

## Intelligent Systems

# Exercise sheet 14

## Semantic Web and Services

### Exercise 1 (10 points)

Take the following natural language sentences:

- "The ICT Technology Park is located at the Technikerstrasse 21a, 6020, Innsbruck, Austria".
  - "The web site <http://www.w3.org/> hosts the homepage for the W3C Semantic Web activity".
  - "John claims that Mary is married to Bill".
  -
- (a) Write down sentences 1 & 2 in RDF triple notation without blank nodes, using at least 3 triples for each sentence.
- (b) Take your solution of exercise 1a and write them down as a directed labeled graph where resources are ellipses, literals are boxes and properties are arrows.
- (c) Write down sentence 3 as RDF (either as triples or as a graph). Use reification.

### Exercise 2 (10 points)

Create a small RDFS ontology (in triple or graph notation) about Persons and Universities. Create at least 3 classes and at least 2 properties; use at least 2 subClassOf statements.