



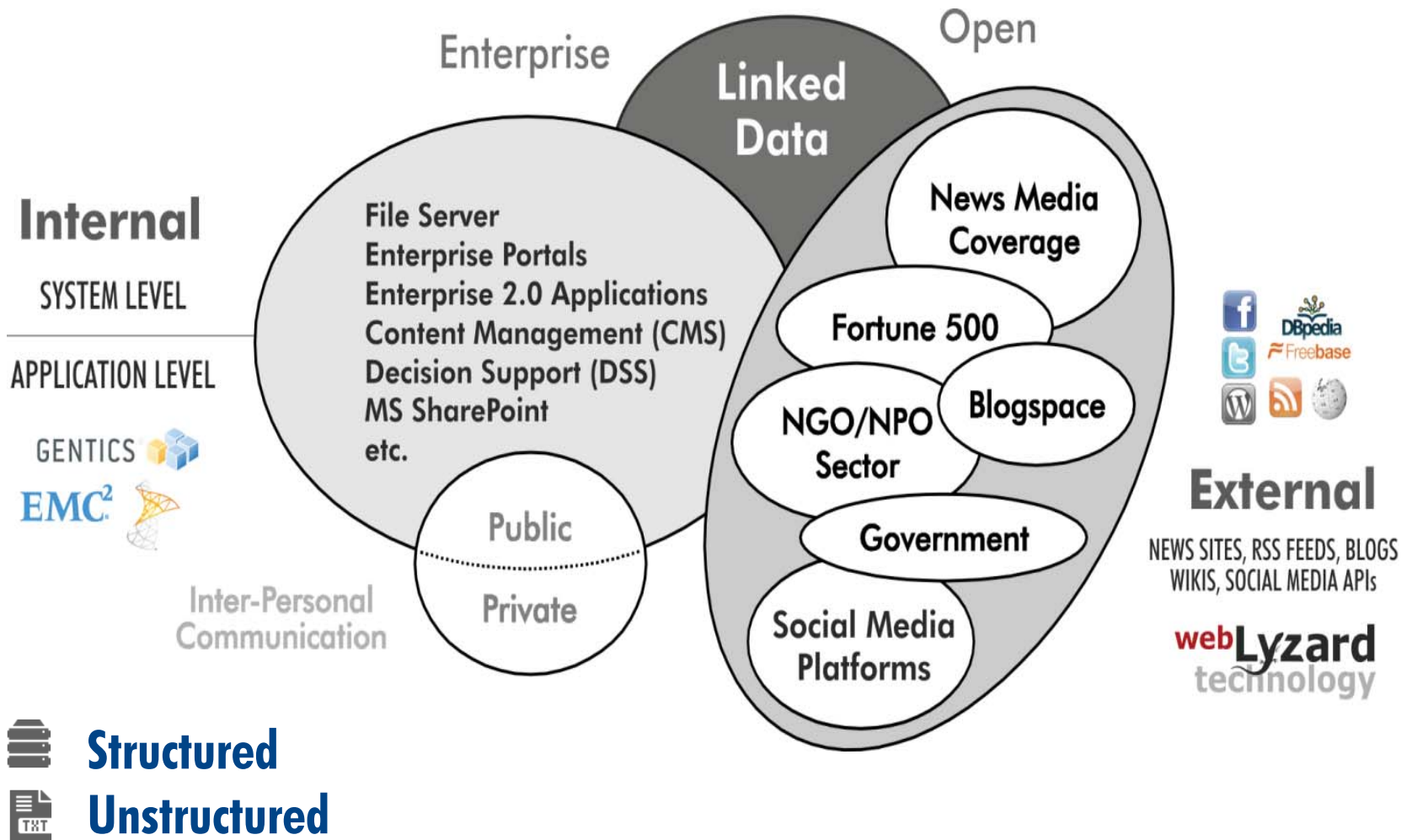
# Semantic Systems for Web Intelligence and Decision Support

Arno Scharl, Professor of New Media Technology  
[www.modul.ac.at/nmt](http://www.modul.ac.at/nmt) • [www.weblyzard.com](http://www.weblyzard.com)



# Integrated Web Intelligence

webLyzard  
technology



# External and Internal Applications

## ■ External: News and Social Media Monitoring

### ■ Frequency and Sentiment Analysis (Brands, Organizations, Products and Services, etc.)

■ **Negative:** Early Warning System

■ **Positive:** Trend-Scouting, Emerging Topics

### ■ Success Measures for Communications, PR and Public Outreach

### ■ Strategic Positioning and Topic Identification (Measuring the Sensitivity of Topics, Conflict Detection and Avoidance)



## ■ Internal: Corporate Knowledge Management

### ■ Semantic Search | Enterprise Portals

### ■ Integration into CMS and CRM Systems

### ■ New Forms of Communication and Collaboration





General

Adaptation

169

Climate Change

2710

Climate Policy

80

Climate Science

58

Mitigation

221

World Summits

Copenhagen (COP15)

17

London (COP16)

96

Durban (COP17)

39

Qatar (COP18)

125

UNFCCC (Rio+20)

15

Renewable Energy

Biomass

203

Geothermal

93

Hydro

101

Solar

539

Wind

380

Events and Campaigns

Earth Day

11

Earth Hour

1

Associations

Search History

Mitigation

221

zaelke

16

adaptation

169

california coastal [...]

34

protocol

155

montreal

26

wedding

232

montreal protocol

29

california coastal

44

financial responsibility

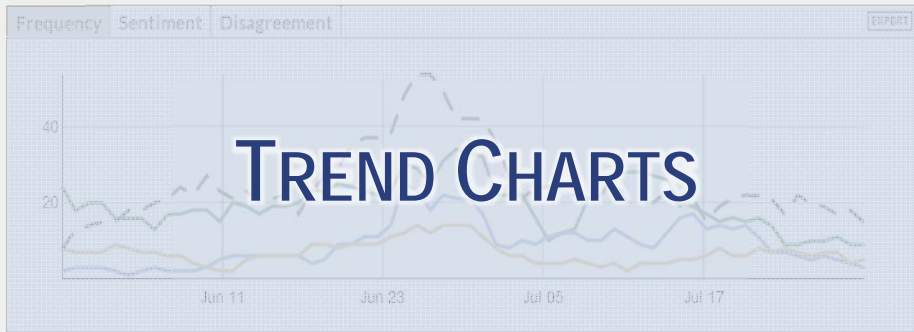
12

flood

573

campground

62



Documents Quotes Source Statistic

Results: 100 out of 221

07/30 +0.4 Tropical Storm Nears Hawaii, New Ocean Plan Predicts Worse  
« HONOLULU, Hawaii, July 29, 2013 (ENS) - Tropical Storm Flossie is bringing heavy rains, strong winds and big waves to the main Hawaiian Islands today through Tuesday. ... MODIS satellite image of Tropical Storm Flossie taken at 11 am local time July 28, 2013 when Flossie had top winds near 65 mph. ... Hawaii Electric Light Company says trees blown over by gusty winds from Tropical Storm Flossie are causing power outages throughout the lower Puna area on the Big Island of Hawaii. »  
ens-newswire.com

07/29 -0.3 Drivers of Sea Level Rise: Global Warming, Local Factors  
implementing measures to reduce greenhouse gas emissions and limits at ni...  
ens-newswire.com

07/29 -1.0 Colorado drought plan up for revision  
and in short supply - O...  
sacbee.com

07/29 -0.7 Saving frogs, toads in Sierras: Residents ask at what cost?  
and requirements to set aside land as mitigation. Throughout California, more than 300 speci...  
sacbee.com

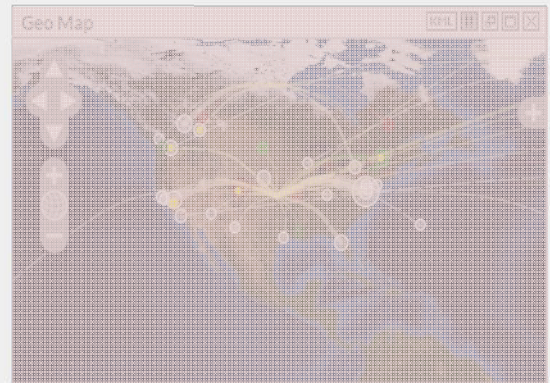
07/29 -0.7 Saving frogs, toads in Sierras: Residents ask at what cost?  
and requirements to set aside land as mitigation. Throughout California, more than 300 speci...  
charlotteobserver.com

07/26 +0.6 High Riverites want their town back as it was - The Globe and Mail  
by abandoning neighbour hoods, but through mitigation efforts in and around the town of 13...  
theglobeandmail.com

06/21 +0.8 Bathurst says High Court ruling on environment appeal generally favourable | The Nation...  
Court to keep separate its consideration of mitigation of mining activities and offsets related t...  
nbr.co.nz

07/25 +0.6 Vice President Biden Keeps HFCs at Top of US Geo-Political Agenda During India Visit  
HFC amendment presents biggest near-term mitigation opportunity. Avoids 0.5°C of warmi...

Geo Map

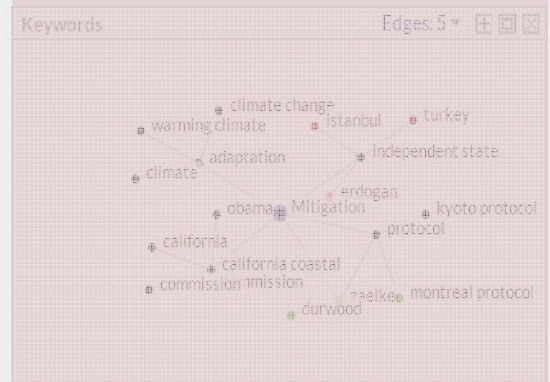


Tag Cloud

adaptation anschutz bathurst benson bird black calgary casanovi curren denver drier drought durwood eli endangered ice flood forage forest fresno flossie governance habitat hfc high hs2 mcclymont mining montreal nebraska nenshi nzta parish plateau prevention protocol province redford renaissance richmond river steinkruger stormwater taylor vancouver vancouver victoria woefully working yellowstone yolo yosemite zaelke zimmer

Keywords

Edges: 5



30 Jul 2013, 12:13 | ECOresearch | Media Watch on Climate Change

powered by webLyzard technology







Topics

Brands

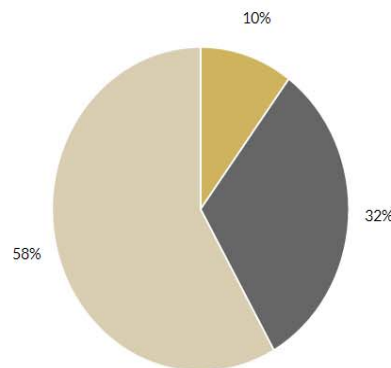
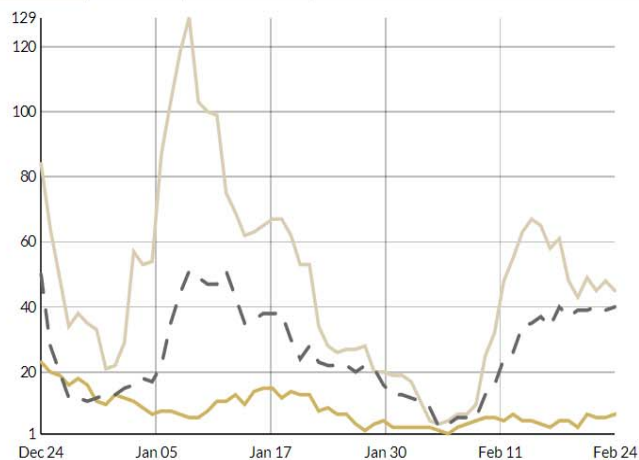
Citibank 67  
UBS 423

Radar Dimensions

Competence 6692  
Excitement 11919  
Ruggedness 7268  
Sincerity 5528  
Sophistication 8787

+ Add new Category

Frequency Sentiment Disagreement



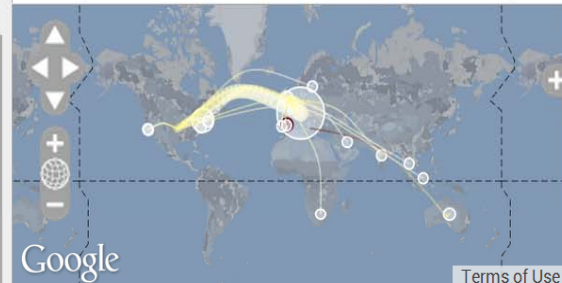
Share of Coverage by Topic



Documents Quotes Word Tree Locations Sources Source Map

Source	Count	Reach	Impact	Sentiment	
www.reuters.com	95	0.5	47.5	+0.1	
company   bank   equity					
online.wsj.com	14	1	14	-0.1	
rev   billion dividend yield   market cap					
www.bizjournals.com	13	1	13	+0.1	
company   stock   capital					
finance.fortune.cnn.com	11	1	11	+0.2	
capital   funding   stake					
blogs.wsj.com	9	1	9	+0.0	
household   india   hong					
www.telegraph.co.uk	18	0.5	9	+0.0	
ftse   credit   company					
money.cnn.com	6	1	6	-0.0	
banking   unemployment   reluctant					
www.forbes.com	5	1	5	+0.3	
healthcare   pace   blockbuster					
www.sacbee.com	5	0.9	4.5	+0.7	
offer   markets   sale					
www.bnn.ca	5	0.7	3.5	+0.3	
bank   revenue   income					
uk.reuters.com	7	0.5	3.5	-0.2	
bank   manager   morgan					
www.washingtonpost.com	2	1	2	+0.1	

Geo Map



Tag Cloud

analyst bank banking bid capital cash chinese  
company consumer credit deal december  
deutsche equity financing firm ftse fund funding  
google income index investment ipo leverage liberty  
market mobile morgan november offer officer  
partners pricing private profit quarter rating ratio  
recovery rev revenue sale sec stake stock swiss  
switzerland tax trading ubs unemployment unit  
venture ventures warner wealth wealthy





Logout | Mode: Advanced ▾

News

Blogs

Social Media

Press Info

NOAA

Partners

Congress

Fortune 1000

My Favorites

Favorites

Semantic Map

Geo Map

Tag Cloud

Keywords

## NOAA Overview

Climate ☐ 1122  
NOAA ☐ 479  
Oceans ☐ 628  
Satellites ☐ 191  
Weather ☐ 2474

## NOAA Services

adaptation ☐ 41  
climate change ☐ 1175  
climate impact ☐ 17  
climate science ☐ 94  
climate service ☐ 6  
climatematch ☐ 0  
copenhagen ☐ 16  
mitigation ☐ 43

## Custom

## WYSDOM Desired Topics

## WYSDOM Undesired Topics

## Brand Dimensions

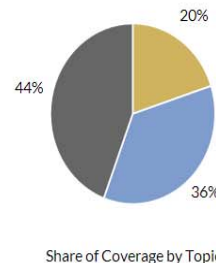
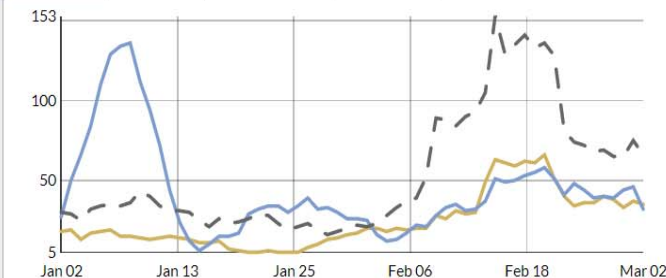
## Add new Category

## Associations

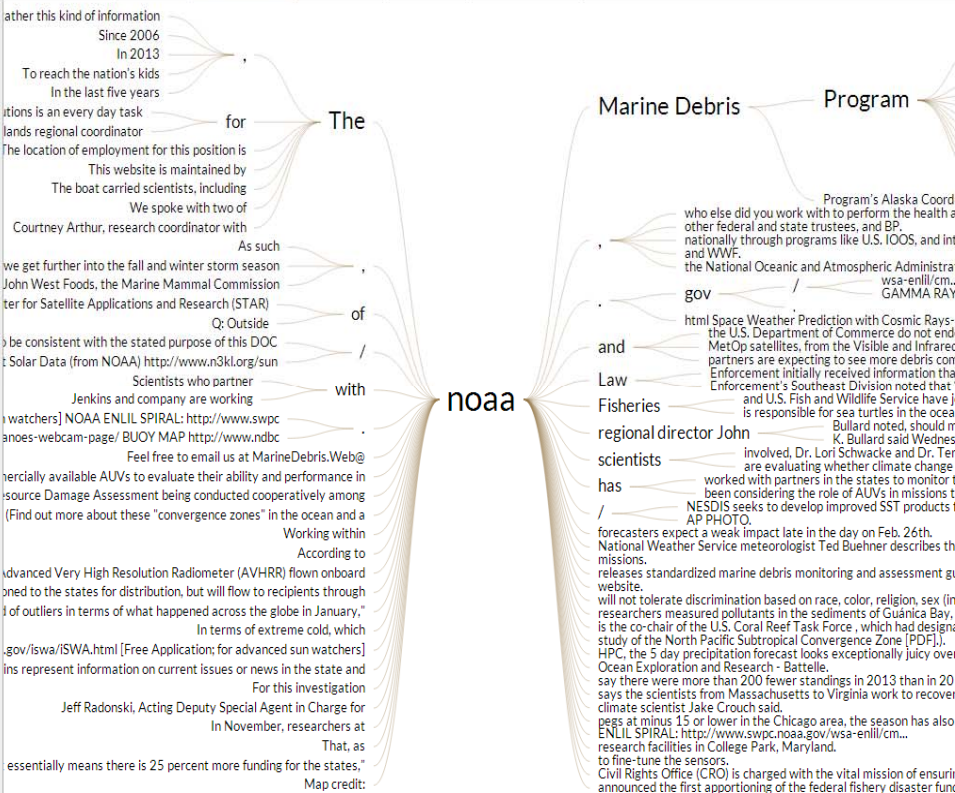
## Search History

NOAA ☒ 479  
ocean ☐ 439  
office ☐ 638  
marine ☐ 260  
national ☐ 2380  
fish ☒ 214  
program ☐ 381  
information ☐ 616  
weather ☐ 2474  
fishing ☐ 135  
water ☐ 1011  
research ☐ 611  
arctic ☒ 374  
january ☐ 780  
state ☐ 1534  
sea ☐ 517

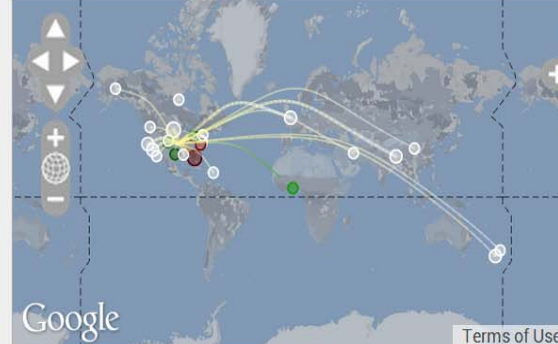
## Frequency Sentiment Disagreement WYSDOM



## Documents Quotes Word Tree Locations Sources Source Map



## Geo Map

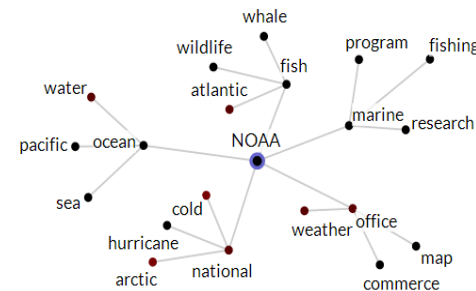


## Tag Cloud

activity angeles arctic area atlanta bowl california  
carbon carolina climate cold drought earth energy  
environment extreme february flood flooding freeze  
freezing game georgia global ice icy information  
january long los maine marine model national noaa  
ocean office polar precipitation program project rain  
research salt science sea service SNOW snowfall south  
storm study super system temperature thames union  
warming water weather wind winter world york

## Keywords

Edges: 5 ▾ + - || ^ x



Climate	1461
NOAA	444
Oceans	778
Satellites	224
Weather	1707

adaptation	64
climate change	1702
climate impact	45
climate science	204
climate service	1
climatemwatch	0
copenhagen	53
mitigation	60

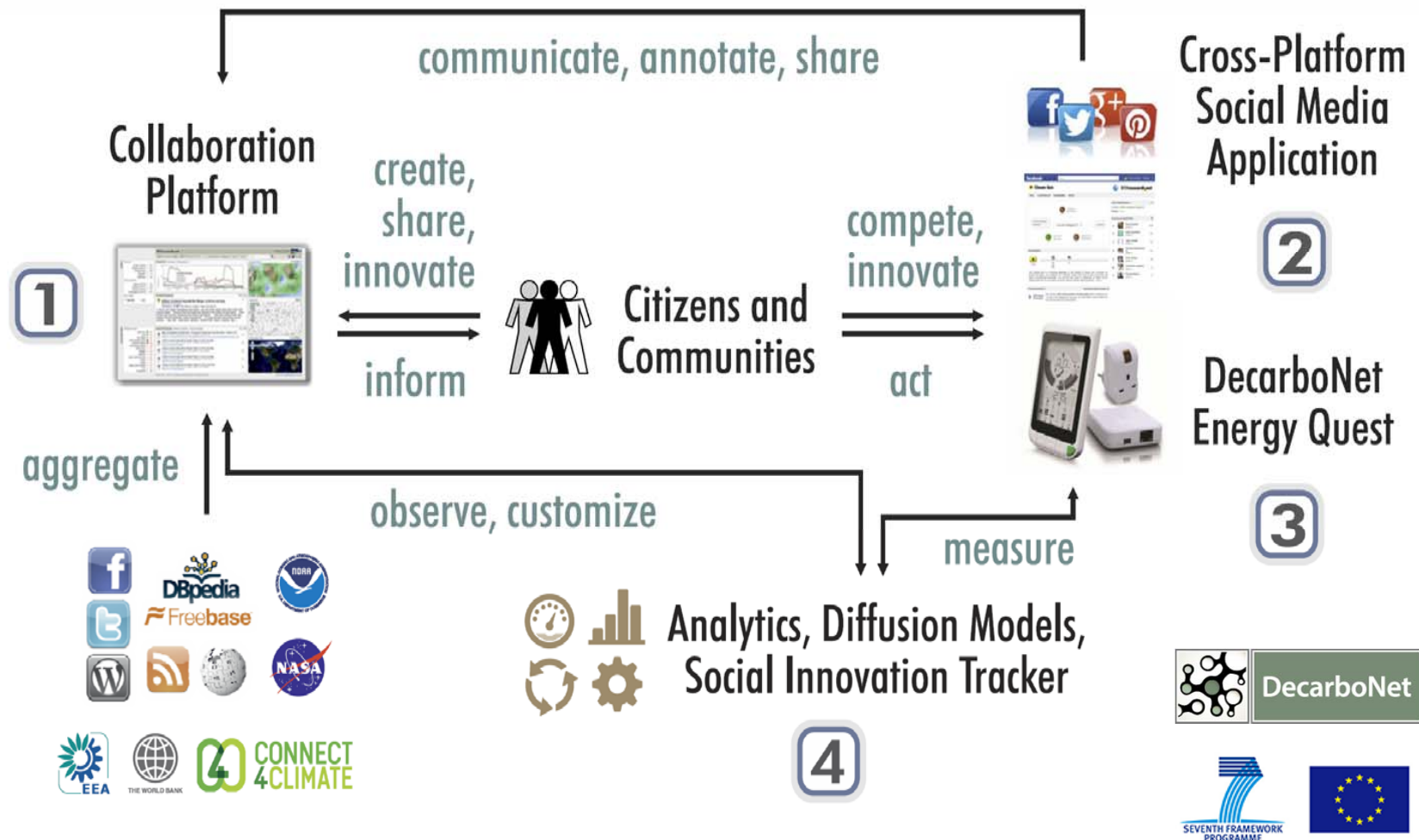
 Add new Category

## NOAA 444

shutdown	264
philippines	120
hurricane	585
karen	208
super	143
sandy	198
landfall	238
october	638
boulder	211
ashore	113
cyclone	137
tropical	550
satellite image	53
study	457
clocks	104







# Sentiment Quiz

Is the following a  
**negative**, neutral or **positive**  
statement about the candidate?

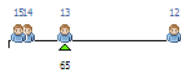
“ We are headed down a  
path that is certain to  
end in the destruction of  
our experiment in  
democracy. ”



## Status

4

Level



Your current score is **65 points**. Invite your friends and earn 10% of the points they make!

## Spread the Word



Tell your  
Friends!

You will earn **10% of your friends' points** after they accept your invitation! The calculation is recursive, so if they invite others you will even get more bonus points.

## September 2008

843 players See All

1.	Fiorella	2458
2.	Michel	2244
3.	Birgit	2139
4.	Rose	1011
5.	Herti	930
...		
11.	Arno	101
12.	Guilherme	77
13.	You	65
14.	Lisa	61

## Others currently playing



## Election Monitor

Vote for your favorite candidate!



New Media MBA  
www.modul.ac.at/nmt/mba

EDITED BOOK  
The Geospatial Web  
Geobrowsers, Social  
Software & the Web 2.0

Hat der folgende Ausdruck eine **negative**,  
neutrale oder **positive** Bedeutung?



amoralisch

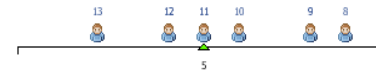
Adjektiv



## Status

1

Level



Your current score is **5 points**.  
Inviting 38 friends has earned you 0 points.

## Spread the Word



Tell your  
Friends!

You will earn **10% of your friends' points** after they accept your invitation. If you like the Sentiment Quiz, please become a fan and check out our Election Monitor Application, too!

## June 2009

4379 players See All

1.	Manuela	153
2.	Zeliha	100
3.	Birgit	83
4.	Giovanna	73
5.	Benjamin	53
...		
9.	Julian	8
	Sivarak	8
10.	Joshua	6
11.	Vincenzo	5
	You	5

## Previous Result

Your Selection	100%
Other Player	100%
Score	3

## Current Players



#13 2



# Context-Aware Editing Environment



IEEE Internet  
Computing  
Volume 17, Issue 5  
Sep/Oct 2013  
pp. 21-29

Frequency Sentiment Disagreement Edit Document LINK

Timeline

AT • Baladiyat ad Dawhah • 2013-03-24

After a first prototype was shown during a side event at last year's *United Nations Conference on Sustainable Development* (Rio+20), the official launch of the embedded document editor for the **Media Watch on Climate Change** followed in September 2012 at a public symposium on "Networking Knowledge, Networking People: New Media for Climate Change Action" held in Vienna, Austria. An updated version of the tool was presented at the UN Climate Change Conference (COP-18) in Doha, Qatar.

Document Summary Extended Quote EDIT LINK

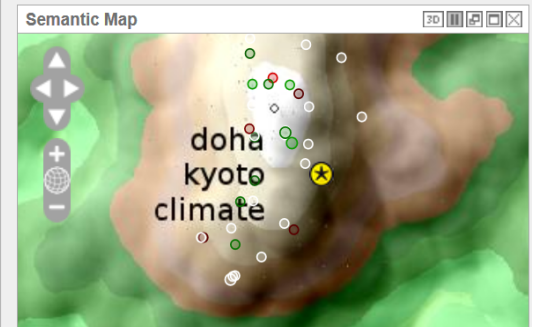
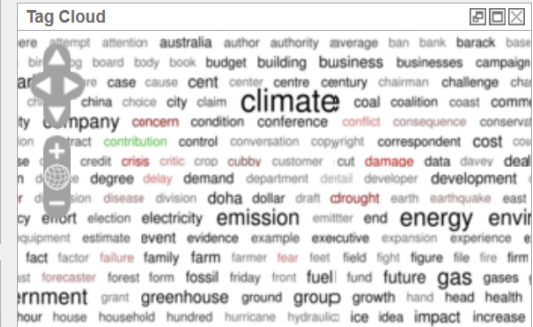
RACHEL | SARAH | CLARKE

-0.9 **World Bank condemns 'business as usual' approach to climate change - ABC News (Australian Broadcasting Corporation)**  
[www.abc.net.au/news/2013-03-21/world-bank-condemns-business-as-usual-approa...](http://www.abc.net.au/news/2013-03-21/world-bank-condemns-business-as-usual-approa...)  
 News: AU • Baladiyat ad Dawhah • 2013-03-21

« TANYA NOLAN: Four months after the **Doha** climate summit, and the World Bank says it's worrying to see little global effort being made in tackling climate change. It says the "business as usual" approach is undermining any effort the bank has made in addressing global poverty. The vice president for Sustainable Development says the poor are already being hit hard and inaction on climate change is making it worse. Rachel Kyte is talking to environment reporter Sarah Clarke. »

Document View Sentence View Source Statistic EXPORT

Date	+/-	+/- (Sentence)	Ø Sentiment: 0.1
03/24	-0.8	applies of liquefied natural gas from <b>qatar</b> is due to arrive to ease the pressure	
03/22	+0.6	Cup plans. Last Updated: 22.03.2013. <b>qatar</b> 2022 World Cup organisers have insisted the first move must come from <b>qatar</b> . A statement from the Qatar 2022 Sup...	
03/22	-0.6	ld import liquefied natural gas from <b>qatar</b> – the world's biggest producer – but	
03/21	-0.9	TANYA NOLAN: Four months after the <b>doha</b> climate summit, and the World Bank sa	
03/19	+0.5	percent of the equity is owned by the <b>qatar</b> Investment Authority, which has rece	
03/19	-0.8	ry." Whoever paid for this weapon in <b>qatar</b> or any other country and whoever bro	
03/18	-0.4	In the wake of weekend reports that <b>qatar</b> 's sovereign wealth fund was consider:	
03/18	-0.4	In the wake of weekend reports that <b>qatar</b> 's sovereign wealth fund was consider:	
03/12	+0.3	ur allies Norway, the Netherlands and <b>qatar</b> , the latter in the form of liquefied	
03/11	+0.4	tial of China, Hong Kong, Abu Dhabi, <b>qatar</b> . I think we'll see more of these inv	
03/08	+0.7	gly limitless supplies of cash. Take <b>qatar</b> , for example, which is sitting on 80	
03/05	+0.6	been based in the UK and travelled to <b>doha</b> recently for speaking engagements and	



# Language Resource Requirements

- **Language Resource Acquisition**  
e.g. Context-Specific Sentiment Lexicons
- **Gold Standard Data**
  - NER / Opinion Holder vs. Opinion Targets
  - Multilingual Sentiment Analysis
- **uComp Project** | [www.ucomp.eu](http://www.ucomp.eu)
  - Embedded Human Computation (EHC) for knowledge extraction workflows – factual, affective
  - Evaluate EHC performance in heterogeneous settings
  - Address challenges of noisy data



IEEE Intelligent Systems  
Volume 28, Issue 2  
Mar/Apr 2013  
pp. 39-49



 **Comp**

## **Interface Description**

[\*\*www.weblyzard.com/interface\*\*](http://www.weblyzard.com/interface)

## **Climate Change Showcase**

[\*\*www.ecoresearch.net/climate\*\*](http://www.ecoresearch.net/climate)

## **webLyzard Newsletter**

[\*\*www.weblyzard.com/newsletter\*\*](http://www.weblyzard.com/newsletter)

## **Contact and Login Requests**

[\*\*scharl@weblyzard.com\*\*](mailto:scharl@weblyzard.com)

## **Twitter**

[\*\*@weblyzard\*\*](https://twitter.com/weblyzard)

