webont.org
“FWIW, I think the taskforce idea failed miserably. Oh well!” – Anonymous

“[…]) people are going to do what they're going to do, pretty independent of what we all say at OWLED…” – Anonymous

“Lie low for a while!” - Anonymous
Beyond OWL 2, OWL 3, OWL 4, ...
The Future of OWL 2
OWL 2

• Expressiveness
  – Role chains
  – Class restrictions
  – Property types
  – Datatypes
• Syntactic sugar
• New syntaxes
  – Functional vs. Abstract Syntax
  – OWL/XML syntax (+GRDDL), Manchester Syntax
• Changes under the hood
  – Structural Specification
  – Well designed Direct and RDF-Based semantics
  – Annotations
• Language Profiles
Maximizing OWL 2 Take-up

• Prospective users, domains
  – Industry
  – Government
  – …
• Tools, Reasoners, Stores
• Showcases
• Outreach material

• … don’t forget the competition!
Playing The Devil’s Advocate

• Where’s the Web in OWL? Where’s the Ontology in OWL?
  – “OL” or “WL”
• OWL DL and OWL Full
  – “OWLDLED”
  – “OWL is a description logic”
• OWL and Rules
  – “Rules are just more intuitive”
  – “People think in rules”
• OWL and Philosophy
  – “OWL is philosophically flawed”
• OWL 2 DL and reasoning
  – “Decidability is hugely overrated”
  – “Consistency does not exist on the web”
  – “OWL reasoners even die on very small knowledge bases”
  – “I only need part of OWL, so why implement a fully OWL compliant reasoner”
• Expressiveness
  – “OWL is not expressive enough for my needs”
  – “OWL is way too expressive, no-one will ever need that”
  – “The only useful addition of OWL to RDF is owl:sameAs”
Example Message
OWL 2 DL and OWL 2 Full
Web Ontology Language

(Open) Issues

Issues

Ontology vs. Rules
Ontology vs. Vocabulary
Aliasing
Ontology vs. Business Rules
Ontology vs. Software Engineering
Ontology vs. Time
Ontology vs. Space
Ontology vs. Align
Ontology vs. Design Patterns
Ontology vs. Meta-level
Ontology vs. F-Logic
Ontology vs. UML/MOF
Ontology vs. Exchange Formats
Ontology vs. OWL FA
Ontology vs. Closed World Reasoning
Ontology vs. Inconsistencies
Ontology vs. Profiles
Ontology vs. Decidability
Ontology vs. Pluggable Extensions
Ontology vs. RDF/XML/FS/MS/OBO
Ontology vs. Linked Data
Ontology vs. Linked (Rich) Annotations
Ontology vs. Importing/Modules
Ontology vs. Full and DL
Ontology vs. Query Languages
Ontology vs. RDFS
Ontology vs. Versioning
Ontology vs. Provenance
Ontology vs. Distributed Reasoning
Ontology vs. Web-scale Reasoning
Ontology vs. Web of Data
Ontology vs. Philosophy
multiple}

Multiple
• Deploying OWL 2
  – Increasing “market share” for OWL 2
    • Government, Industry
  – Software engineering, Business rules
• Connecting OWL 2 to other initiatives
  – LOD, SKOS, RIF
  – Possible profiles (e.g. OWL FA, ELP)
• Ways to extend OWL 2
  – (... OWL 2+, OWL 2.1, OWL 3)
  – Probabilistic, Spatial, Temporal reasoning, Modules
  – Extended DL semantics (e.g. ManMan, role composition)
  – Special syntaxes (SROIQ rules, DL-safe rules, Controlled NL)
• Creating and using OWL 2 ontologies
  – Tools, patterns, explanation, tutorials
  – Repositories
  – Provenance, versions, modules