WESO Research Group

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WESO = **WE**b **S**emantics **O**viedo)

www.weso.es

About WESO

Created in 2004

Application of Semantic Web technlogies

4 associate professors ≈ 6 students (Phd + Master)

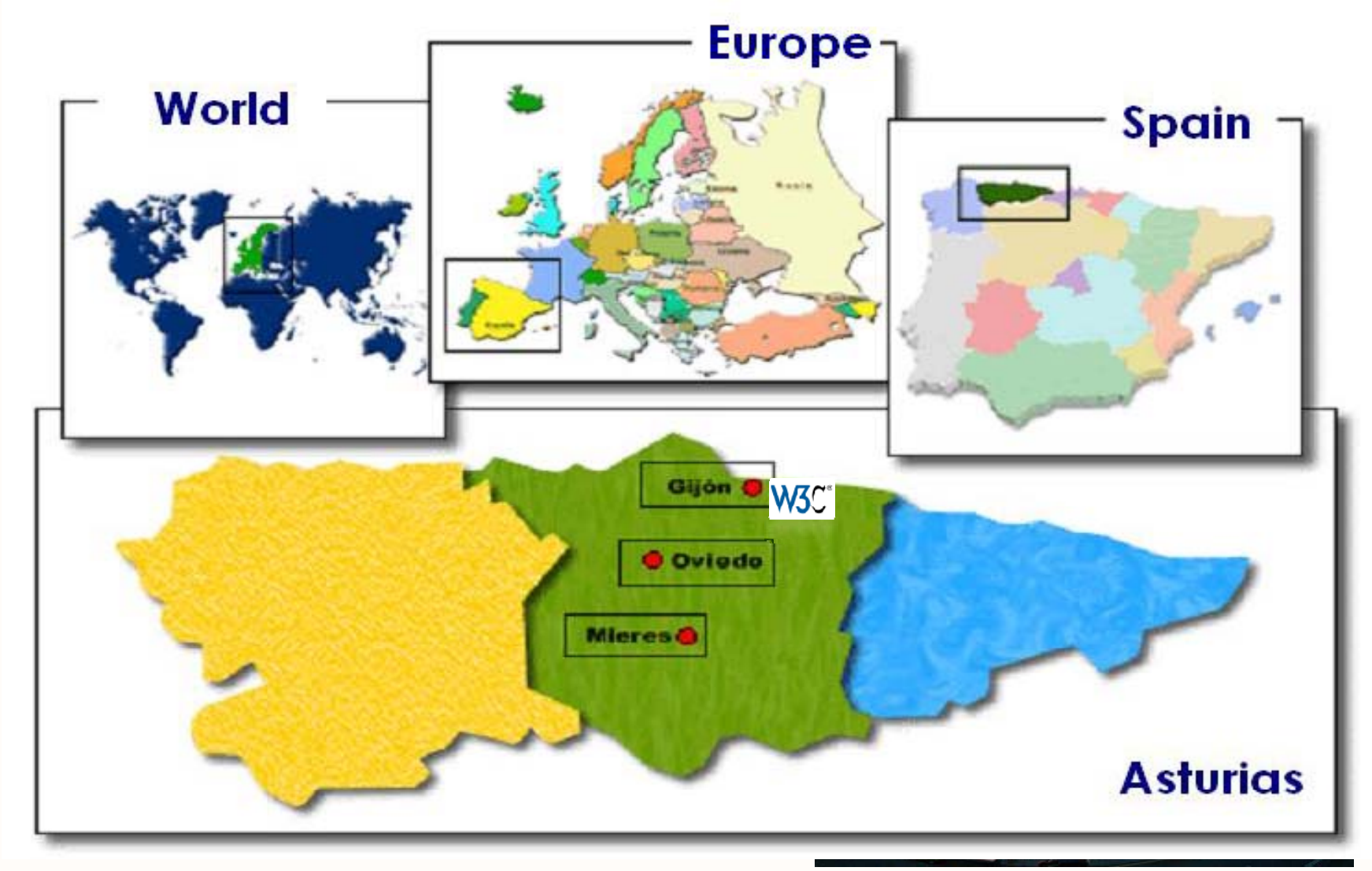
Address:

University of Oviedo

Dept. Computer Science

Oviedo, Spain

¿Where is Oviedo?



Some relevant projects

BOPA

BCN

MOLDEAS

ACOTA

ORBITA

WebIndex

ROCAS

BOPA

- Official Gazette Principality of Asturias - 2004
  - Convert daily published laws in Asturias to RDF
  - Semantic search engine
    - Using spreading activation to expand search query
    - Software: OntoSpread
  - Challenges detected:
    - Visualization tool
    - Ontology development

BCN

National Library of Congress, Chile

- History of the Law → Linked Open Data
  - ≈ 300.000 norms and their relationships
  - First stage: Only metadata
    - Title, important dates, types, relationships
    - We exclude body text (articles, chapters, etc.)
- Entity reconciliation
  - Match strings to URIs
  - Entities:
    - Person names,
    - Organizations (political parties,
    - Location names
    - Charges
    - ....
- Semantic search engine
  - In development

http://datos.bcn.cl

MOLDEAS

Company: EuroAlert (Gateway)

- Public procurement notices
  - Catalog of product schema clasifications (1842053 triples)
    - http://thedatahub.org/dataset/pscs-catalogue
  - Common Procurement vocabulary (803311 triples)
    - http://thedatahub.org/dataset/cpv-2008
- Multilingual Linked data
  - 23 EU languages

http://www.weso.es/moldeas/

MOLDEAS = Methods **O**n **L**inked **D**ata for **E**-procurement **A**pplying **S**emantics

ACOTA

Treelogic (technological research product)

Tag suggestion + Ontology feedback

Tag management based on ontology concepts

Ontology feedback

Domain: Technological watching

http://code.google.com/p/acota

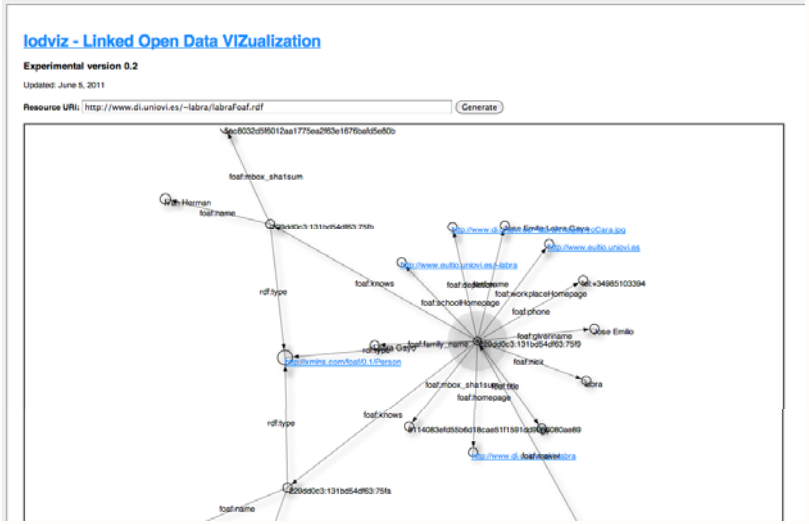
ORBITA

Company: Treelogic

Linked data visualization

Entity reconciliation

Based on previous work: LODViz



WebIndex

Partner: Web Foundation

Measure the impact of the web in the world

61 countries, 83 indicators

Our work:

- Convert Statistical data to linked data
- Input: Excel spreadsheets
- Output: Linked data (RDF Data cube)

http://thewebindex.org
http://data.webfoundation.org/

ROCAS

GOAL: Algorithms to query large semantic data

Challenge: Semantic search + inference + cloud

Intuition: SPARQL queries + backward reasoning

In development

- MapReduce

ROCAS = Reasoning **O**n the **C**loud by **A**pplying **S**emantics

Personal background

On a sabbatical (Sep 2012-Feb 2013)

Research Interests:

- Linked Open Data
  - Multilingual Linked Open Data
- RDF + SPARQL + Inference engines
  - Backward reasoning (Prolog-like)
- Cloud Computing (MapReduce)
  - MapReduce, Parallel algorithms over graphs
- Scala - Functional programming
  - Phd Thesis: Monads, generic programming, modularity

Research Interests