Semantic Web Technologies Organization

Heiko Paulheim
Hello

• Prof. Dr. Heiko Paulheim
• Assistant Professor
• Research Interests:
  – Semantic Web and Linked Open Data
  – Data Mining with Linked Open Data
  – Ontology Matching
  – Data Quality and Data Cleaning
  – Outlier Detection
• Room: B6 – C1.09
• Consultation: by appointment
• Heiko will teach the lectures
Hello

- André Melo
- Researcher
- Research Interests:
  - Semantic Web Mining
  - Hierarchical Classification
  - Frequent Itemset Mining
- Room: B6 – C1.06
- Consultation: by appointment
- André will teach the exercises
Introduction and Course Outline

• Administration

• Introduction
  – Vision of the Semantic Web
  – Building blocks of the Semantic Web
  – Technical foundations
Course Organization

• Lecture
  – Semantic Web standards and languages
  – Programming for the semantic web
  – Creating semantic web data
• Exercise
  – Understand semantic web principles, play with real data
• Project Work
  – teams of three students build a Semantic Web application
  – teams may choose their own data sets and tasks
    (in addition, we will propose some pointers for ideas)
  – write summary about project, present project results
• Final exam
  – 60 % written exam
  – 40 % project work
Waiting List

• Please register via ILIAS
  – if you've not yet done so
• This year, there is a waiting list
• Maximum participants: 30
• We apply a three-strikes-out rule
  – People not showing up in the first three lectures are assumed not to take part
  – We will reassign places after three weeks
• If you know you will not be attending (or just attending to listen)
  – please let us know
Course Contents and Schedule

- Today: Introduction
- 12.09.17: Knowledge Representation with RDF
- 19.09.17: Simple ontologies with RDF Schema
- 26.09.17: Linked Open Data, Programming the Semantic Web
- 03.10.17: Public Holiday
- 10.10.17: SPARQL
- 17.10.17: Complex ontologies with OWL, Intro to student projects
- 24.10.17: Work on project proposals
- 31.10.17: Public Holiday
- 07.11.17: Reasoning with complex ontologies
- 15.11.17: Ontology engineering, top level ontologies
- 22.11.17 – 29.11.17: Project work, no lectures, no exercises
- 05.12.17: Final project presentation
Deadlines

• Submission of project work proposal
  – Friday, October 27th 23:59

• Submission of final project work report
  – Friday, December 1st, 23:59
Course Organization

• Lecture Webpage: Slides, Announcements, Web Links
  – hint: look at version tags!

• Additional Material

• Time and Location
  – Lecture: Tuesday, 13.45 - 15.15, Room B6 A1.01
  – Exercise: Friday, 12.00 - 13.30, Room B6 A2.04 (starting next week!)
Further Reading and Software

• Follow the links on the website
  – Most material is available online

• Programming environment
  – Eclipse (Java)
  – JENA framework (introduction will be given in the lecture)

• Ontology engineering environment
  – Protégé
  – http://protege.stanford.edu/
Warning

• This lecture contains
  – cartoons
  – interactive teaching elements
  – Java code
  – some weird philosophy

• ...have fun! :-)

08/30/17 Heiko Paulheim
Questions?