DAMA-UPC. DATA MANAGEMENT

UNIVERSITAT POLITÈCNICA DE CATALUNYA

Indrustry/Academic partnership: an experience at DAMA-UPC
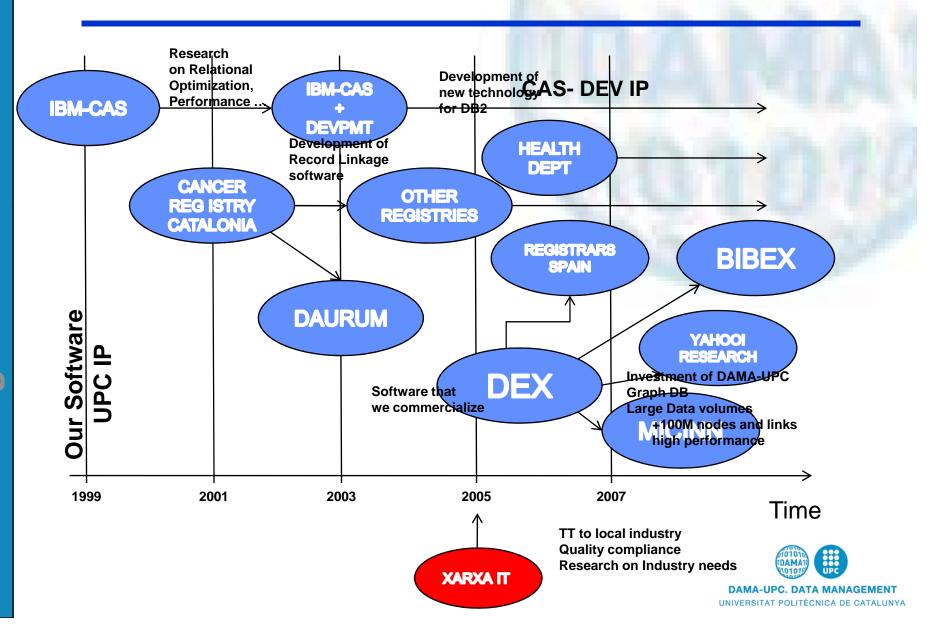
Josep-L. Larriba-Pey

Expertise

- UPC, Technical University of Catalunya, Barcelona.

- Formed by 25 members, 3 professors (2 CS, 1 statistitian), 5 students (MSc/PhD), 12 developers (5 are doing MSc/PhD), 5 support students.

- Research/development topics:

  - **Graph Databases:** DEX: Large graphs, high performance. Optimization, performance, distributed, benchmarking… MICINN, ANCERT, ICO, Yahoo! Research.

  - **Relational DBMSs:** Query optimization, query execution, join, sort. IBM.

  - **Distributed question answering:** Search, placement, load balancing. Yahoo! Research.

  - **Stream processing:** Strategies to manage streamed data in an efficient way. IBM.

  - **Data anonymization:** How to preserve the data statistics without compromising the disclosure risk.

  - **Record Linkage:** large data sets, performance. Cancer Regs, ACA, Aj. Sabadell, DAMM.

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Short history of DAMA-UPC related to industry

Data Management at UPC

Our Software

UPC IP

Research on Relational Optimization, Performance ...

Development of new technology for DB2

CAS- DEV IP

IBM-CAS

IBM-CAS + DEVPMT

Development of Record Linkage software

CANCER REGISTRY CATALONIA

OTHER REGISTRIES

HEALTH DEPT

DAURUM

REGISTRARS SPAIN

BIBEX

Software that we commercialize

DEX

YAHOO! RESEARCH

Investment of DAMA-UPC Graph DB Large Data volumes +100M nodes and links high performance

MICINN

1999   2001   2003   2005   2007

Time

XARXA IT

TT to local industry
Quality compliance
Research on Industry needs

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Uniqueness

- Give support to IT industry, both from Catalunya and from abroad.

- Do research that is close to the Industry needs (CAS, Yahoo! Research, local companies)

- Any research project can become a UPC product.

- Preserve our Technology, IP, production software → research.

- WIN-WIN deal!! The most important issue!!

More important aspects of collaboration

- Research: the purpose of CAS, Yahoo! Research.

- Recruitment: we have provided 1 PhD + ~10 people with a good knowledge of the technology of IBM to different companies in the market.

- Skills: our skills are interesting because we know the industry part plus the academic part. Skills remain in Spain (industry and University) or travel abroad (IBM).

- Public funds: when the company is local.

Questions

- Do you think that our relation with industry is adequate for a University?

- In a sense, we have a small company within our University, but we mainly provide technology. This is the purpose of Xarxa IT. Is this correct from your point of view?

- We are thinking to create a side company for the pure non-technology developments of DAMA-UPC. This poses a different model. Is this a model to follow?

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