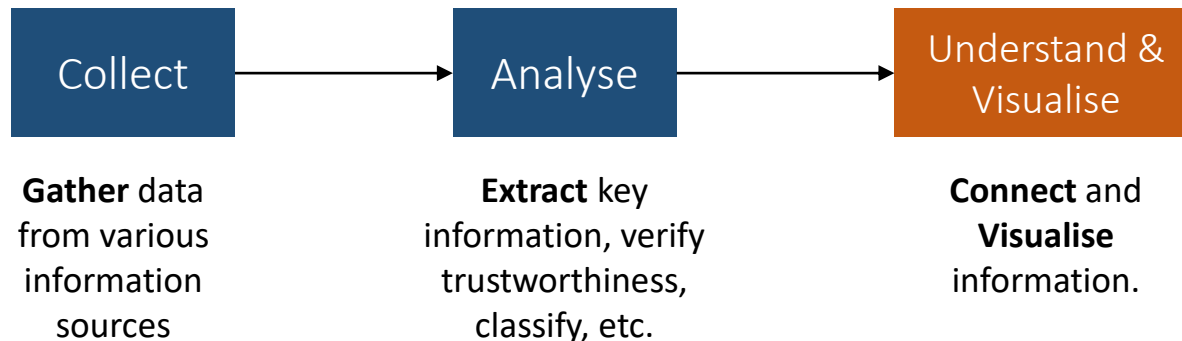


# SMASAC - Visualizations, End-to-End Systems and Conclusion

GRÉGOIRE BUREL, MAYANK KEJRIWAL AND  
PRASHANT KHARE



# Data Visualisation

Visualisation – a key phase of analysis in crisis informatics. Data interpretation is equally important to data collection and curation.

The visualisation can be driven by multiple objectives:

- Geospatial data visualisation.
- Emerging trends.
- Demographic based analysis.
- Mapping logistics.
- Predictive analysis.



# Data Visualisation

## Platforms/Libraries for visualisation:

### – Situation Awareness Platforms-

- Ushahidi



- Sahana Foundation



### – Visualisation Libraries –

- D3.js ,

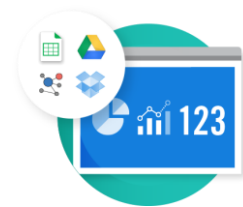


- Plotly

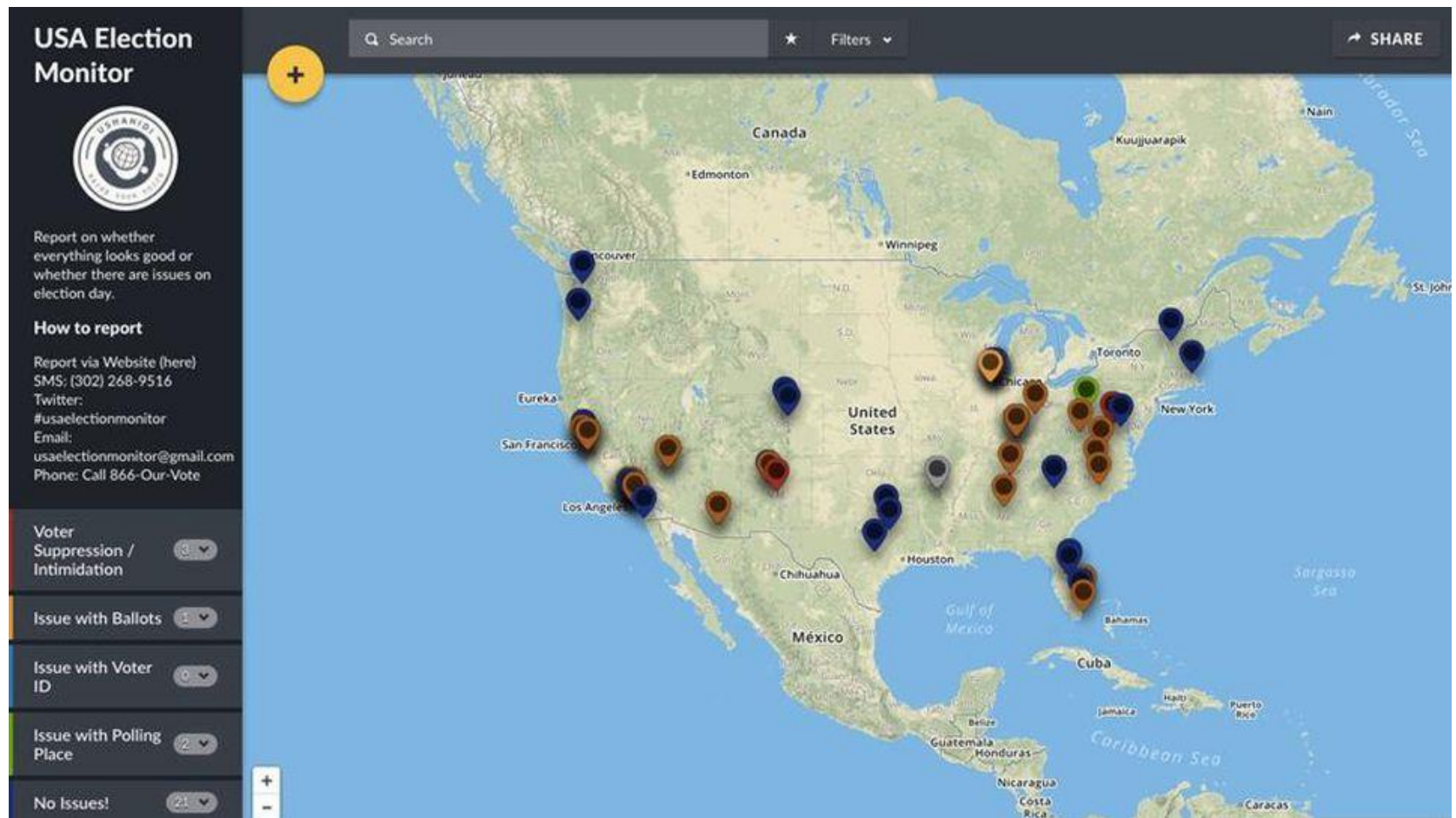


### – HDX Quick Charts

### – Interactive visualisation of Ontology - WebOWL



# Example - Ushahidi



# Example - CREES Google Sheet Add-on



**CREES**  
Crisis Event Extraction Service



CREES\_REL  
Identifies if



CREES\_EV  
Identifies a

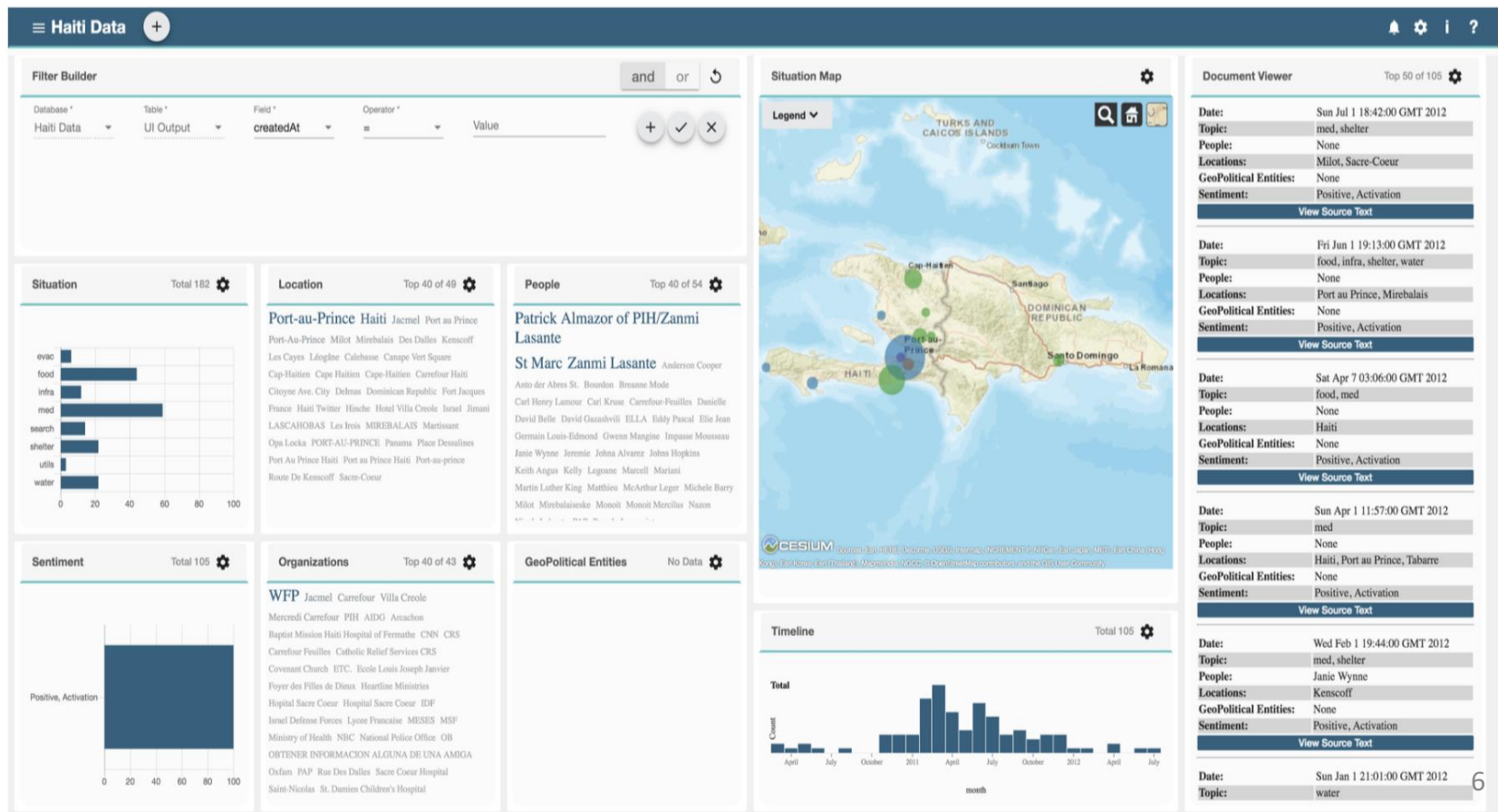


CREES\_INF  
Identifies t

fx =CREES_RELATED(A2:A9)				
	A	B	C	D
1	Document	CREES_RELATED	CREES_TYPE	CREES_INFO
2	Young nurse needing rescue!	=CREES_RELATED(A2:A9)	floods	donations_and_volunteering
3	Together we will rebuilt page - Celia Torres	non-related	none	other_useful_information
4	Only have bank address from Twitter	non-related	none	other_useful_information
5	#disabled lady is #stranded in #LeagueCity #dickinsonstexas #needrescue #help #hurricaneharveyanimalrescue	related	floods	affected_individuals
6	Been trying numbers for hrs - busy signal. Elderly couple desperately #NeedWaterRescue:10202 Willowgrove, 77035. Near S Post Oak & W Belfort	non-related	floods	caution_and_advice
7	Can't get through on the coast guard number reported 2:19 pm CT	non-related	floods	affected_individuals
8	just got text from family in #Houston. RESCUE NEEDED ASAP! 10306 Balmforth Lane, 77096. (Meyerland Community) - infant/toddler in danger!! Can't get through on the coast guard number reported 2:19 pm CT	related	floods	affected_individuals
9	Please forward to rescue teams: ASAP mother with 5 day old baby! #flooding #HurricaneHarvey #houstonsflood #HelpHouston #Galveston Needs boat. Reported 1:28pm CT	related	floods	affected_individuals

# Example - THOR

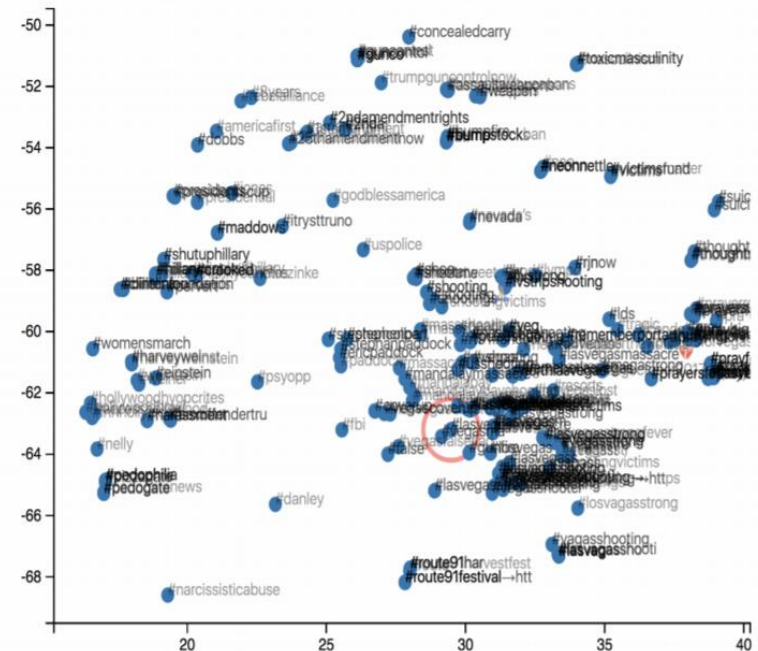
- THOR stands for Text-enabled Humanitarian Operations in Real Time
- Developed under the DARPA LORELEI program to assist in situational awareness in low-resource regions
- Come check out our demo on Uighyur dataset, and 2015 Nepal Earthquake Twitter dataset!



# Example - HashViz

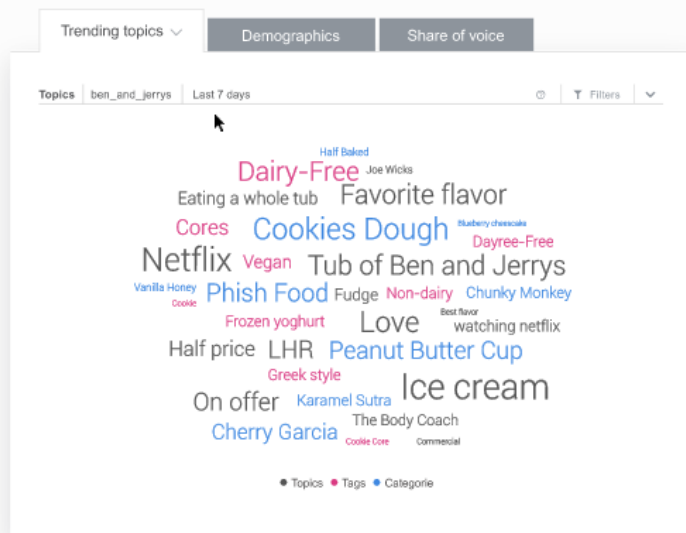
- Hashtags contain a lot of important semantic information explicitly tagged by users
- How do we visualize and 'play with' hashtags from an arbitrary multi-million tweet corpus collected in the aftermath of the disaster?

lasvegasmassacre





# Commercial - Social Data Visualization



## Know what matters most

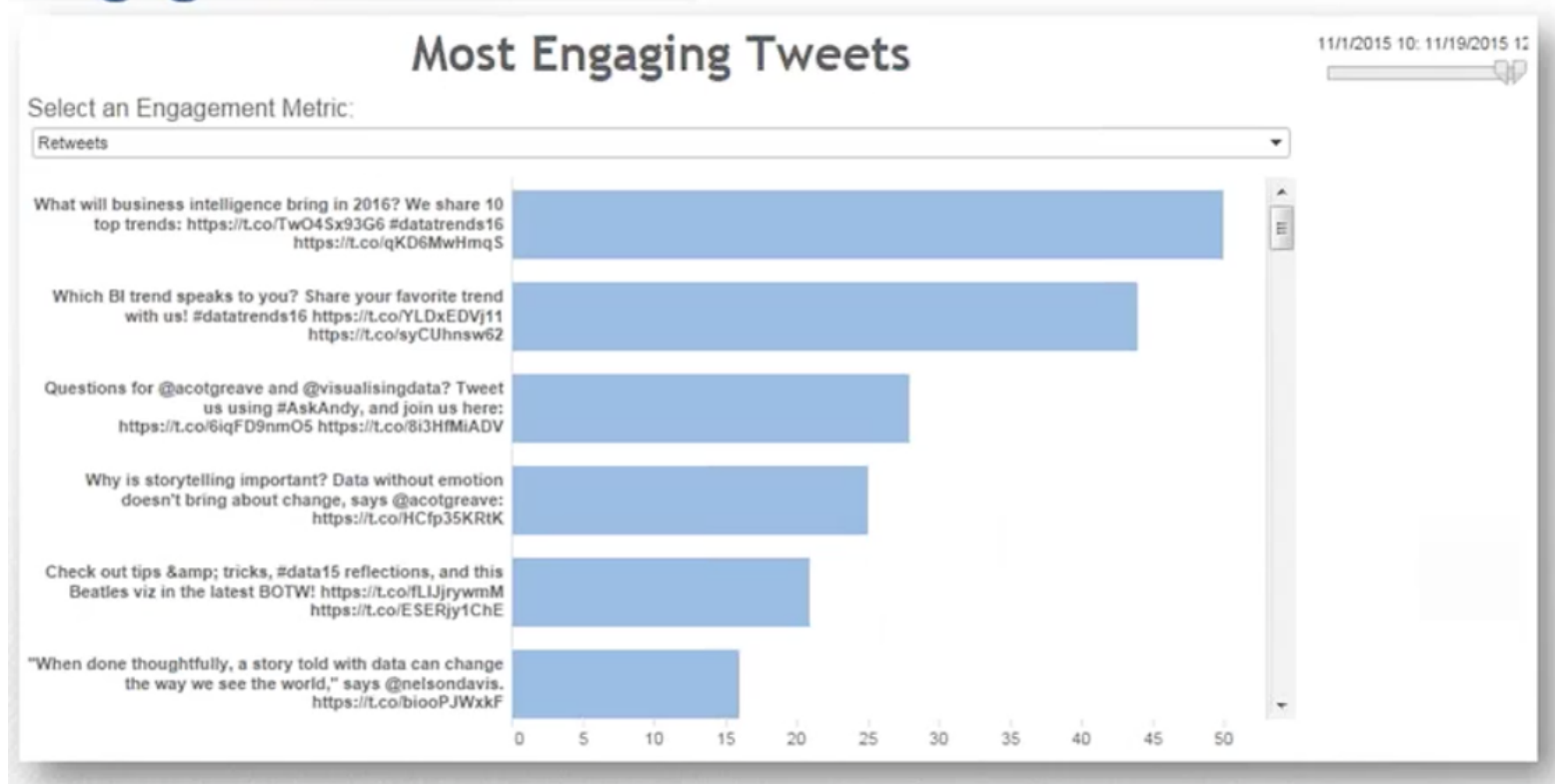
A faster path to the answers you need. Whether you're conducting deep market research, or measuring the impact of your latest marketing campaign.

**Brandwatch** is an enterprise that provides tools for analysing social sensor data.



# Commercial - Social Data Visualization

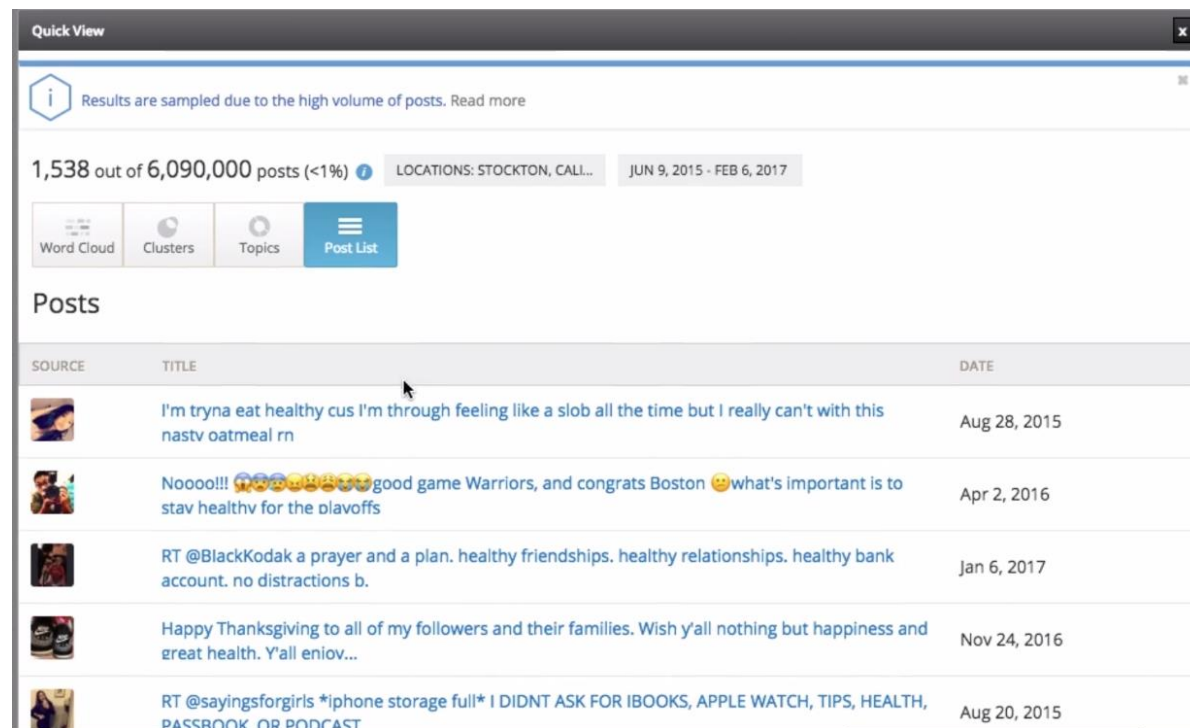
## Engagements



**Crimson Hexagon** is an enterprise that provides solutions to analyse social data and engage deeper with users/audience.

# Commercial - - Social Data Visualization

Sort tweets/documents based on temporal relevance.



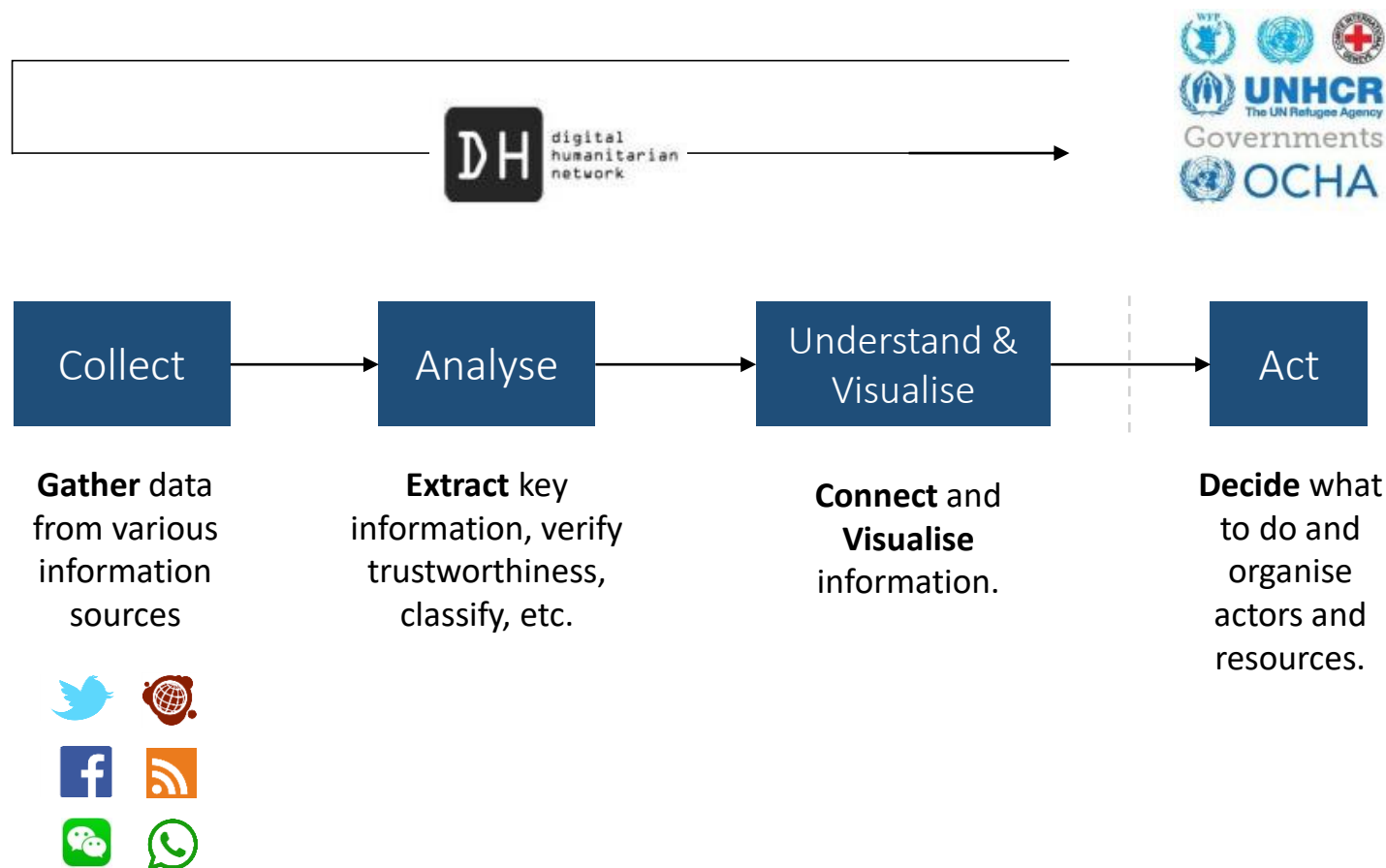
Source: Crimson Hexagon

# Platforms Demo

Hands-on

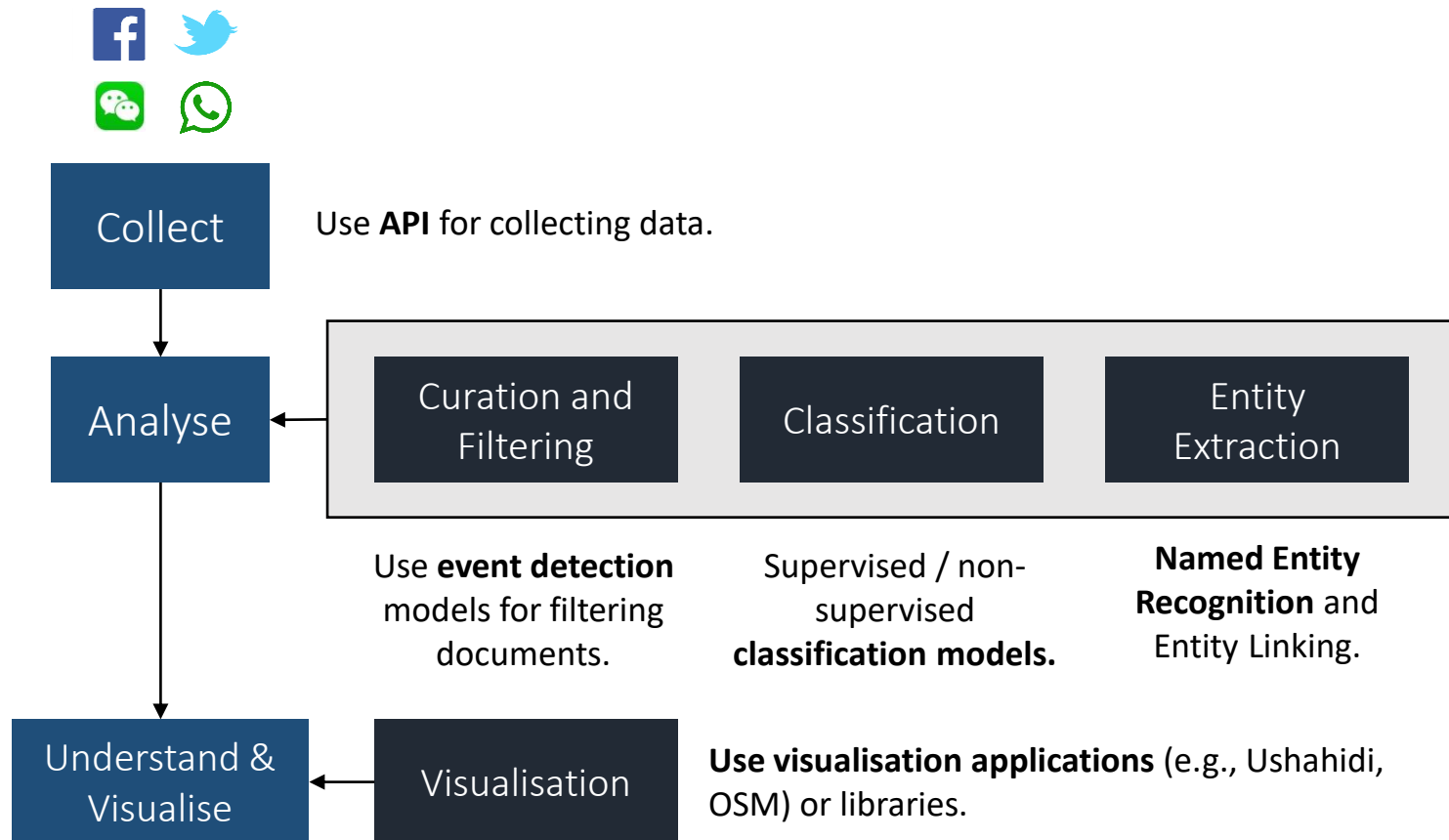
# Summary – Data Processing Pipeline

In this tutorial we showed how **to collect, analyse and represent** crisis-related social media using multiple data processing techniques:



# Summary - Automatic Processing Pipeline

Supervised or semi-supervised methods as well as **APIs** an automatic tools can be used for collecting data.



# Contact / Feedback



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Ph.D. Student



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Slides and Code: <http://github.com/evhart/smasac-tutorial>