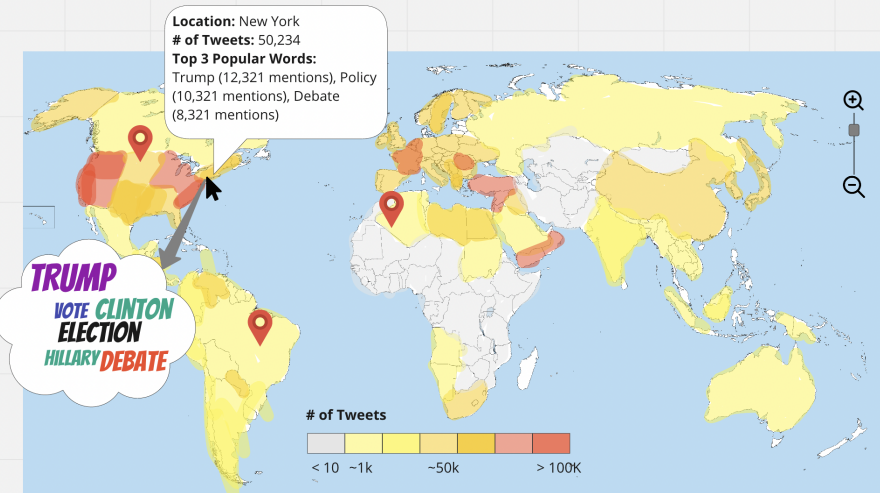# Visualizing Tweets during the Final Debate of 2020 US Presidential Election

Team Members: Zhou fang, Tracy Hu, Jessica Ji
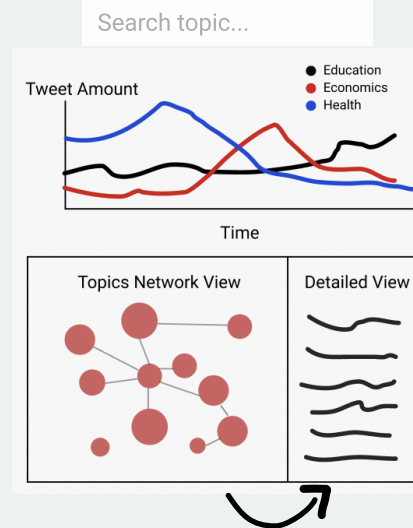
Visual Representation:
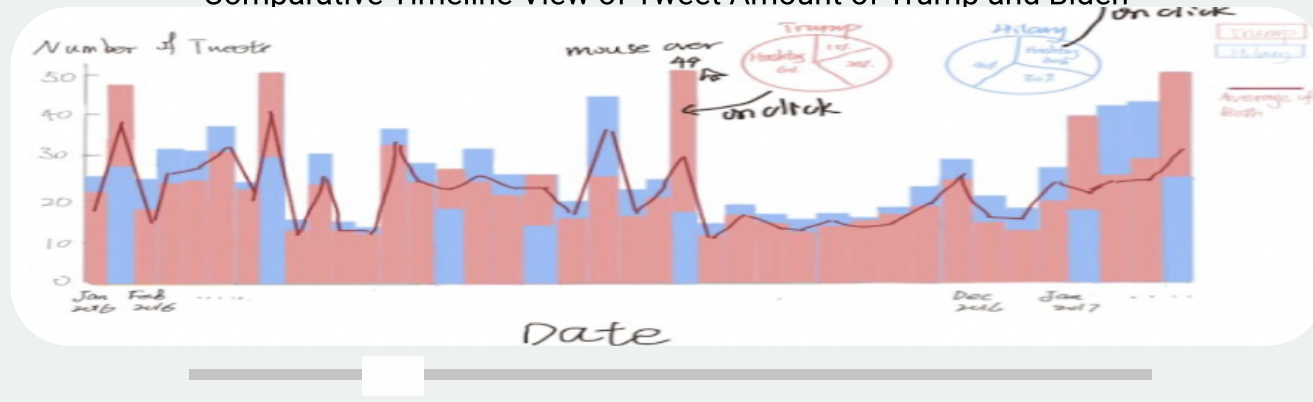
Map View of Geological Statistics & Word Cloud of Tweets

Location: New York
# of Tweets: 50,234
Top 3 Popular Words:
Trump (12,321 mentions), Policy (10,321 mentions), Debate (8,321 mentions)

TRUMP
VOTE CLINTON
ELECTION
HILLARY DEBATE

# of Tweets
< 10   ~1k   ~50k   > 100K

Timeline, Network, Detailed of Tweet Topic

Search topic...

Tweet Amount

- Education
- Economics
- Health

Time

Topics Network View   Detailed View

Comparative Timeline View of Tweet Amount of Trump and Biden

Number of Tweets

mouse over
to

on click

Trump   Hilary

on click

Average of
death

50
40
30
20
10
0

Jan Feb   Dec   Jan
2016 2016   2016   2017

Date

Problem and Motivation:

- The **presidential debate** triggers millions of discussion on Twitter over the world.
- Build **an interactive visualization** that facilitate understanding of **topics, sentiments, and global attitudes** on Twitter.

Data Description:

- Tweets on **Oct. 21-23** (Oct. 22 is final debate)
- Debate related **hashtags** like #trump, #biden, #president, #debate are used to find tweets.
- Data collected using the **Tweet API**
- **Attributes** include tweet content, user location, favorite/retweet count, etc.

Implementation Details:

- Load everything in the **browser**
- **NLP Analysis**:
  - NLTK (Tokenization, n-grams)
  - Gensim (Topic Modeling)
- **Visualization**:
  - Tableau (Interface, Maps)
  - D3 (More design flexibility)
- **Tutorials:**
  - Vizception - Tableau Software Tutorial on Tableau & D3 Intergration (https://www.youtube.com/watch?v=U9KtO7hx9qw)

Milestones:

M1: Data cleaning and preliminary analysis (Week 1: 11/9-14)

M2: Visualizing word frequency & hashtag analysis (Week 2: 11/15-21)

M3: Topic Modeling and visualizing popular topics (Week 3: 11/22-28)

M4: Combining features in M2&3 into final product (Week 4: 11/29-12/5)

M5: Debug, polish, and create video demo and report (Week 5: 12/6-12/10)