# Risks and Opportunities in Automated Newsgathering: First Findings From the Frontline

## ICA Annual Conference, Fukuoka, Japan, 14 June 2016

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News Detection

News Creation

News Distribution

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News Detection

News Creation

News Distribution

# News Detection

*Discovering/clustering 'news' & trends

*Context: e.g. location, sentiment etc

*Verification

* etc

News Creation

News Distribution

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# News Detection

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* etc

## News Creation

## News Distribution

# News Detection

*Discovering/clustering 'news' & trends

*Context: e.g. location, sentiment etc

*Verification

* etc

News Creation

News Distribution

"[social media is] an incredibly important source"

– **Jonathan Rugman, Foreign Affairs Correspondent, Channel 4 News**
(pers. comm.)

**Jānis Krūms**
@jkrums
Entrepreneur. Athlete. Latvian-American. CEO/Founder of @opprtunity - Real-Time
Professional Discovery - @YEC member Investor: @memsql @humandotco @plangrid

US AIRWAYS

Follow

Boston Police Dept.
@bostonpolice

Suspect in custody. Officers sweeping the area. Stand by for further info.

ago

RETWEETS
71,380

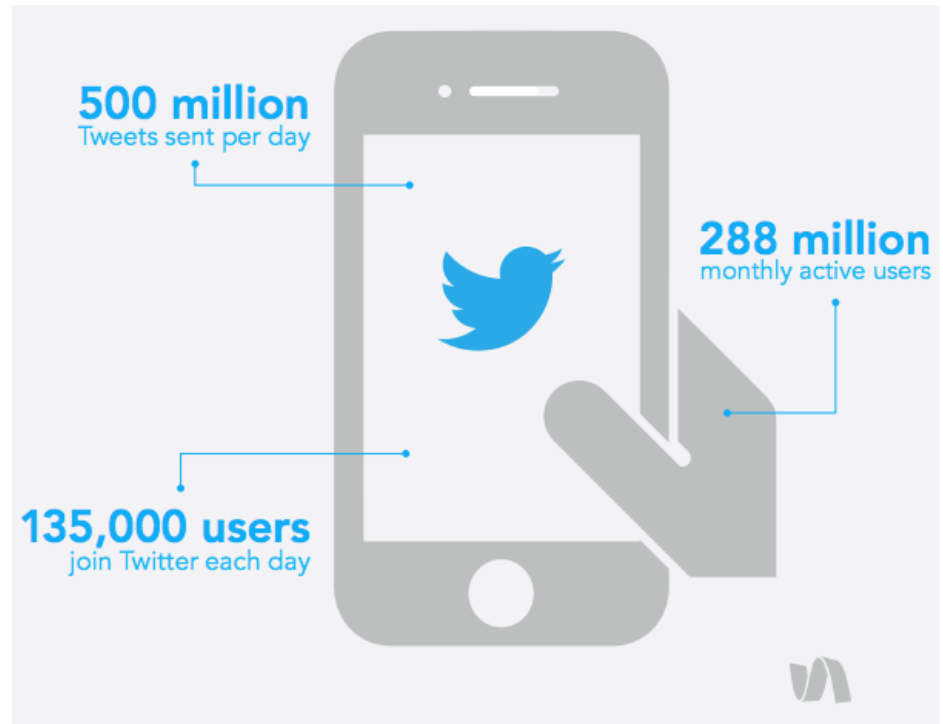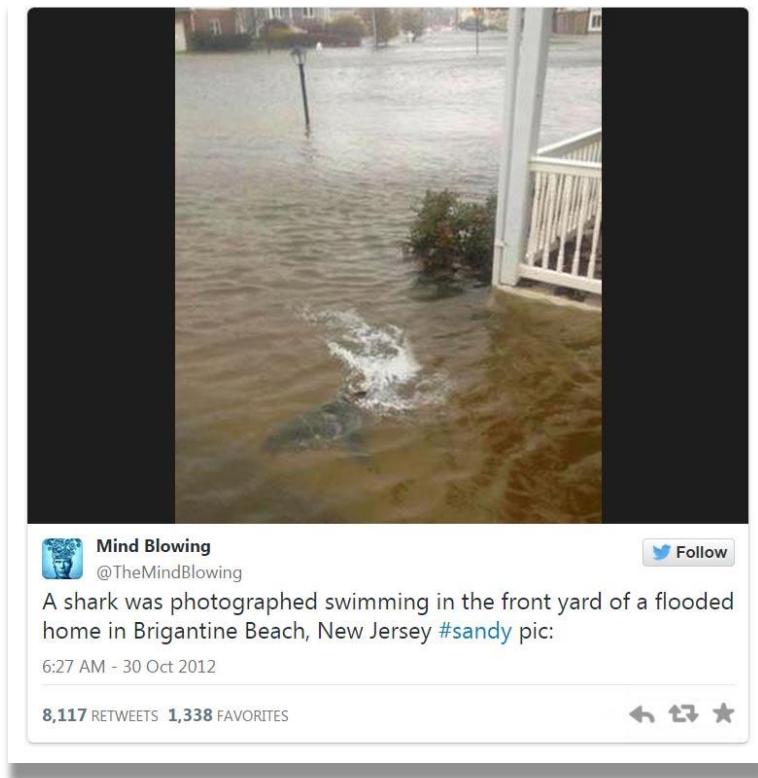FAVORITES
18,206

1:45 AM - 20 Apr 2013

- Most not news

i lovee my nephew hair :D

10:44 AM - 23 Oct 2015

Following

- How much can you believe

- Volume

**Mind Blowing**
@TheMindBlowing

Follow

A shark was photographed swimming in the front yard of a flooded home in Brigantine Beach, New Jersey #sandy pic:

6:27 AM - 30 Oct 2012

8,117 RETWEETS  1,338 FAVORITES

**500 million**
Tweets sent per day

**288 million**
monthly active users

**135,000 users**
join Twitter each day

"we need algorithms to take more onus off human being, to pick and understand the best elements" – **New York Times' Social Media Team member** (pers. Comm.)



Jānis Krūms
@jkrums
Entrepreneur. Athlete. Latvian-American. CEO/Founder of @opprtunity - Real-Time Professional Discovery - @YEC member Investor: @memsql @humandotco @plangrid

Follow
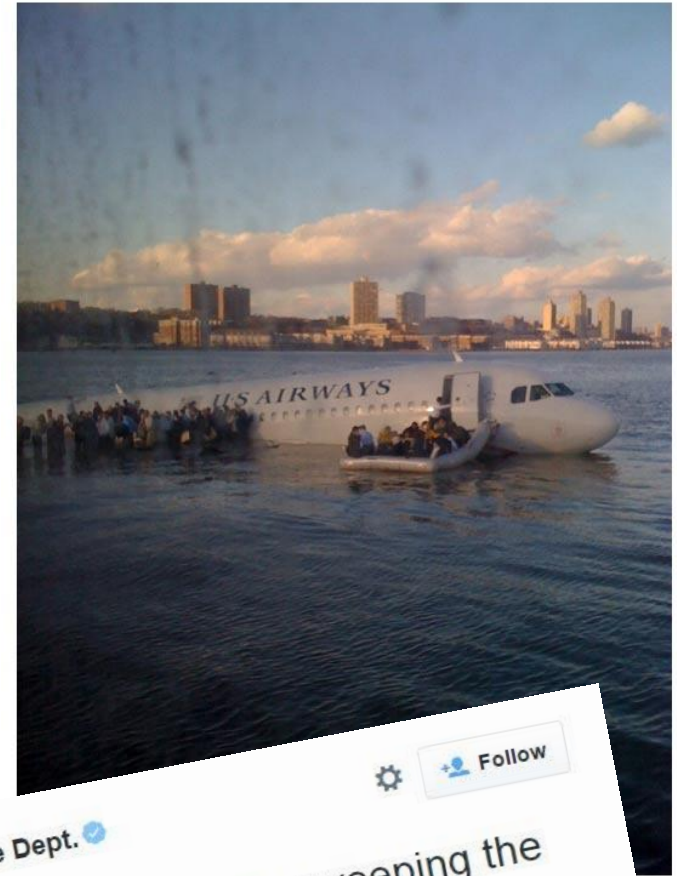
Boston Police Dept.
@bostonpolice
Suspect in custody. Officers sweeping the area. Stand by for further info.

RETWEETS 71,380
FAVORITES 18,206

1:45 AM - 20 Apr 2013

# Geofeedia

New Search ▾

**24,307** RESULTS

Map | Collage | Analytics

⟳ Refresh    ⚙ Options

＋ Load More

## Date Filter

**From**

mm/dd/yyyy | hh:mm

**To**

mm/dd/yyyy | hh:mm

Apply | Clear

## Networks

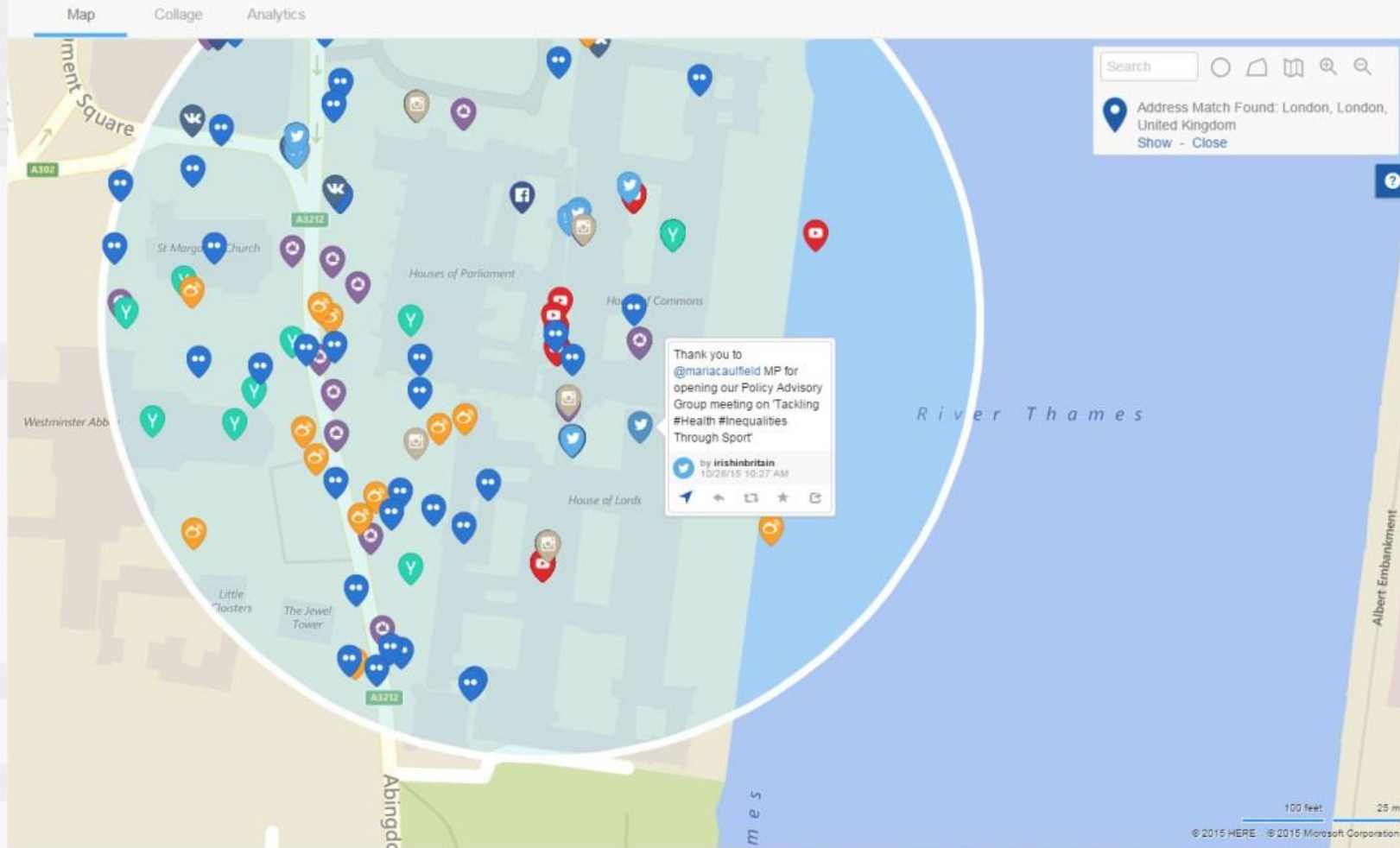| | | |
|---|---|---|
| 🐦 Twitter | 9.4K |
| 📷 Instagram | 13K |
| f Facebook | 100 |
| ▶ YouTube | 122 |
| •• Flickr | 217 |
| Ⓞ Picasa | 77 |
| Y YikYak | 70 |
| Sina Weibo | 100 |
| VK VK | 161 |

All On

## Keyword Filters

Add Keyword Filter

## Username Filters

Add Username Filter

Search   ○ △ ◫ ⊕ ⊖

📍 Address Match Found: London, London, United Kingdom
Show - Close

*River Thames*

Houses of Parliament

House of Commons

Thank you to @mariacaulfield MP for opening our Policy Advisory Group meeting on 'Tackling #Health #Inequalities Through Sport'

by **irishinbritain**
10/28/15 10:27 AM

House of Lords

St Margaret Church

Westminster Abb

Little Cloisters

The Jewel Tower

Abingdo

100 feet | 25 m

© 2015 HERE © 2015 Microsoft Corporation

https://app.geofeedia.com/geofeed#

Cursor: 51.49928468N, 0.12432954W    Map Center: 51.49921288N, 0.12464604W    Radius: 0.2km

OFF Auto-Refresh | Heads-Up Display ⚙

SAVE AS NEW PANEL

Search for a phrase, domain, person, ...   [?]    Search

☐ Search full text of stories [?]

Current Filters
Clear all    1m    Germany ✕

**PUBLISHED IN LAST** [?]

| 1h | 3h | 12h | 24h | 1w | 1m |

| LOCATION [?] | TOPICS [?] |

WORLD
► NORTH AMERICA
▼ EUROPE
  ► GERMANY
  ► UNITED KINGDOM
  ALBANIA
  AUSTRIA
  BOSNIA AND
  BELGIUM
  BULGARIA
  BELARUS
  SWITZERLAND
  CZECH REPUBLIC
  DENMARK
  ESTONIA
  SPAIN
  FINLAND
  FRANCE
  GREECE
  CROATIA
  HUNGARY
  IRELAND
  ICELAND

▼ NEWS
  POLITICS
► ENTERTAINMENT
► CULTURE
► LIFE
  FUN
► OPINION
► TECH
► SCIENCE
► BUSINESS
► INDUSTRIES
► SPORTS

| Stories | Facebook Posts | Instagram Posts | Influencers | Creators | Watch List |

Video only ● OFF   Language  Any ▼            Sort by  Most Recent ▼

**1live's post**

@lisakestel ist die nervigste Kollegin im Haus - sagt @schroederlich #Essensdiebin #1live #mittagessen #nofoodporn

9 minutes ago   by 1live    Video

More Info   📷 5

Most Recent
5

**herthabsc's post**

Unser Kader für das Spiel Gelsenkirchen! #hahohe

11 minutes ago   by herthabsc    Image

More Info   📷 90

Most Recent
90

**fcbayern's post**

Last training ahead of #SVWFCB! #FCBayern #Bundesliga #MiaSanMia

18 minutes ago   by fcbayern    Image

More Info   📷 15,460

Most Recent
15,460

**borisbeckerofficial's post**

Another win in #Shanghai!!! Today against #Tomic ....#nolefam #idemooo
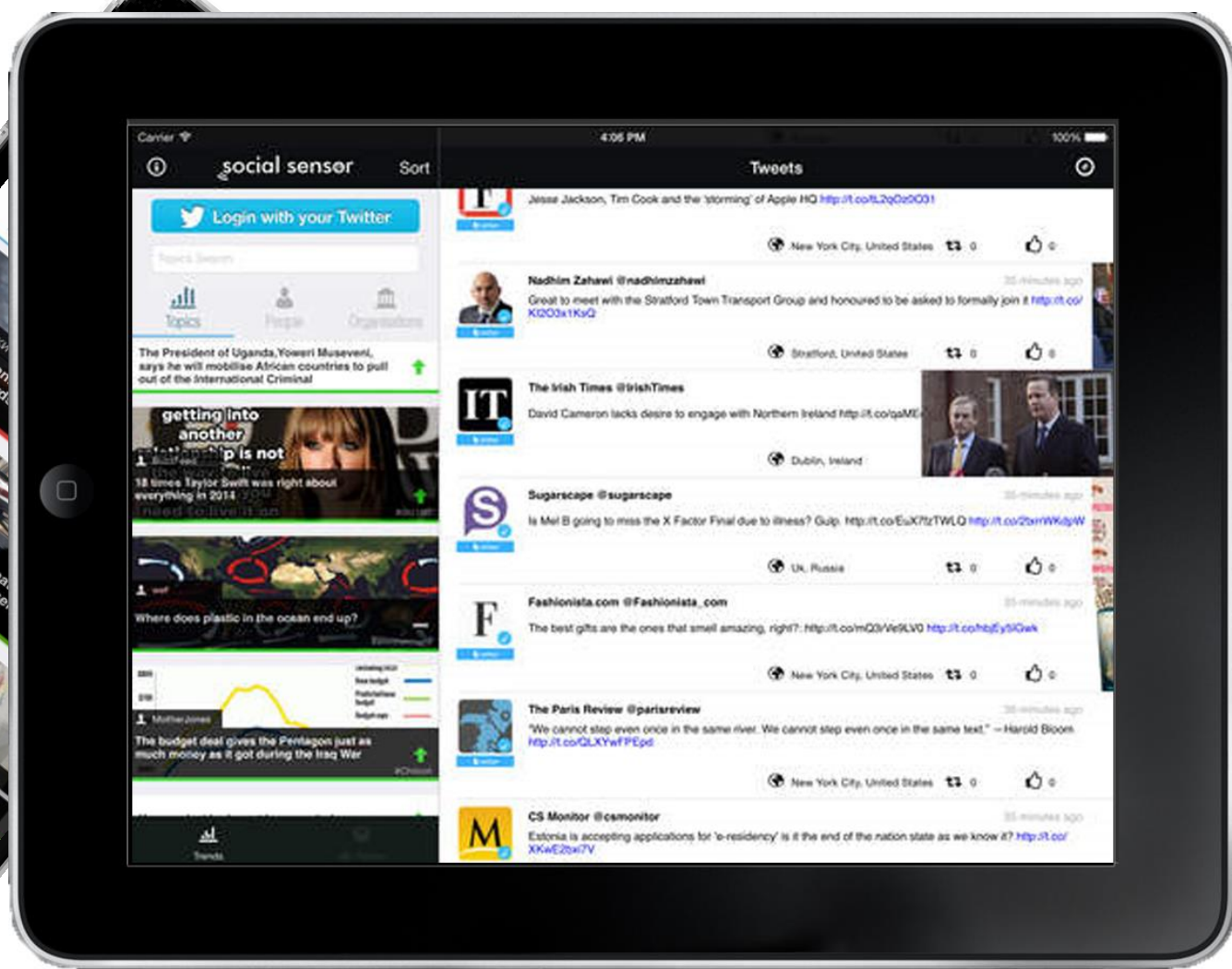
35 minutes ago   by borisbeckerofficial    Image

More Info   📷 809

Most Recent
809

# Participants (n=81)

- Median **age**: 23;
- 80% **female**;
- Nearly all had **previous journalism experience**.
- 50% from **Europe**, 15% from the **UK**, and 10% each from **Asia** and the **Americas**.

# RQs

- Identify **original news** on social media?
- Assess the **reliability** of social media contributors?
- Identify **trends**?
- Identify **sentiment**?

# Detecting original news



Detecting Original News
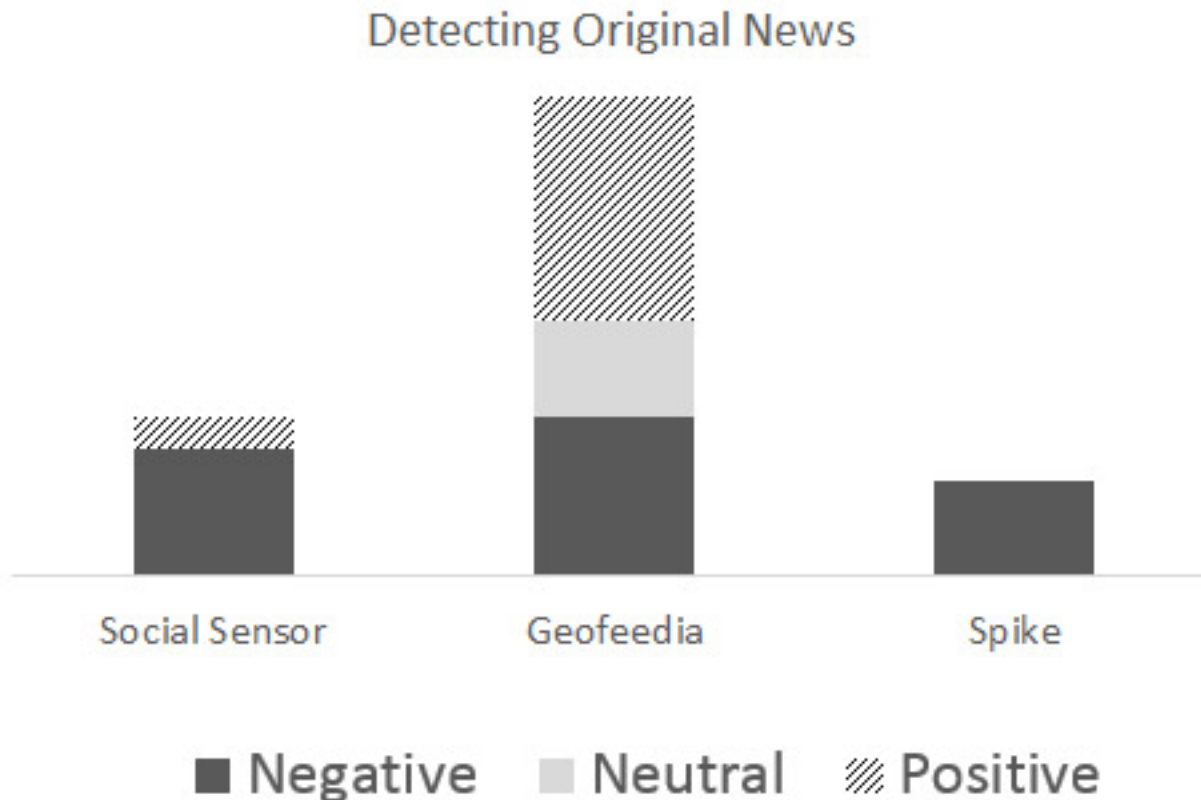
paris, france | 2016-05-28 to 2016-06-04 | ☐ Select Area ▾ | ☞ Copy URL | 🐦 Tweet

Le #pointcrue de 14h23 @ Pont d'Arcole https://t.co/m10haOGNNZ

#Paris #crue Pont d'Arcole @ Pont d'Arcole https://t.co/YgolOYnC5J

**Pauline**
@Paulinepooo
6/3/2016, 10:53:57 AM

#flood in paris #pont d'arcole #zoiaskoropadenko #artistinparis @ Pont d'Arcole https://t.co/MXJrkmm8Gs

**Zoia Skoropadenko**
@zoiaskoropadenk
6/3/2016, 2:11:27 AM
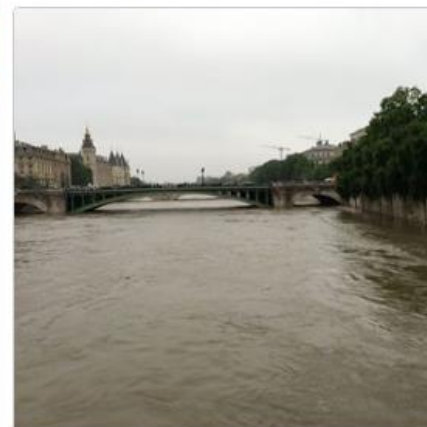
La Seine à 5 mètres 😴😴😴💦 @ Pont d'Arcole https://t.co/PhJ0DkZI0g

# Detecting Trends

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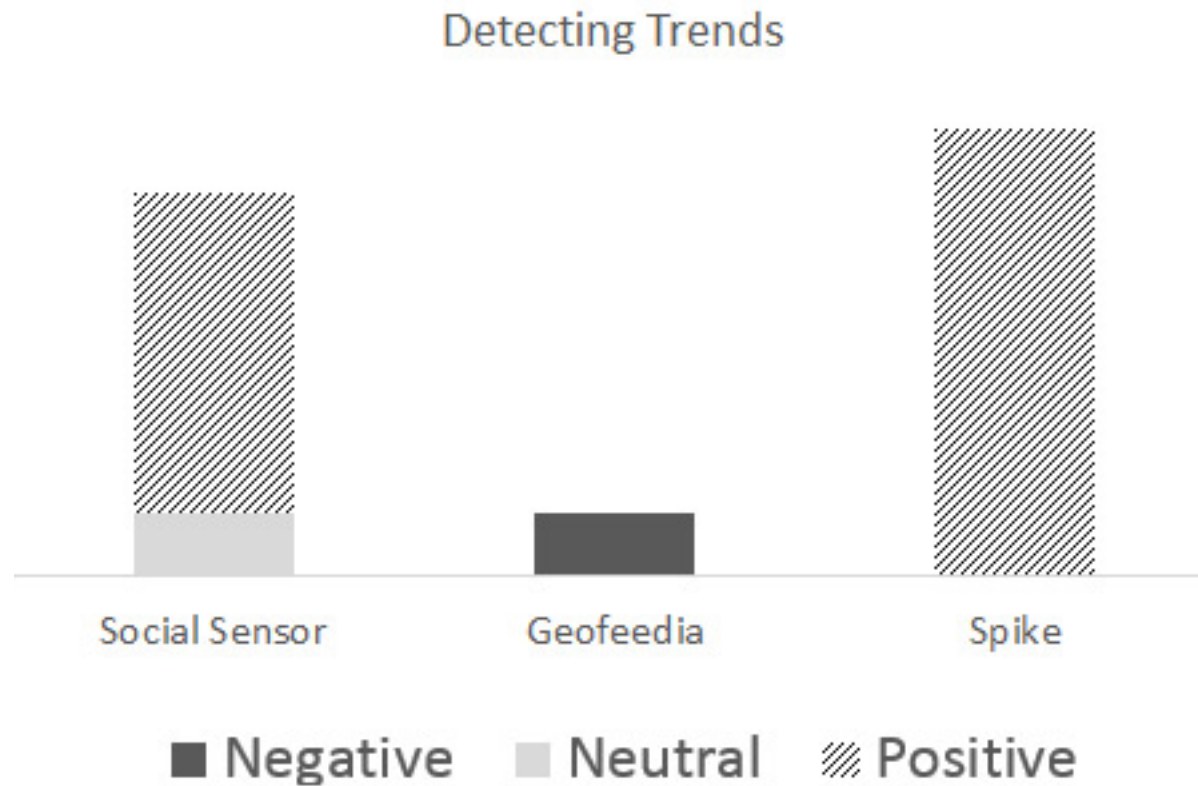
# Detecting Trends

"Spike helped me decide which stories to pitch on London Fashion Week."
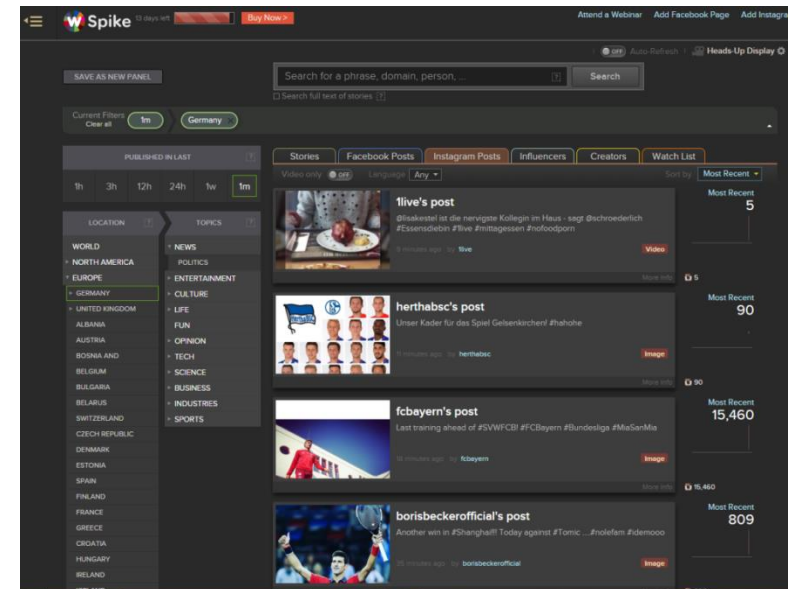
# Detecting Sentiment



Detecting Sentiment

Negative — Neutral — Positive

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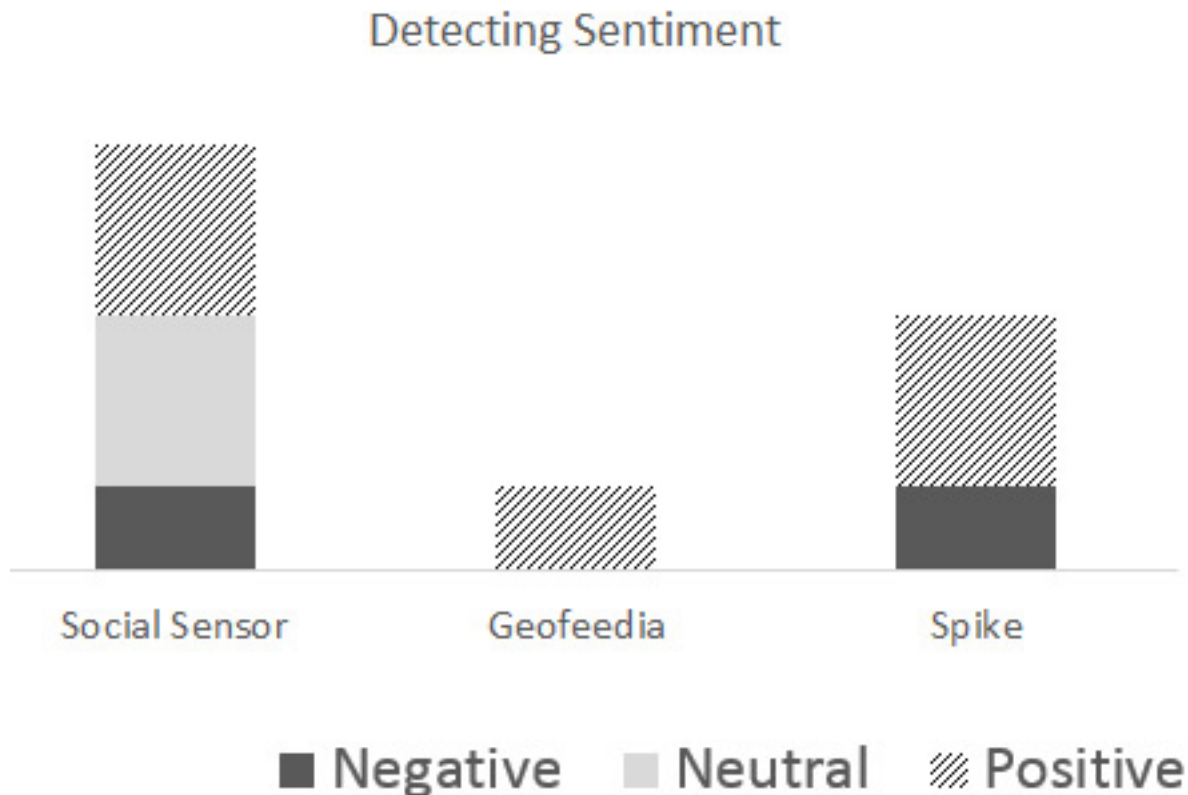
# Detecting Sentiment
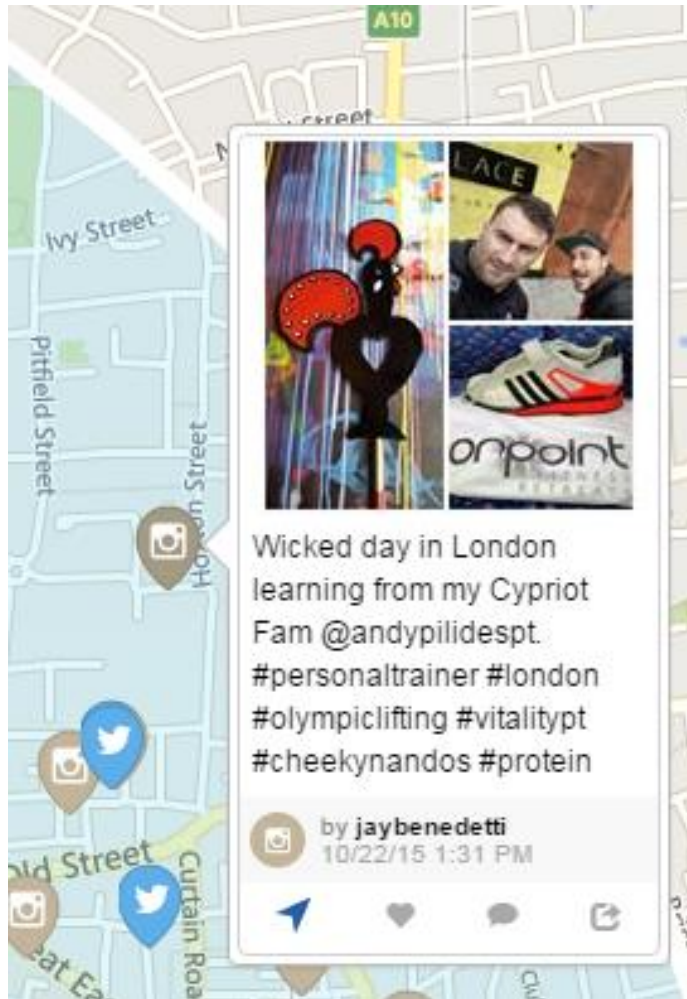


"Sick" or "wicked," which the "Sentiment" function would presumably categorise as negative, could sometimes mean something positive, for instance."

Sentiment

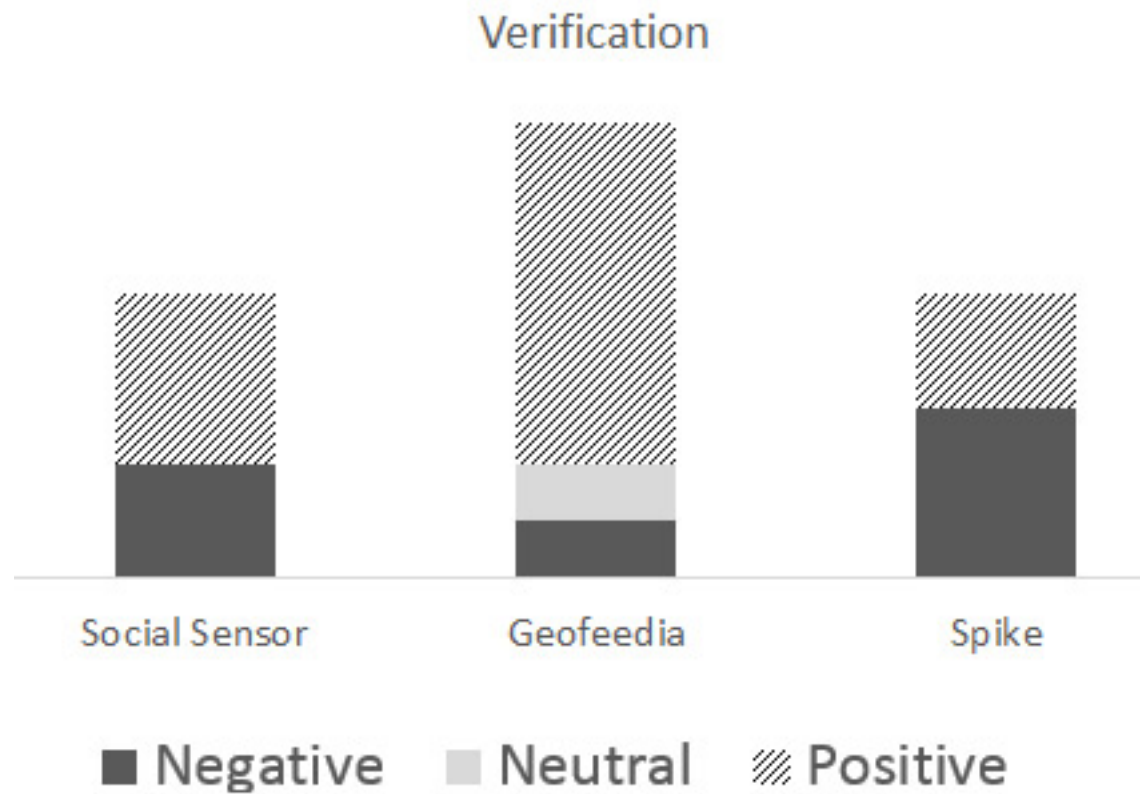**Filter** the posts by selecting an area of the donut chart

61.90 % positive

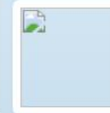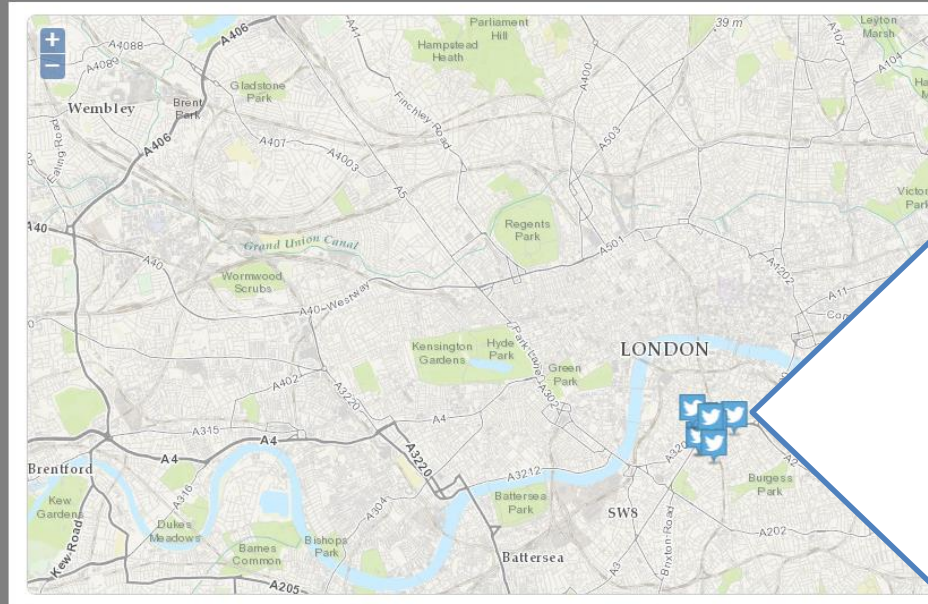Positive posts: **13**
Negative posts: **1**
Neutral posts: **7**

# Verification

# Verification

"Geofeedia helps in verification of information, since it shows social media posts' location. You won't be misled by someone 'pretending' to tweet from the heart of Egyptian revolution, while in reality drinking his cup of tea somewhere in London".

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"In order to successfully cover events like New York Fashion Week, journalists **must use tools** like Twitter and Geofeedia."

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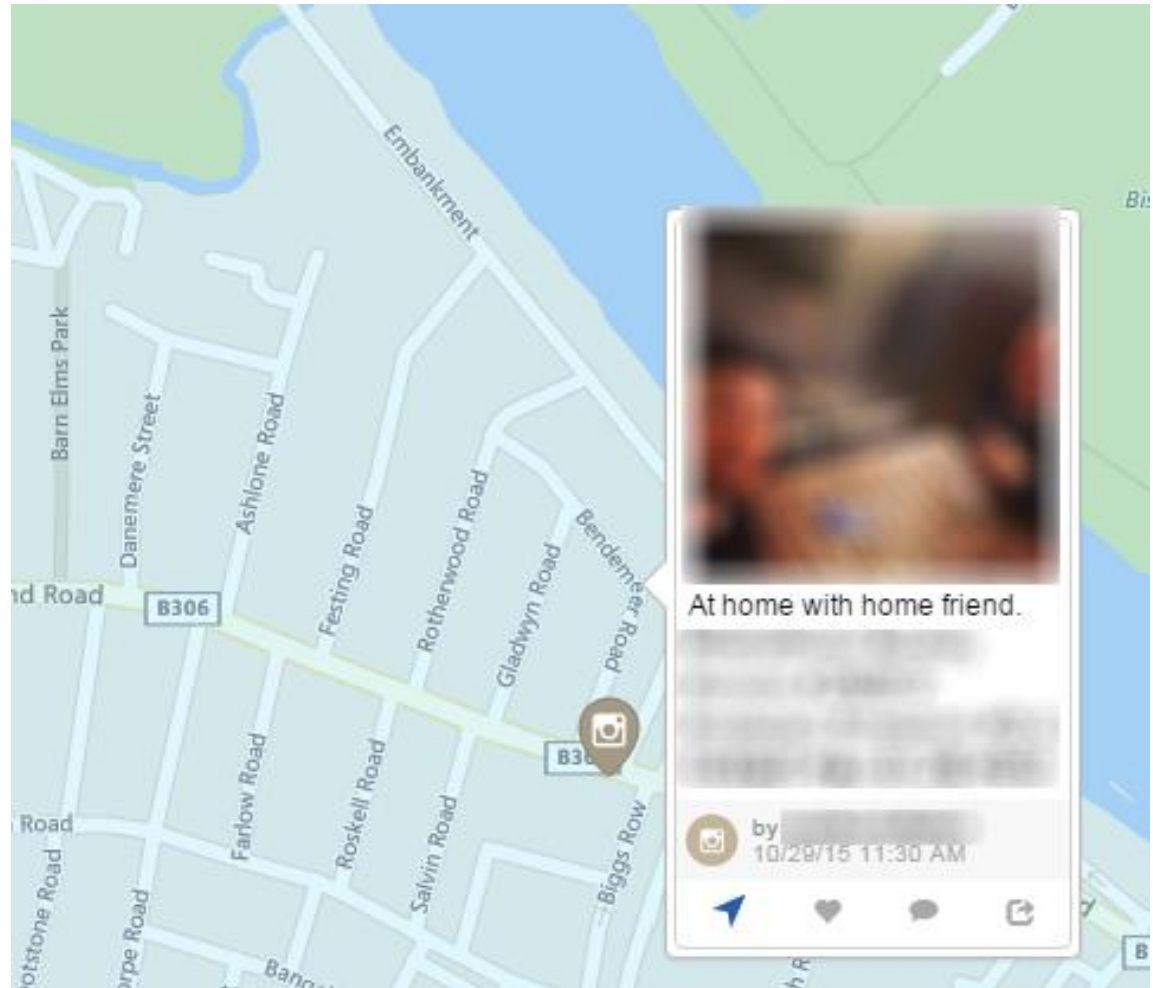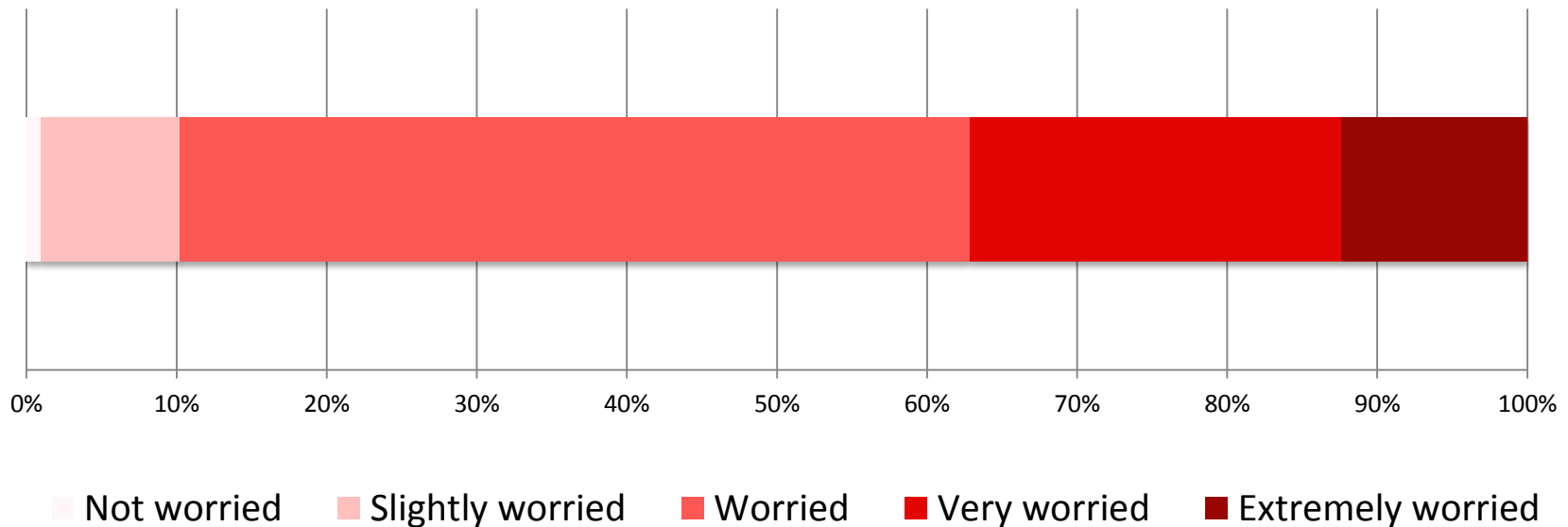UNIVERSITÄT
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# Dangers with automated news gathering

- Privacy

- Popularism

- Misplaced trust

- Biases

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# Privacy

"slightly morally wrong and stalker-esque".

# Popularism



Legend: Not worried | Slightly worried | Worried | Very worried | Extremely worried

**Q**: Please indicate how much you worry that tools such as Spike, Geofeedia, Social Sensor, and Twitter could be helping to promote a more popularist news agenda where journalist write more about what the public want rather than what they (the journalists) consider to be important, no matter how unpopular (n=32).
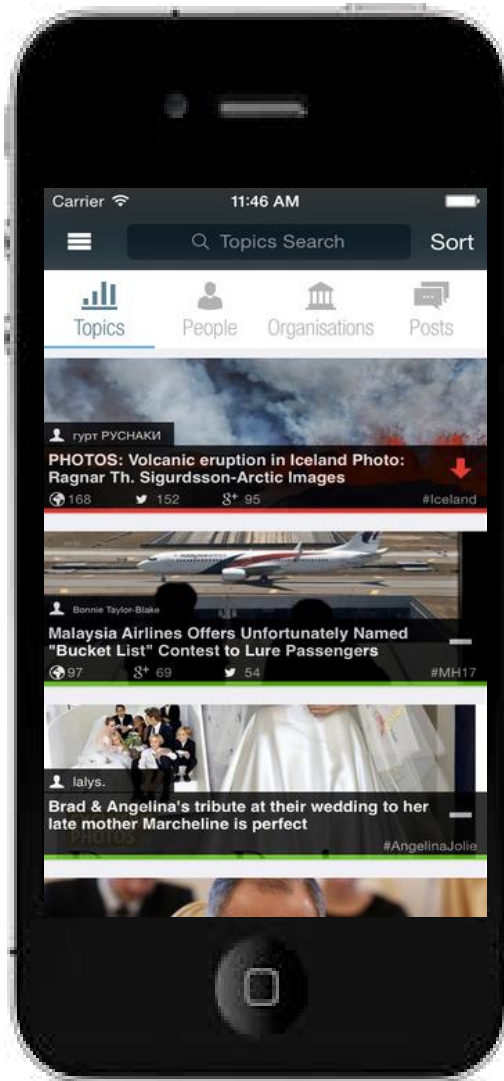
# Misplaced trust
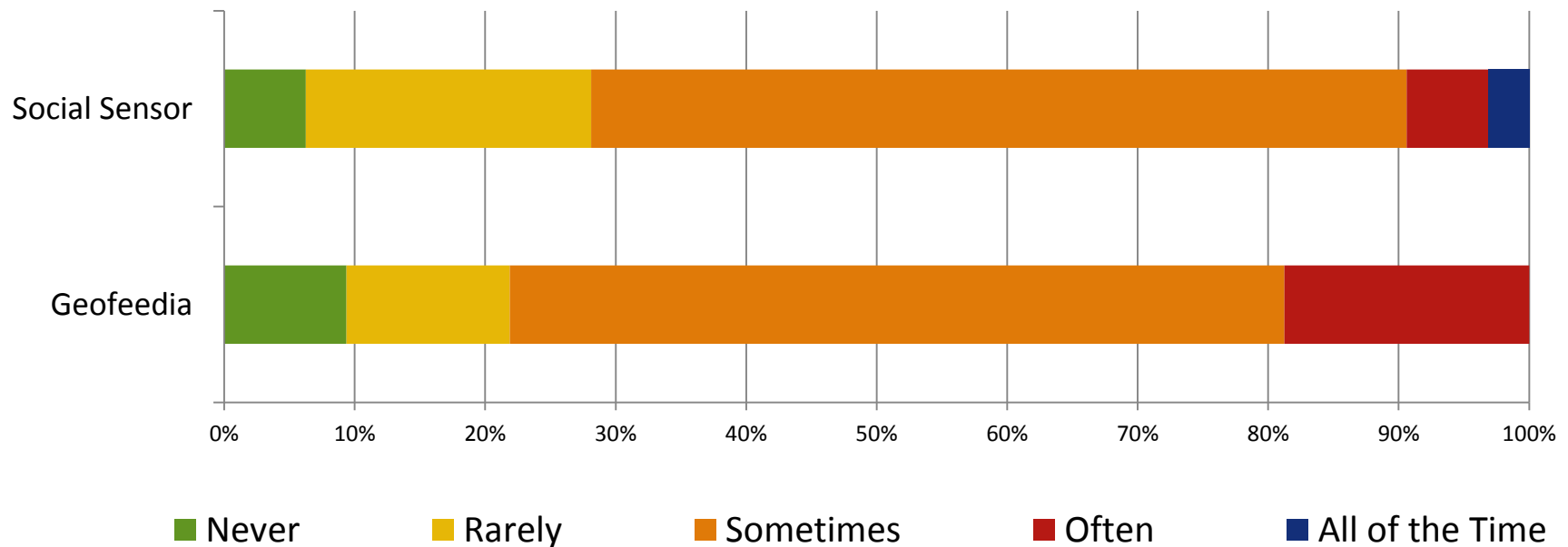


Q: Please tell me how much, if at all, the information found on each of these tools has been automatically verified (*n* = 32).

# 'Biases'



Listens to...

- **47% Men**
- 25% Women
- (26% institutions)

- **60% metropolitan** (London, New York, Washington)
- 40% non-metropolitan/'foreign'

- **65% mainstream media**
- 35% 'other' (NGO, experts etc)

# 'Biases'

Algorithmic transparency "is, at best, insufficient and, at worst, a dangerous misdirection away from sites of press power beyond code".

**-- Mike Ananny and Kate Crawford**

*Beyond the Black Box: The Failures of Algorithmic Transparency*

# Thank you.

**Neil Thurman**
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@neilthurman

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@saschiff