Teaching and Research in Artificial Intelligence
Department of Informatics and Telecommunications
University of Athens

INRIA Sophia Antipolis, 14 February 2012

National and Kapodistrian
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Presenter: Manolis Koubarakis

Outline

- Faculty

- Teaching

- Current research highlights

- European projects

- Possible collaborations with INRIA

Faculty (Computer Systems Division)

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- **Izambo Karali** (Assistant Professor)

  - **knowledge representation, semantic web, logic programming**

- **Manolis Koubarakis** (Professor)

  - **knowledge representation, semantic web, linked data, constraint satisfaction, databases**, distributed systems, information retrieval, requirements modeling

- **Takis Stamatopoulos** (Assistant Professor)

  - **search, constraint satisfaction, operations research, logic programming**, knowledge representation, natural language processing, machine learning

- Other faculty members also study/use AI techniques in their area (Hadjiefthymiades, Gunopulos, Manolakos, Achlioptas, Koutsoupias, Theodoridis)

Teaching - Undergraduate

- **Artificial Intelligence** (1st semester, 3rd year)

  – Topics: introduction, rational agents, search, constraint satisfaction, knowledge representation

- **Artificial Intelligence II** (2nd semester, 3rd year)

  – Topics: planning, advanced knowledge representation, ontologies, uncertainty, probabilistic reasoning, applications

- **Logic programming** (2nd semester, 3rd year)

  – Topics: Prolog, logic programming, constraint logic programming.

Russell
Norvig

Artificial Intelligence
A Modern Approach
Third Edition

Teaching - Postgraduate
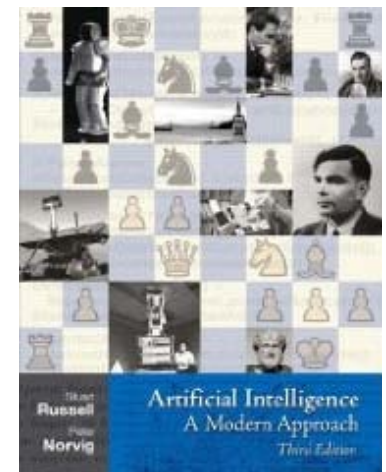
- **Advanced Artificial Intelligence**
  - Topics: planning, machine learning, natural language processing, constraint satisfaction

- **Knowledge Technologies**
  - Topics: semantic web and linked data, RDF, SPARQL, description logics, OWL 2, rules, ontology engineering, applications.

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- **Semantic web and linked data**

    - Scalable management of linked data in P2P and cloud-based systems

    - Development of P2P system Atlas (http://atlas.di.uoa.gr/)

    - Applications: distributed digital libraries, web service registries

    - 2 recent Ph.D. theses

        - Zoi Kaoudi (currently at INRIA/LRI Leo team)

        - Iris Miliaraki (currently at MPI Saarbrucken)

- **Linked geospatial data**
  - stRDF/stSPARQL: extensions of RDF and SPARQL with geospatial data that change over time
  - Development of system Strabon (http://www.strabon.di.uoa.gr/)
  - Applications: open government data, satellite image annotation, sensor web registries etc.
  - 2 Ph.D. theses (expected) and 4 M.Sc. theses (some completed)

- **Constraint satisfaction**
    - Temporal and spatial constraints
    - Constraint logic programming
    - Constraint satisfaction for operations research problems
    - Development of the Naxos constraint solver (http://cgi.di.uoa.gr/~pothitos/naxos/)
    - 1 Ph.D. thesis (expected)

European Projects

European Projects (cont'd)

Possible collaborations with INRIA

- INRIA Sophia Antipolis Edelweiss team

- INRIA/LRI Leo team (Ioanna Manolescu)

- INRIA Grenoble Rhône-Alpes Exmo team (Jerome Euzenat)

- INRIA-Rennes Campus ASAP team (Anne-Marie Kermarrec)

Questions?