Workshops and Tutorials
Sunday 27th May

Workshop Chairs: Raphaël Troncy, Alexandre Passant
Tutorial Chairs: Irini Fundulaki, Emanuele Della Valle
Sunday, May 27th

- Creating Knowledge out of Interlinked Data: The LOD2 Tool Stack by Sebastian Tramp, Bert Van Nuffelen & Sören Auer (morning session)

- Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data Manolis Koubarakis, Kostis Kyzirakos & Manos Karpathiotakis (afternoon session)

- The Web of Data for E-Commerce in Brief by Martin Hepp (afternoon session)
Creating Knowledge out of Interlinked Data: The LOD2 Tool Stack

- The LOD2 Stack is an integrated distribution of aligned tools
- The LOD2 Stack supports the complete Linked Data life-cycle
- After attending this tutorial, you are able to create, author, interlink & maintain Linked Data
Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data

- **Why this tutorial:**
  - Lots of geospatial data available on the Web
  - Lots of public data coming out of open government initiatives is geospatial.
  - Lots of this public data is quickly being transformed into linked data and developers have started building applications with them.
Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data

- Basic concepts from Geographical Information Systems
- Relevant Open Geospatial Consortium standards
- Linked geospatial data
  - Data models and query languages
  - Implemented systems
  - Applications
The Web of Data for E-Commerce in Brief

- **GoodRelations ontology** used for applying Semantic Web Technology to *business challenges*.
  - *Conceptual Structures* of the Ontology
  - Tool Chain for *producing* and *consuming* GoodRelations-related data
  - *Long-term vision* of Linked Open Commerce
  - Discuss the challenges for *future research* in the field and *advanced topics* such as access control, and other data management issues
What’s on Today?

- 6 Workshops
  - Morning: Semantic big data processing (SBPM)
  - Morning: Data or knowledge? (Know)
  - Full Day: The RDF and REST love story (LAPIS)
  - Full Day: How to discover resources? (RED)
  - Full Day: Interoperability in Medical Informatics (SIMI)
  - Afternoon: Finance and Economics on the SW (FEOSW)
Semantic BPM workshop - 7 years of evolution

(BIG (STREAMING)) DATA

(Light-weight (real-time)) SEMANTICS

Social/ Open streams

Process data

Business Process

Business Context/ IoT

Complex Event Processing

Filtering/ Retrieval

Predictive business analytics

Semantics for more precise prediction

Semantics for more efficient execution

Semantics for better modeling

2006 2007 2008 2009 2010 2011 2012

Data volume (bytes)

PAST NOW FUTURE

Unstructured external data

Unstructured Internal data

Structured data

Real-time

Predictive

Years Months Days Hours Mins 5 5 Mins Hours Days Months Years

Operational planning

Ad hoc decision support

Process automation

Real-time reporting

Traditional reporting

Big data

Zetta

Exa

Peta

Tera

Petabyte

Exabyte

Zettabyte

Data growth

20TB/h
Learn: What is challenging for the Semantic Big Data Processing

Understand: How to extract and use semantics in informal business processes

See: How Smartphone is sending semantic events about missing calls

Try: How semantics supports processing in an AR (Augmented Reality) system

Discuss: Why is Business Process Management (still) one of the most promising application area for semantic technologies
1982
"We are drowning in data, but starving for knowledge"
John Naisbitt

2001
„Properly designed, the Semantic Web can assist the evolution of human knowledge as a whole.“
Tim Berners-Lee, James Hendler, and Ora Lassilla

2012
17 paper titles with "data"
1 paper title with "knowledge"
(ESWC Conference Program)
Know@LOD 2012: Come to where the knowledge is.

Room Thalia, 9:30 – 13:00
Did you notice?

Services are in a relationship with The Semantic Web and it's complicated.

We did.
And that's why we need you.
Join the LAPIS workshop to discuss why you hate services and the Semantic Web...

...or why you'd love to see them work together.
1st International Workshop on Finance and Economics on the Semantic Web (FEOSW): Yet Another Margin Call
Financial Information: Crystal Clear?

![Enron Share Price Chart]

Source: Thomson Financial Datastream
Semantic Web and Financial Information

- Linked Data can provide a reliable mechanism to share and spread Financial Information under a number of conventions.
- Necessary standardization of Financial Information for shareholders and stakeholders.
Yet another Margin Call?
## What and Where

### Tutorials & Workshops: Sunday, May 27th, 2012

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<td><strong>9:00 - 9:30</strong></td>
<td>Plenary: Highlights of the Day</td>
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<td><strong>16:00 - 17:30</strong></td>
<td>Tutorial 2: The Web of Data for E-Commerce in Brief - Good Relations</td>
<td>Tutorial 3: Data, Query Languages, Implementations Systems and Applications of Linked Geospatial Data</td>
<td>Workshop 6 FEDSW: Finance and Economics on the Semantic Web</td>
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