Twitter Takes On The 2020 United States Election

Donald Trump
With Mike Pence
Republican Party

Joe Biden
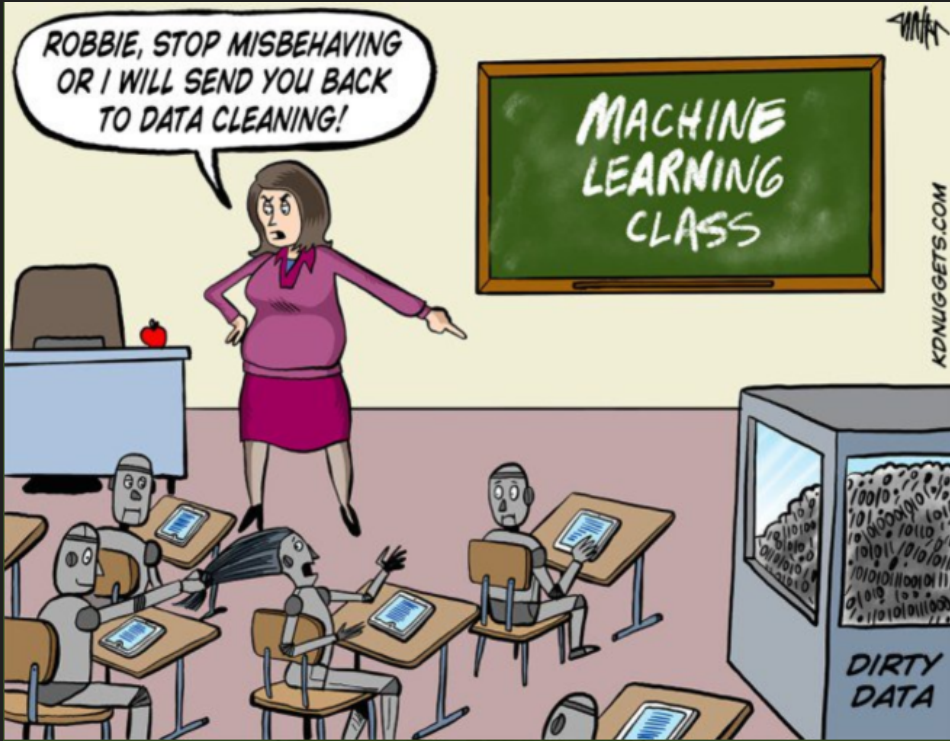**With Kamala Harris**
Democratic Party

Presented by Group 14: Muhammad Waleed Akram, Shubham Prakash, Nishant Jadhav, Hrutwi Kakadia, Christopher Garrett, Taniya Chauhan, Kirti Menghani

Introduction

- What we did?

- Why it matters?

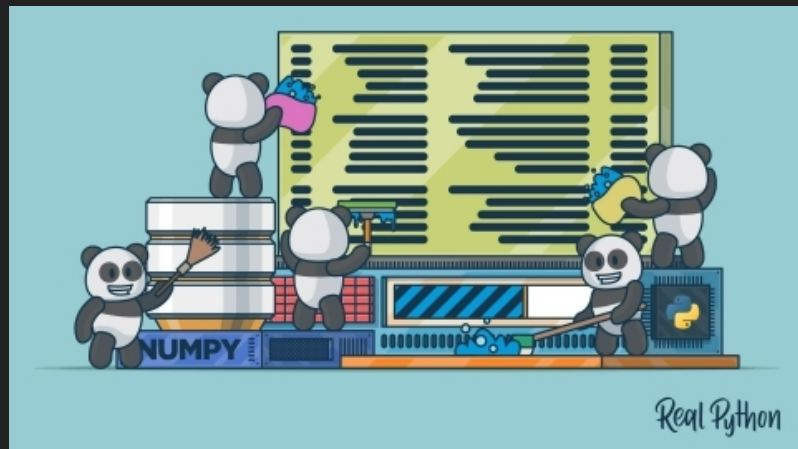- How we did it?

- The Story being told

Data Cleaning & Processing

- Removed the tweets with 0 likes- Helped us reduce the size of the data with no impact on our analysis

- Bifurcated Datetime column

- Imputed Null States with States generated from the Latitude and Longitude of the tweeters
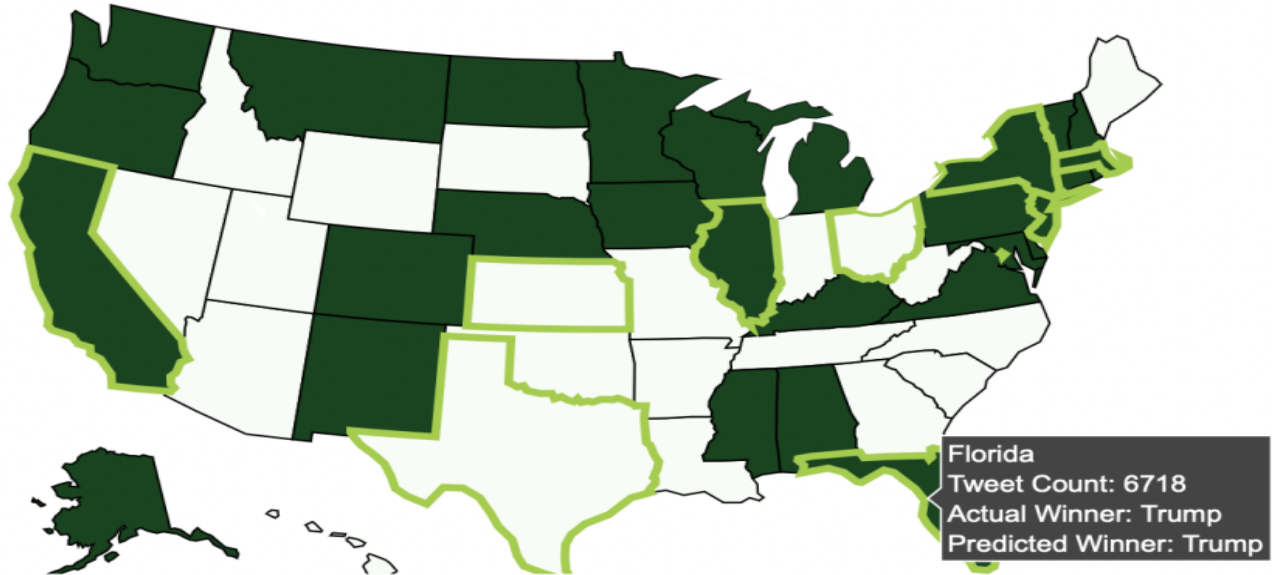
Data Cleaning & Processing(Continued)

Real Python

1. Removing Stop Words
   - Keep "not" for sentiment analysis
   - Words like and, in, an, to
2. Lemmatization
   - runs, running, ran are all forms of the word run.
3. Remove Junk Characters
   - URLs, HTTPs, @Usernames, extra spaces
4. Expanding Contractions
   - shouldn't -> should not

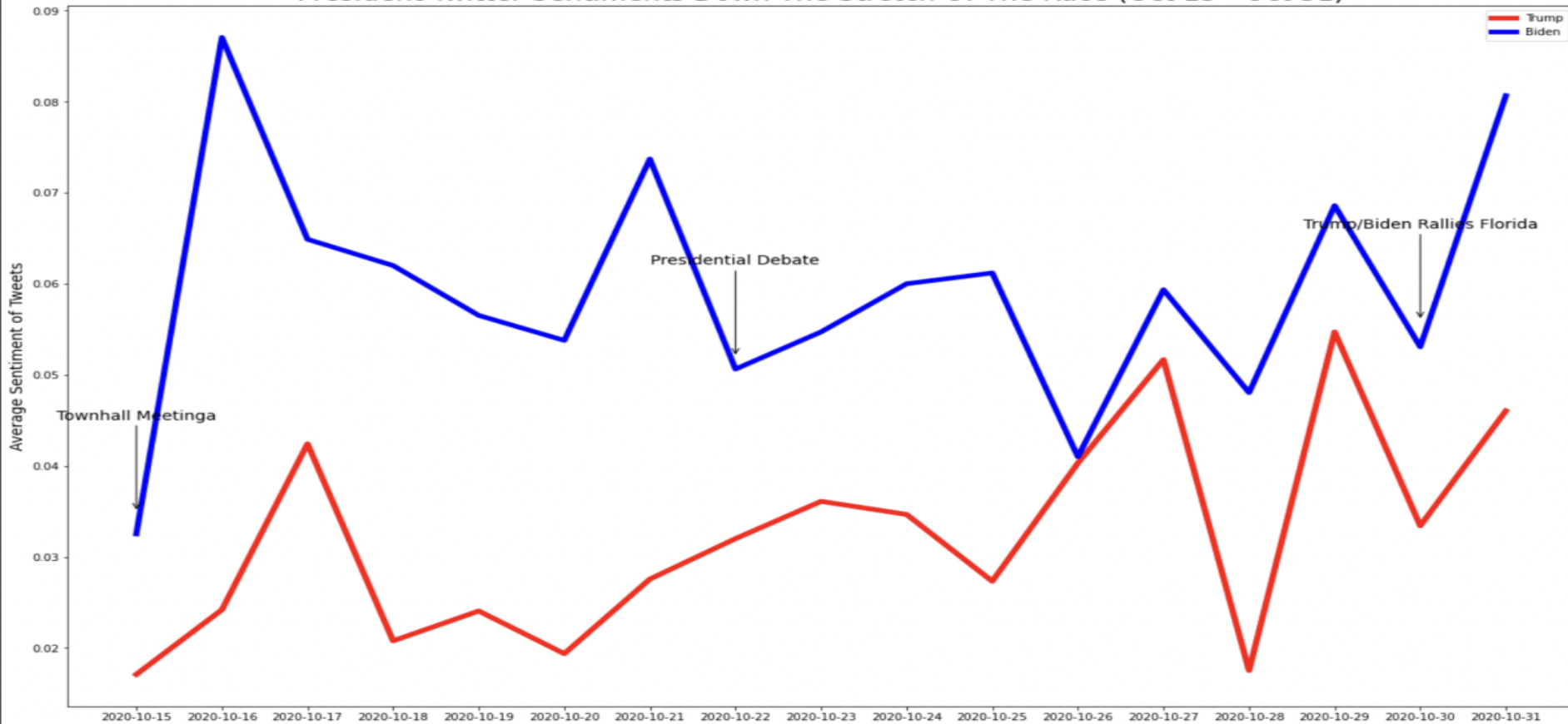| tweet	clean	processed
#censorship #HunterBiden #Biden #BidenEmails #BidenEmail #Corruption https://t.co/C6clrtshQl	censorship hunterbiden biden bidenemails bidenemail corruption	censorship hunterbiden biden bidenemails bidenemail corruption
In an effort to find the truth about allegations that @Twitter isn't allowing people to share the link to a @nypost article about Hunter Biden, this is what popped up #NYPost #HunterBiden #Biden #Election2020 https://t.co/yYlmdZrOKz	in an effort to find the truth about allegations that twitter isn't allowing people to share the link to a nypost article about hunter biden this is what popped up nypost hunterbiden biden election	effort find truth allegation twitter not allowing people share link nypost article hunter biden popped nypost hunterbiden biden election
Twitter is doing everything they can to help Democrats win the election. Making sure nobody sees a negative story about Biden. Only Negative stories on Trump. #TwitterCensorship #Biden #Ukraine #HunterBiden https://t.co/dbLKQBMvRU	twitter is doing everything they can to help democrats win the election making sure nobody sees a negative story about biden only negative stories on trump twittercensorship biden ukraine hunterbiden	twitter everything help democrat win election making sure nobody see negative story biden negative story trump twittercensorship biden ukraine hunterbiden

Twitter Sentiments correctly predicted the election results for 7 out 10 top tweeting states

2020 U.S. Election Results vs. Twitter Prediction

Florida
Tweet Count: 6718
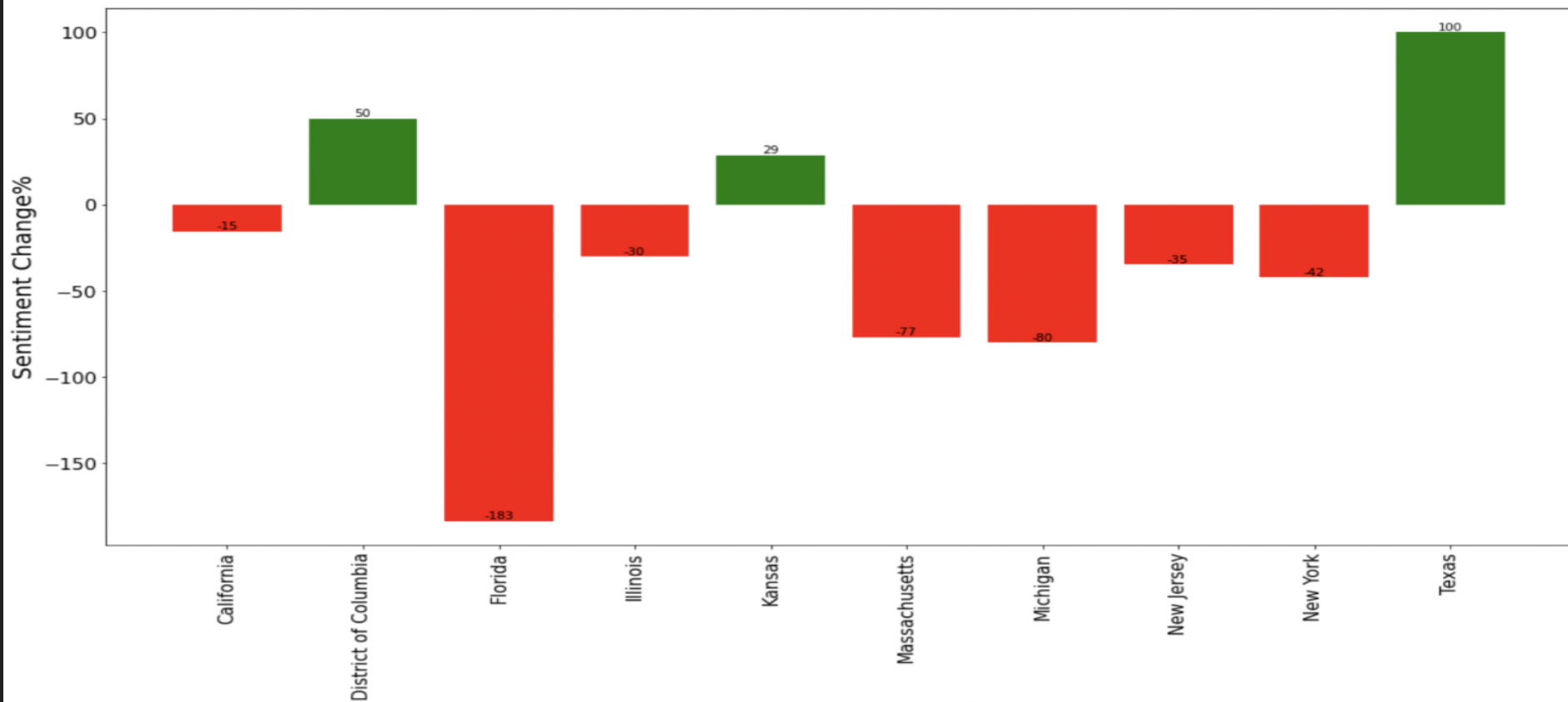Actual Winner: Trump
Predicted Winner: Trump

Major Events During The Key Run Of The Election Show Big Impact On The Candidate's Twitter Sentiment

President Twitter Sentiments Down The Stretch Of The Race (Oct 15 - Oct 31)

Drop in the sentiment in Florida majorly contributed to the fall in sentiment towards Biden during Presidential Elections

Biden's Sentiment Change Across States (October 22nd)

Conclusion

- The insight using twitter to track public sentiment can be extremely useful to many industries including campaign managers, lobbyists, Fortune 500 Companies, tax professionals, and other politicians as well.
- Using similar models stakeholders can track sentiment around specific events whether its helping correlate public opinion on a certain stock, a specific bill in congress, political movements, the possibilities are endless.

Questions?