MPI:
Information Processing and Modeling Research Group

UNIVERSITAT POLITÈCNICA DE CATALUNYA

General Information

- 16 researchers: 12 PhDs, 4 PhD Students

- More than 20 years of experience in research

- Research in software engineering, databases, information systems, service engineering.

- Publications in the most relevant journals and conferences

- Internationally recognized research group

- Grup de Recerca Consolidat de la Generalitat de Catalunya

- Funded mainly by the Ministerio de Ciencia e Innovación (Spanish Ministry of Science and Innovation)

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Main Research Lines (I)

- **Conceptual modeling of information systems**
  - *Appropriate definition of the conceptual schema (Ontology)*
  - *Conceptual modeling by means of ontologies*

- **Conceptual modeling for specific domains**
  - *Improving the usability of HL7 information models by automatic filtering*
  - *Conceptual modeling of services*

- **Test-driven development of conceptual schemas**

Main Research Lines (II)

- **Validation of conceptual schemas** (Semantic Reasoning)
  - *Validation of relational database schemas*
  - *Validation of UML schemas*
  - *Validation of mappings between data schemas*

- **Data Warehousing** (Business Intelligence)
  - *Requirement-Driven Generation of ETL and Multidimensional Conceptual Designs*
  - *Mappings between RDB schemas and semantic web ontologies*

- **Information Integration**

International Collaborations

- Europe
  - *Dr. Diego Calvanese (Free University of Bolzano, Italy)*
  - *Dr. Patrick Marcel (Université Tours, France)*
  - *Dr. Paolo Atzeni (Universita' di Roma Tre, Italy)*
  - *Dr. Stefano Ceri (Politecnico di Milano, Italy)*
  - *Dr. Gianni Mecca (Univ. della Basilicata, Italy)*

- North America
  - *Dr. Veda Storey (Georgia State University, USA)*
  - *Dr. Alkis Simitsis (HP Labs, USA)*
  - *Dr. Phil Bernstein (Microsoft Research, USA)*

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Industrial R&D Relationships

- VICO Consulting

- Tenea Tecnologías

- ISOCO

- Microsoft Ibérica and Microsoft Research

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