Language Intelligence & Information Retrieval (LIIR)

Research group of the Department of Computer Science, KU Leuven

Human Computer Interaction section

http://www.cs.kuleuven.be/groups/liir/

Research Team

Academic Staff

- Prof. Dr. Marie-Francine Moens

Postdoctoral Researchers
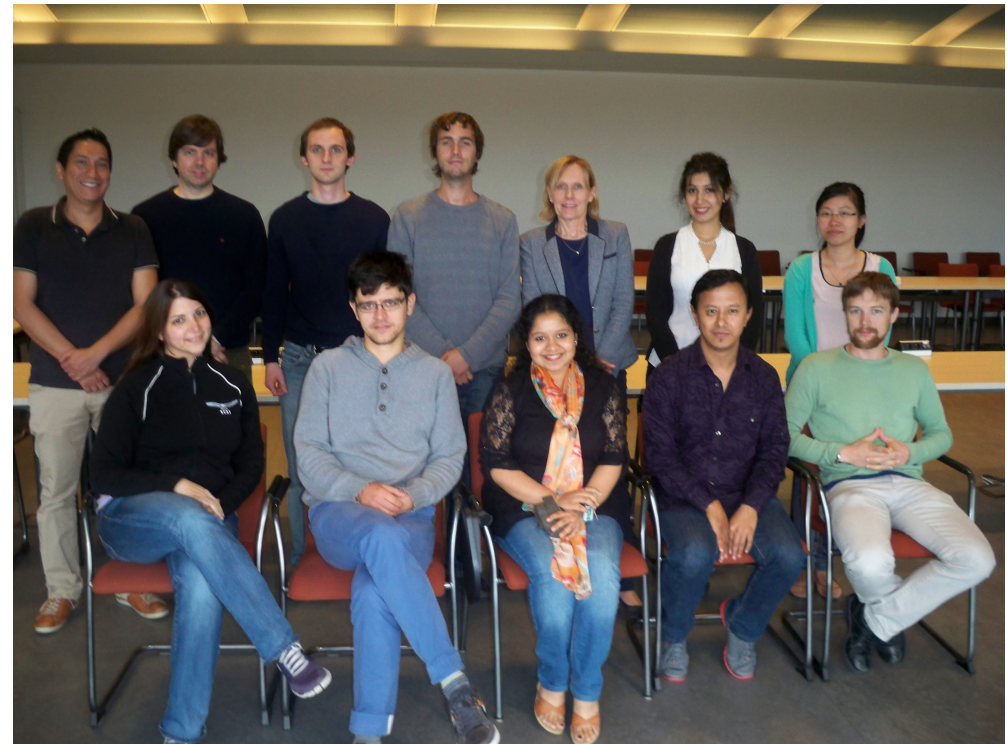
- Dr. Ivan Vulic
- Dr. Jan De Belder
- Dr. Juan Carlos Gomez
- Dr. Oswaldo Ludwig
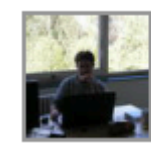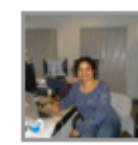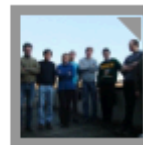- Dr. Parisa Kordjamshidi

Research Assistants and PhD Students

- Aparna Nurani Venkitasubramanian
- Denis Lukovnikov
- Geert Heyman
- Golnoosh Farnadi
- Niraj Shrestha
- Quynh Do Thi Ngoc
- Susana Zoghbi
- Thomas Provoost

Guest

- Prof. Dr. Steven Bethard

LIIR research team

Reseach of LIIR

- Automatic reading of text and translation to knowledge (= machine reading)

- Search engines, information retrieval and question-answering systems

- Cross-modal and cross-lingual processing of data

- Data fusion and inference from data

Unstructured (big) data

- Applications: **World Wide Web, business intelligence, social networks, multimedia, bioinformatics, legal informatics, security,** …

Expertise of LIIR

Since 2007:

- Participation in 13 international and European projects, 3 EU COST actions, 1 EU infrastructure project and 11 large national projects (SBO-IWT, FWO, GOA, …)

Examples of research questions

- How can we recognize patterns in data with a minimum of human input and supervision?

- How can we recognize structured related patterns?

- How can we deal with uncertain, incomplete and noisy information and infer information?

- How can we fuse heterogeneous information (e.g., textual and visual data, information in different languages) in order to improve the recognitions or the search for information?

- …

Machine understanding of natural language

Text source

"Admission to the hospital might seem scary, but it does not have to be. When you arrive you will be met by a friendly admissions nurse who knows your doctor well..."

MUSE

translation of stories for children and patient guidelines into a virtual reality
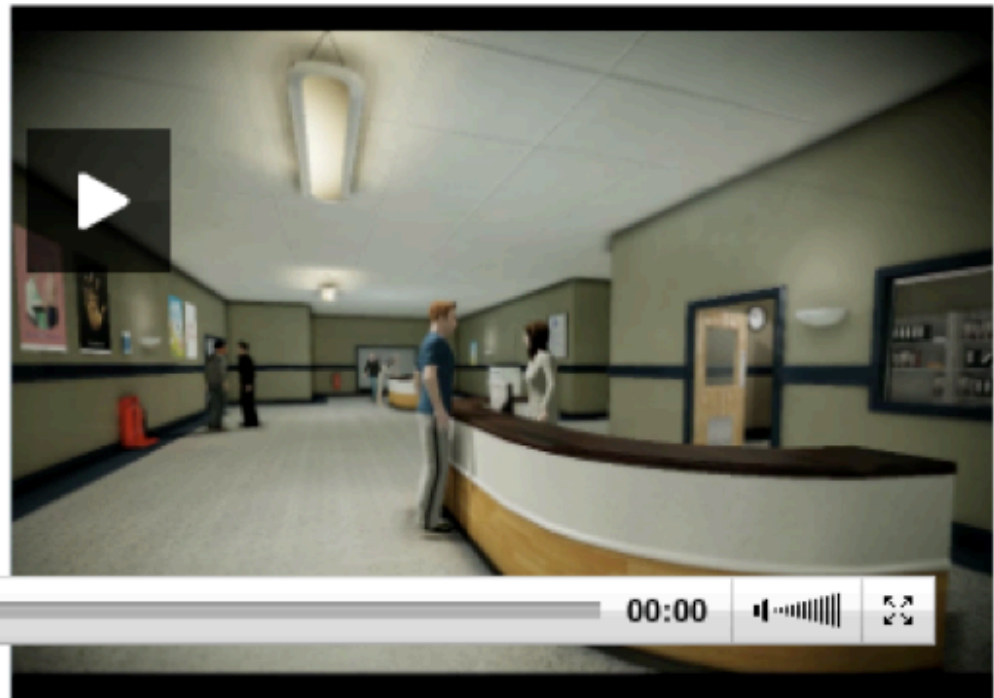
Machine reading of biomedical texts

as tools for researchers and patent offices:
leveraging available textual resources
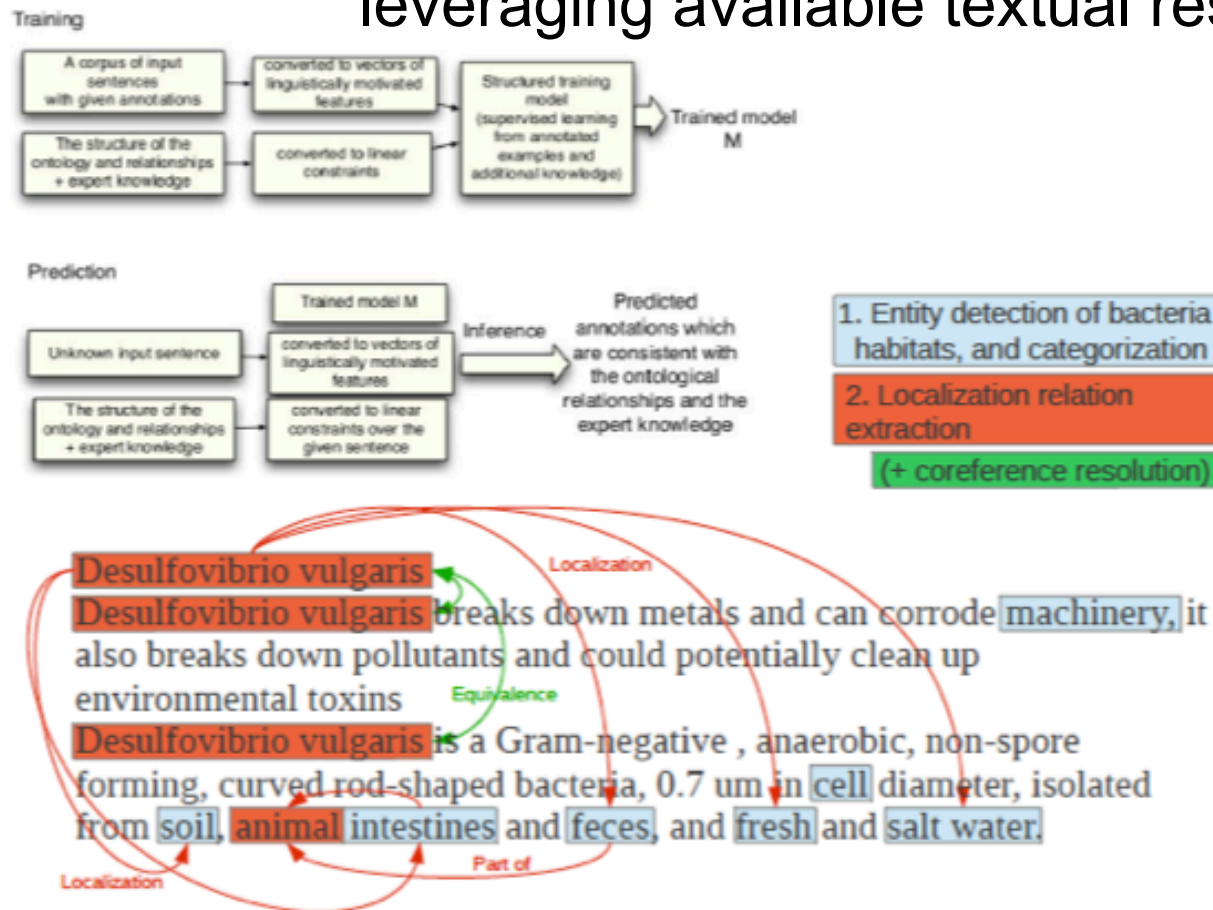
Mining of social media
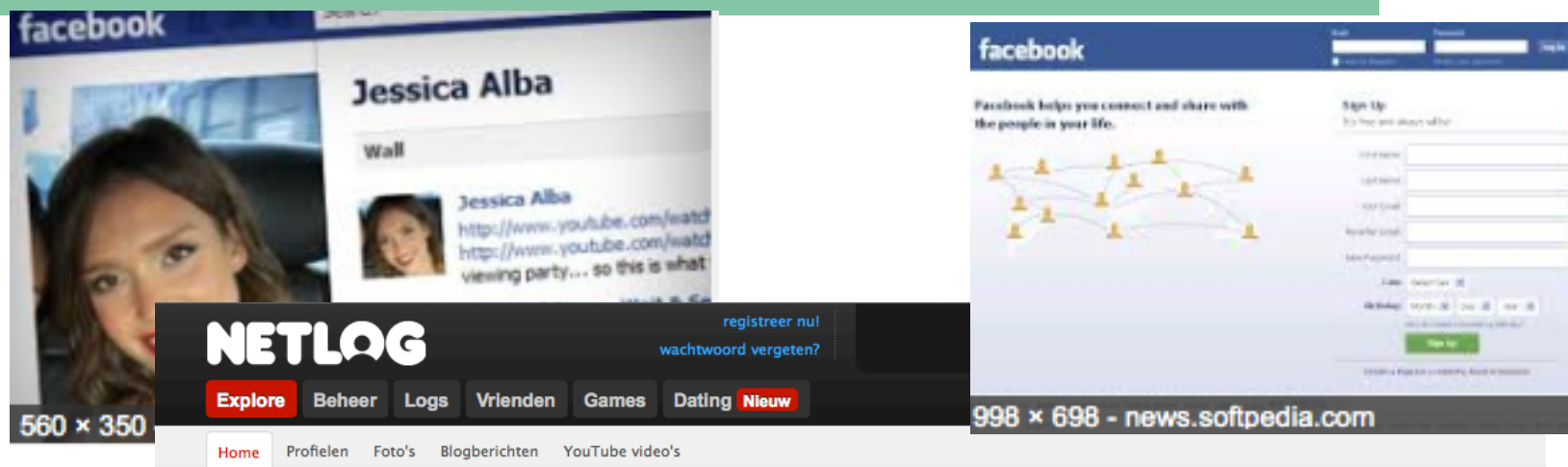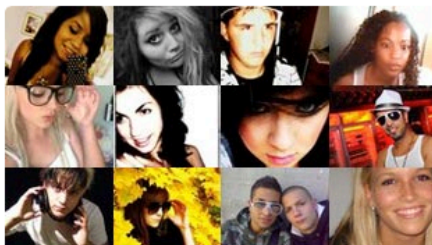
Linking the Web across languages and idioms
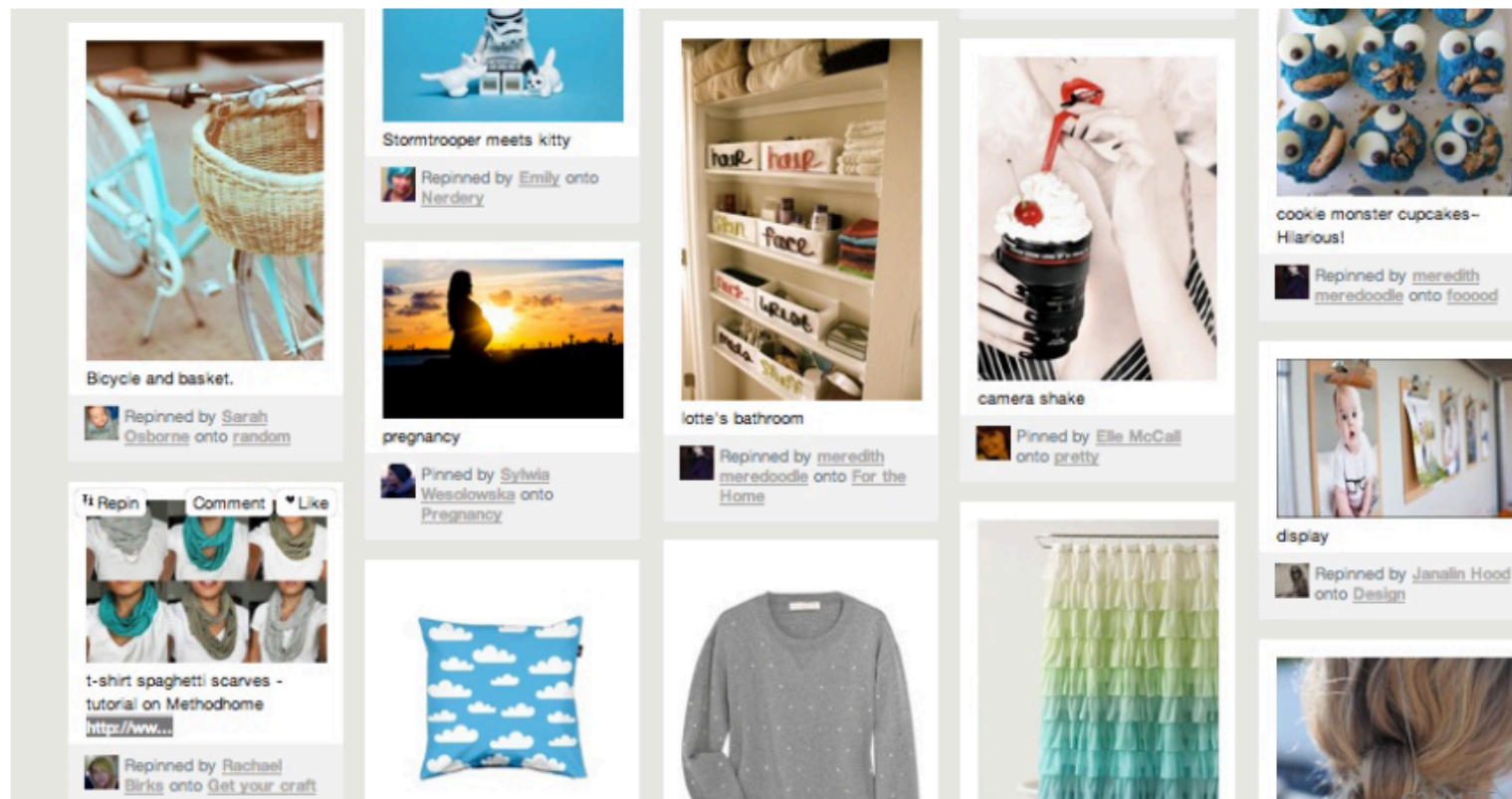
Cross-modal mining and search

of textual and visual broadcast data