# (Technical Aspects of) Harvesting Data from Social Network Sites

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February 14th, 2013

EURAC research

http://ec.europa.eu/research/researchersnight

"The Researchers' Night is a mega event taking place every year on a single September night in about 300 cities all over Europe."

#### Why

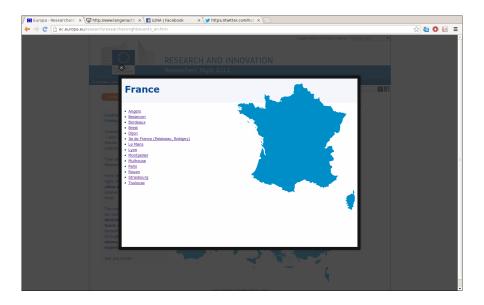
(Among other things) to see what researchers really do and why it matters for our daily life.

# What

Different events offer a wide variety of fun-learning activities, e.g.

- behind-the-scenes guided tours of research labs (that are normally closed to the public),
- interactive science shows, and
- hands-on experiments or workshops.



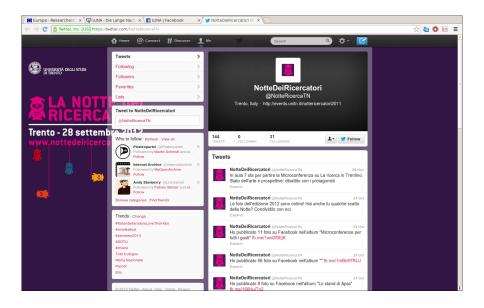












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# Goal

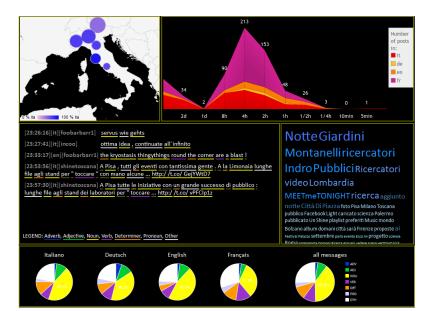
We wanted to show how HLT researchers

- process,
- analyse, and
- visualise data.

# Means

To this end, we

- collected text snippets (FB Messages, Twitter Tweets) from parties participating in the Researchers' Night 2012,
- processed the data (added Language ID, and POS tags),
- analysed the data (extracted POS distributions, and identified salient terms), and
- used the data for visualisation.



cf. https://bitbucket.org/commul/luna3-www/, https://bitbucket.org/commul/luna3-ws/



# **Technical Means**

We collected data from

- Facebook (messages) and Twitter (tweets),
- parties participating in the Researchers' Night 2012,
- people posting 'in the vicinity' of the city Bolzano,
- initially, in an asynchronous, and then, a synchronous way.

We used

- the Compact Language Detector embedded in Google's Chromium browser for language identification,
- the IMS TreeTagger for POS tagging, and
- the WaCky corpora (i.e. frequency lists) for detecting salient words.
- Finally, we used readily available (mostly Google Chart) tools for visualisation.



#### Twitter and Facebook APIs

- The documentation of (and the discussions about) APIs were in dis-synchronisation with the 'current' version of the API.
- We encountered difficulties in 'following too many users' at the same time (+ vicinity restrictions).



# World Wide Web 2.0

The term "Web 2.0" was coined in January 1999 by Darcy DiNucci, a consultant on electronic information design (information architecture). In her article, "Fragmented Future", DiNucci writes:

The Web we know now, which loads into a browser window in essentially static screenfuls, is only an embryo of the Web to come. The first glimmerings of Web 2.0 are beginning to appear, and we are just starting to see how that embryo might develop. The Web will be understood not as screenfulls of text and graphics but as a transport mechanism, the ether through which interactivity happens. It will [...] appear on your computer screen, [...] on your TV set [...] your car dashboard [...] your cell phone [...] hand-held game machines [...] maybe even your microwave oven."



# It used to be Search Engines I

In 2003 Adam Kilgarriff and Gregory Grefenstette put it like this:

The default means of access to the Web is through a search engine such as Google. Although the Web search engines are dazzlingly efficient pieces of technology and excellent at the task they set for themselves, for the linguist they are frustrating wrt. for example

- maximum number of queries,
- syntactic restrictions on formulating queries,
- obscure(d) selection criteria of results, and
- obscure(d) result figures.

#### Well, then download the pages (i.e. the former results)

but then, you're in the business of web-page cleaning...



#### It used to be Search Engines II

...and in 2007 Adam Kilgarriff:

Working with commercial search engines makes us develop workarounds. We become experts in the syntax and constraints of Google, Yahoo, Altavista, and so on. We become 'googleologists'. The argument that the commercial search engines provide low-cost access to the Web fades as we realize how much of our time is devoted to working with and against the constraints that the search engines impose.