

From linguistic predicate-arguments to Linked Data and ontologies

Extracting n-ary relations

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Tutorial Structure

- **9:00-9:20** Part I - Introduction
- **9:20-10:30** Part II - From text to semantic structures
- **10:30-11:00** Coffee break
- **11:00-12:30** Part III - From linguistic representations to RDF/OWL
- **12:30-14:00** Lunch break
- **14:00-14:45** Part IV – Example applications & Evaluation methods
- **14:45-15:30** Hands-on session (I)
- **15:30-16:00** Coffee break
- **16:00-17:30** Hands-on session (II)

Hands-on sessions

Objectives

- Get familiar with representative NLP tools & resources
 - syntactic parsing, SRL, semantic parsing
 - VerbNet, FrameNet
- Compare approaches for generating ontological representations from linguistic structures
 - modelling choices
 - implications to subsequent processing

Example sentences to try out

- The dog wants to chase the mouse.
- The mouse is chased by the dog.
- John cured the cat with an injection/with his wife.
- Do new and ambitious companies get funded easily?
- The son of my neighbour travelled from Athens to Heraklion because of the conference.
- John has been wanting to increase his raw income by 10% but he has not been successful until today.
- The cat that I saw yesterday was chased by two dogs in the park this morning.
- ...

More examples to look at...

– John eats **green apples**

- Syntactic head of argument is “apples”.
- Semantic argument of “eats” is “apples” too? Or is it “green apples”?

– John eats **in a restaurant**

- Syntactic head of modifier is “in”.
- What are the semantic arguments of “eats”?
 - Does “in” indicate the role of the argument?
 - Or is “in” a predicate with arguments “eats” and “restaurant”?

More examples to look at...

- We have long discussions with Peter
 - Is “we” an argument of “discussions” or “have”?
- The apple is red and the train was fast
 - What are the predicates of this sentence?
- Low carbon technologies
 - Is there a predicate in this nominal phrase?