Convey: A New Generation of Social Intelligence
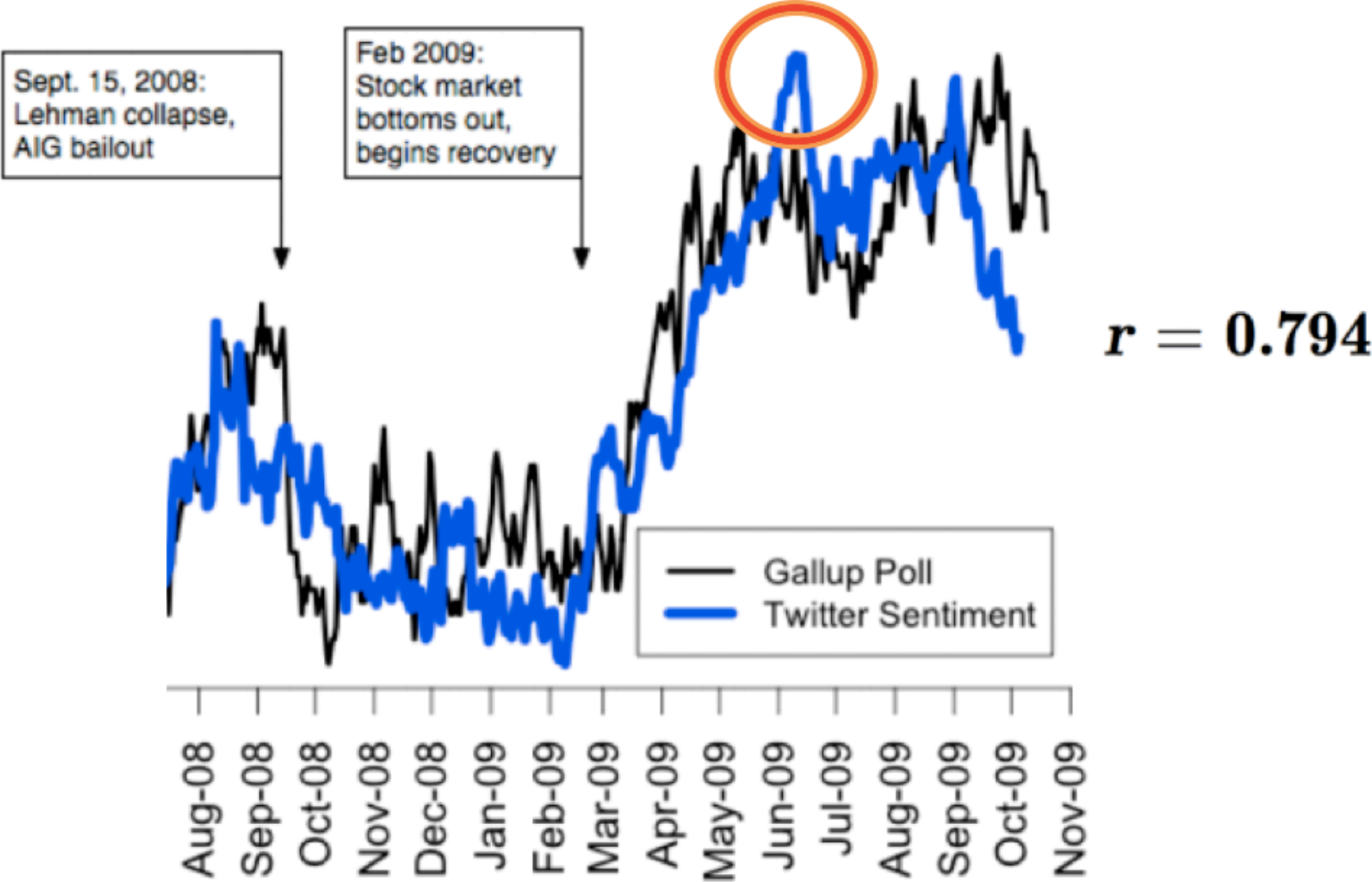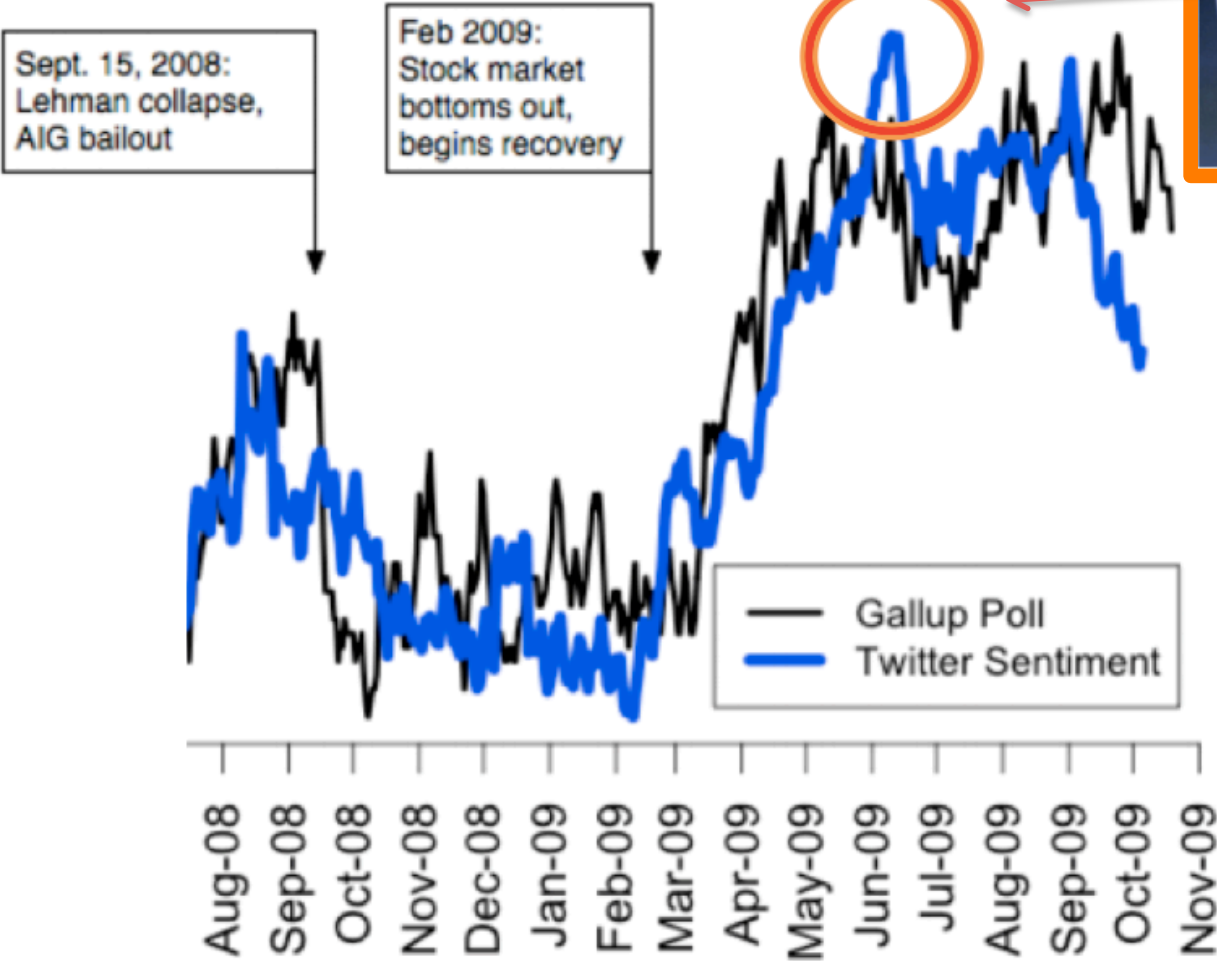
Sentiment Symposium

Correlating consumer confidence with mentions of "jobs" on Twitter

Sept. 15, 2008:
Lehman collapse,
AIG bailout

Feb 2009:
Stock market
bottoms out,
begins recovery

$r = 0.794$

Gallup Poll
Twitter Sentiment

Aug-08 Sep-08 Oct-08 Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09 Nov-09

Yay! Steve Jobs launches a new iPhone!

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Aug-08 Sep-08 Oct-08 Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09 Nov-09

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Strange Bedfellows

Whenever Anne Hathaway's name appeared with any regularity in news stories, Berkshire Hathaway A shares rose in value.

Relevance often fails with "word spotting"

- "T-Mobile" will be found quite easily

- "Sprint" not so much

- "Verizon Wireless" is also not easy to isolate

Booleans are like doing wood carving with a chain saw

- How do you set up a Boolean search for Sprint?

- "sprint" AND "phone"?

- "sprint" AND "cell"?

- "sprint" AND NOT "car"?

- "sprint" AND NOT "race"?

- "sprint" AND NOT "run"?

Instead, train with machine learning

Converseon Interrel   **Quickstart**   Sandbox

Start training: "Sprint" from random

Seed documents
Let's get started, please review these documents

@FSMBELGIUM What would you like to see more of at Super Sprint events this year?   keep toss clear

#health When i bend down such as this, men go mad http://t.co/AzVpy5ii   keep toss clear

#tfbjp Excitation is all more than the place http://t.co/mbtfkpUB   keep toss clear

@thejohnbrennan It's a marathon, not a sprint. Do you love it yet?   keep toss clear

RT @KastroDaOne: The dreaded moment when u sprint to the bathroom for your "morning pee" and someone is already in it! :'(keep toss clear

Exit mentions RT @MartezLV: "@KAM__iAM: Where is sprint in Florence ???" Google it.   keep toss clear

#ipad Chloe you sooooo have to see this http://t.co/4AuD9OQI   keep toss clear

@Sprint 's new 3G speeds are wayyyyyyy better. I love it.#MuchAppreciated   keep toss clear

New blog post imported from «Wired» by deus ex machina: Sprint Connects With the 2013 Ram Pickup, Dod... http://t.co/tGN6enVw   keep toss clear

#lol I presume myself, i truly like this http://t.co/qLc1Eat2   keep toss clear

⟳ Retrain   Save changes   Cancel

Word-spotting sentiment analysis misses sarcasm

July 04, 2007

Fixing the iPhone - Independence Day

Link: Fixing the iPhone | Crave : The gadget blog. This article at Crave contains a laundry list of the functions missing from the IPhone that may, or may not, be fixed in the next iteration. For now, declare your independence from the hype and choose a cell phone based upon functionality and usefulness and open architecture, rather than beauty. Oh, the IPhone is a beautiful girl, no doubt. But she entices with exterior charm, and doesn't deliver on the promise. me my overweight, ugly Treo 700p that has access to thousands of third-party applications, which means stereo sound, GPS software, unlimited data storage via SD cards, instant messaging clients, a workable thumb keyboard with real keys, a removable and replaceable battery, a stylus for touch screen use, true 3G data and email speed, flash support in the browser, the ability to take video of the kids frolicking on the beach, wireless syncing, and other features too numerous to mention. I am going out to the beach now; I am spending my Independence Day on the tip of the Treasure Island, Florida peninsula, caressing my Treo and letting her know that she is still my girl, and that I love her very much.

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July 04, 2007 in Computers and Gadgets | Permalink

"Oh, the iPhone is a beautiful girl, no doubt."

The automated sentiment analysis failed to identify the sarcasm and coded the entry as *positive* for iPhone, while failing to understand the author was actually saying there was no value for the iPhone beneath its flashy exterior

Word-spotting sentiment analysis misses nuance

"I waited on line for my entire lunch hour at my Wells Fargo branch today."

"State Farm never told me I had no flood coverage."

You know that these are negative, but there is no word to tell the algorithm

These would be marked neutral by most algorithms

"Amazon wouldn't refund my money."

Word-spotting sentiment analysis misses context

- ***The same words mean different things***

- That movie has an *unpredictable* ending.
  That restaurant has *unpredictable* food quality.

- This new cell phone is *small!*
  This hotel room is *small!*

- What's a poor word-spotting algorithm to do?

Word spotting leads to the wrong conclusions

- **Lack of relevance:** Many conversations you think are about you, aren't.

- **Poor accuracy:** Many automated sentiment solutions are as good as a coin flip.

- **Generic:** All analysis is applied the same way across domains

- **Language Evolves:** Slang, sarcasm is rampant in social media. Dictionary-based approaches are largely ineffective.

Convey™ scales human-level accuracy in text analysis

Convey™ is a powerful text analytics engine, yielding the industry's best accuracy; **over 90% of human performance**.
Dataweek Social Media Innovator of the Year.

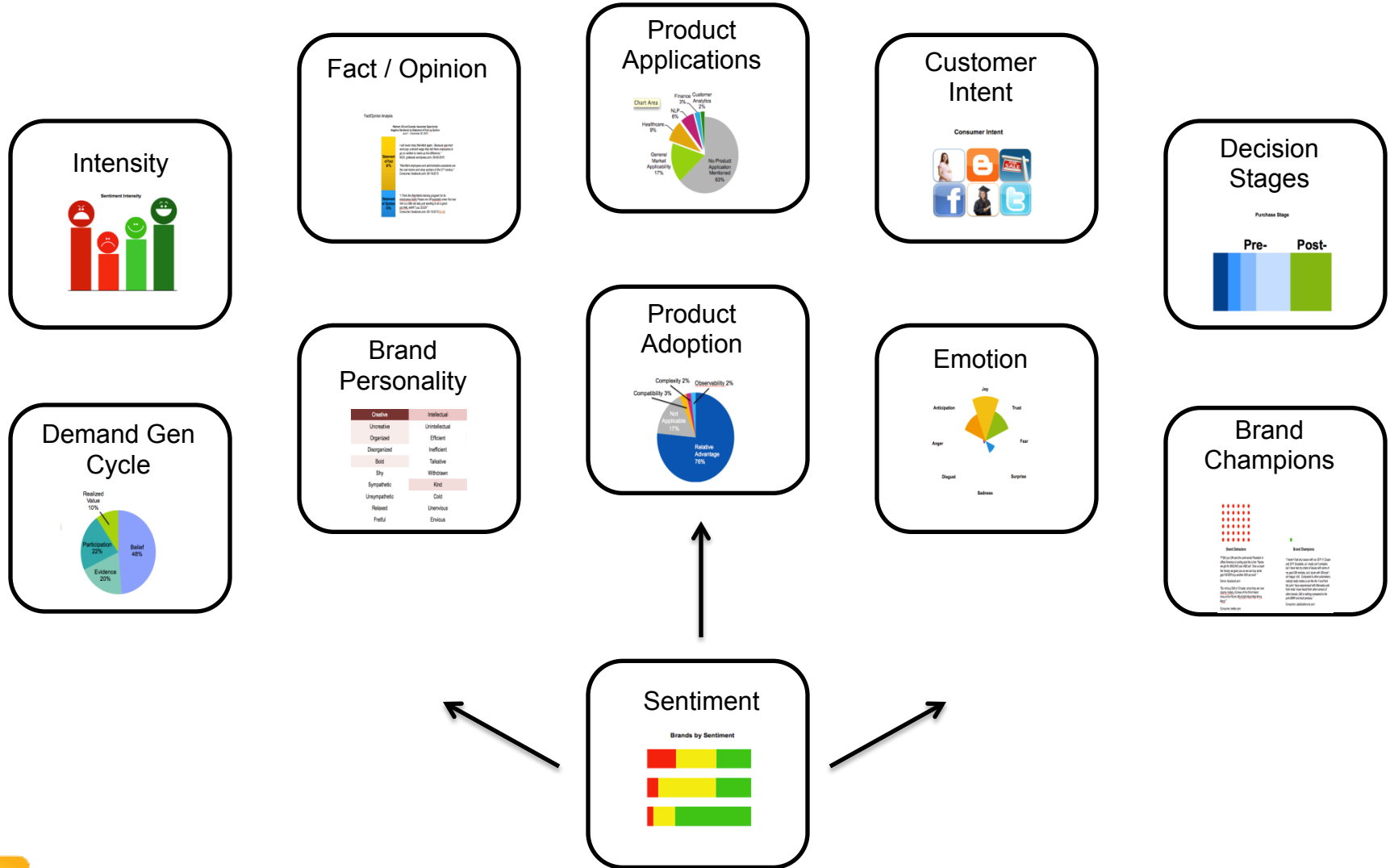It utilizes natural language processing, statistical modeling and machine learning techniques to return content-specific annotations.

Supported annotations include:

- **Sentiment (polarity)**
- **Emotion**
- **Intensity**
- **Spam**
- **Relevance**
- **Custom Classifiers**

Highly scalable, large-volume text analytics achieving human-level performance

```
"documents": [
{
  "text": "now is the time for all good men to come to the aid of their country.",
  "annotations": {
  "polarity": {
   "value": "positive",
   "confidence": 0.4644159728829226
  },
  "emotion": {
   "value": "anticipation",
   "confidence": 0.2538278908872076
  },
  "intensity": {
   "value": "none",
   "confidence": 0.07847689486351318
  },
  "spam": {
   "value": "not spam",
   "confidence": 0.8790331817466877
```

>>

Convey opens the door to a new generation of insight

Our Academic Pedigree

**Dr. Philip Resnik
Lead Scientist**

**Dr. Jason Baldridge
Sr. Data Scientist**

Dr. Resnik holds joint appointments in the Department of Linguistics and at the Institute for Advanced Computer Studies as a professor at the University of Maryland.

His research focuses on combining knowledge-based and statistical methods for natural language processing

His current work is supported by NSF, DARPA, IARPA, ARL, and a Google Research Award.

Dr. Baldridge is a a noted expert in Natural Language Processing.

He currently holds a tenured position as an associate professor of computational linguistics at the University of Texas at Austin.

In 1999, he co-founded the OpenNLP project and created the OpenNLP Toolkit, which was recently incorporated into the Apache Software Foundation's portfolio.

Classifiers need not be one-size fits all

- New Convey announcement today

- Classifiers specific to *industry* verticals
  - Automotive
  - Pharmaceutical
  - Hospitality
  - Financial services
  - Consumer Packaged Goods (CPG)
  - Consumer/Business technology

Thank you

Mike Moran

Chief Strategist

mmoran@converseon.com