

# Political Analysis

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# Scope change

## Initial Idea

### **Analyze political makeup of twitter user networks**

Determine the extent to which “echo chambers” are prevalent on social media

## Issues with data gathering

- Would need to search through tweets of each person in network
- Hard to determine a person's political affiliation

## New scope

### **Analyze opinions of twitter user based on location**

# Background

## Concept

Using social media APIs as means to understand an individual's political perspective. Then using those tools on a population of active users.

## Context

Social media platforms, like twitter have become a digital discussion space for political issues and current events.

## Goal

To visualize political alignment on social media using scraping tools. Visualisations would give predictions on election results or outcomes of global events

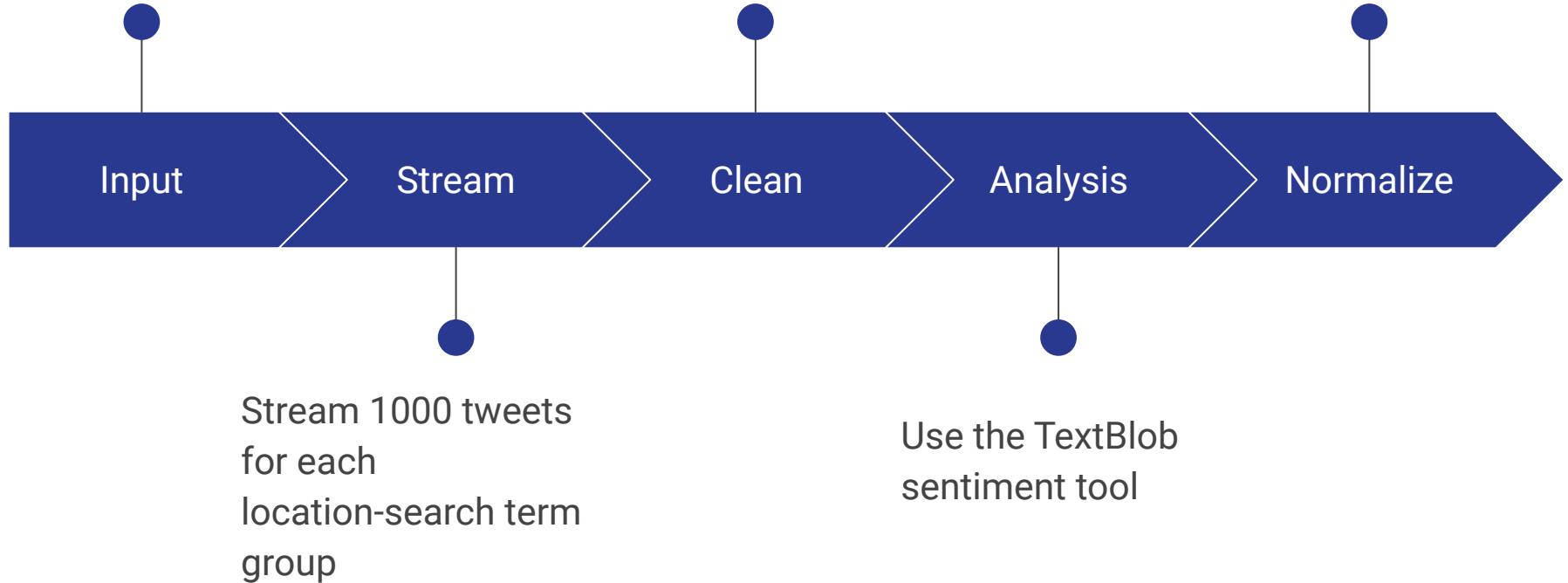
# Code/Process

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- Location(s)
- Search terms
- Number of runs

Clean/tokenize/translate  
each tweet to prepare for  
analysis

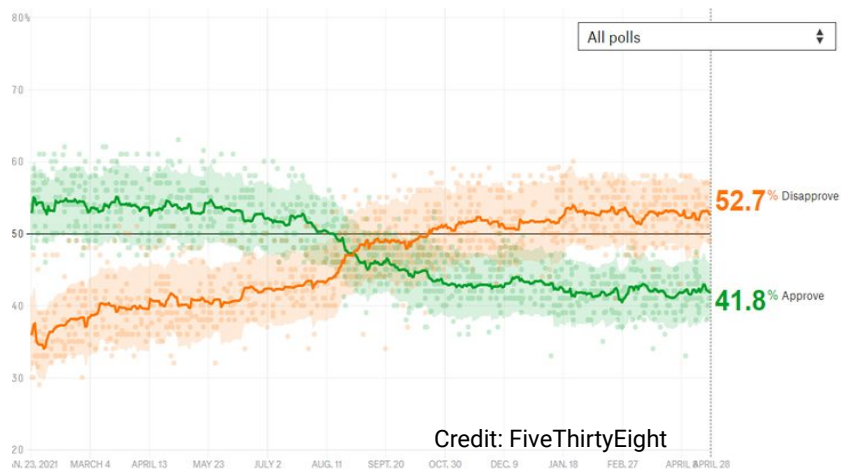
Normalize data by  
removing neutral  
tweets



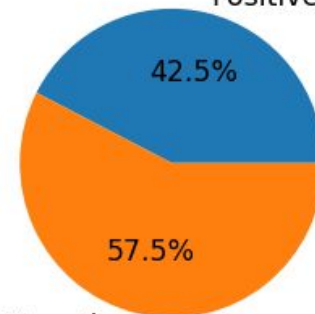
# Results

# Interpreting Data

- Sample Size Matters
- Timing Matters
- Context Matters

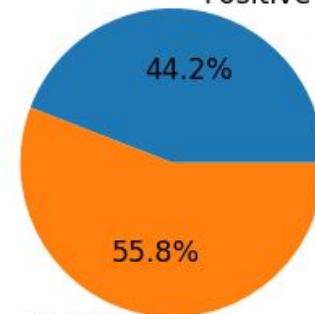


Washington DC Joe Biden Tweets  
Positive



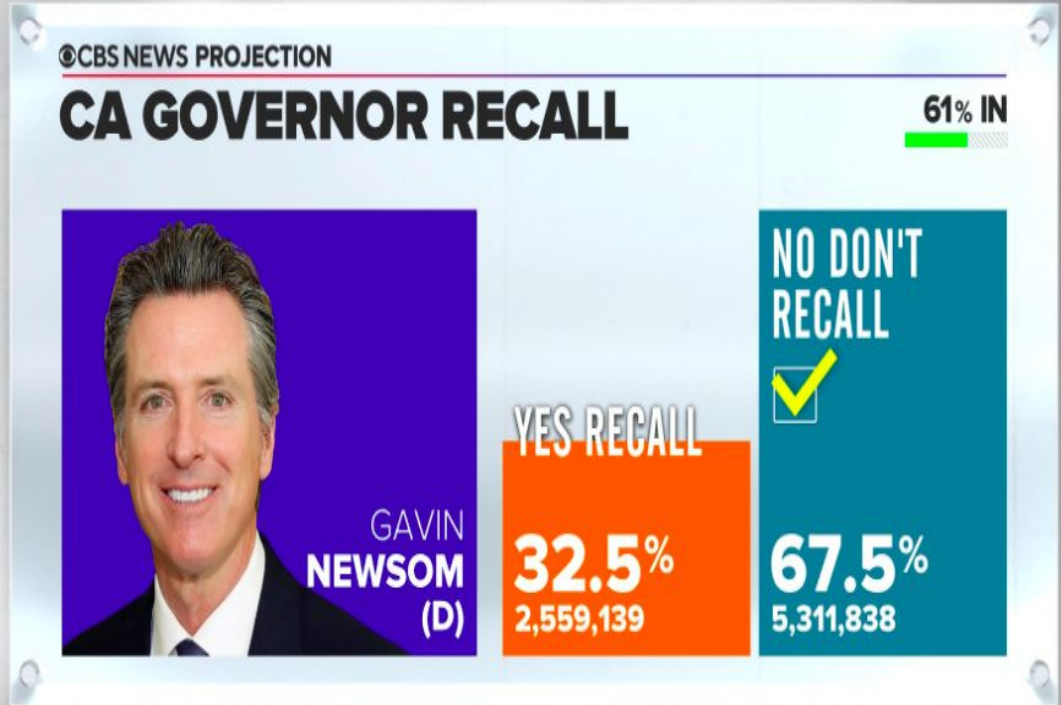
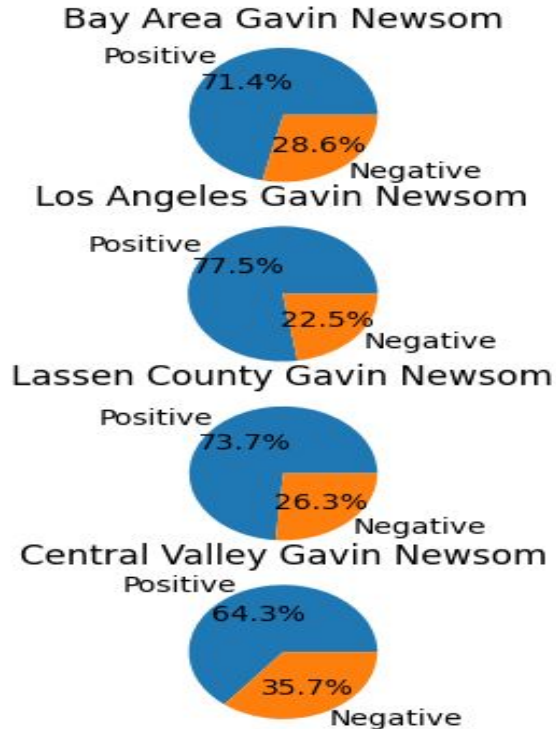
Negative

Los Angeles Joe Biden Tweets  
Positive



Negative

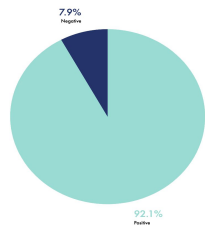
# Data - Is twitter real life?



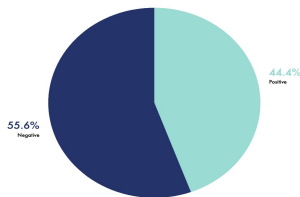


# Use Case: Creating Electoral Maps

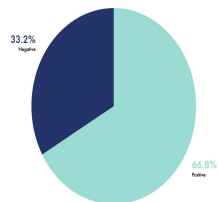
San Francisco on Gavin Newsom



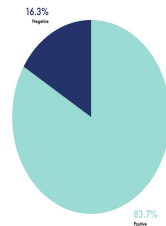
San Francisco on John Cox



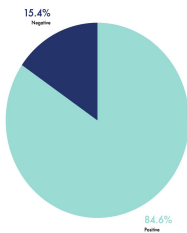
Northern California Suburbs on Gavin Newsom



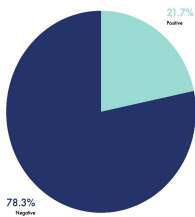
Northern California Suburbs on John Cox



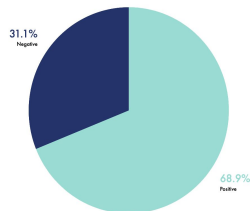
L.A. on Gavin Newsom



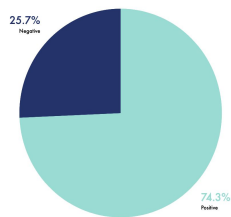
L.A. on John Cox



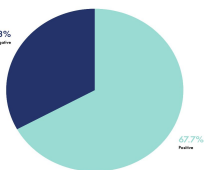
Central California Suburbs on Gavin Newsom



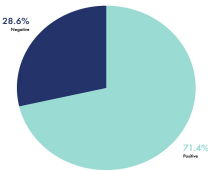
Central California Suburbs on John Cox



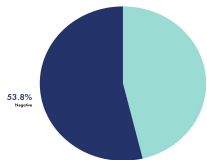
San Diego on Gavin Newsom



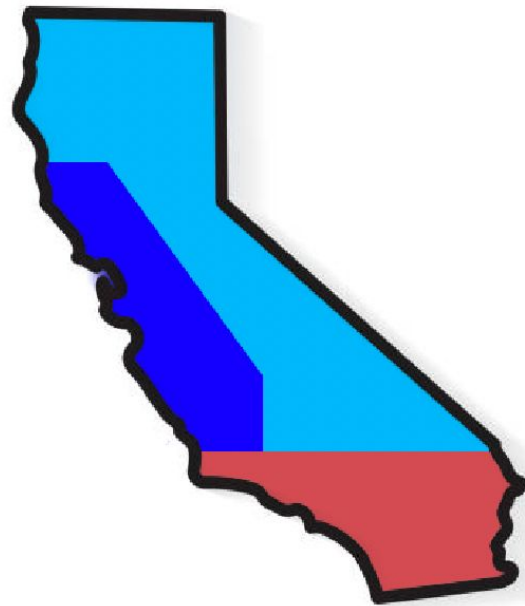
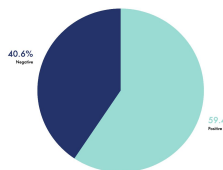
San Diego on John Cox



Southern Suburbs on Gavin Newsom



Southern Suburbs on John Cox



# Limitations/Further Action

## Limitations:

- TextBlob sentiment analysis tool imperfect
  - Skews positive
  - Many slang terms used on twitter
- Keywords for stream filter are difficult to come up due to excessive slang use:
  - Nicknames - Sleepy/creepy joe, "lets go brandon, "joe and the \_\_\_\_"
  - General slang - based, "\_\_\_\_pilled"
- Streaming API
  - May take long time if location is sparsely populated/niche term used

## Further Action:

- Switch to other sentiment analysis tools, i.e. VaderSentiment
- Better tweets cleaning method to improve sentiment analysis accuracy
- Extend sentiment analysis to allow recognition of slang terms
- Add a map to show data
- Incorporate other political ideology prediction tools online for results verification

# Conclusion