BabelNet and Beyond: Two ERC Projects

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Multilingual Natural Language Processing in Rome

Team

- Prof. Roberto Navigli
  - Principal investigator of several projects, including:
    - ERC Starting Grant (MultiJEDI, 2011-2016, 1.3M €)
    - ERC Consolidator Grant (MOUSSE, 2017-2022, 1.5M €)
    - Google Focused Research Award (co-PI, 300k €)

- 15 young researchers (Ph.D. students, post-docs)

Research fields

- Computational lexical semantics
- Semantic parsing
- Text understanding
- Multilinguality

2 ERC projects in NLP led by prof. Roberto Navigli, Sapienza

erc MultiJEDI (2011-16)

**(1)** **Large** multilingual repository of **concepts**: BabelNet

erc MOUSSE (2017-22)

(1) **Huge** repository of novel **structured universal semantic representations**
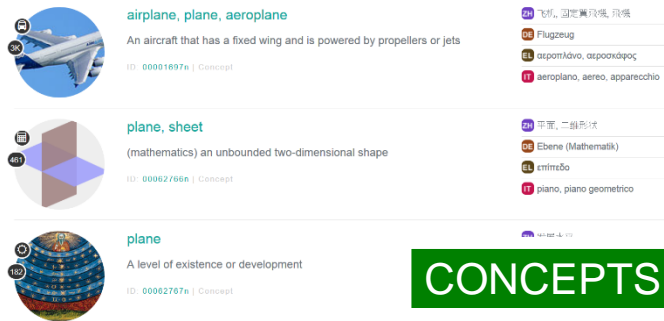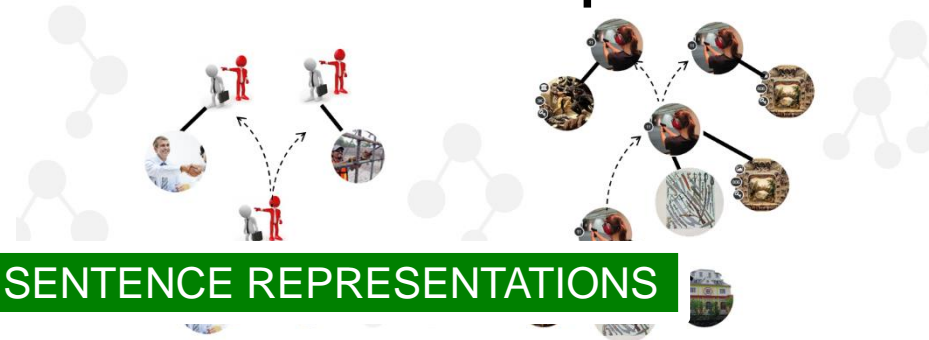
CONCEPTS ➜ SENTENCE REPRESENTATIONS

(2) Disambiguation outputs a **bag of concepts**

(2) We are constructing a **language-independent structured semantic representation** of the sentence

The employer fired the programmers from the software company .
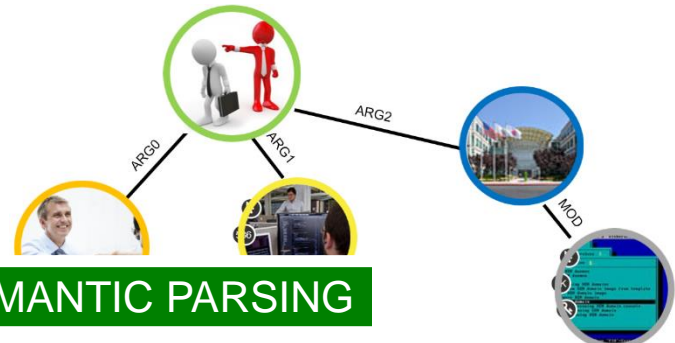
DISAMBIGUATION ➜ SEMANTIC PARSING

Multilingual Machine Reading at Sapienza, Rome

- Why? Machines can **"read" and analyze the entire Web**
- Answer all kinds of questions, summarize, translate, etc.

Key goal: deriving meaning from natural language by **overcoming its inherent complexities**

The future of BabelNet and related technologies

- We created a Sapienza spinoff, Babelscape, with the **key objective** of making BabelNet and multilingual NLP technologies sustainable

- Income is reinvested in BabelNet and subsequent projects

- Currently working for the EU and big multinational companies

Babelscape
— Multilinguality at your fingertips

semantica

翻訳する

conocimiento

agregar

multilingual

해석하기

estrarre

Interconnect information in your texts across languages
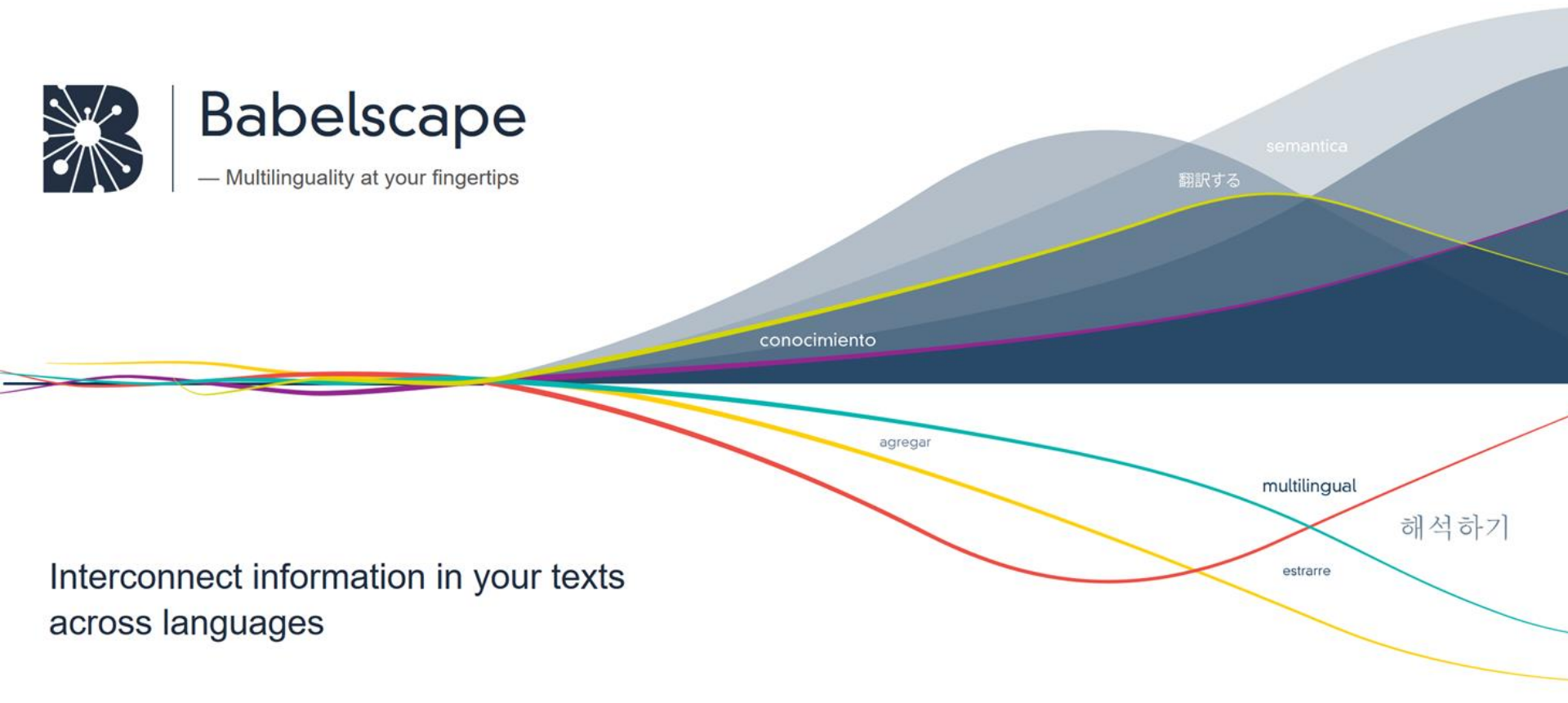
Some suggestions for an ERC project

- Work on your CV
  - Publications in top conferences and journals
  - Visibility (organization of workshops, tutorials, area chairs, etc.)
- Be ambitious, be brave
  - Novel, groundbreaking research
- Be one of the few who can propose that project
- Be sure to
- Prepare your presentation carefully