

# US 2020 ELECTIONS TWEETS ANALYSIS FOR TRUMP & BIDEN

FIT 5147 DATA VISUALIZATION PROJECT

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# SHEET 1

## IDEAS



## FILTER

part of a whole: ② ③ ④  
 comparison by date: ④ ⑤  
 other comparison: ① ② ③ ④  
 word count: ① ⑤  
 sentiment distribution: ① ⑤

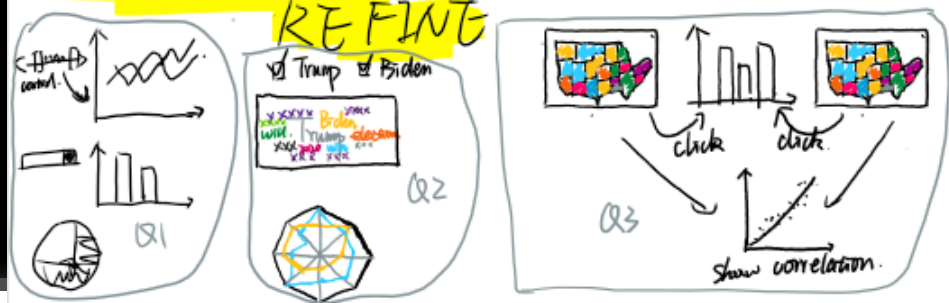
correlation: ⑥ ⑦  
 map: ⑦  
 ranking: ① ②

## CATEGORIZE

Q1: general comparison  
 distribution in time / other  
 Q3: real vote ① ② ③ ④ ⑤  
 US tweets by state ⑥ ⑦

Q2: word / sentiment  
 inside tweets  
 ① ②

## COMBINE & REFINE



# SHEET 1

- IDEAS
- FILTER
- CATEGORIZE
- COMBINE & REFINE

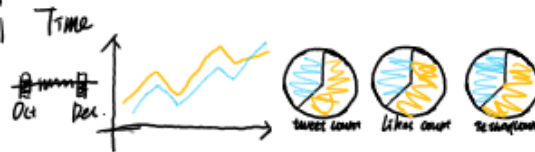


# SHEET 2

- LAYOUT
- FOCUS/ZOOM
- OPERATIONS
- DISCUSSION

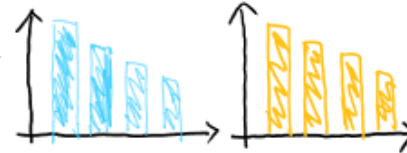
## SHEET 2 LAYOUT

Tweets distribution



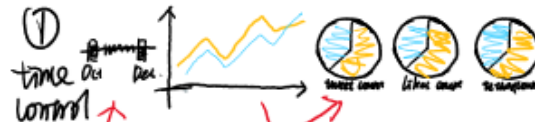
Some description:

Other distribution → choose aspect.

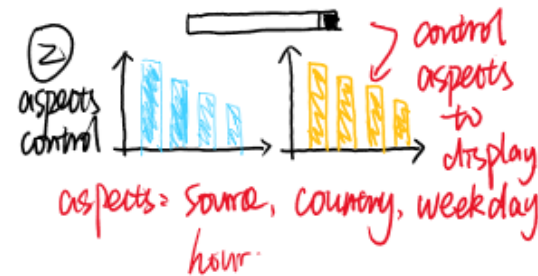


Some discussion

## FOCUS/ZOOM



time period varying  
linked interaction between line graph and pie chart show the general count



aspects: source, country, weekday, hour.

Title: 5147 visualization project  
Author: Yue Zhang  
Date: 16/05/2021 Sheet: 2  
Task: tweets distribution in time or other aspects

## OPERATIONS

- ① the time line chart can be control by user to change the time period.
- ② When time period changes, the three pie charts will change.
- ③ the select bar will let user to choose the distribution aspect they want to see, the bar chart will change.

## DISCUSSION

+VE ① user can view changes in different time period.

② Some minor aspects is combined in one section

-VE ① Lack of various kinds of visualization charts

② Some time aspects like hour, weekday is combined in other aspects, not in time

# SHEET 3

- LAYOUT
- FOCUS/ZOOM
- OPERATIONS
- DISCUSSION

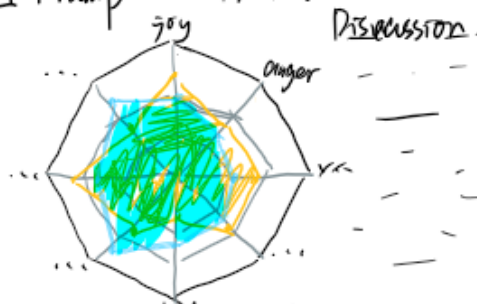
## SHEET 3 LAYOUT

Word inside tweets.



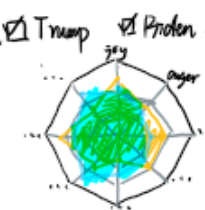
Sentiment inside tweets.

☑ Trump ☑ Biden



## FOCUS/ZOOM

①  focus on word view

②  → switch view.  
focus on sentiment

Title: 5147 visualization project

Author: Yue Zhang

Date: 16/05/2021 Sheet: 3

Task: words / sentiments inside tweets

## OPERATIONS

① Both two charts have hints (number of the count) when hover.

② check box control the figures that show on the radar chart.

## DISCUSSION

+VE: ① word cloud clearly shows the word exploration

② user can switch views by operations.

-VE: ① This part does not have various interactions for user.

② only three charts in this section.

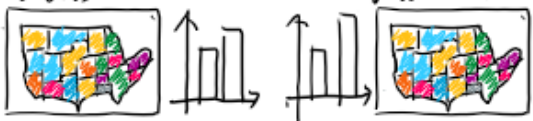
③ need deeper analysis in sentiment

# SHEET 4

- LAYOUT
- FOCUS/ZOOM
- OPERATIONS
- DISCUSSION

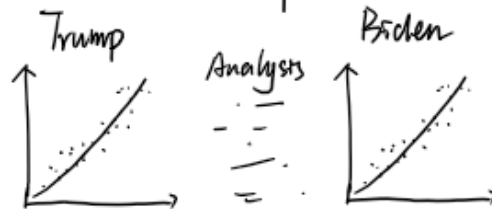
## SHEET 4 LAYOUT

Tweets vs Votes.



Discussion & Analysis

Correlation. (Trump's and Biden's



## FOCUS/ZOOM

focus on comparison by state.  
to see difference.



Link interaction by click events.  
choropleth of (Trump count - Biden count).

Title: 5147 visualization project

Author: Yue Zhang

Date: 16/05/2021 Sheet: 4

Task: read votes vs. tweets by state

## OPERATIONS

① States in maps are clickable.

② Link interaction between map and bar chart, when click state, bar chart will show vote and tweets comparison.

## DISCUSSION

+-VE: ① different

Interactions used to show the charts.

② clearly shows who has more tweets/votes in each state.

③ scatter plot with regression can help user understanding the correlation between votes and tweets

-VE: ① No interaction on scatter plot.

② bar chart has used before.

# SHEET 5

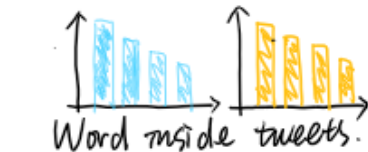
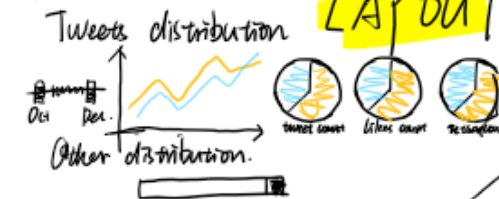
Title: 5/47 Visualization project

Author: Yue Zhang

Date: 16/05/2021 Sheet: 5

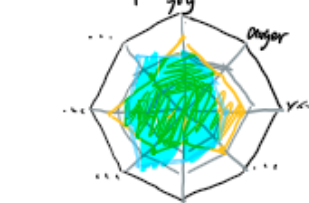
Task: 2020 election tweets analysis

## LAYOUT



Sentiment inside tweets.

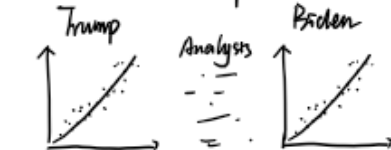
☑ Trump ☑ Biden



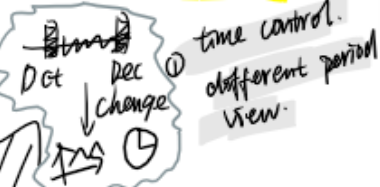
Tweets vs Votes.



Correlation. (Trump's and Biden's



## FOCUS / ZOOM



## OPERATIONS

- ① change time
- ② change charts
- ③ click map, chart changes

## DETAIL

- ① use of tools: js, D3.
- ② charts: map, bar chart, line graph, radar chart, pie chart, word cloud, scatter.
- ③ algorithms: regression.
- ④ interactions: seeker, check box, selection, link interaction.
- ⑤ Dataset: two (one large).
- ⑥ Estimate of time: Around 2 weeks

# SHEET 5

- LAYOUT
- FOCUS/ZOOM
- OPERATIONS
- DETAIL