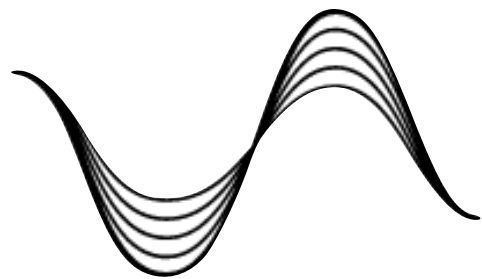
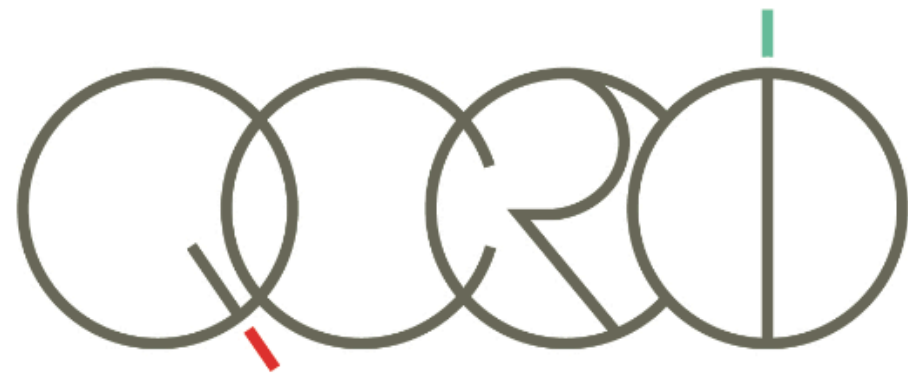


Twitter-Informed Disaster Relief

Extracting useful information from
social media during crises



The Eric & Wendy Schmidt
Data Science for Social Good
Summer Fellowship 2013

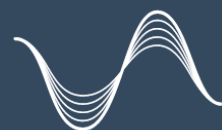


معهد قطر لبحوث الحوسبة
Qatar Computing Research Institute



Too little information

Too many tweets

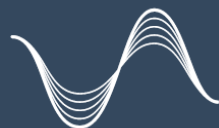


1. Classification

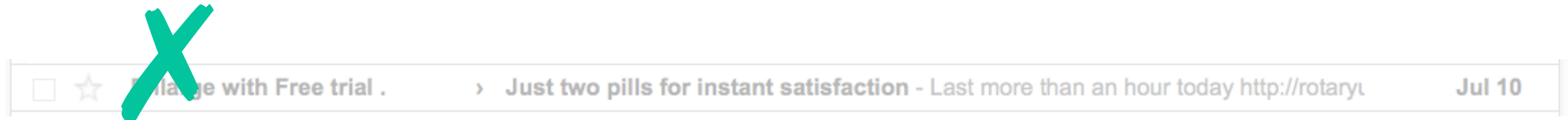
☐  **Enlarge with Free trial .** › **Just two pills for instant satisfaction** - Last more than an hour today <http://rotaryl> **Jul 10**

VS.

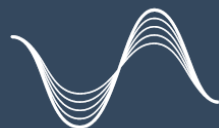
☐  **Rayid Ghani** › **Re: Data Science for Social Good Summer Fellowship: You've been accepted!** **Apr**



1. Classification



VS.

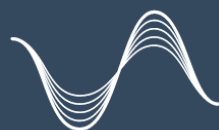


1. Classification

RT @DaphneUn: Awesome. Go NYC. RT @pourmecoffee:
Empire State Building shines in the dark like a boss.
<http://t.co/HLuLBW05> #sandy

VS.

Wider shot of scaffolding toppling car on CPW and 92nd
across from Central ParkNYC @nowthisnews #sandy
<http://t.co/ivkExinW>



1. Classification

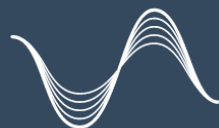


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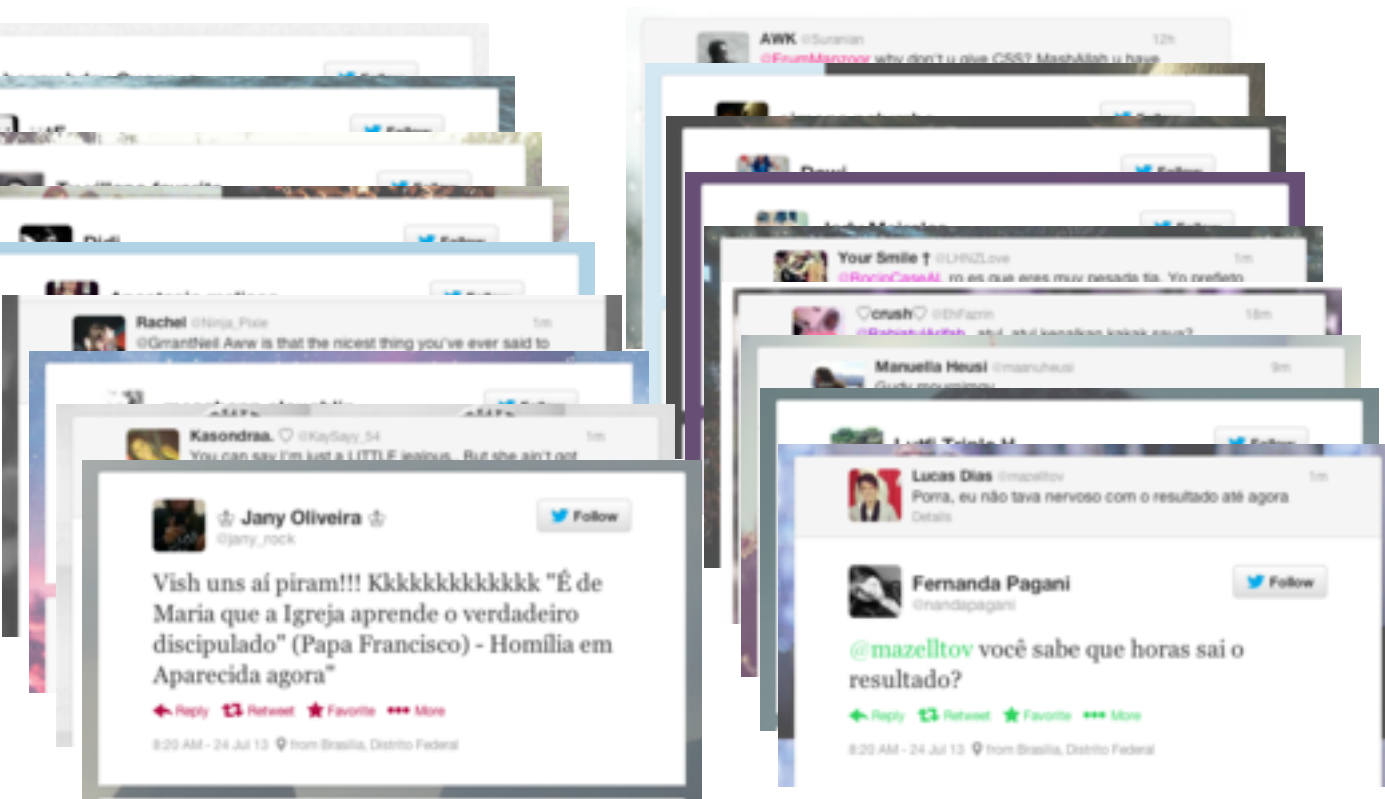
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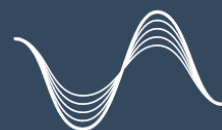
2. Clustering



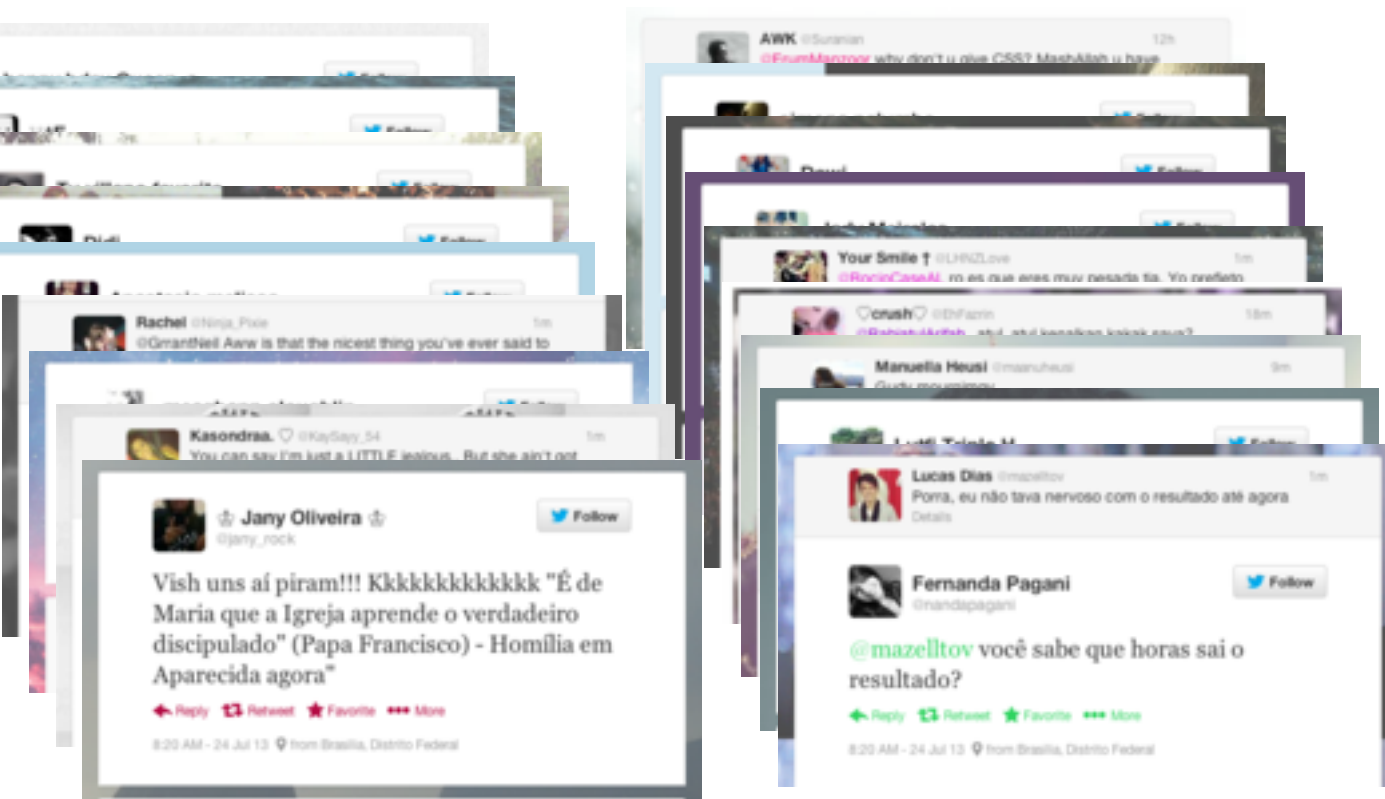
Wider shot of scaffolding toppling car on CPW and 92nd across from Central ParkNYC @nowthisnews #sandy <http://t.co/ivkExinW>

Wind gusts over 60 mph are being reported at Central Park and JFK airport in #NYC this hour. #Sandy

NYC firefighters look up at a collapsed crane dangling from a building | <http://t.co/8abQk4SC> #Sandy



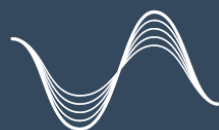
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Wider shot of scaffolding toppling car on CPW and 92nd across from Central ParkNYC @nowthisnews #sandy <http://t.co/ivkExinW>

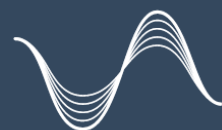
Wind gusts over 60 mph are being reported at Central Park and JFK airport in #NYC this hour. #Sandy

X NYC firefighters look up at a collapsed crane dangling from a building | <http://t.co/8abQk4SC> #Sandy



3. Information Extraction

Wider shot of scaffolding
toppling car on CPW and 92nd
across from Central ParkNYC
@nowthisnews #sandy
<http://t.co/ivkExinW>

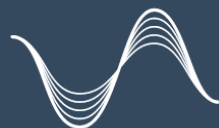


3. Information Extraction

What?

Vehicle

Wider shot of scaffolding
toppling car on CPW and 92nd
across from Central ParkNYC
@nowthisnews #sandy
<http://t.co/ivkExinW>



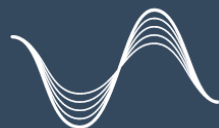
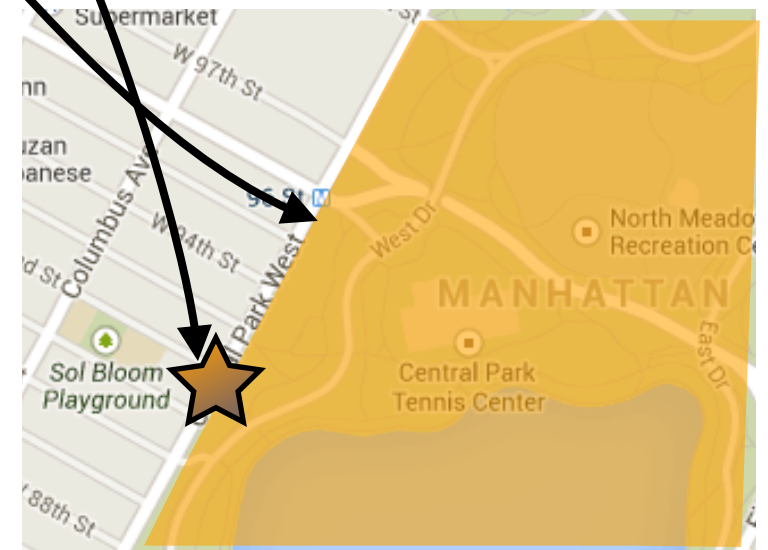
3. Information Extraction

Wider shot of scaffolding
toppling car on CPW and 92nd
across from Central Park NYC
@nowthisnews #sandy
<http://t.co/ivkExinW>

What?

Vehicle

Where?



Disastweet

[VIEW DISASTERS](#)
[FILTER](#)
[ABOUT](#)
[HELP](#)

Severity (1-5)	Entity Effected	Name of Entity	Type of Damage	Geo-location	Twitter Source Ids	Date and Time Reported	Credibility of Source(s) (1-10)
5	Bridge	Williamsburg Bridge	Fire/Burning	-79.8047, 22.5126	234, 12, 900234, 12, 900	6/19/13 12:30 am GMT	9
2	Intersection	45 th & 52 nd Street, New York	Flooding	163.5645, -48.6910	1093, 2768, 9330	6/18/13 11:45 pm GMT	8
3	Building	Long Beach Memorial Medical Center	No Electricity	-98.2095, 34.8838	8974, 7649,	6/15/13 03:30 am GMT	7
5	Neighborhood	Dumbo, Brooklyn	Flooding	-103.0025, 33.6158	2045, 13342, 9103, 2855, 934, 102, 945, 1332, 9054	6/10/13 04:50 am GMT	9

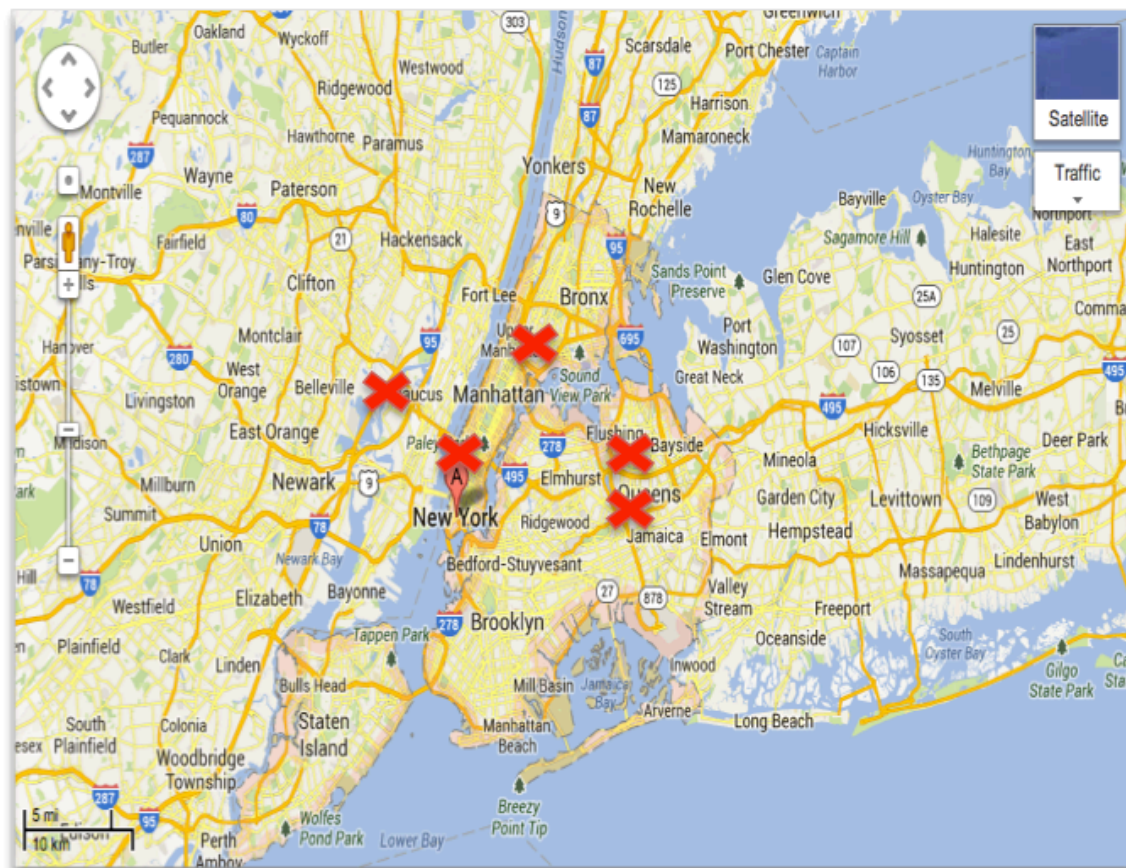
Filter

Filter by Infrastructure Type:



Filter by Disaster Type:





Tweets



Eduard Marte ♥ @EduardMarte1

@Ericaandujar Oh my god... Williamsburg Bridge is burning!

[View conversation](#)



Top Notch Mom @TopNotchMomBlog

I'm near 45th and 52nd street and the entire street is flooded!! This is crazy.

[Expand](#)



Stella Morrison @_StellaMorrison

The bridge is literally on fire.... I cannot believe this.

[from Morganville, NJ](#)



Rachael @rachaelkay9

We just lost electricity at work! We have to move the patients now. #sandy

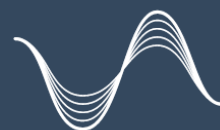
[Expand](#)



Maria Luisa Moreo @MariaLuisaMoreo

The entire neighborhood is flooded! Looks like we will be evacuating. #sandy #dumbo

[Expand](#)

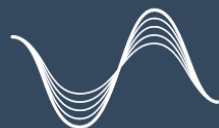


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Thanks!

- **Team**
 - Zahra Ashktorab
 - Christopher Brown
 - Jit Nandi
- **Mentor**
 - Aron Culotta

github.com/dssg/tweedr



Supervised LDA

