Hashtags of Major Events

Group 17
Wei-Cheng Huang, Yayu Lin, Gates Zeng

Motivation

Hashtags

Identifies posts relating to a certain topic on social media

- How to increase a post's popularity?
- Features of top posts?
- Do people use major events to boost their image?

Methodology

- Data Collection and Clean Up
 - a. Twitter-Get-Old-Tweets-Scraper (with modifications)
 - b. Chose a major event
 - i. Scraped a "seed" hashtag representing the event
 - ii. Then scraped tweets from top hashtags in original set
 - c. Chose time period
 - i. Starting before a major event
 - ii. Ending weeks/months after the event

Methodology

2. Data Analysis

- a. Pandas
- b. Popularity Graphs
- c. Word Histograms
- d. Hashtag Relevance
- e. Top Post Trends

3. Visualization

- a. Matplotlib, Bokeh
- b. Word Cloud

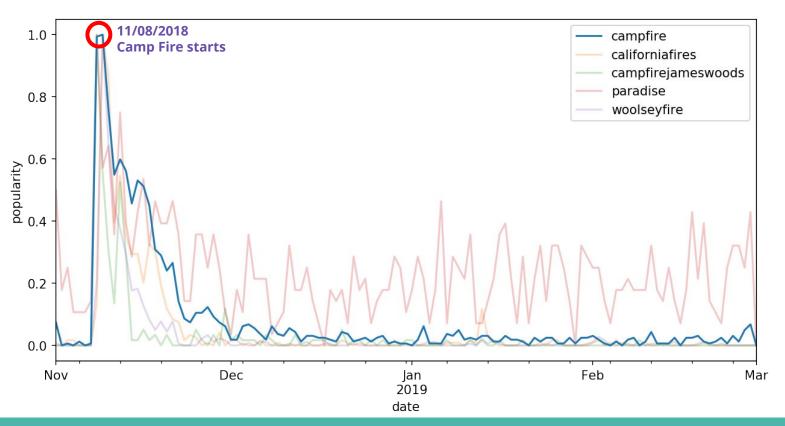
Data Overview

Five events from different categories:

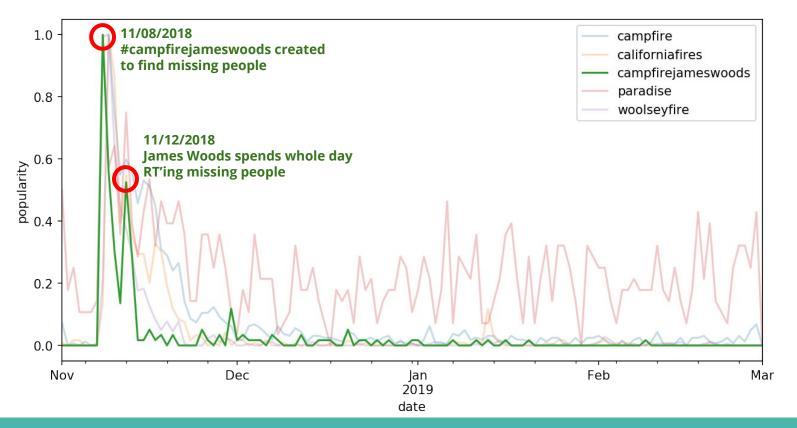
Events	Category	Tweet Count	Time Period
МеТоо	Social Movement	266047	2017-09-30 - 2018-10-15
Falcon Heavy Launch	Science	13609	2018-02-01 - 2019-05-01
Royal Wedding	Entertainment	21368	2017-11-09 - 201808-19
Camp Fire	Natural Disaster	4206	2018-11-01 - 2019-03-01
Parkland	Political	21545	2018-01-29 - 2018-08-14

Popularity Graphs

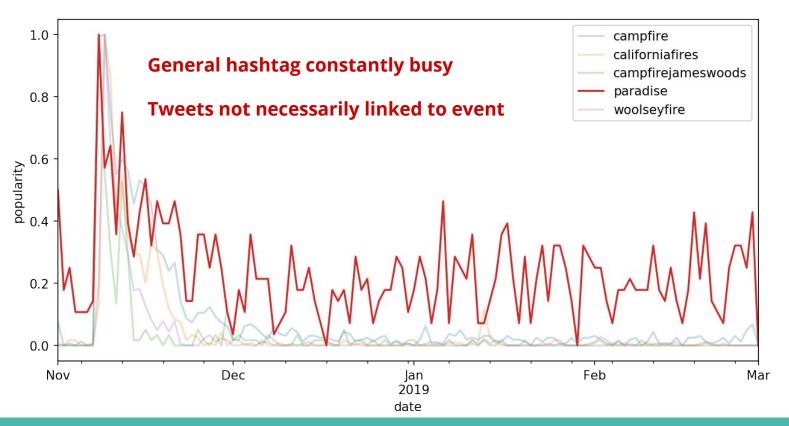
Hashtag Popularity | #campfire



Hashtag Popularity | #campfirejameswoods

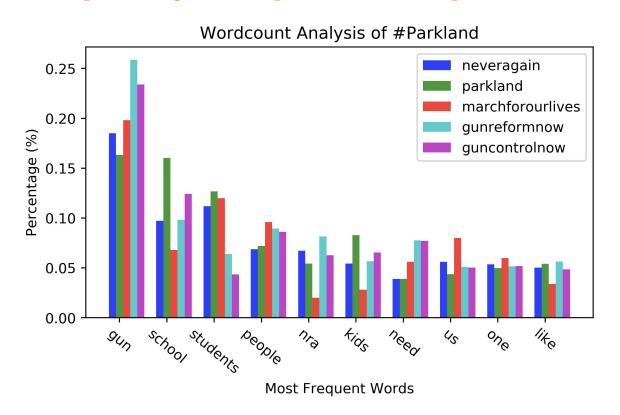


Hashtag Popularity | #paradise



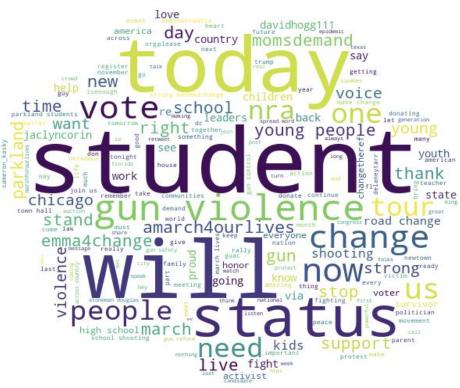
Word Frequency Histograms

Word Frequency Comparison | #parkland



Word Cloud Comparison

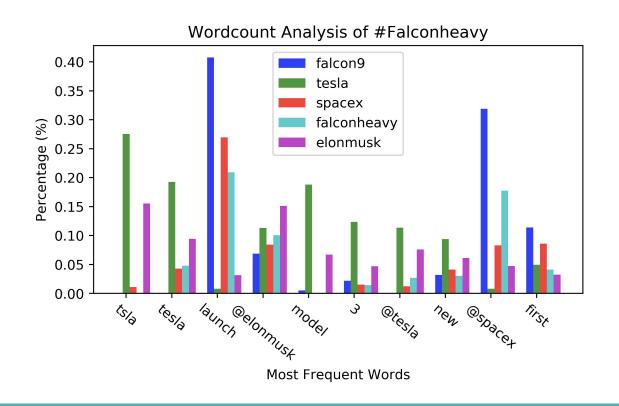




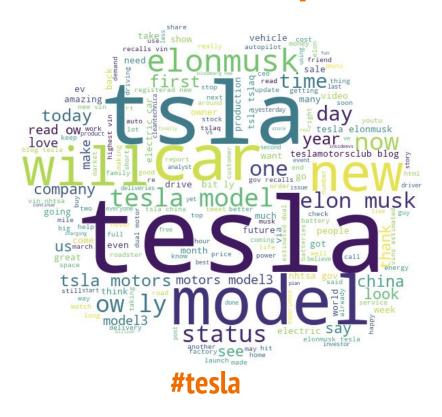
#parkland

#marchforourlives

Word Frequency Comparison | #Falconheavy



Word Cloud Comparison





Hashtag Relevance

Hashtags Texts Relevance

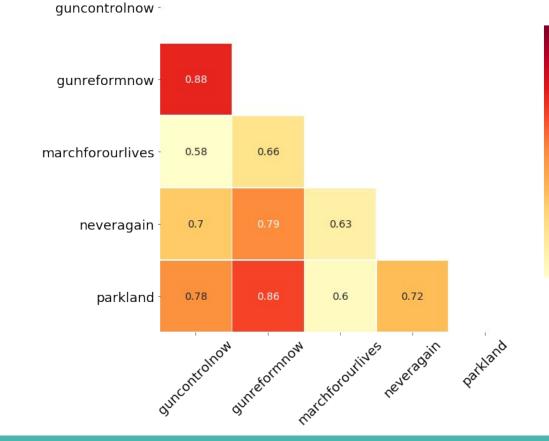
Parkland Hashtag Relevance

- 0.72

-0.64

 Use word frequencies from top hashtags texts to compare the relevance

- High relevance means similar words in posts
- Parkland:
 - High relevance between most hashtags

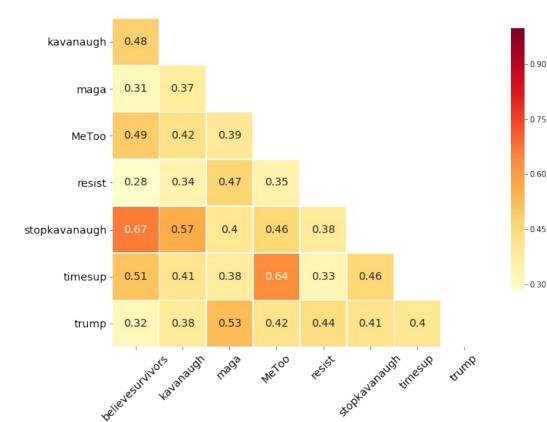


Hashtags Texts Relevance

MeToo Hashtag Relevance

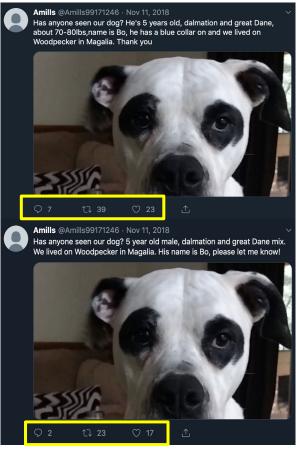
believesurvivors -

- Seed hashtag: #MeToo
- High relevance:
 - #MeToo and #timesup
 - #stopkavanaugh and #believesurvivors
 - #trump and #maga
- Low relevance:
 - #resist



#campfire - 10th Most Retweeted Post





Takeaways

- Use hashtags
- Use specific hashtags; avoid general phrases
- Help a cause, attach your name to a hashtag
- Top tweets in social movement categories have more text than in entertainment
- Popular posts nearly all have pictures/video

Thank You