

# Emotions, Experiences and Social Media

Maarten de Rijke

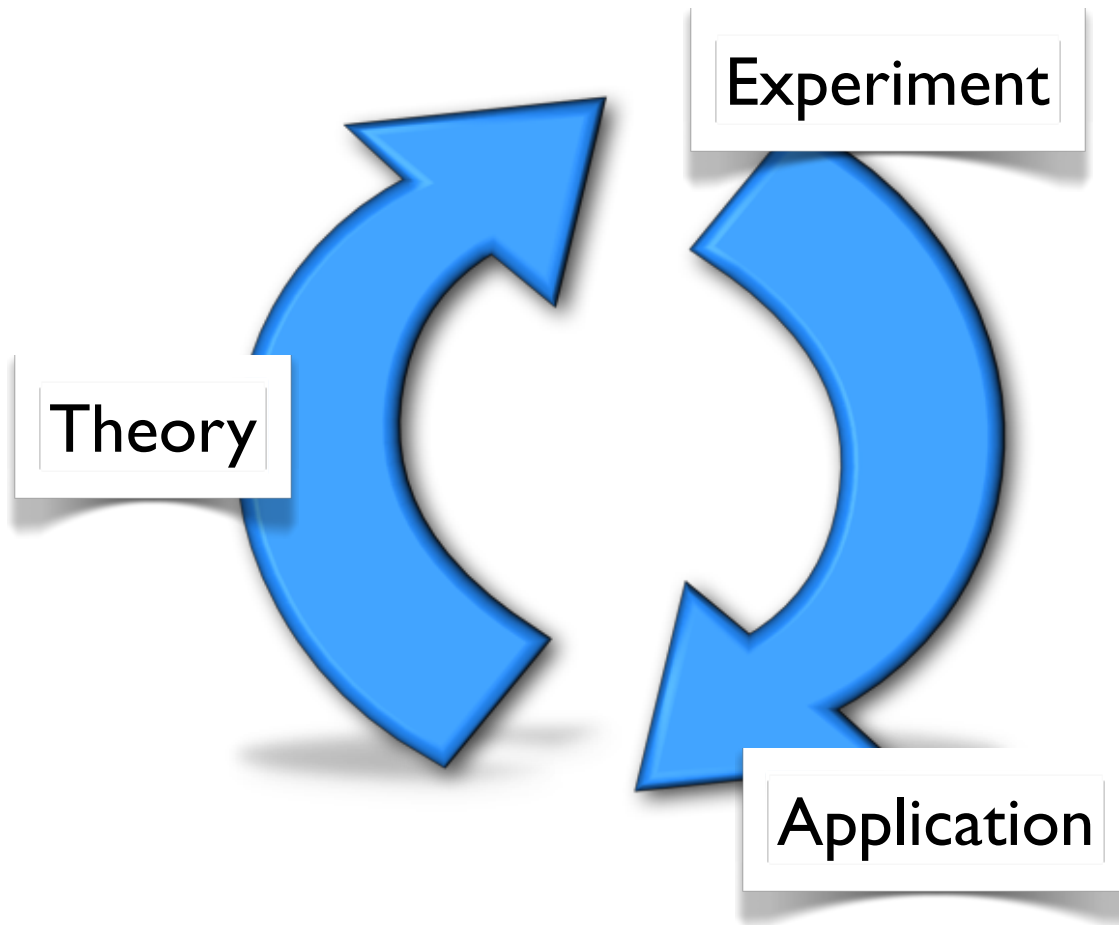
University of Amsterdam



# Another perspective

- Standards, infrastructure as seen by an academic research group
- **Intelligent information access**
  - Content-based matching
  - Additional features (recency, authoritativeness, novelty, opinionatedness, ...)
  - Combine content-based and additional features
  - Presentation

# Research strategy

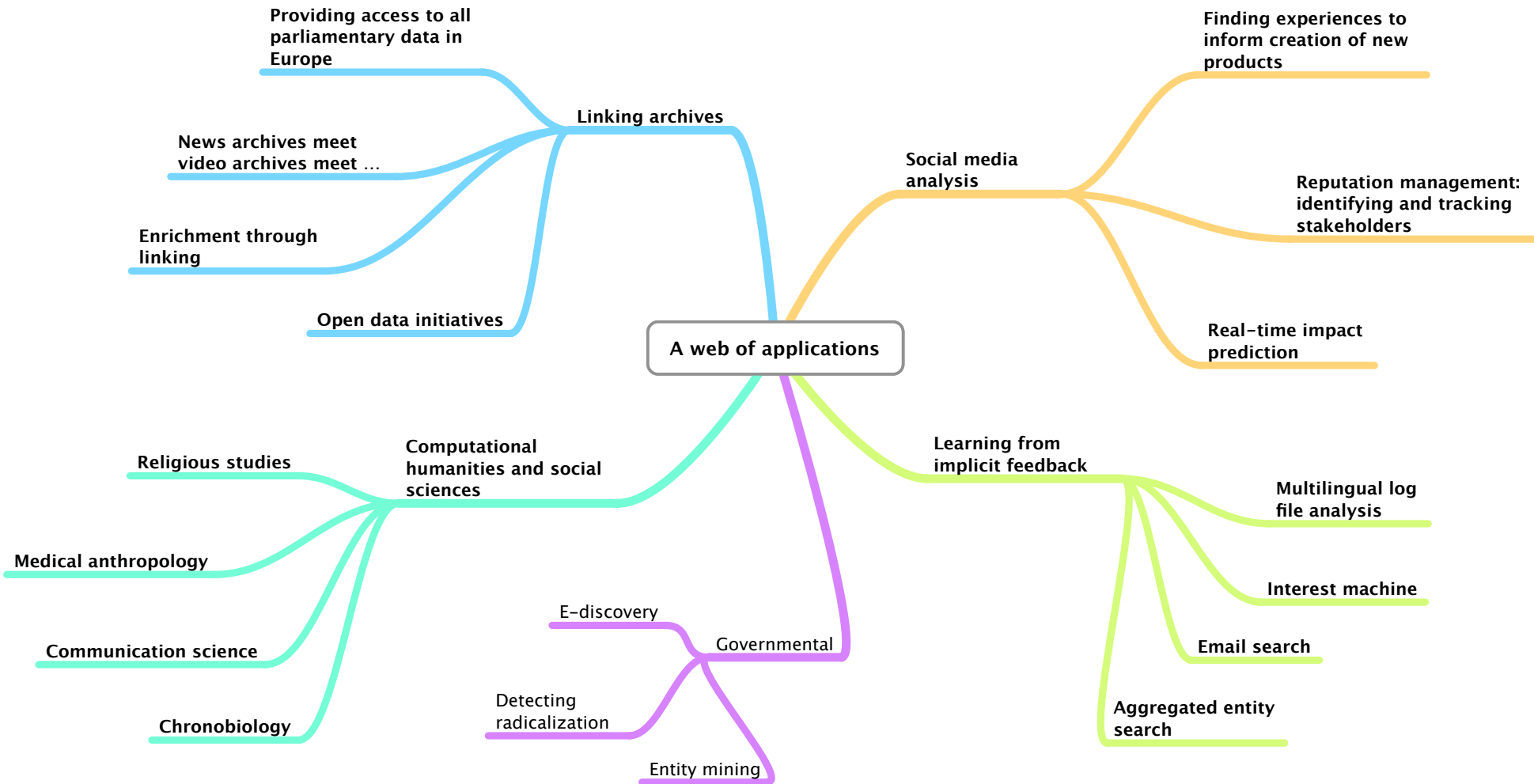


# Why?

**Online lives**

# What?

# What?



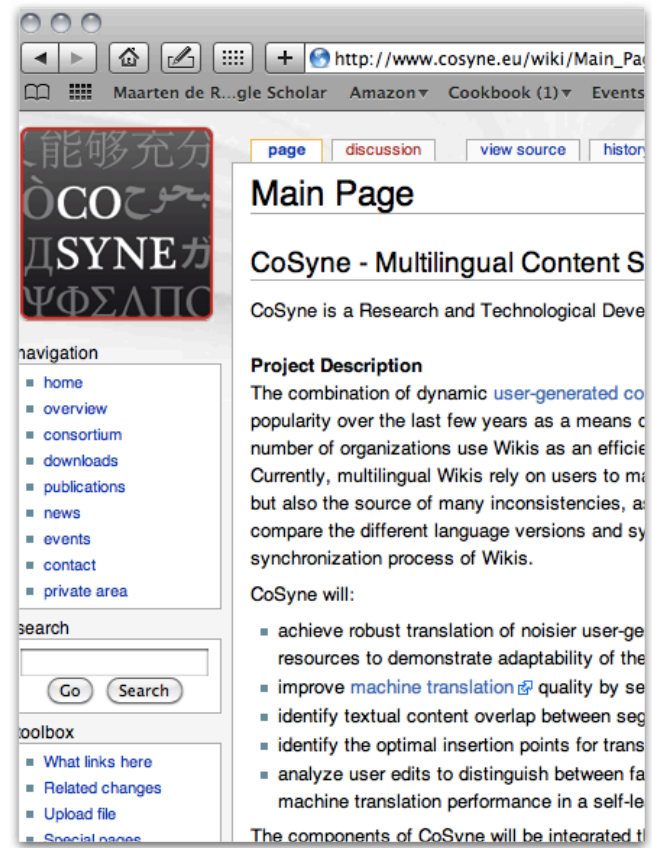
# Political Mashup

- Aggregating parliamentary data
- Debates, debate structure
- “Semantification”
- Linking to video broadcasts, twitter, blogs, party programs
- Tracking topic ownership from parliament to social media and back



# CoSyne

- Translate between wiki pages
- Identify changes in one page
- Find gaps in other, target pages
- Translate material to be inserted in gaps
- Insert translated material in gaps





# The mood of the web

- Mood annotated blogs
- Real-time mood tracking and prediction
- MoodViews (2005-2009)
  - Moodgrapher: follow
  - Moodteller: predict
  - Moodsignals: explain
  - Moodspotter: discover associations
- Analyzing 'old' data: chronobiology

MoodViews — MoodViews

http://moodviews.com/ Google

MoodViews Moodgrapher Moodteller Moodsignals Moodspotter Moodfeeds

About MoodViews Contact In the press News Publications Sponsors

MoodViews: *Tools for Blog Mood Analysis*

**MoodViews home page**

**Which moods are hot?**

- determined
- awake
- amused
- sleepy
- thankful

**And which are not?**

- bored
- hot
- hyper
- relaxed
- drained

Updated every 10 minutes:  
the most and least popular  
moods as reported by  
LiveJournal bloggers.

**New**  
**Moodstickers** that track  
the most popular mood

Anyone curious?  
  
MoodViews.com

**What is MoodViews?**

MoodViews is a collection of tools for tracking the stream of mood-annotated text made available by LiveJournal. At present, MoodViews consists of three components, each offering a different view of global mood levels, the aggregate across all postings of the various moods:

- **Moodgrapher** tracks the global mood levels,
- **Moodteller** predicts them, and
- **Moodsignals** helps in understanding the underlying reasons for mood changes.

MoodViews — Moodgrapher

http://moodviews.com/Moodgrapher/index.cgi

MoodViews Moodgrapher Moodteller Moodsignals Moodspotter Moodfeeds

About ... Cyclic events Global events

### Moodgrapher

Moodgrapher plots the mood levels reported by LiveJournal users in their posts during the last few days, updated every 10 minutes. Moodgrapher tracks both the absolute counts and the rate of change. ([what's this?](#))

**Changes in "shocked" over 01/14/2008 - 02/14/2008**

(c) MoodViews.com

Search "shocked" posts    Show the mood level    [compare moods »](#)

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Google

Which moods are hot?  
 determined  
 awake  
 amused  
 sleepy  
 thankful

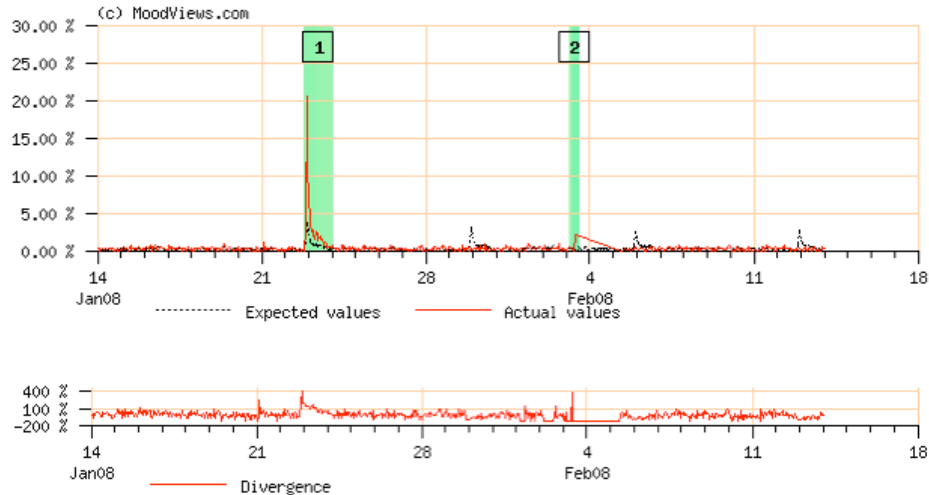
Which are not?  
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 hot  
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Updated every 10 minutes:  
 most and least popular  
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**Moodstickers** that track  
 the most popular mood

Anyone curious?  


## Changes in "shocked" over 01/14/2008 - 02/13/2008



## Discover peaks

for this mood:

shocked

and for this date interval:

01/14/2008

02/13/2008

[Graph](#)

(Dates have to be provided in mm/dd/yyyy format.)

## Peak explanation

## Peak (1) 01/22/2008 19h - 01/24/2008 01h

Overused terms during the peak period:

ledger, heath's, dead, actor, shock, joker, brokeback, knights, found, dying, renfro, overdose, news

Related global events:

- [2008-01-22] Australian actor Heath Ledger found dead in New York City
- [2008-01-25] Thomas Cecil Gray, pioneer in anesthesiology, dead at 94

Blog posts:

## Peak (2) 02/03/2008 04h - 02/03/2008 12h

Overused terms during the peak period:

## More peaks in "shocked"

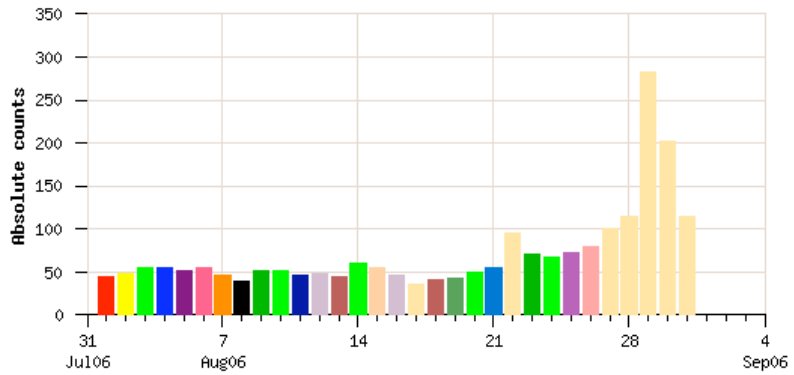
- Dec 27, 2007, 12:00
- Oct 31, 2007, 00:00
- Oct 20, 2007, 00:00
- Oct 19, 2007, 08:00
- Aug 02, 2007, 09:00
- Aug 01, 2007, 21:00
- Jul 21, 2007, 11:00
- Jun 26, 2007, 16:00
- Jun 25, 2007, 21:00
- Jun 22, 2007, 03:00
- May 30, 2007, 18:00
- May 24, 2007, 09:00
- Apr 29, 2007, 00:00
- Apr 16, 2007, 14:00
- Apr 07, 2007, 05:00
- Mar 28, 2007, 23:00
- Feb 17, 2007, 15:00

**Moodspotter ALPHA**

Interested in a topic and wondering how people feel about it? Moodspotter lets you search for mood-associations in a period: you select the period and type in a word or phrase, and Moodspotter spots the top moods associated with this word or phrase in the selected period for you.

Search posts  
 Period : August 2006  
 Query : katrina  
 Submit

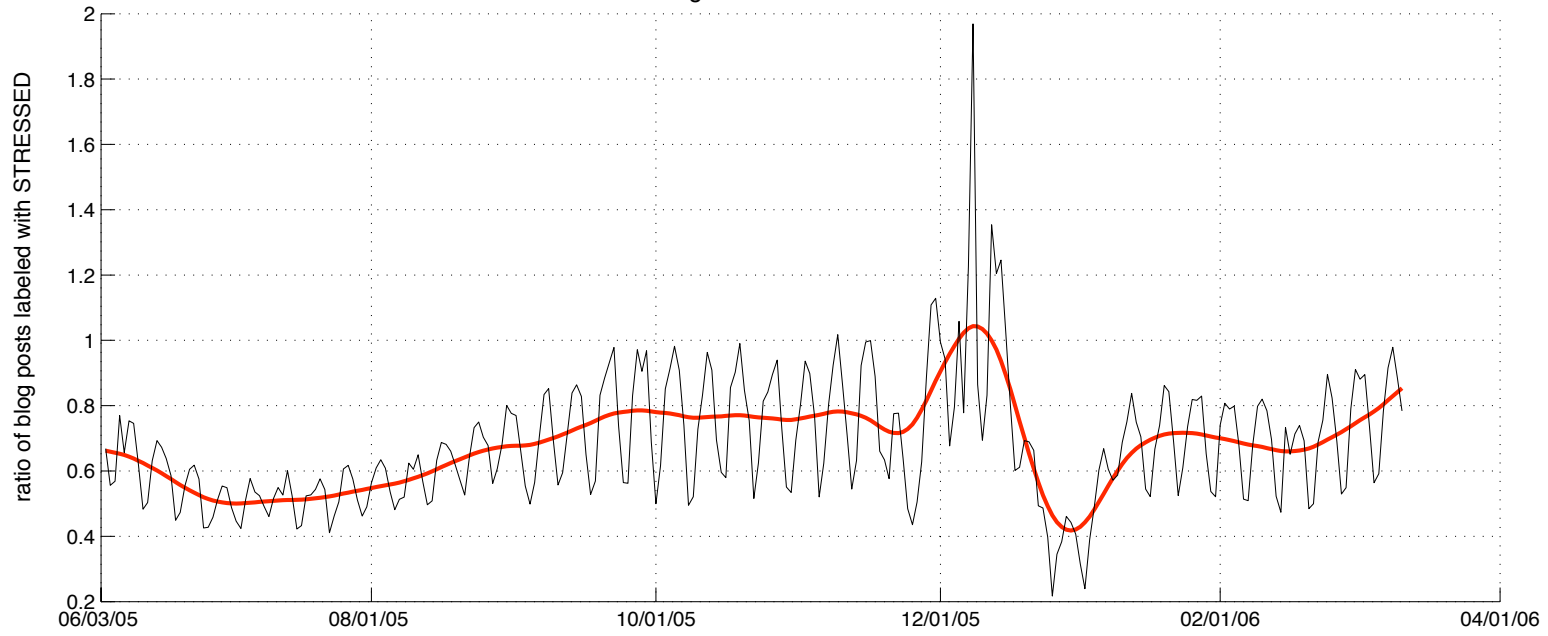
Changes in mood around "katrina" in 2006-8



- aggravated
- amused
- annoyed
- anxious
- awake
- blah
- calm
- cheerful
- chipper
- contemplative
- crazy
- excited
- happy
- nostalgic
- shy
- tired
- angry
- blissful



Original data versus Trend



global mood lev  
 Overused t  
 • Moodgra  
 • Moodtelle  
 • Moodsign  
 Related gra  
 • [23  
 • [20  
 Blog posts  
 Peak (2)  
 Overused t

31 Jul06	7 Aug06	14	21	28	4 Sep06
<span style="color: yellow;">■</span>	<span style="color: green;">■</span>	<span style="color: orange;">■</span>	<span style="color: red;">■</span>	<span style="color: brown;">■</span>	<span style="color: blue;">■</span>
aggravated	amused	annoyed	anxious	awake	blah
<span style="color: green;">■</span>	<span style="color: orange;">■</span>	<span style="color: purple;">■</span>	<span style="color: yellow;">■</span>	<span style="color: blue;">■</span>	<span style="color: blue;">■</span>
calm	cheerful	chipper	contemplative	crazy	excited
<span style="color: black;">■</span>	<span style="color: pink;">■</span>	<span style="color: purple;">■</span>	<span style="color: purple;">■</span>	<span style="color: red;">■</span>	<span style="color: green;">■</span>
happy	nostalgic	shy	8	snored	stressed

# Ingredients

- Search engine technologies
- Content extraction
- Language technologies
- Semistructured data technologies
- Scalable distributed processing

# Development strategy

- We are **scientists, developers, users** at the same time and we have **external partners**
- Agile vs standards?
- Let a 1000 flowers bloom?



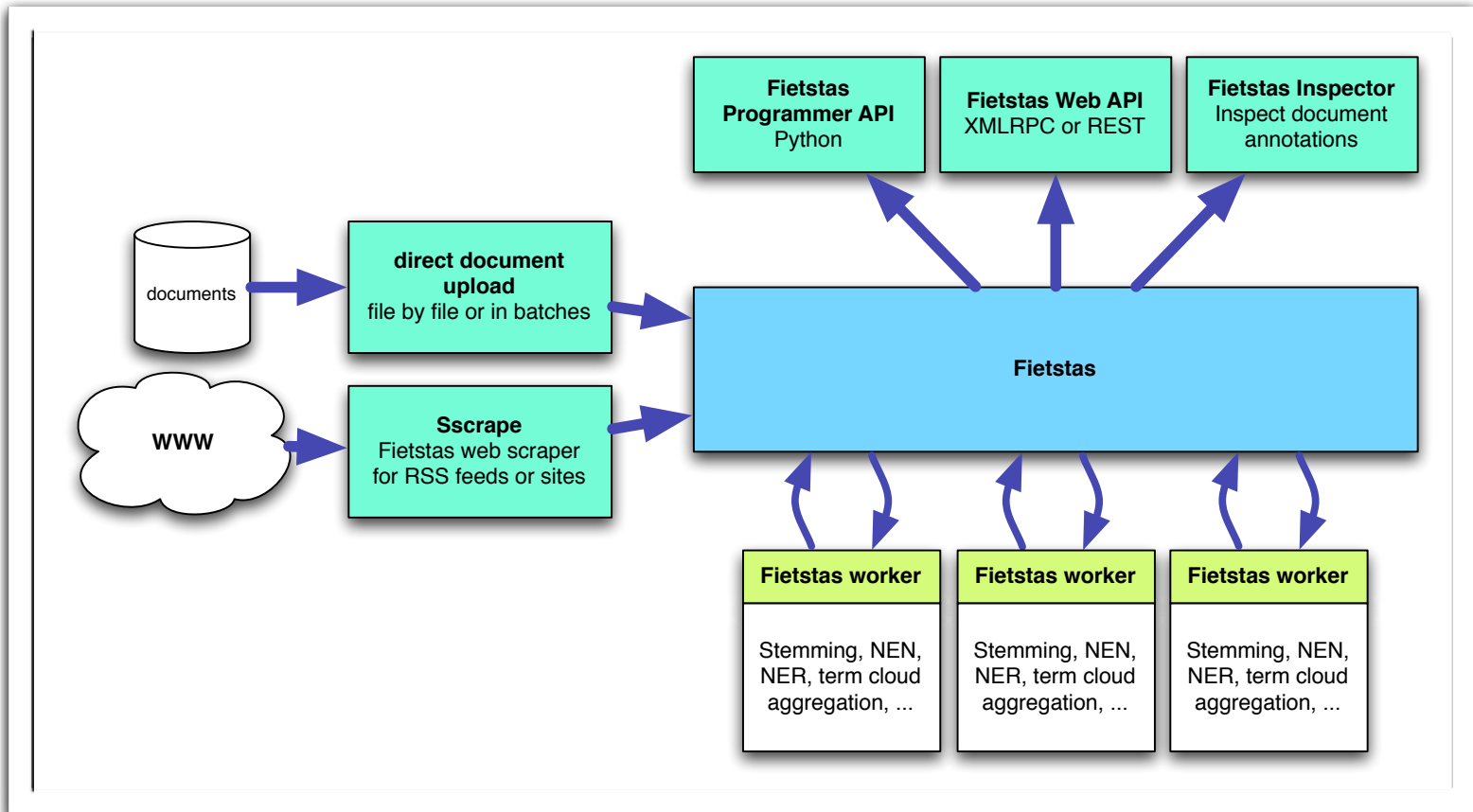


**VS.**



# Fietstas

Text analysis service (NL, EN)



- A look from the lab
- Social media as a “societal thermometer”
- Many opportunities for public-private collaborations
- Infrastructure for supporting these collaborations

- Based on joint work with
  - Krisztian Balog, Wouter Bolsterlee, Breyten Ernsting, Valentin Jijkoun, Fons Laan, Maarten Marx, Gilad Mishne, Christof Monz, Daan Odijk, Ork de Rooij, Manos Tsagkias, Andrei Vishneuski