

# OWL: Experiences and Directions OWLED 2009

Welcome!

# 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
  - Start of taskforces, <http://www.webont.org/owled/taskforces/>
- OWLED 2008DC, Washington, USA
  - Start of Wiki, <http://wiki.webont.org/>
- 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
  - To be put on the **wiki** (<http://wiki.webont.org/>)

# Quick Overview

- Wireless Conference Code: **03DBE7**
- Workshop website  
<http://www.webont.org/owled/2009>
- Schedule  
<http://www.webont.org/owled/2009/schedule.html>
- 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 – <b>Tools</b>	09:15-10:30
<i>break</i>	
Session 2 – <b>Extensions to OWL</b>	11:00-12:30
<i>lunch</i>	
Session 3 – <b>Extensions to OWL (cont'd)</b>	13:30-15:00
<i>break</i>	
Session 4 – <b>Extensions to OWL (cont'd)</b>	15:30-16:00
Session 5 – <b>The Future of OWL</b>	16:00-17:30
<b>Dinner</b>	19:00-21:00

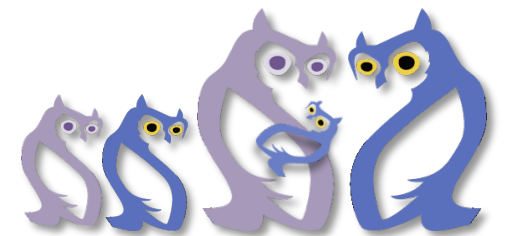
# Day 2

Session 1 – <b>OWL Full and Rules (and ICs)</b>	09:00-10:30
<i>break</i>	
Session 2 – <b>Experiences</b>	11:00-12:25
<i>lunch (only 45 minutes!)</i>	
Session 3 – <b>Experiences, Queries and DB's</b>	13:15-14:50
<i>break</i>	
Session 4 – <b>Change, Time and Visualization</b>	15:15-16:25
Session 5 – <b>OWLED Business Meeting</b>	16:25-17:00



# The Future of OWL

Interactive Session





# The Future of OWL

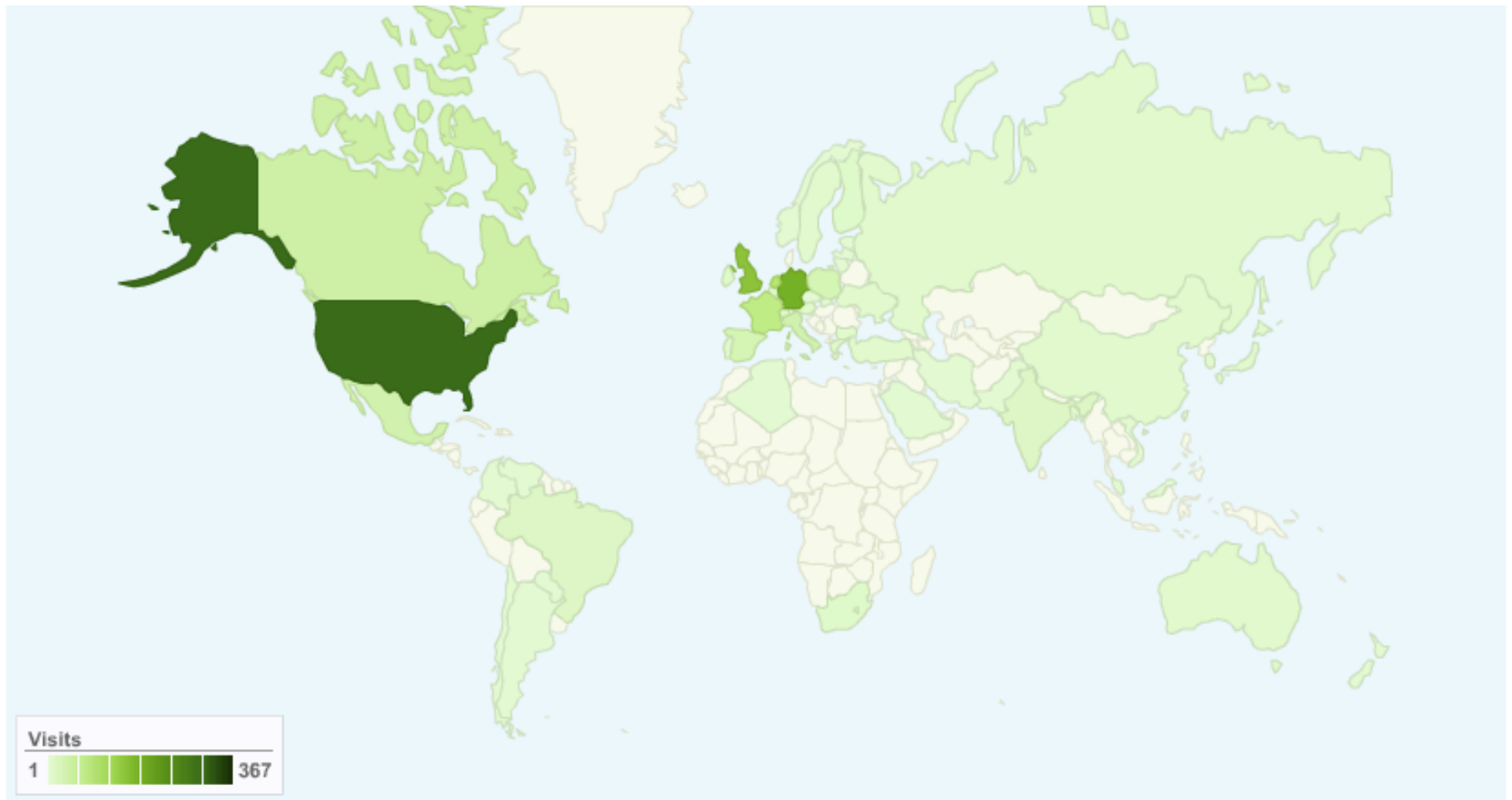
**IS YOU!**

## 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>

# Pseudo-Random Quotes

*“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, ...



Image courtesy of Naturalis



# 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

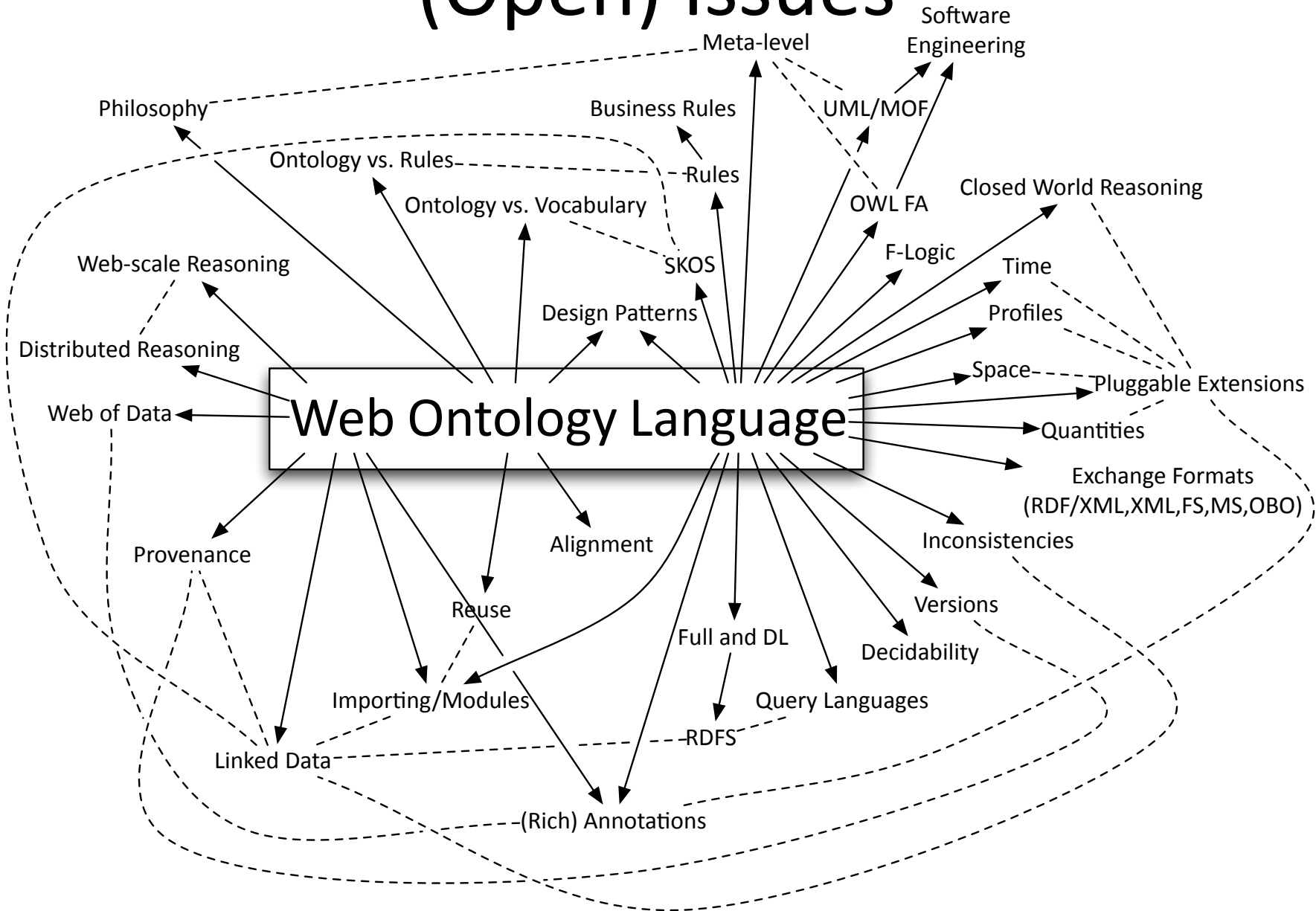
- Where's the Web in OWL? Where's the Ontology in OWL?
  - “OL” or “WL”
- OWL DL and OWL Full
  - “OWLDLED”
  - “OWL is a description logic”
- OWL and Rules
  - “Rules are just more intuitive”
  - “People think in rules”
- OWL and Philosophy
  - “OWL is philosophically flawed”
- OWL 2 DL and reasoning
  - “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



# (Open) Issues



# Just a List

- 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