



Covid-19 Sentiment Analysis

Based on Tweets

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Methodology and Dataset

- Dataset

- Tweets including [#COVID-19](#)
- Tweets between 2020/3/29 ~ 2020/4/15

- Methodology

- Data cleaning
- Most common words
- Tweet sentiment categorization
- Sentiment distribution
- Sentiment frequency over time

	A	B	C	D	E	F	G	H	I	J	K
1	status_id	user_id	created_at	screen_name	text	source	reply_to_status_id	reply_to_user_id	reply_to_screen_name	is_quote	is_retweet
2	1.24E+18	1E+18	2020-03-30	Ecodiariozac	#EntA@ra	TweetDeck				FALSE	FALSE
3	1.24E+18	3E+07	2020-03-30	Reporte_Indig	#PorSiNoL	TweetDeck				FALSE	FALSE
4	1.24E+18	3E+08	2020-03-30	tv1_rtm	Pengurus	TweetDeck				FALSE	FALSE
5	1.24E+18	3E+09	2020-03-30	ajplusespanol	MÃ@dic	Twitter Media Studio				FALSE	FALSE
6	1.24E+18	5E+09	2020-03-30	BlogDelRegio	La	TweetDeck				FALSE	FALSE
7	1.24E+18	1E+09	2020-03-30	ISSSTE_mx	Para	TweetDeck				FALSE	FALSE

L	M	N	O	P	Q	R	S	T	U	V
favourites_count	retweet_count	country_code	place_full_name	place	followers_count	friends_count	account_lang	account_created_at	verified	lang
362	0				679	991		2018-10-22T15:31:23Z	FALSE	es
1764	8				898366	621		2009-04-14T01:47:10Z	TRUE	es
3746	1				38609	534		2011-05-10T05:57:18Z	FALSE	in
18063	24				114290	668		2015-01-07T18:44:40Z	TRUE	es
136	1				6785	1523		2016-02-03T22:48:13Z	FALSE	es
1626	2				137867	196		2013-02-15T21:02:36Z	TRUE	es

<Raw data>



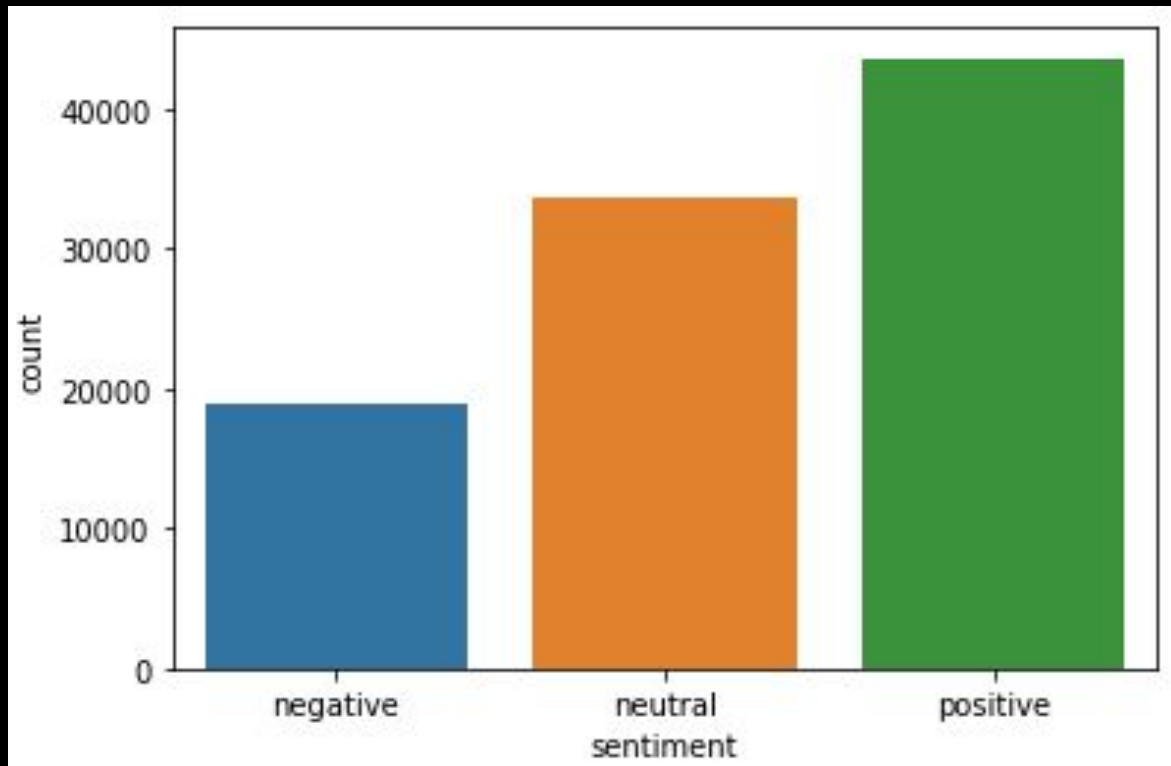
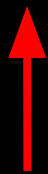
	A	B	C	D	E
1	created_at	text	favourites_count	retweet_count	lang
2	2020-03-30T00:00:00Z	#EntÃ@rate G	362	0	es
3	2020-03-30T00:00:00Z	#PorSiNoLoVi	1764	8	es
4	2020-03-30T00:00:00Z	Pengurusan	3746	1	in
5	2020-03-30T00:00:00Z	MÃ@dico	18063	24	es
6	2020-03-30T00:00:00Z	La @NISalud	136	1	es
7	2020-03-30T00:00:00Z	Para convivir	1626	2	es
8	2020-03-30T00:00:00Z	3æce`30æ—¥	100	0	ja
9	2020-03-30T00:00:00Z	Ãi#InfÃ³rmate	3957	105	es
10	2020-03-30T00:00:00Z	Asegura los	1827	0	es

<Processed data>

Polarity (positive, negative, neutral)

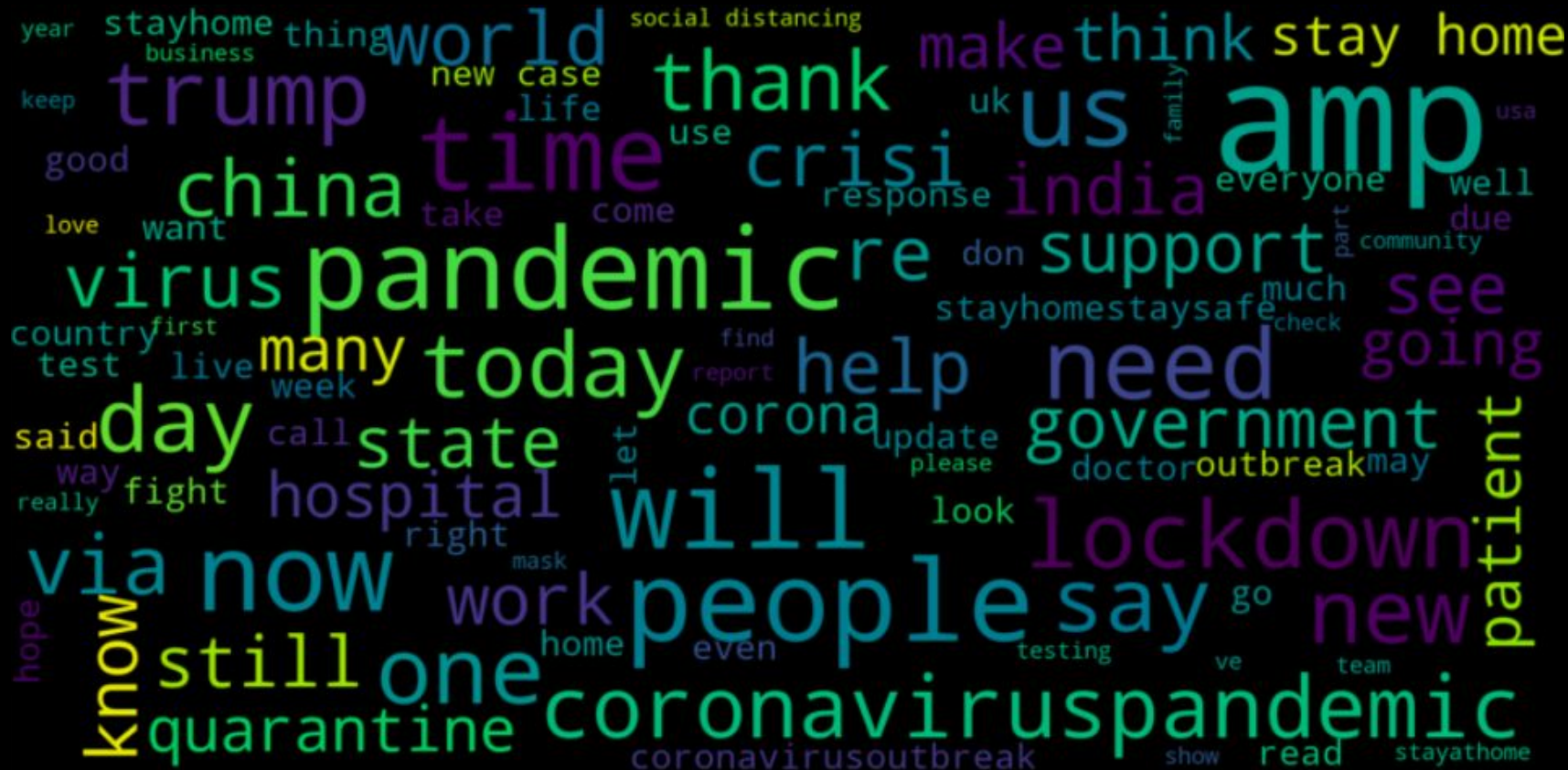
text	sentiment	polarity
ospitals newyork around world due coronavirusoutbreak ask	negative	-0.125
night first time wondering lady went ngcharles daftdug ladyandthetramp	positive	0.25
many us already recovered covid 19 out better perspective mortality rate	positive	0.321429
owing covid19 airborne well droplet	positive	0.5
onavirusoutbreak covid19 full report	positive	0.2

Data with polarity

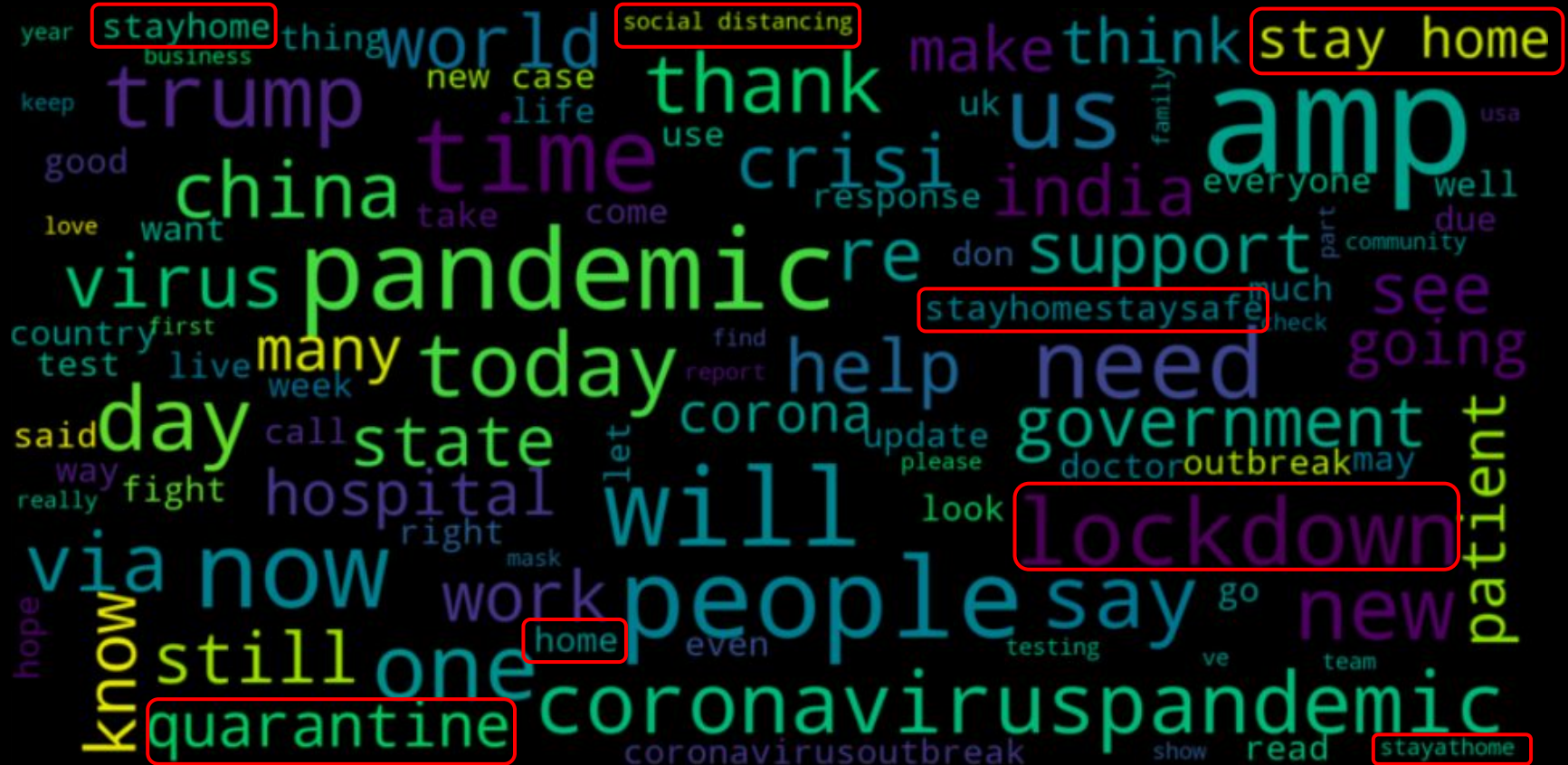


Tweet Sentiment

100 Most Common Words

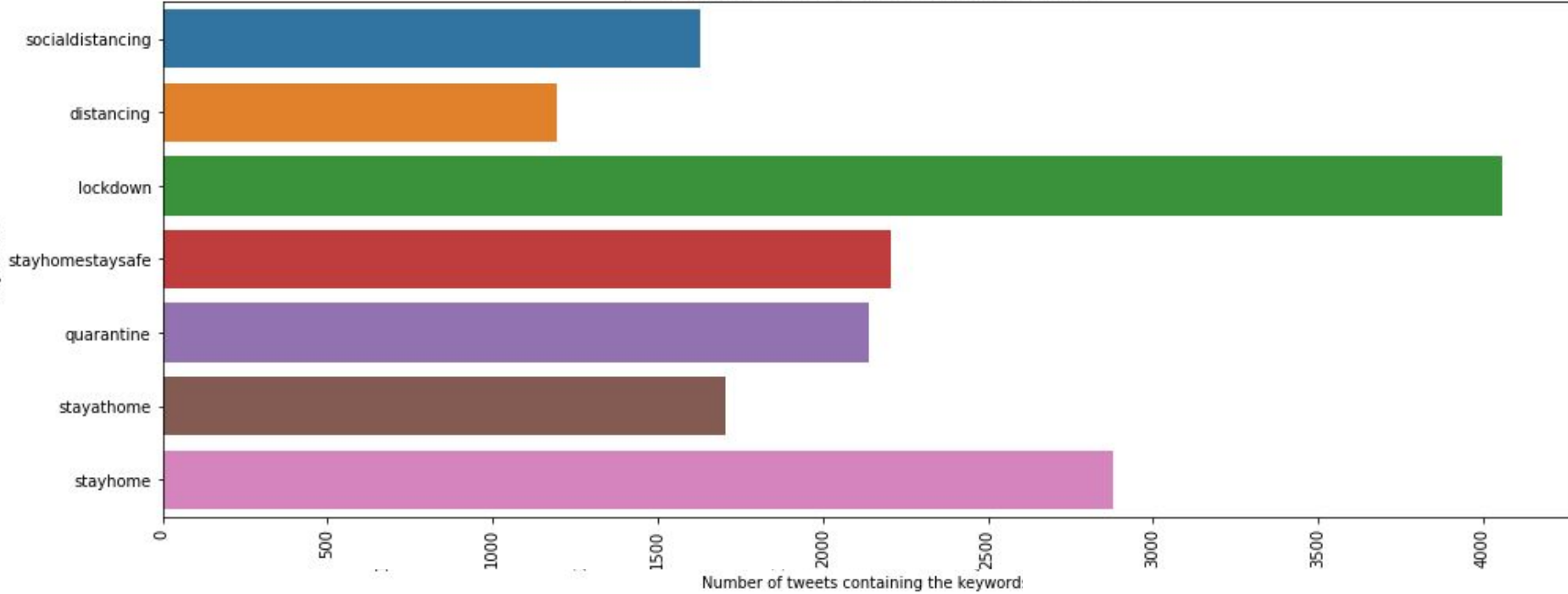


100 Most Common Words

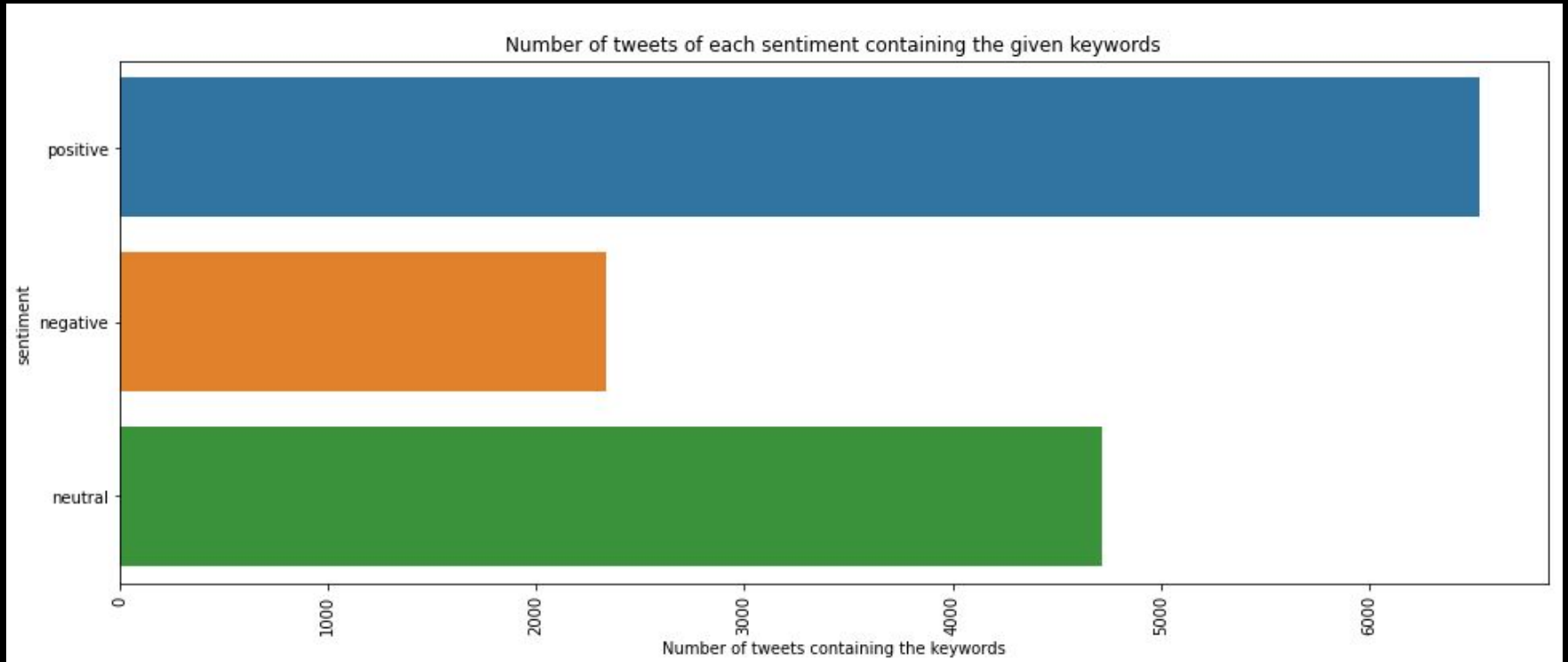


Sentiments on Lockdown

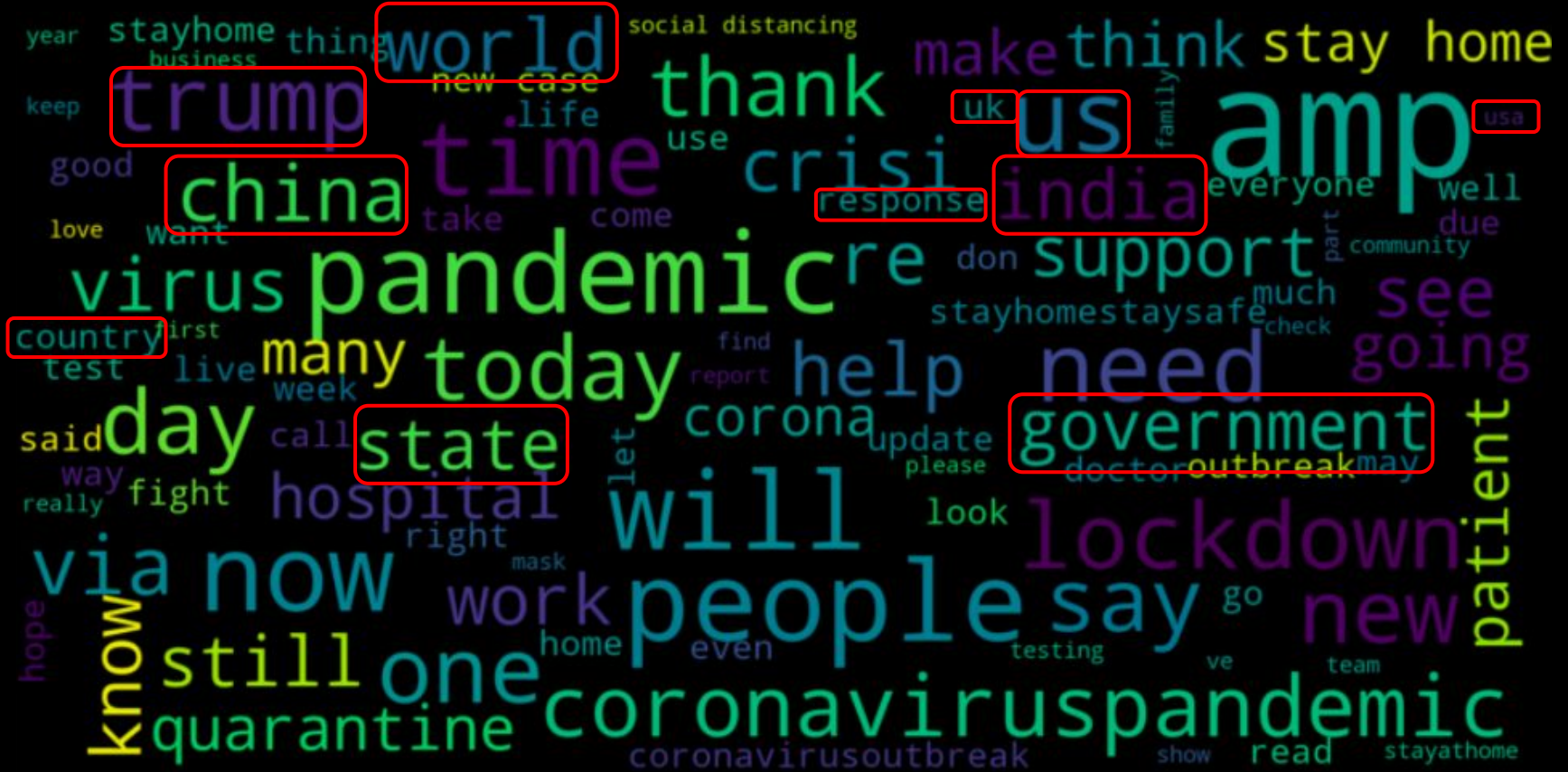
Count of the given keywords in the tweet dataset



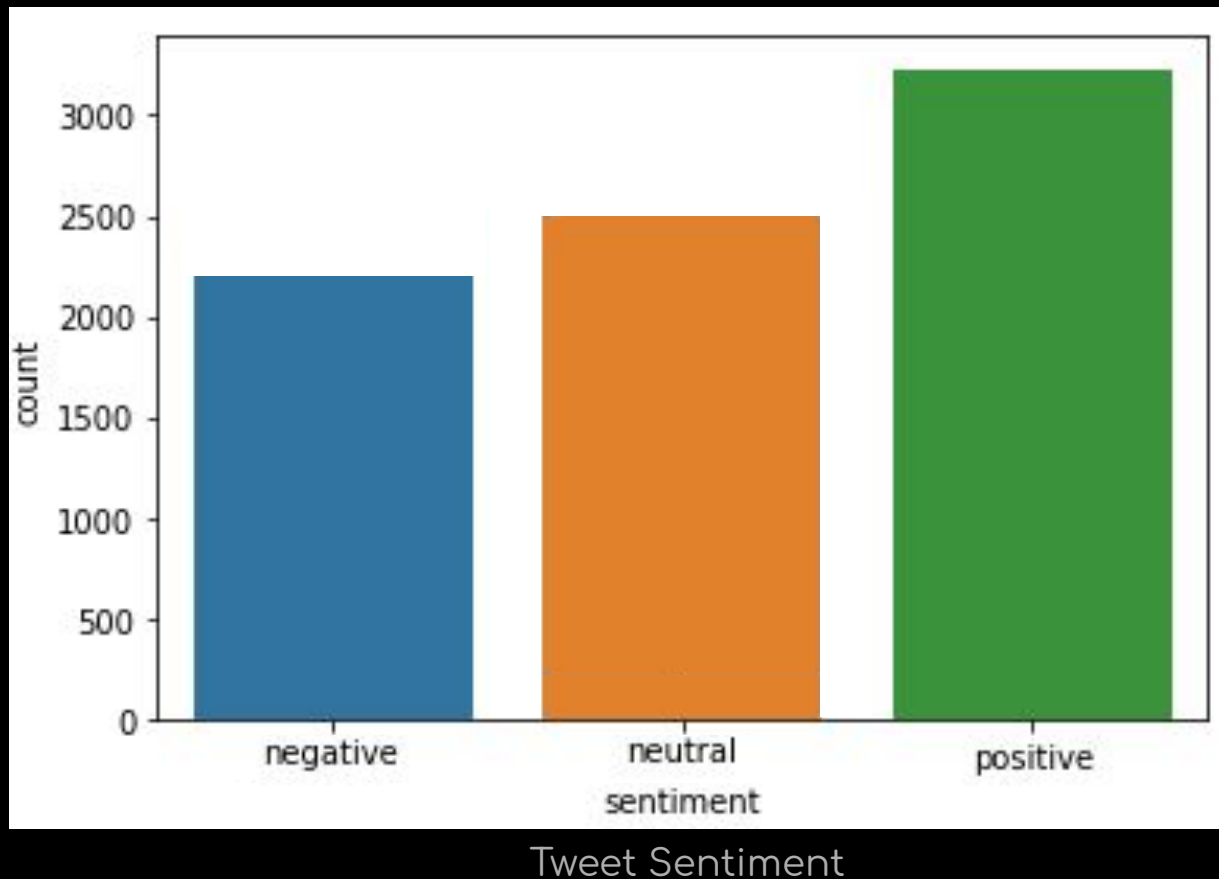
Sentiments on Lockdown



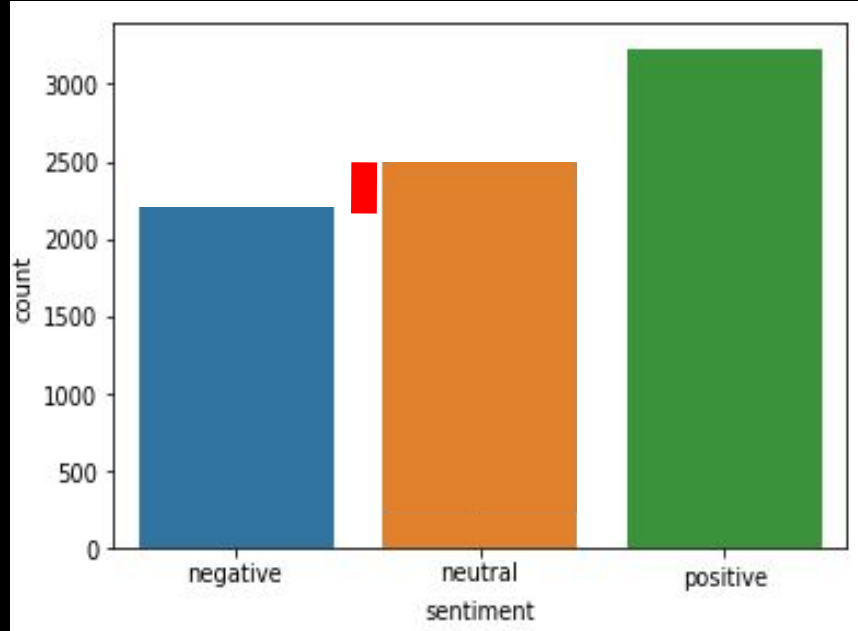
100 Most Common Words



Government Opinion Analysis

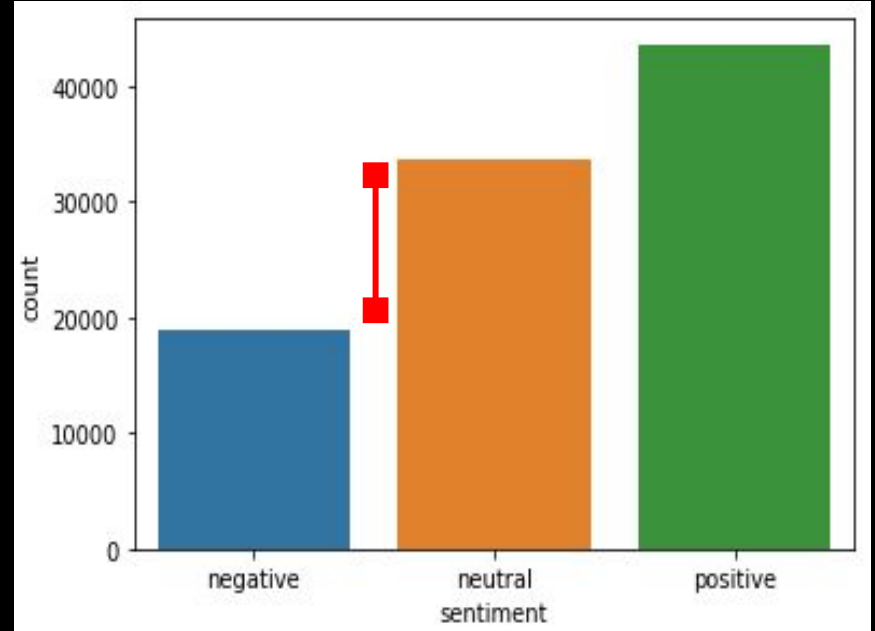


Public Sentiment about Government and COVID-19



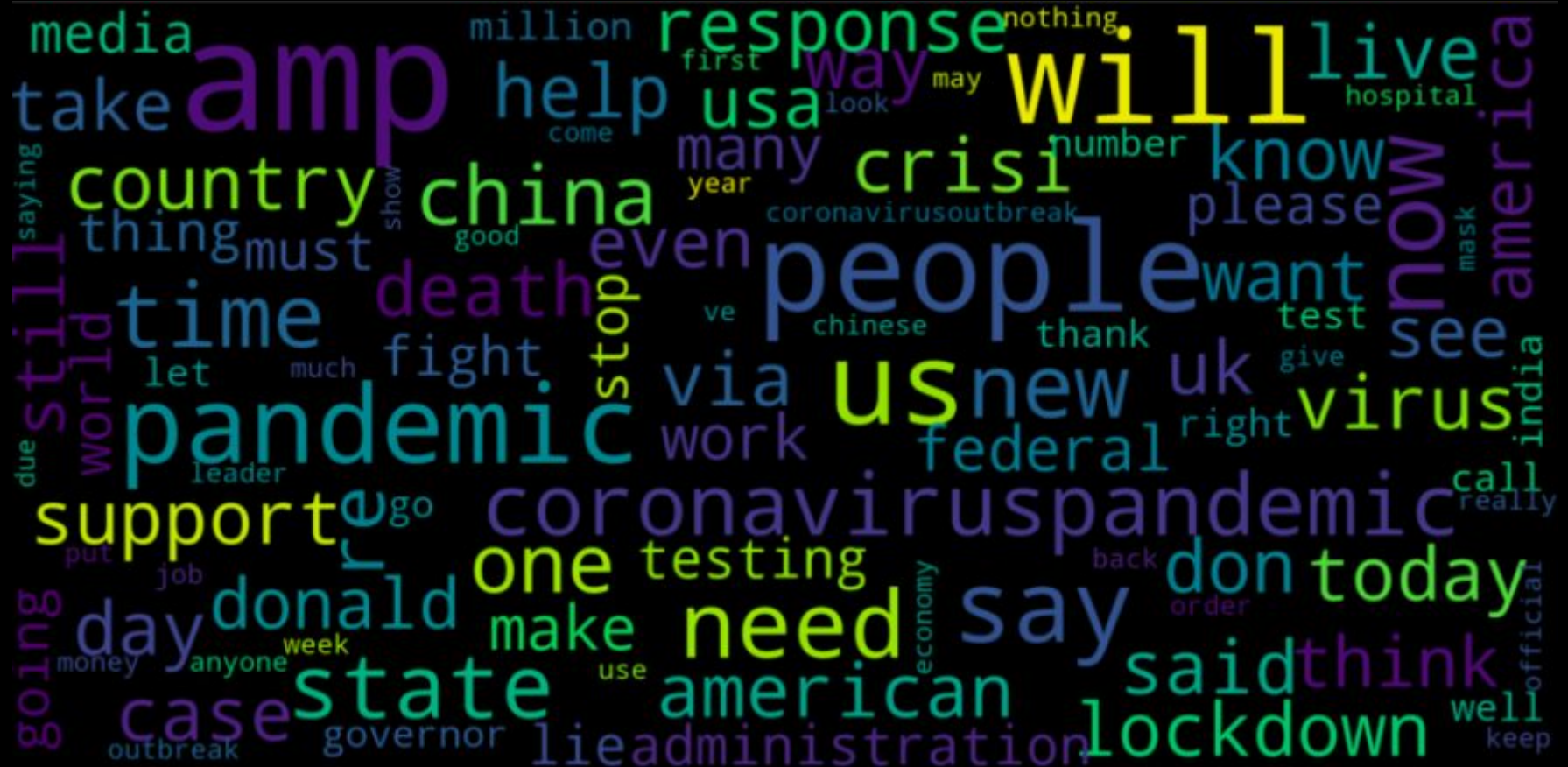
negative is 38.33%

Public Sentiment about COVID-19 in General

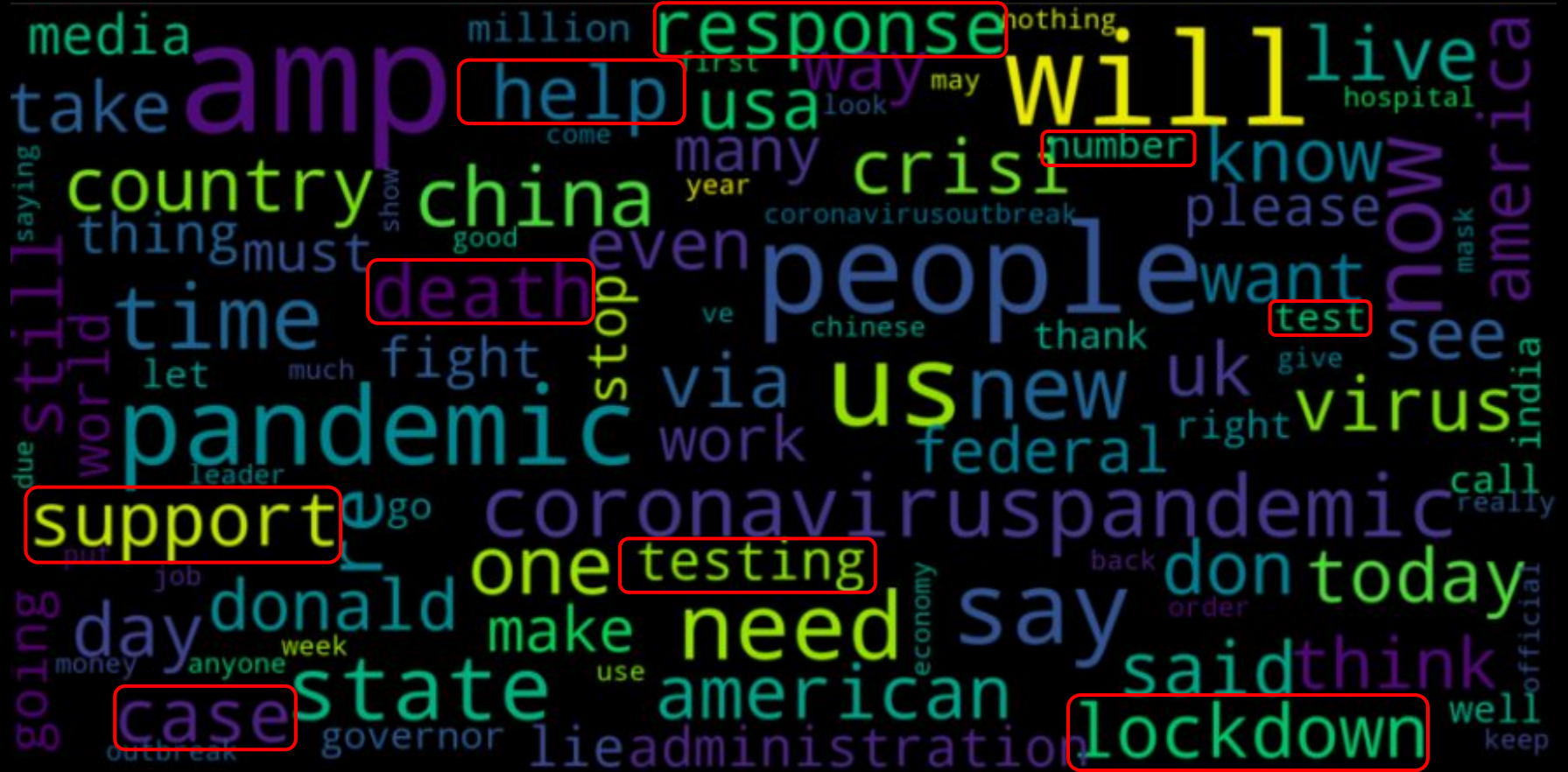


negative is 24.33%

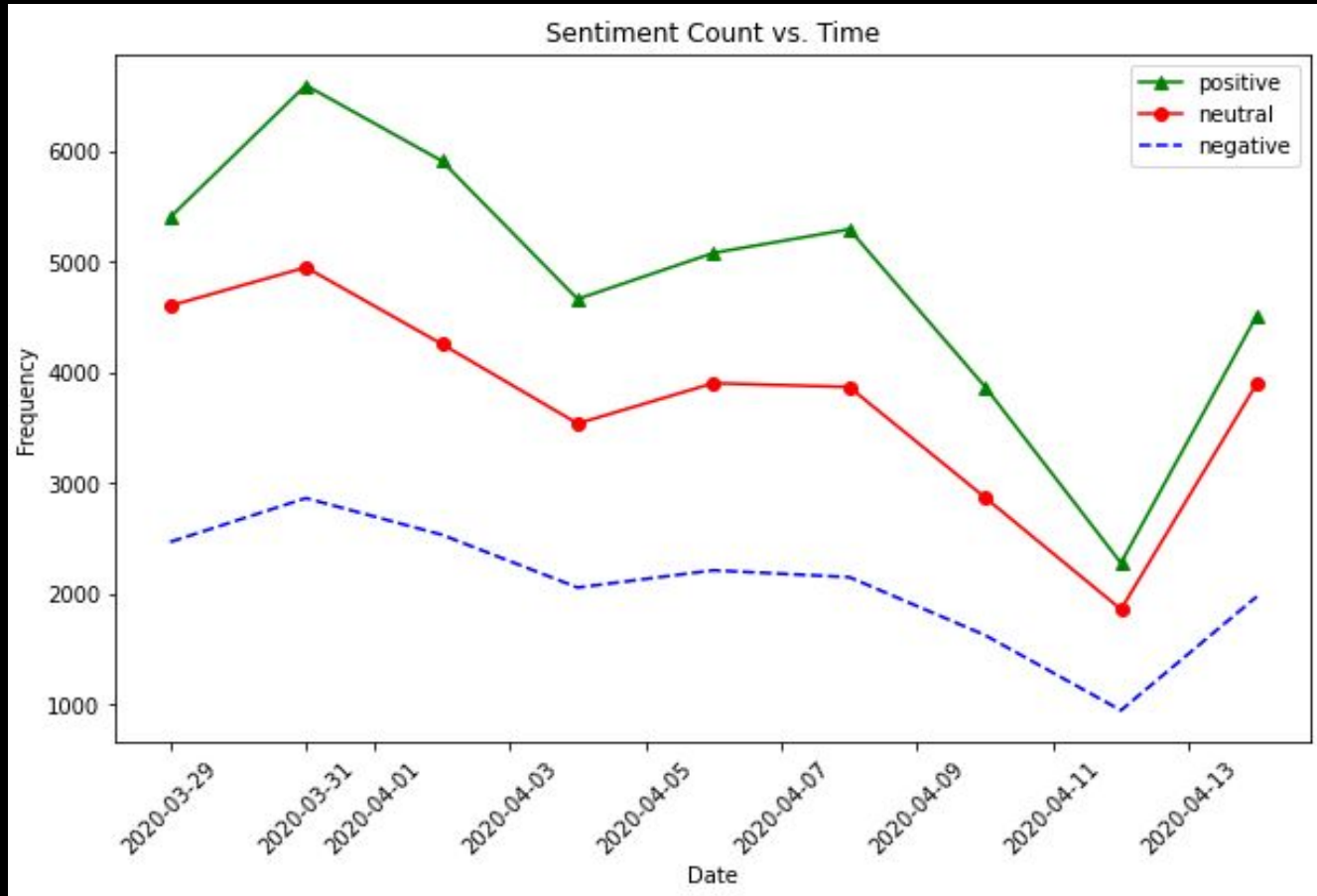
Government Opinion Analysis



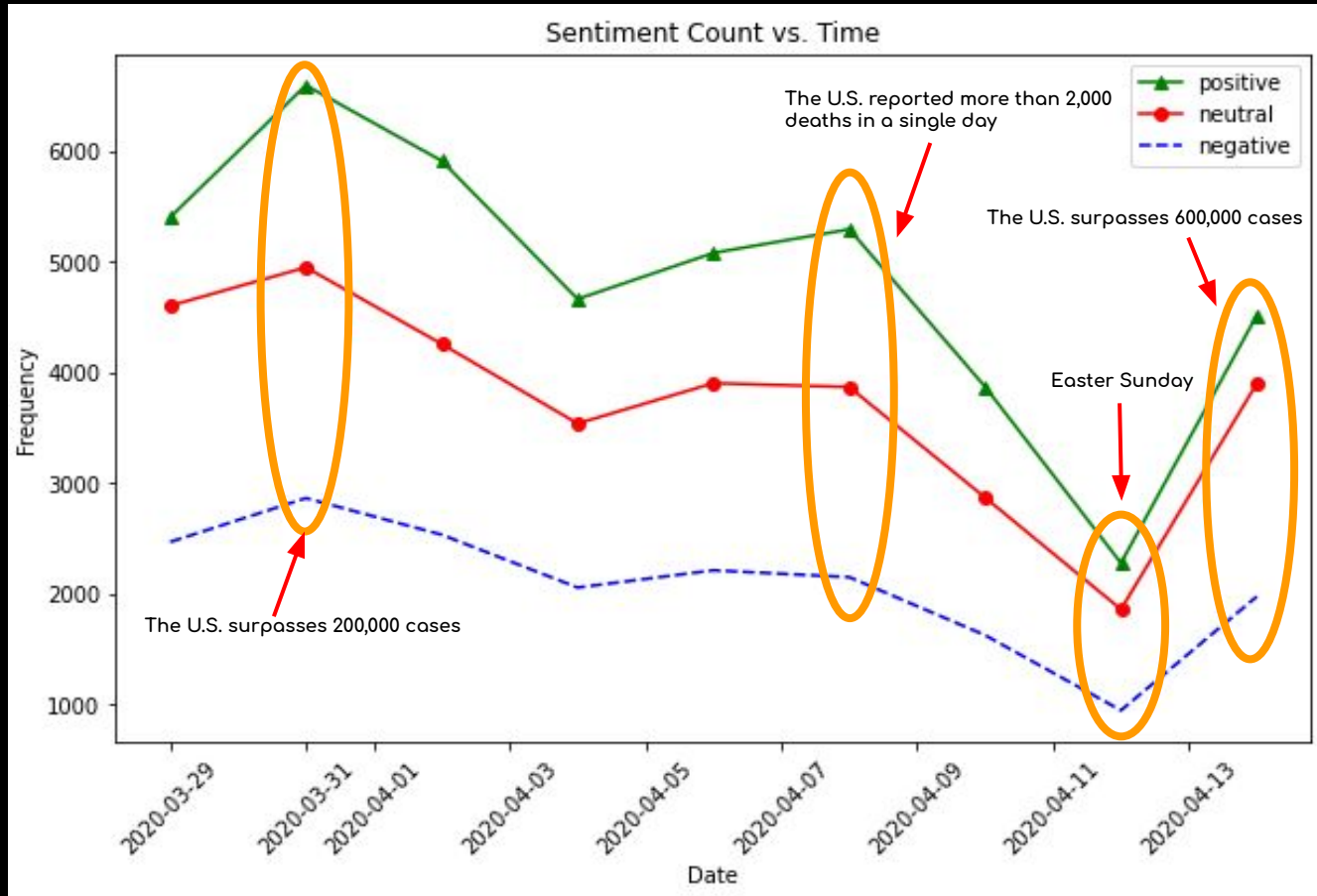
Government Opinion Analysis



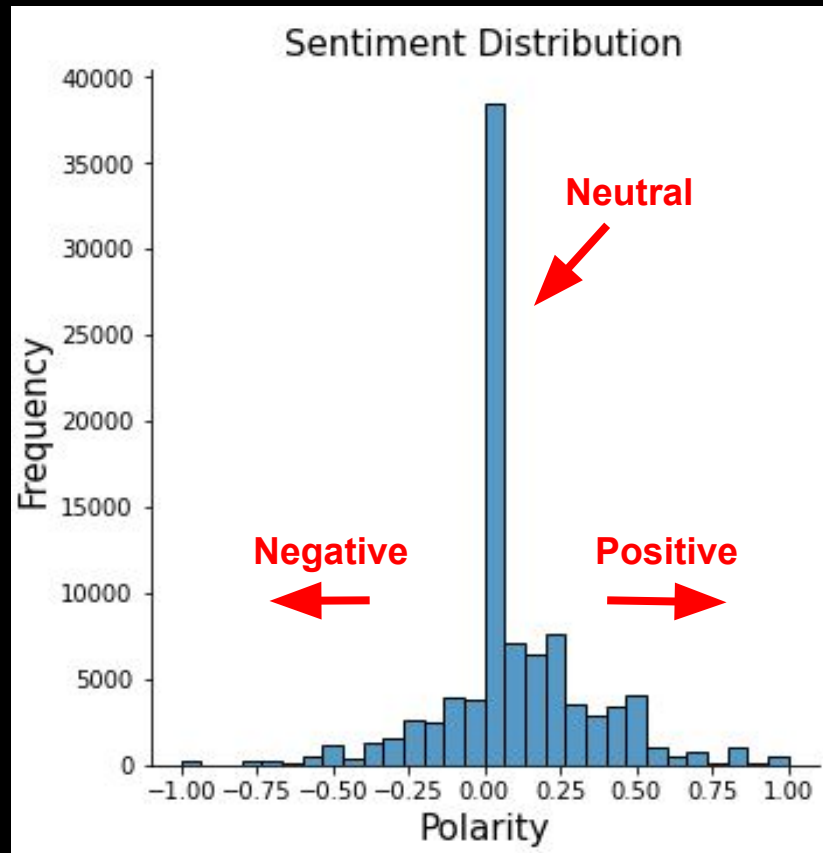
Sentiment Over Time



Sentiment Over Time

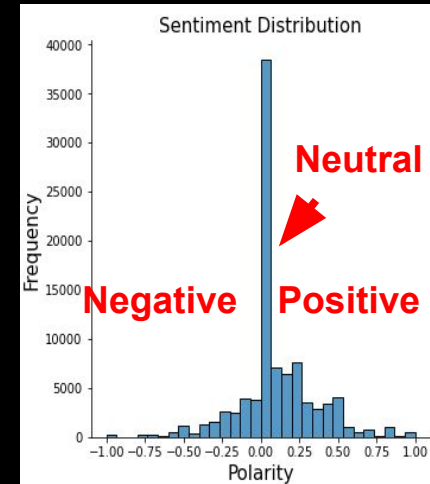
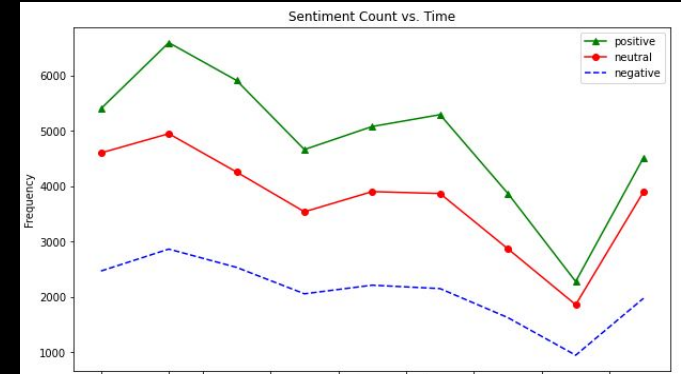


Sentiment Distribution



Conclusion

- How do people feel during the crisis?
- How does the general public sentiment change over time?
- What is the public's opinion about the government/policy makers during this time?
- What is the public opinion about lockdowns?



**Thank you,
Questions?**
