

# Entity Extraction with AllegroGraph



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## **From News Article to**

- People (has-people)
  - And their roles
- Places (has-places)
  - And the county, state, country they are in
- Organizations (has-organizations)
  - Government departments, company names, etc.
- Main Categories (has-domains)
  - Politics, sports, ministries, energy, finance, economics, ecology, oil, mining industry, etc..
- Main Concepts (has-main-groups)
  - Other important nouns and phrases in a text



## Demo

- Looking at the main properties of a text
- Full text indexing
- Simple SPARQL and prolog queries
- Finding related articles
- Finding connections between two concepts



## W3C Semantic Web Activity

The **Semantic Web** provides a common framework that allows **data** to be shared and reused across application, enterprise, and community boundaries. It is a collaborative effort led by W3C with participation from a large number of researchers and industrial partners. It is based on the Resource Description Framework (<u>RDF</u>). See also the separate <u>FAQ</u> for further information.

## Introduction

The Semantic Web is a web of data. There is lots of data we all use every day, and it is not part of the web. I can see my bank statements on the web, and my photographs, and I can see my appointments in a calendar. But can I see my photos in a calendar to see what I was doing when I took them? Can I see bank statement lines in a calendar?

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Why not? Because we don't have a web of data. Because data is controlled by applications, and each application keeps it to itself.

The Semantic Web is about two things. It is about common formats for integration and combination of data drawn from diverse sources, where on the original Web mainly concentrated on the interchange of documents. It is also about language for recording how the data relates to real world objects. That allows a person, or a machine, to start off in one database, and then move through an unending set of databases which are connected not by wires but by being about the same thing.

## Further links

On this page: <u>Specifications</u> | <u>Publications</u> | <u>Presentations</u> | <u>Current Groups</u> | <u>Past Groups</u>

Latest news: See the activity weblog

Latest "layercake" diagram: in <u>SVG</u>, <u>PNG</u>, and <u>small sized (300×315) PNG</u> formats.

Active Groups: <u>Semantic Web Coordination</u> <u>Group</u> | <u>Rules Interchange Format Working</u> <u>Group</u> | <u>OWL Working Group</u> | <u>SPARQL Working</u> <u>Group</u> | <u>Semantic Web Deployment Working</u> <u>Group</u> | <u>POWDER Working Group</u> | <u>Health Care</u> <u>and Life Sciences Interest Group</u> | <u>Semantic</u> <u>Web Interest Group</u>

Past Groups: Rost Practices and Deployment

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# So we embedded the news articles in the web of data

- DBpedia
  - Rich in data
  - Very light ontologies
- Open Cyc
  - Very rich ontologies
  - Light on instances
- Geoname.org
  - ~~ 7,000,000 points of interest on earth
  - From populated areas to mountain tops to post offices
  - With latitudes and longitudes



## Soon to come

- Freebase
  - Offering unique identifiers for every thing known to man
  - Standardized vocabularies
- FOAF
- Census database
- Etc...



## Demo

- Linking to DBPedia, Cyc, Geonames
- Proximity search
  - Where did something happen
- Some light reasoning





# Please contact us to discuss your entity extraction and semantic web plans info@franz.com