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Social Media Threat Intelligence:

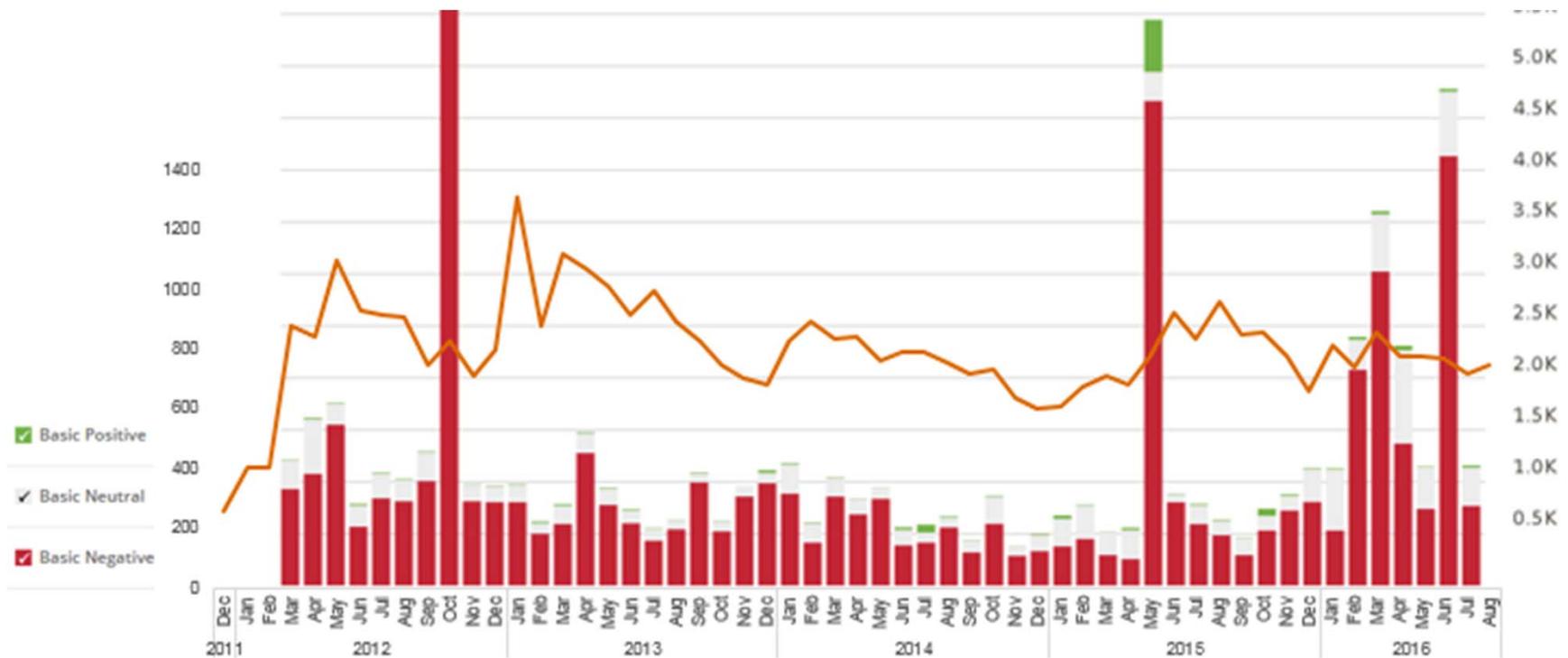
Deriving actionable insights to
help mitigate risks and threats to
the enterprise

IIA Fraud Summit
March 23, 2018

Social Media Threat Intelligence – Agenda

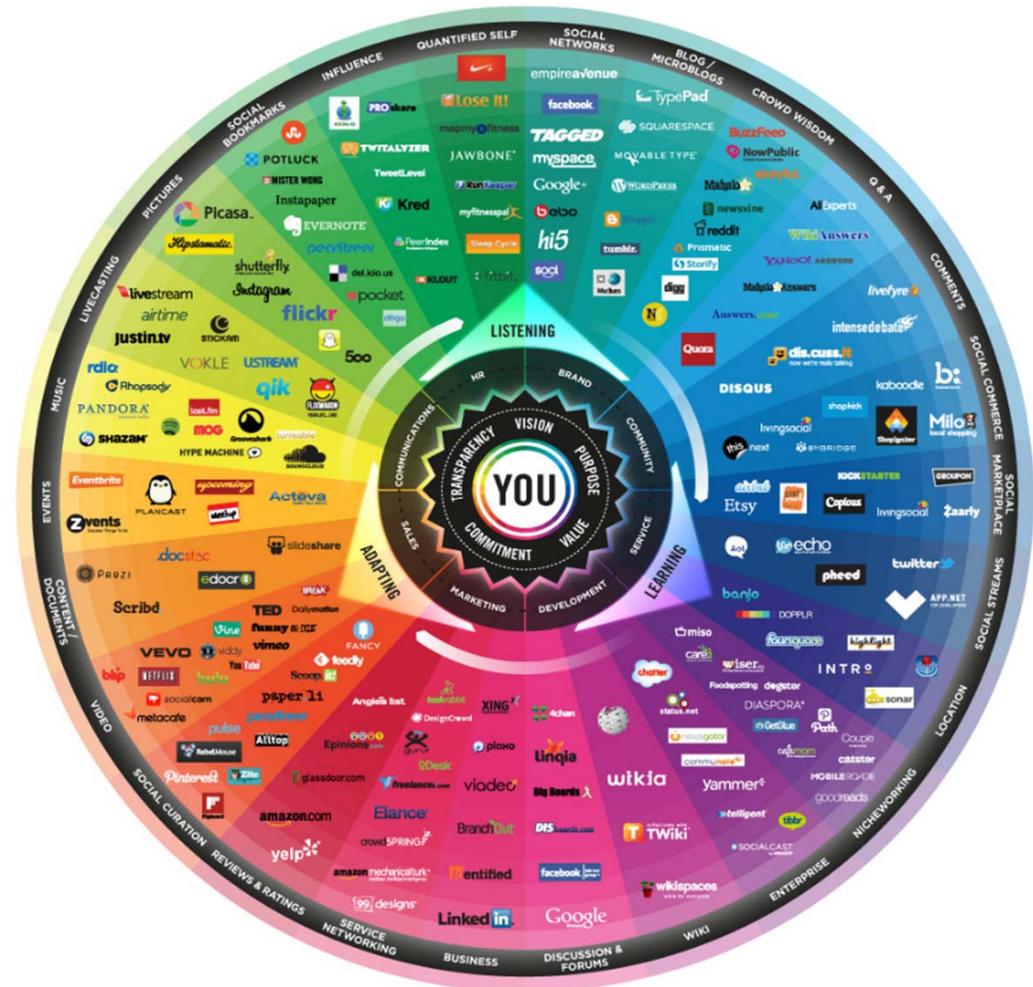
- Understand how social media can help identify and understand threats
- Identify specific ways in which social media analysis can be applied in the context of identifying threats
- Develop an understanding of the nuances and potential limitations of social media
- Discuss a potential risk area when doing social media research

Multinational financial institution crisis – what were the indicators to detect wrongdoing?



How do we define social media?

Social media content has **exploded** as a major conduit of collecting information on entities ranging from global corporations to individuals and everything in between. This includes companies, governments, and the public at large.



How do most companies currently use social media?

A broad definition of social media

A set of internet technologies that allow users to generate and share content, collaborate, exchange ideas, and form communities with shared interests.

Organizations increasingly use the convening power of social media to **boost their image** and better **anticipate consumer trends**; few groups have harnessed the potential power of social media for applications beyond marketing and public relations.

Traditional Analysis



A largely untapped universe of social media content can be a vital resource for **intelligence, investigations** and **warnings** of latent threats. By scanning social media in the threat context organizations are in a better position to find information and the insight they seek.

Threat Analysis

Social media's reach and depth

Twitter sees roughly 500 million tweets every day and has more than 100 million daily active users as of January 2017

A new blog is created every second; there are over 300,000 created daily

YouTube users upload 300 hours of new video every minute of the day

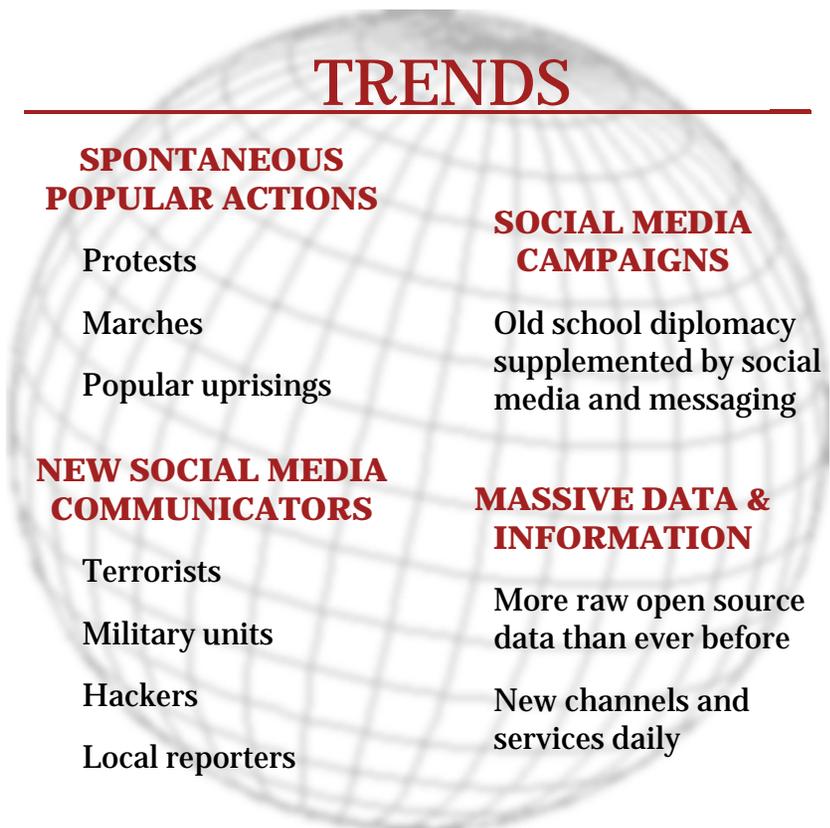
Facebook records over 500 new terabytes of user generated data daily

Instagram has more than 500 million daily active users; more than 95 million photos are uploaded daily as of 2017

73% of US adults use social networks while the number of people on multiple networks is now at 42%

Sources referenced:
<https://www.omnicoreagency.com>
<https://blog.microfocus.com>

Opportunities and challenges to leverage social media outlets as a key source of intelligence



TRENDS

SPONTANEOUS POPULAR ACTIONS

Protests
Marches
Popular uprisings

SOCIAL MEDIA CAMPAIGNS

Old school diplomacy supplemented by social media and messaging

NEW SOCIAL MEDIA COMMUNICATORS

Terrorists
Military units
Hackers
Local reporters

MASSIVE DATA & INFORMATION

More raw open source data than ever before
New channels and services daily

OPPORTUNITIES

Data flows to you

Analytic cycle can be faster, more focused

Open source data can lead the way

CHALLENGES

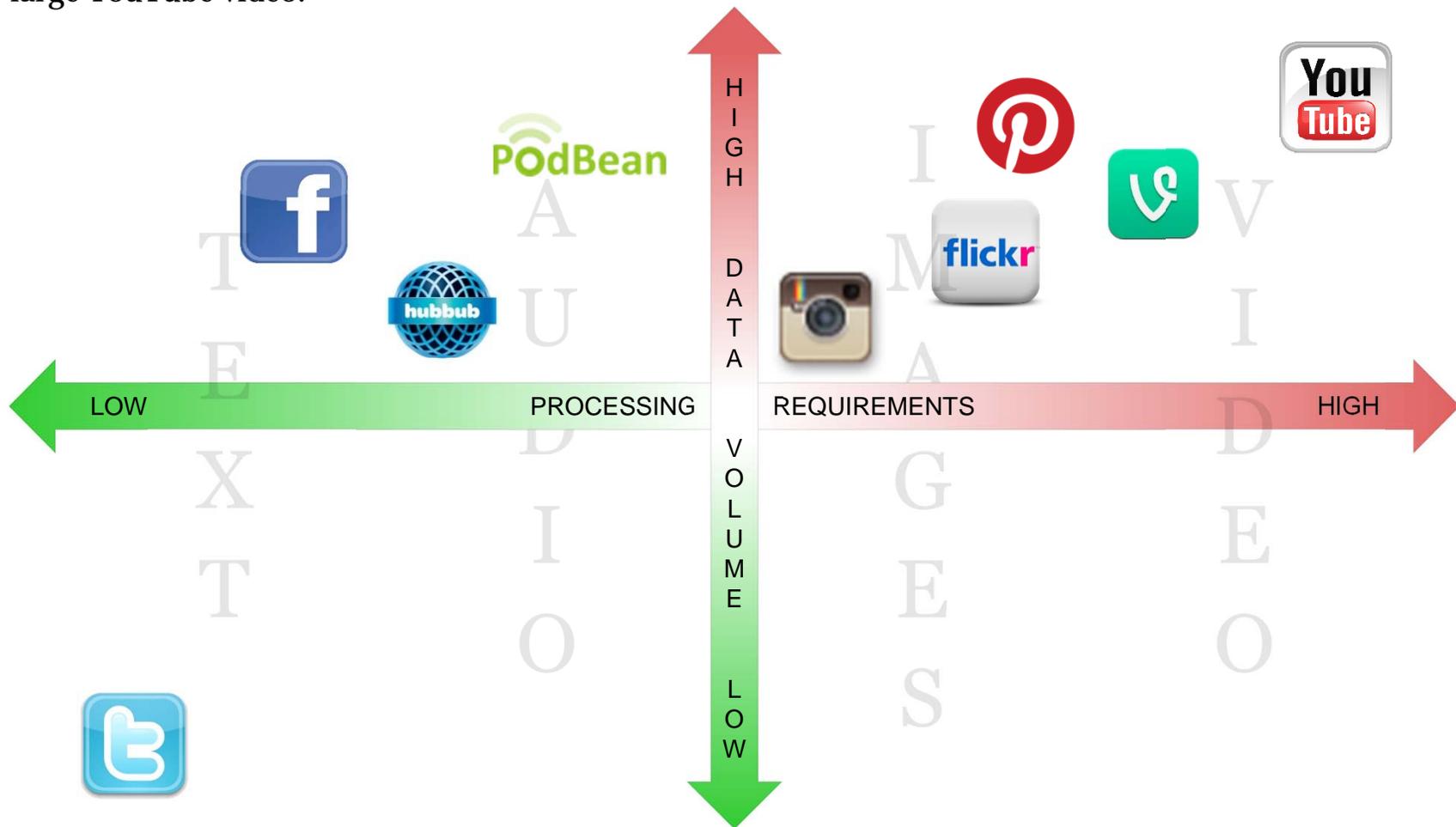
Access to data is easier, creating context is harder

Using limited resources in the right way

Linking the right tools to results

Not all social media sites are created equal

Effective collection and review of posts is relational to their data size and methods required for processing. It is dramatically easier to process large volumes of Twitter posts compared to a single large YouTube video.



Caveats to and limitations of social media aggregation

Phonetic Variants

Engineered solutions can only compensate for some variations of names with multiple spellings (e.g. Qadhafi or Muhammad)

Foreign Languages

Some tools are incapable of detecting dialectic nuances or processing non-western languages (e.g. Farsi, Tagalog, Bahasa, Turkish, Zulu)

Code Words/Slang

Speaking in code, irony, sarcasm, and uncommon vernacular thwarts identification of potentially relevant posts (e.g. Pig Latin, Leet Speak)

Geospatial Data

Approximately < 2% of users choose to enable the geospatial location functionality on their devices and social media accounts

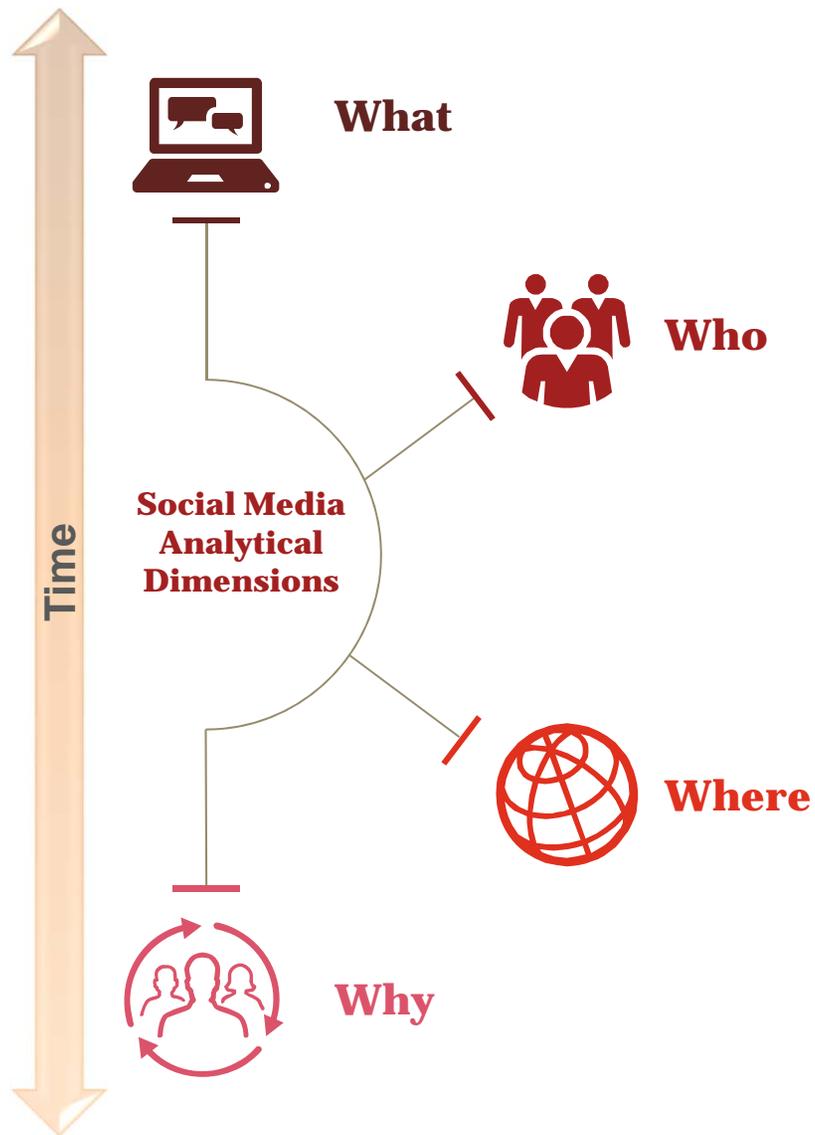
Prophetic Reports

Predictive analytics is restricted to identifying variations in baselines and multidimensional metrics; tuning these algorithms still needs human analysis

Hampered Access

Due to privacy concerns, most solutions will not gather data located in the “deep web”, “peer-to-peer” networks, or from sites that require passwords

Social media analysis dimensions



What do people say?

- Assess the content of what people are saying
- Analyze sentiment and emotion
- Key chatter, conversation trends

Who are the influencers, audience, other key actors?

- Who is the audience; their immediate network
- Who are key influencers, nodes, actors
- What is reach and breadth of the message/conversation

Where is the conversation taking place?

- Geolocate content to understand where the conversation occurs
- Assess the geographic distribution of messages
- Evaluate geographic location for factors driving the conversation

Why do they do what they do?

- Investigate motives driving the conversation and message
- Assess the impact of historical, local and other factors that may drive the message/conversation

Other applications of social media threat intelligence



Compliance violations



Reputation



Fraud



IP theft /
Insider



Operational
issues



Cyber



Security



Defective
products



Corruption

Questions?

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