

# TWITTER-BOT INFLUENCER

FOR THE LAST THREE MONTHS THE MAINSTREAM MEDIA HAS INDOCTRINATED THE AMERICAN PUBLIC WITH THE IDEA THAT IT IS A MORAL OBLIGATION TO SHELTER IN PLACE DUE TO THE CONOID 19 CRISES. DURING THE MONTHS OF MARCH, APRIL AND MAY OF 2020, "NON-ESSENTIAL" CITIZENS WHO DIDN'T COMPLY WITH THIS DOGMA, WERE REGULARLY SHAMED ON SOCIAL MEDIA AND IN SOME CASES FINED OR EVEN ARRESTED. HOWEVER, SINCE THE GEORGE FLOYD PROTESTS BEGAN IN LATE MAY, THE SAME MAINSTREAM MEDIA, WHO SPENT MONTHS STIGMATIZING THE ACT OF GATHERING IN CROWDS, HAS ACTIVELY ENCOURAGED THE PROTESTERS TO GATHER IN CROWDS. A LARGE PORTION OF THE AMERICAN PUBLIC HAS INSTANTLY TRANSITIONED FROM ONE RADICAL DICTATE TO THE NEXT DESPITE THE FACT THAT THESE POLICIES OBVIOUSLY CONTRADICT EACH OTHER. WATCHING THE MAINSTREAM MEDIA COMPLETELY CHANGE THE NARRATIVE LED ME TO WONDER WHAT OTHER PLATFORMS CAN BE USED TO EFFECTIVELY MANIPULATE PEOPLE.

ARE TWITTER-BOTS AN EFFECTIVE WAY TO INFLUENCE A LARGE NUMBER OF INDIVIDUALS?

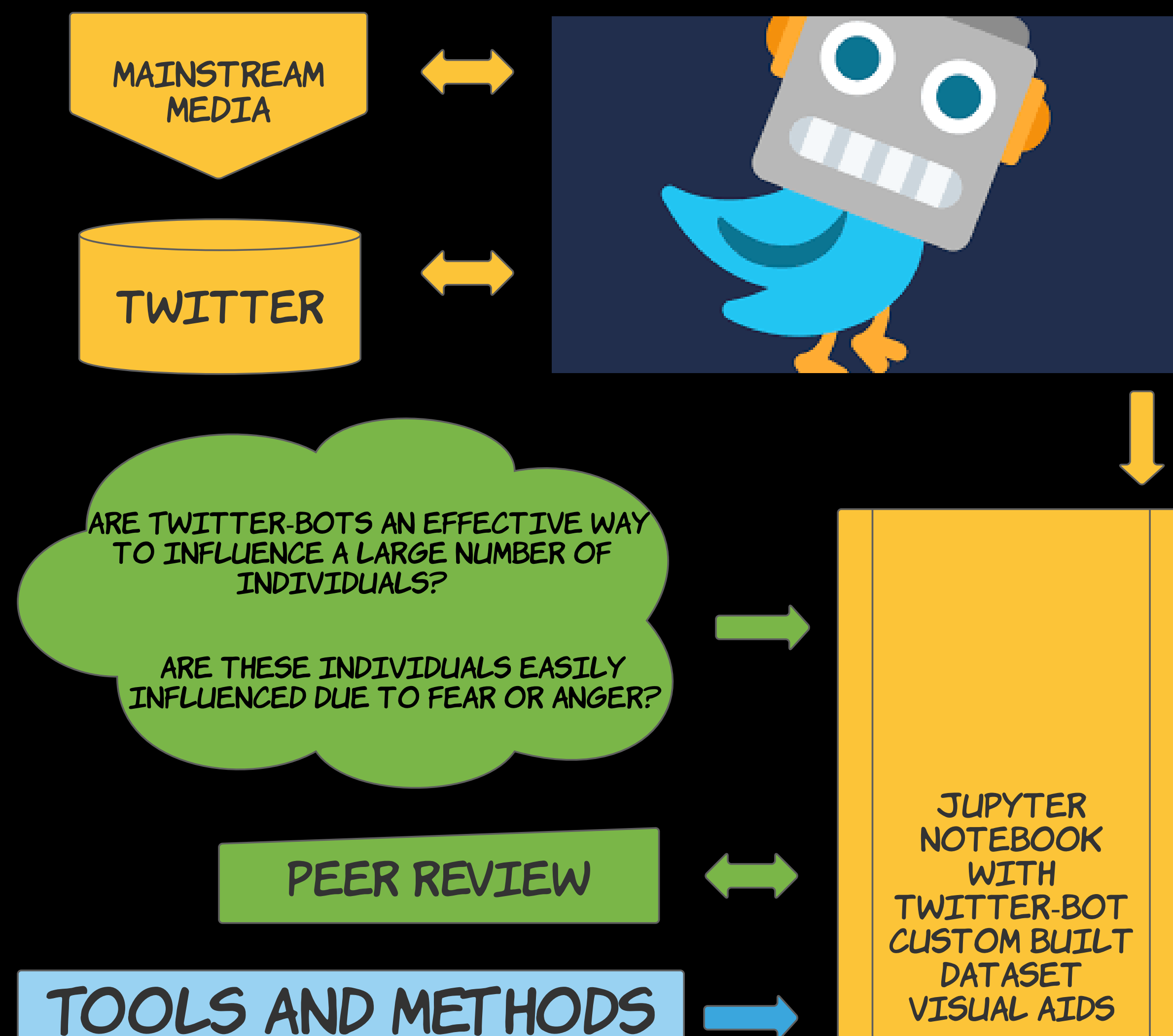
ARE THESE INDIVIDUALS EASILY INFLUENCED DUE TO FEAR OR ANGER?

## DATASET

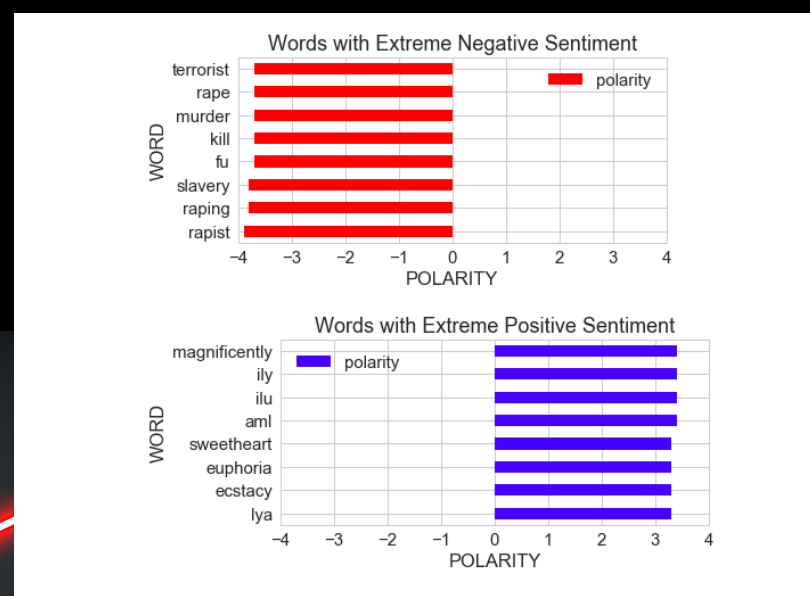
I DECIDED TO BUILD A FULLY AUTOMATED TWITTER-BOT THAT POSTS MAINSTREAM MEDIA TO TWITTER. MY THEORY WAS THAT INDIVIDUALS WHO INTERACT WITH A TWITTER-BOT, WHO POSTS MAINSTREAM MEDIA CONTENT, WERE LIKELY TO EASILY CONFORM TO WHATEVER DICTATES THE MAINSTREAM MEDIA SETS OUT. THE OBVIOUS EXAMPLE BEING "SHELTER IN PLACE ON THURSDAY" THEN "PROTEST IN LARGE CROWDS ON FRIDAY." I BUILT MY OWN DATASET OF TWITTER-BOT FOLLOWERS USING THE TWEETPY API, PYTHON PANDAS AND A JUPYTER NOTEBOOK. I STARTED BY COLLECTING THE USER\_IDS FOR THE FIRST 200 INDIVIDUALS WHO FOLLOWED MY TWITTER-BOT AND LOADING THEM INTO A DATA FRAME OBJECT. I USED THESE USER\_IDS TO PULL 20 TWEETS FROM EACH USER WHO HAD FOLLOWED MY BOT AND ADDED THEM TO MY DATA FRAME. A TWEET OBJECT CONTAINS QUITE A BIT OF INFORMATION. AFTER I FILTERED OUT THE IRRELEVANT FIELDS I WAS LEFT WITH THE DATA FOR MY NEXT COLUMN, WHICH CONTAINS ONLY THE RAW TEXT FROM THE 20 TWEETS IN LIST FORM. AT THIS POINT, MY CUSTOM BUILT DATASET WAS FULLY CONSTRUCTED AND IN THE APPROPRIATE FORM TO BEGIN THE TEXT PROCESSING THAT IS NECESSARY PRIOR TO SENTIMENT ANALYSIS. AFTER PERFORMING THE SENTIMENT ANALYSIS, I ADDED THE RESULTS TO MY DATASET (PICTURED BELOW).

	follower_id	tweets	tweet_text	sentiment_score
194	1025626087307575296	[Status(api=cweeepy.api.API object at 0x7f6e94a00be0>, json={'created_at': 'Tue Jun 16 06:43:39 +0000 2020', 'id': '1272781871064027136', 'id_str': '1272781871064027136', 'text': 'RT @EKOtoons: I WILL FOLLOWnTHIS WOMANnINTO BATTLEvnhhttps://t.co/wOG0gS7z5', 'truncated': F...	['RT @EKOtoons: I WILL FOLLOWnTHIS WOMANnINTO BATTLEvnhhttps://t.co/wOG0gS7z5', '@pulte Thank god for @pulte help a brother out please.', '@pulte Help me out please.', 'RT @pcbrynn: This is the only thing you need to watch today: ♡♡♡ https://t.co/j1A7pJbsf', 'RT @CaillMeC...	0.025485
195	1041349589842878464	[Status(api=cweeepy.api.API object at 0x7f6e94a00be0>, json={'created_at': 'Thu May 07 12:10:04 +0000 2020', 'id': '1258368502450307072', 'id_str': '1258368502450307072', 'text': '@CombatPhot I'd love to snag one of your pins! Please DM me details. Thank you!', 'truncated': F...	['@CombatPhot I'd love to snag one of your pins! Please DM me details. Thank you!', 'THIS: Has been resounding with me lately. Stay positive, and keep fighting. https://t.co/kxMshTKJdJ', 'RT @HistoricDET: #OTD 98 years ago, the first steel was lifted into place for the @mason...	0.139250
196	2585686880	[Status(api=cweeepy.api.API object at 0x7f6e94a00be0>, json={'created_at': 'Sat Jun 20 15:18:52 +0000 2020', 'id': '1274361078194081792', 'id_str': '1274361078194081792', 'text': 'Twitter Tantrum in 3-2-1...nJudge Rejects Trump Request for Order Blocking Bolton's Memoir http...	['Twitter Tantrum in 3-2-1...nJudge Rejects Trump Request for Order Blocking Bolton's Memoir https://t.co/1fENCF1ero', 'Finally watching Derek on laughter. Damn you @rickygervais! I'm not crying from laughter, I'm crying from kindness.', 'https://t.co/ECeyQkgZBL', '@GovWhi...	-0.002740

## METHODOLOGY



## VADER SENTIMENT ANALYSIS



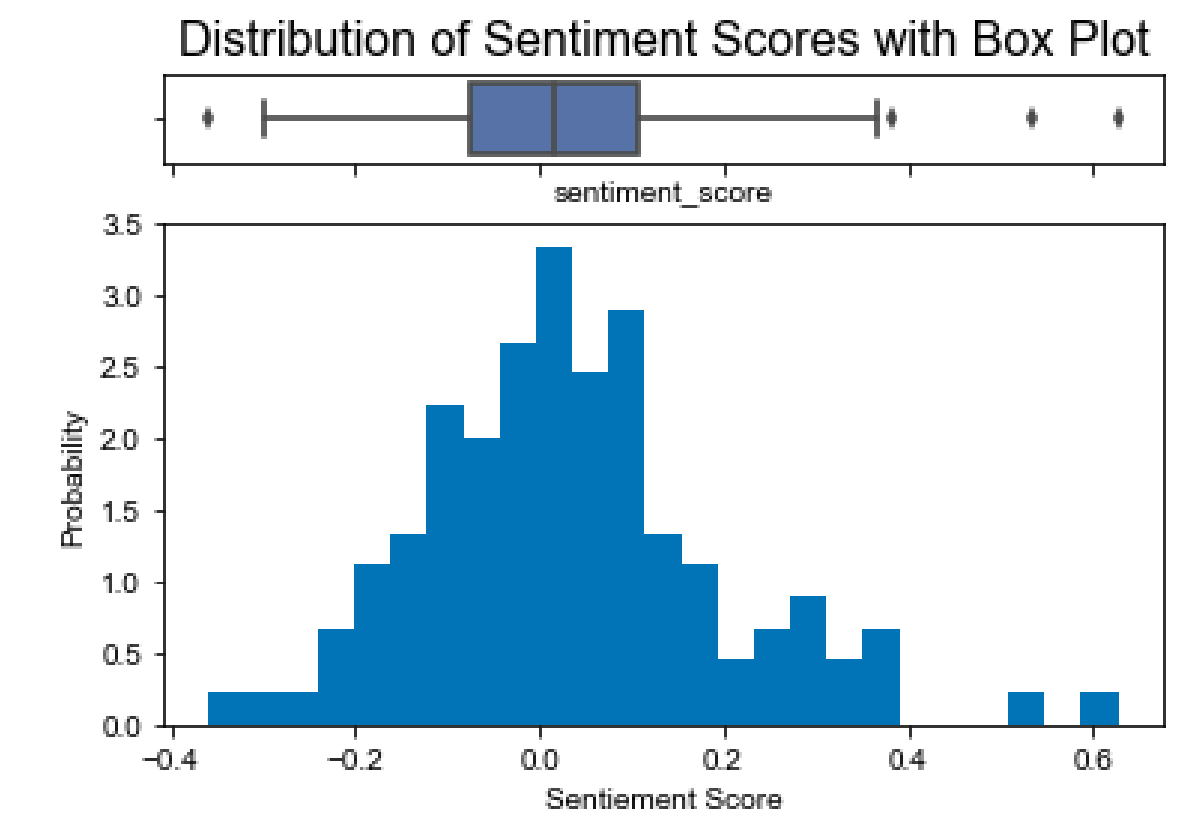
THE MOST CHALLENGING PART OF THE PROJECT WAS BUILDING A TWITTER-BOT THAT WAS BELIEVABLE ENOUGH TO PRODUCE HUNDREDS OF FOLLOWERS IN JUST A FEW DAYS. I BUILT MY BOT TO RUN FOR ABOUT 2 HOURS A DAY AND TO MAKE POSTS FROM A WIDE VARIETY OF MAINSTREAM MEDIA SOURCES. THE TRICK WAS PROGRAMING THE BOT TO IDENTIFY POPULAR MAINSTREAM MEDIA POSTS AND RE-TWEET THEM.

I BUILT MY SENTIMENT ANALYSIS TOOL USING THE VADER LEXICON. VADER (VALENCE AWARE DICTIONARY AND SENTIMENT REASONER) IS A LEXICON AND RULE-BASED SENTIMENT ANALYSIS TOOL THAT IS SPECIFICALLY ATTUNED TO SENTIMENTS EXPRESSED IN SOCIAL MEDIA. YOU CAN THINK OF VADER AS A COLLECTION OF WORD/POLARITY RATING PAIRS (SEE IMAGE). PRIOR TO SENTIMENT ANALYSIS, THE TEXT FIELDS OF THE TWEETS WERE PROCESSED USING STANDARD PROCEDURES AND METHODS. THE METHODS USED TO COLLECT DATA AND BUILD MY DATASETS ARE DESCRIBED UNDER DATASETS. ALL OF THE VISUAL AIDS USED IN THIS PROJECT WERE CREATED USING PYTHON PANDAS DATA FRAME OBJECTS AND THE SEABORN LIBRARY.

## FINAL DATA SET AS CSV

GITHUB

## INTERPRETATIONS / RESULTS



```
Out[14]: count    114.000000
         mean      0.032959
         std       0.165913
         min      -0.359500
         25%      -0.075605
         50%       0.016195
         75%       0.106369
         max       0.627450
         Name: sentiment_score, dtype: float64
```

ARE TWITTER-BOTS AN EFFECTIVE WAY TO INFLUENCE A LARGE NUMBER OF INDIVIDUALS?

BASED ON THE FACT THAT MY BOT PRODUCES AROUND 500 TWITTER FOLLOWERS PER WEEK, I WOULD CONCLUDE THAT TWITTER-BOTS ARE INDEED AN EFFECTIVE WAY TO INFLUENCE A LARGE NUMBER OF PEOPLE.

ARE THESE INDIVIDUALS EASILY INFLUENCED DUE TO ANGER OR OUT RAGE?

BASED ON THE DATA PRODUCED BY ANALYZING THE AVERAGE SENTIMENT OF THE TWITTER-BOT FOLLOWERS, I WOULD CONCLUDE THAT THE SENTIMENT OF THE TWITTER-BOT FOLLOWERS WAS NOT OVERLY NEGATIVE. IN FACT, THE FOLLOWER TWEETS WERE QUITE NEUTRAL. I SUSPECT THAT THE HISTOGRAM OF SENTIMENT SCORES WOULD CLOSELY RESEMBLE A NORMAL CURVE IF A MORE POWERFUL COMPUTER THAT CAN HANDLE A LARGER DATA SET WAS USED.

## WORKS CITED / REFERENCES

VADER LEXICON (VALENCE AWARE DICTIONARY FOR SENTIMENT REASONING)  
THE TEXT FILE CAN BE FOUND HERE:  
[HTTPS://GITHUB.COM/CJHUTTO/VADERSENTIMENT/BLOB/MASTER/VADERSENTIMENT/VADER\\_LEXICON.TXT](https://github.com/cjhutto/vadersentiment/blob/master/vadersentiment/vader_lexicon.txt)  
MORE VADER INFO HERE:  
[HTTP://T-REDUCTYL.IO/BLOG/2017/04/USING-VADER-TO-HANDLE-SENTIMENT-ANALYSIS-WITH-SOCIAL-MEDIA-TEXT.HTML](http://t-reductyl.io/blog/2017/04/using-vader-to-handle-sentiment-analysis-with-social-media-text.html)

TWEETPY API DOCUMENTATION CAN BE FOUND HERE:  
[HTTP://ATWEEEPY.ORG/EN/V3.5.0/](http://atweeepy.org/en/v3.5.0/)

PROJECT GIT HUB:  
[HTTPS://GITHUB.COM/BATTMUCK32138/TWITTER\\_BOT\\_PROJECT.GIT](https://github.com/BATTMUCK32138/TWITTER_BOT_PROJECT.GIT)

DIGHUM 100  
THEORY & METHODS IN THE DIGITAL HUMANITIES  
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