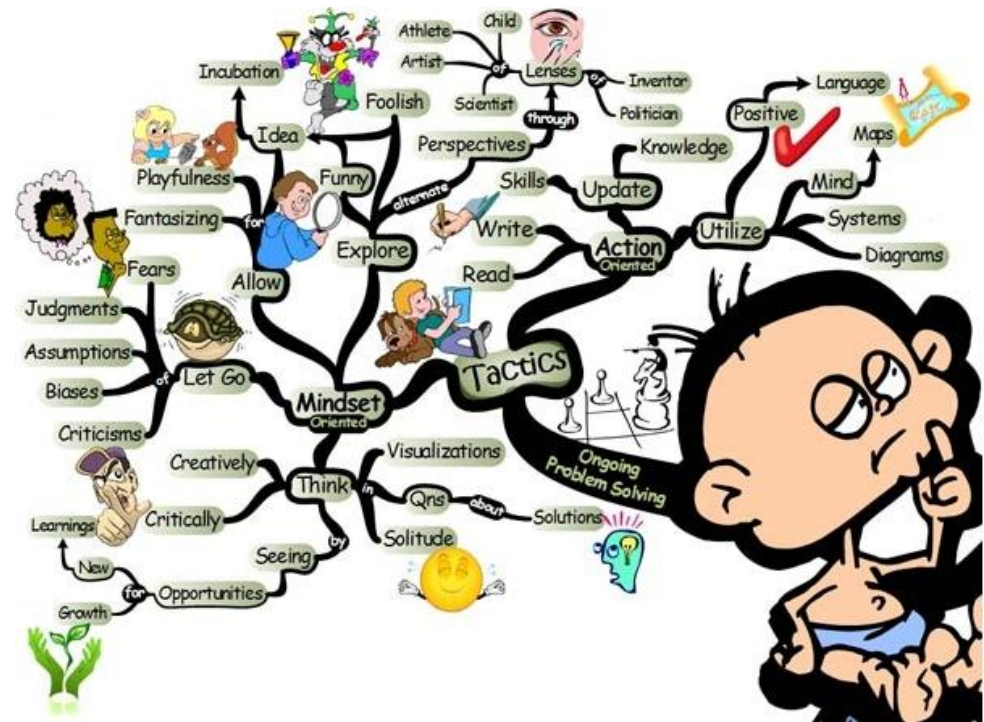




***IRAHSS 2010 – Exploring the power of
Opinion and Sentiment Analysis***

"For every complex problem there is an answer that is clear, simple, and..... wrong."

H.L. Mencken



Sentiment and opinion analysis done right is a complex problem!

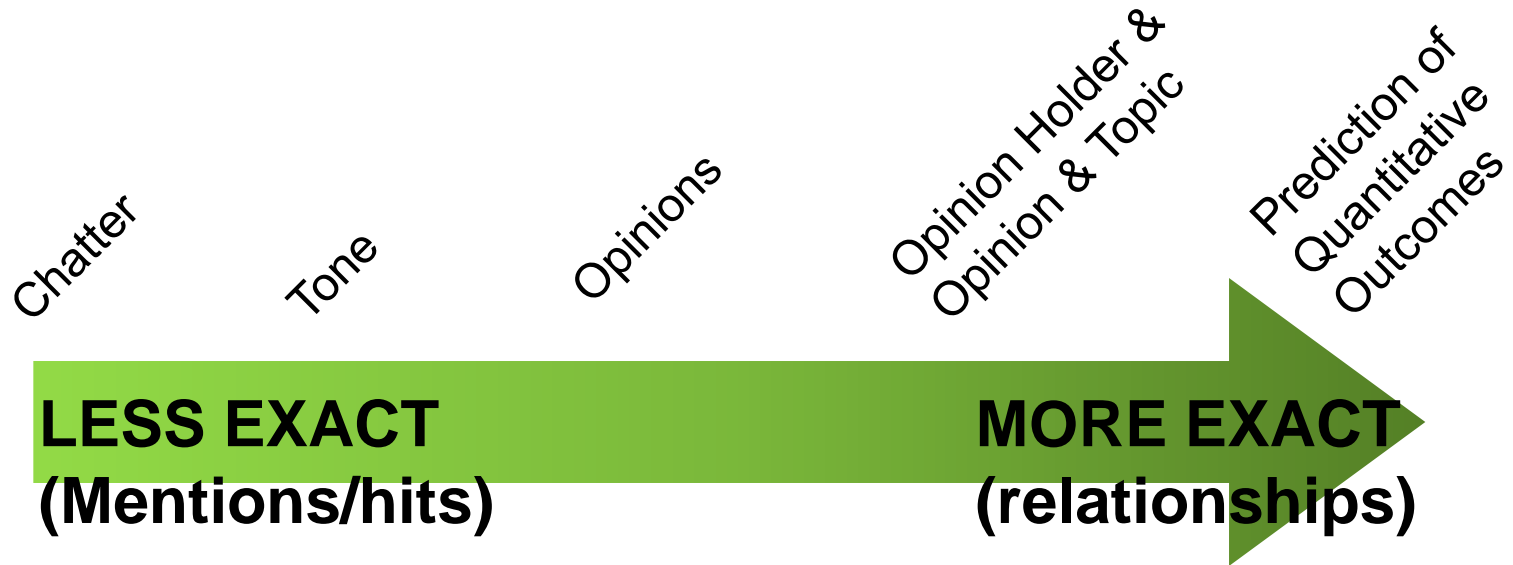


Filter and automate

Organizations have little choice but to embrace these automated processes in the face of an exploding amount of content from an ever increasing number of sources



What are you're trying to achieve?



Analysis of mentions



Bank reflecting customer feeling

► Live from **first direct** Talking Point

Question
What do you really want from your bank?

“ Whilst offsetting is great way of saving, one day when i can clear my mortgage it would be great to unlink isa's and keep offsetting cash. i assume my income will be greater than ISA allowance. ”

Posted 04/03/10 at 11:04

Share View Talking Point

► Live feelings about **first direct**

Updated 04/03/10 at 11:30

Live summary

Positive		► 71.32%
Neutral		► 11.91%
Negative		► 16.77%

Share Expand and play

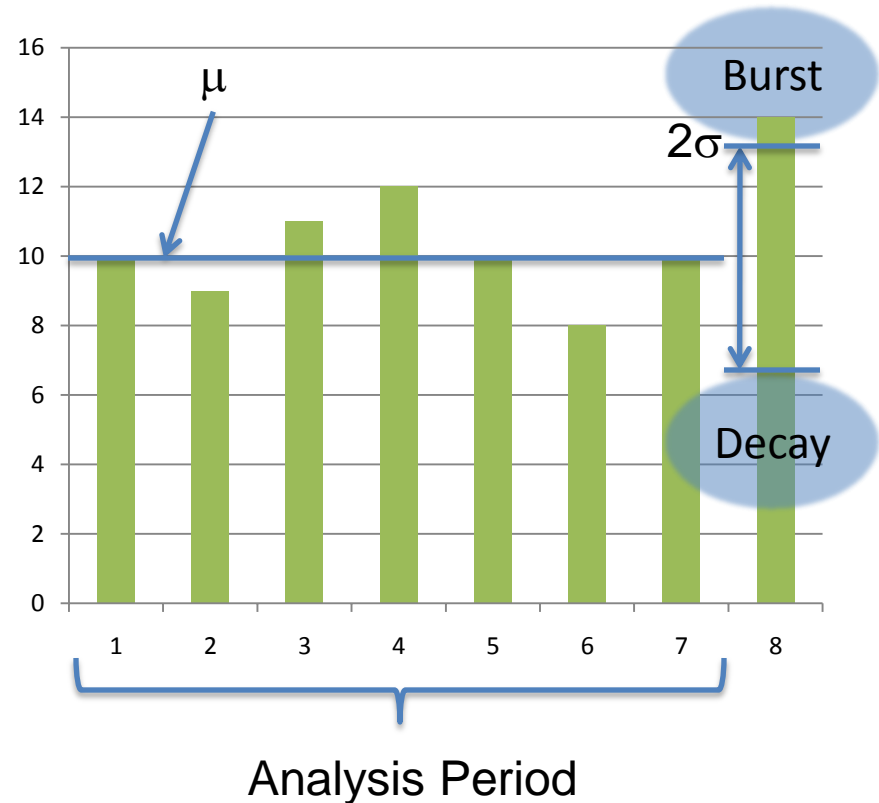
First Direct Bank - UK

COMPANY CONFIDENTIAL



Burst / Decay Analysis

- Track topics and influencers “bursting” based on what’s being said now compared to 2 days ago, last week or last month.
- Toyota is looking to have stories, blogs and tweets relating to their quality problems, “decay” as fast as possible
- Exposing conversations about problems with competitive products are also extraordinarily useful to track, because you make money by solving those problems—at the expense of the competition



Polling and Surveys

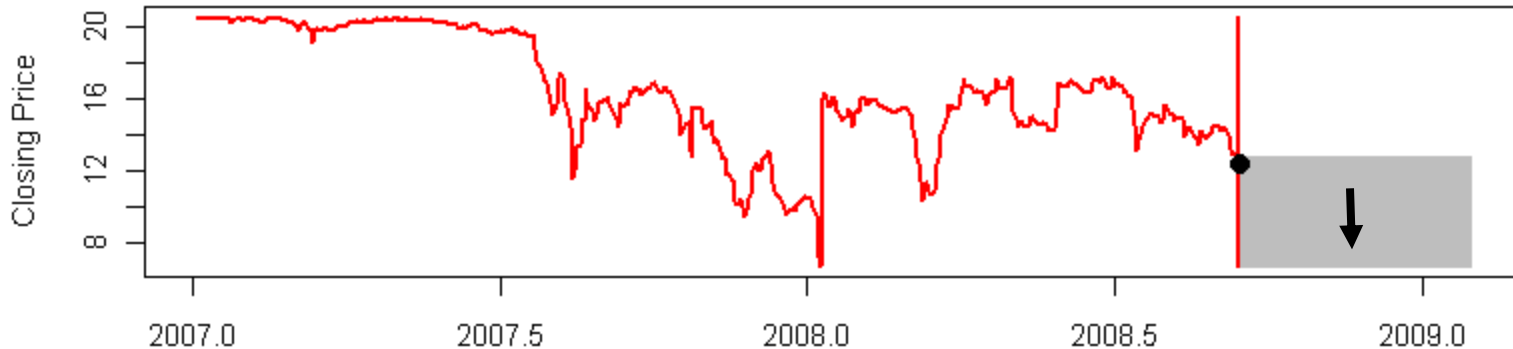
- Governmental eRulemaking initiatives (e.g., www.regulations.gov)
 - directly solicit citizen comments on potential new rules,
 - U.S. Dept. of Transportation expect hundreds of thousands of comments for upcoming legislation on distracted driving and the use of cell phones



Sentiment analysis in advertising

- The dynamic nature of on-line content poses a potential risk to online advertisers
- Current state of the art use keyword analysis to avoid the placement of ads near problematic content such as stories involving disasters, accidents, crime, and adult material
- New initiatives are now focused on:
 - Exclude the placement of ads where negative opinions about a specific organization/brand/topic are expressed in a piece of content
 - Delivering ads where positive opinions about a brand are discussed by key influencers

Predicting business outcomes



- Predict tomorrow's sentiment longevity
 - Predict tomorrow's return direction (Grey Area)
 - Compare predicted & observed (Black point) return directions. (Successful when the Black Point is in the Grey Area)
- Expand this to other applications where opinion analysis is correlated to any measurable business outcome i.e. election outcomes, unit sales, complaint calls, defect returns

Global Warming with Inline Sentiment Analysis

First reported 10/15/2008 - Updated 8 hours ago



The 4 Questions I'd Ask Tonight On Global Warming

US Presidential Election 2008

ABC's Bill Blakemore covers the environment: Covering **Global Warming** can seem at times like working in two parallel universes. On one hand, some preeminent peer-reviewed scientists say human-induced **Global Warming** is on track to usher in - even within ... [20 hours ago - The World Newser]

Entities: Global Warming/Climate Change, US Presidential Election 2008, Environment, Matt Elliott
8 documents.

First reported 22 hours ago - Updated 42 mins ago

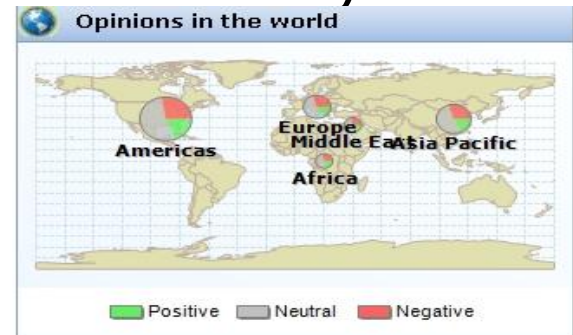
EU leaders set ambitious climate change task



European Union

European Union leaders are to set themselves the difficult task of fleshing out by the end of the year an ambitious plan for fighting **climate change**, after a long and sometimes sharp debate exposing differences among the bloc's 27 members ... [3 hours ago - FT.com - Brussels]

Entities: Global Warming/Climate Change, Climate, European Union
193 documents. 73 opinions:



First reported 10/14/2008 - Updated 22 hours ago

Global Warming Raises Risks For Directors, Officers

98% of large law firms subscribe 44% of articles have critical legal documents attached More than 12,000 exclusive articles published per year Detailed coverage of 12 major practice areas ... [10/15/2008 - Law360]

Entities: Global Warming/Climate Change, Risk, Sarah Palin, Charles Darwin
9 documents. 5 opinions:

First reported 19 hours ago - Updated 53 mins ago

Target To Cut Carbon Emissions May Be Increased As Miliband Insists Climate Change Is Priority

The new energy and **climate change** secretary Ed Miliband yesterday hinted he will today accept proposals from Lord Turner's **climate change** committee to increase Britain's target to cut carbon emissions from 60% to 80% by 2050. In his first interview since ... [14 hours ago - Guardian Unlimited]



Ed Miliband

Entities: Emission, Ed Miliband, Global Warming/Climate Change, Carbon
15 documents. 18 opinions:

First reported 10/15/2008 - Updated 8 hours ago

Samoa to host first ever global climate change facility

WELLINGTON. Oct. 15 (Xinhua) -- Samoa is to house the first ever climate change training facility in the

Top Opinion Holders

Opinion Holder	Opinions	Polarity
John McCain	221	
Sarah Palin	208	
Barack Obama	155	
European Union	83	
Gordon Brown	65	
Kevin Rudd	63	
Jim	47	
Joe Biden	41	
Stephen Harper	40	
Ross Garnaut	32	

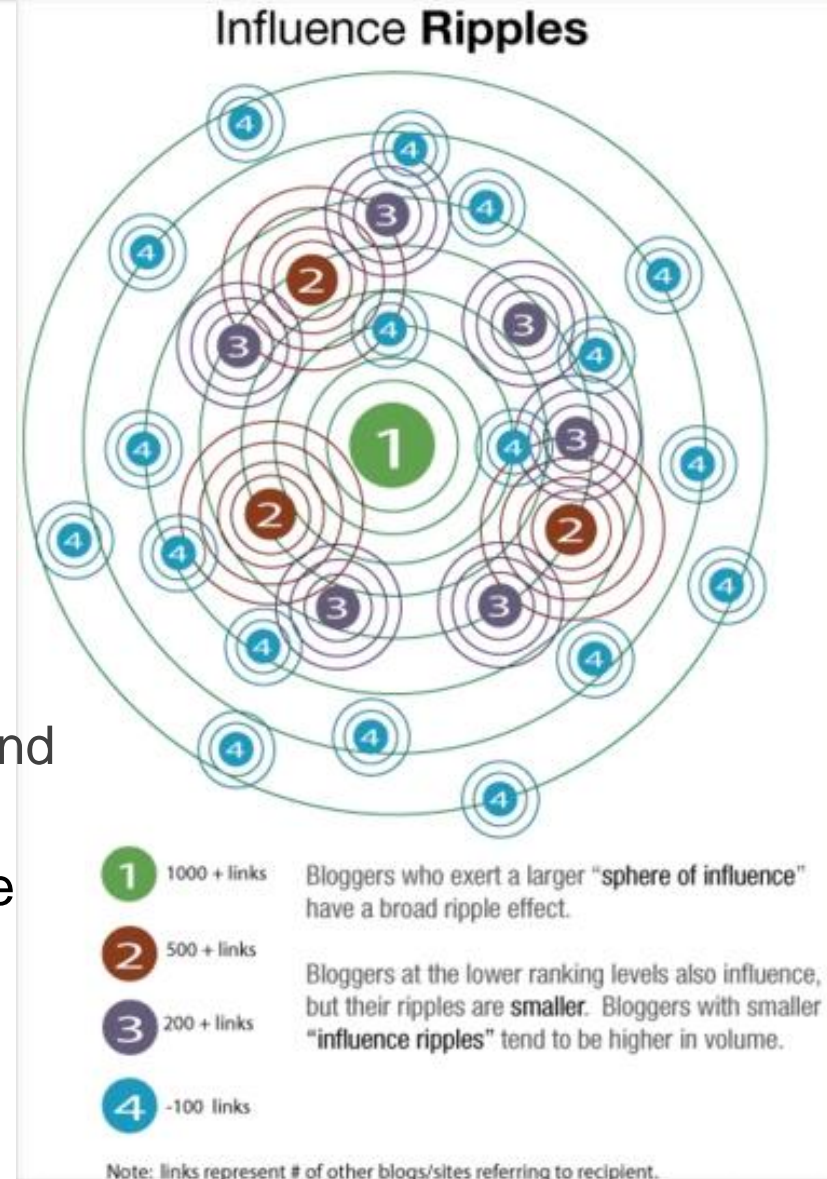
1 2 3 4 5 6 7 8 9 10 ...

Top Opinion Publishers

Publishers	Opinions	Polarity
Guardian Unlimited	424	
The Australian	168	
BBC	146	
The Independent	128	
AllAfrica.com	111	
Telegraph	104	
CNN	99	
Red Orbit	94	
The Times	88	
EurActiv.com	80	

How do you measure influence?

- Traditional
 - Provenance of mention
 - The Straits Times vs. www.funnyordie.com
- Blogs:
 - Mentions in Wikipedia
 - Link Analysis:
 - Technorati, Wikio, etc
- Twitter
 - Number Of Retweets per Thousand Followers:
 - Measures efficiency and value provided



Traditional vs Social Media or both?

- Certain cultures that do not have the same attitudes towards freedom of speech don't rely as much on traditional press focus on bulletin boards and other forums to invoke discussion.
 - Internet users in China are very active on BBS and less so on news media channels mainly as a result of state control
- Beyond Social Media
 - Analyzing all sources yields a more comprehensive result, but it's more difficult to do
 - Issues flow both ways
- Twitter Bias



SINGLE RESPONSIBILITY PRINCIPLE

Just Because You Can, Doesn't Mean You Should

It's a new world out there!

Consider sentiment analysis in what you do, experiment with it - the sooner you do so, the better off you'll be in the long run!

