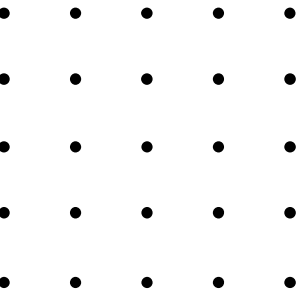


Social Media Analytics

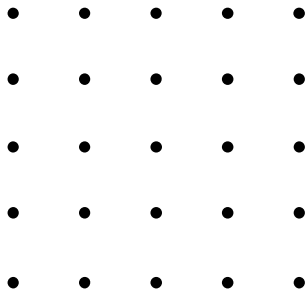
SENTIMENT ANALYSIS
-
PARTYGATE SCANDAL REPORT





CONTENT

- Discovery**
- Data Preparation**
- Model Planning**
- Model Building**
- Conclusion**



Discovery

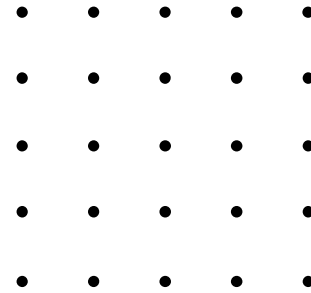
The British police has opened up an investigation into several parties held at Downing Street and within the senior administration, during the lockdowns. Indeed, The Prime Minister was accused of potential violations of the rules related to Covid. On January 31, 2022, PM B.

Johnson apologized following the publication of a critical report on the Downing Street parties, which concluded that there had been errors of leadership and judgment. Following this event on February 2, 2022, the website johnsonout.co.uk invites UK citizens to support the petition for the resignation of Boris Johnson using the hashtag #JohnsonOut on Twitter.

The website invites UK citizens to join a nationwide protest scheduled at mid-day on February 26th.

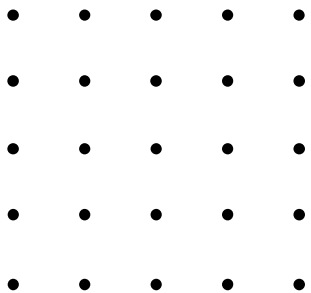
Around Three-quarters of the public say Boris Johnson should resign
if he is fined for the Partygate, here is why #JohnsonOut is one of the actual hottest Twitter trends

As a Public Relations Team, we wanted to make a report about the impact of Boris Johnson's Partygate scandal on social media sentiments. For this project, the dataset created has been scrapped with 89104 rows and 90 columns (user_id, screen name, text, quoted_text...).



Our initial hypothesis is the following:

- People want to see Boris Johnson resign from office if he does not, they are expecting a vote of no confidence
- The feelings should be mostly negative as this is a scandal
- Other people are involved in the scandal and appear in the conservative party



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DATA COLLECTION

**Web-scraping: scrap
tweets with the
package "rtweet"**

DATA CONVERSION

**Organization/Structuring
of the data table to
convert it into an excel
dataset**

DATA IMPORTATION

**Checking dataset state,
then loading data in R
and removing duplicate**

We explain here how we did the extract, transform and load steps to get our data.

Data Preparation

Model Planning



STEPS FOLLOWED

Wordcloud & Tweet
Frequencies
Tokens
Sentiment Analysis



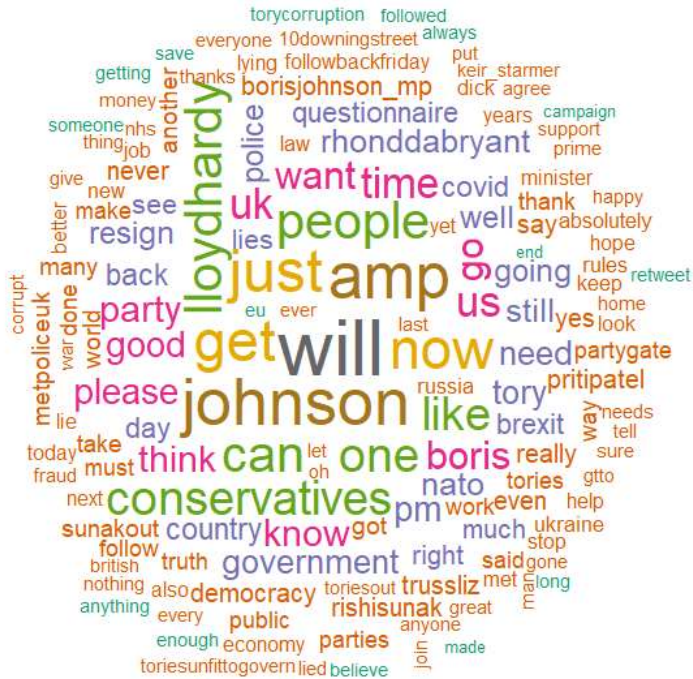
We explain in the following pages our estimation strategy and results

• • • • •

MODEL BUILDING

• • • • •

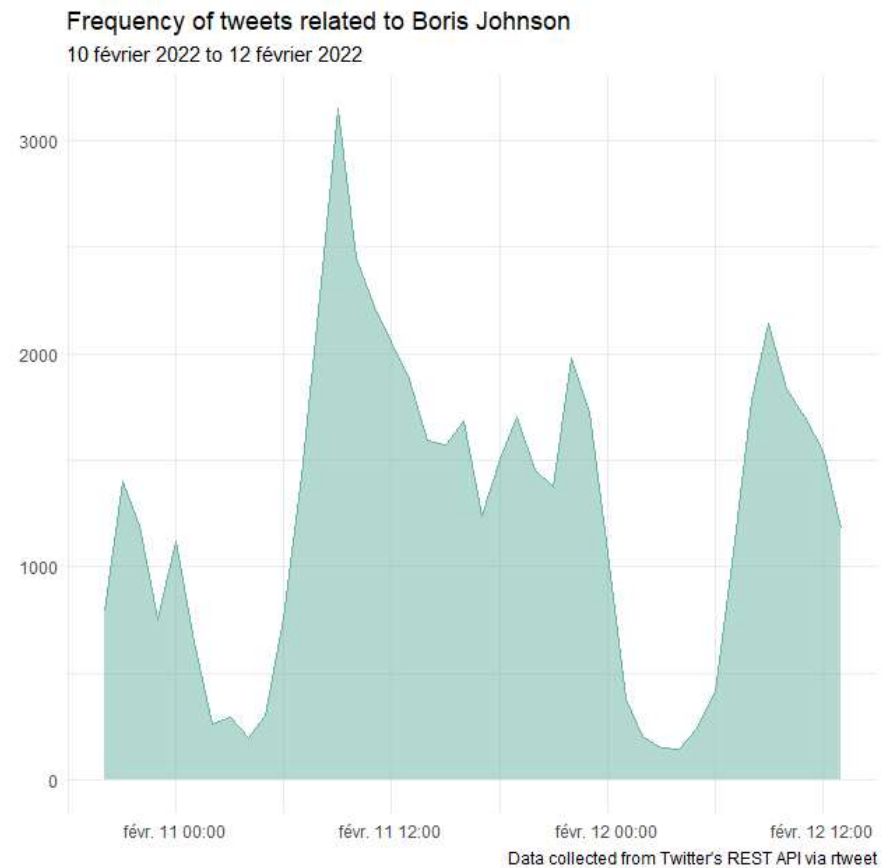
Wordcloud



We can clearly see that British citizens are not happy with their current government partying during the lockdown while people were dying, making it a hot topic on social media.

Tweet Frequencies

Due to package limitations, the data couldn't be retrieved for the whole week but only for 2 days. This is enough for us to confirm that the subject is still in trend with thousands of tweets related to Boris Johnson each day.



Tokens

Tokenizing is a simple way to search text, a process of splitting text into individual terms. As every occurrence of a term means a token, we're creating a bag of words

The most common types of tokens are characters, words, sentences, documents, and regular expressions, but we'll focus only on words, as we got opinions on tweets. We're looking for word associations, we wanted to be sure to remove all the elements that would not be "pure text".



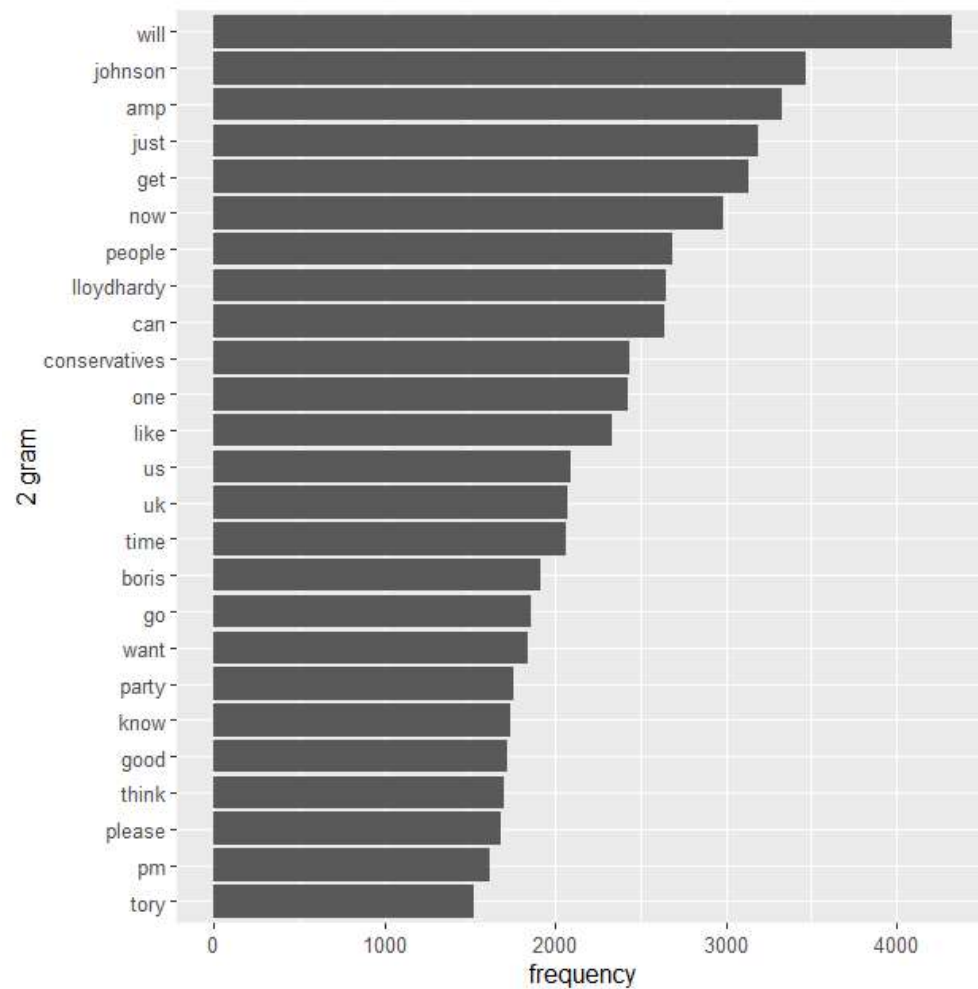
Top hashtags in the tweets

#sunakout refers to the chancellor of the Conservative Party who would have attended the Downing Street parties with PM B. Johnson. The chancellor is said to have lied in an interview with [sknew.com](https://www.sknew.com) about accusations against him regarding a potential waiver of the rules applied to Covid. Here the hashtag is trending for the resignation of chancellor Sunak.

hashtag	n
#JohnsonOut18	22848
#JohnsonOut19	8957
#BorisJohnson	2711
#JohnsonOut17	2404
#JohnsonOut16	1115
#PartyGate	828
#SunakOut	726

Graph: Unigram

Words like: now, time, GO, pm, johnson, and party suggest that people want Boris Johnson and his government to resign due to the #PartyGate scandal.



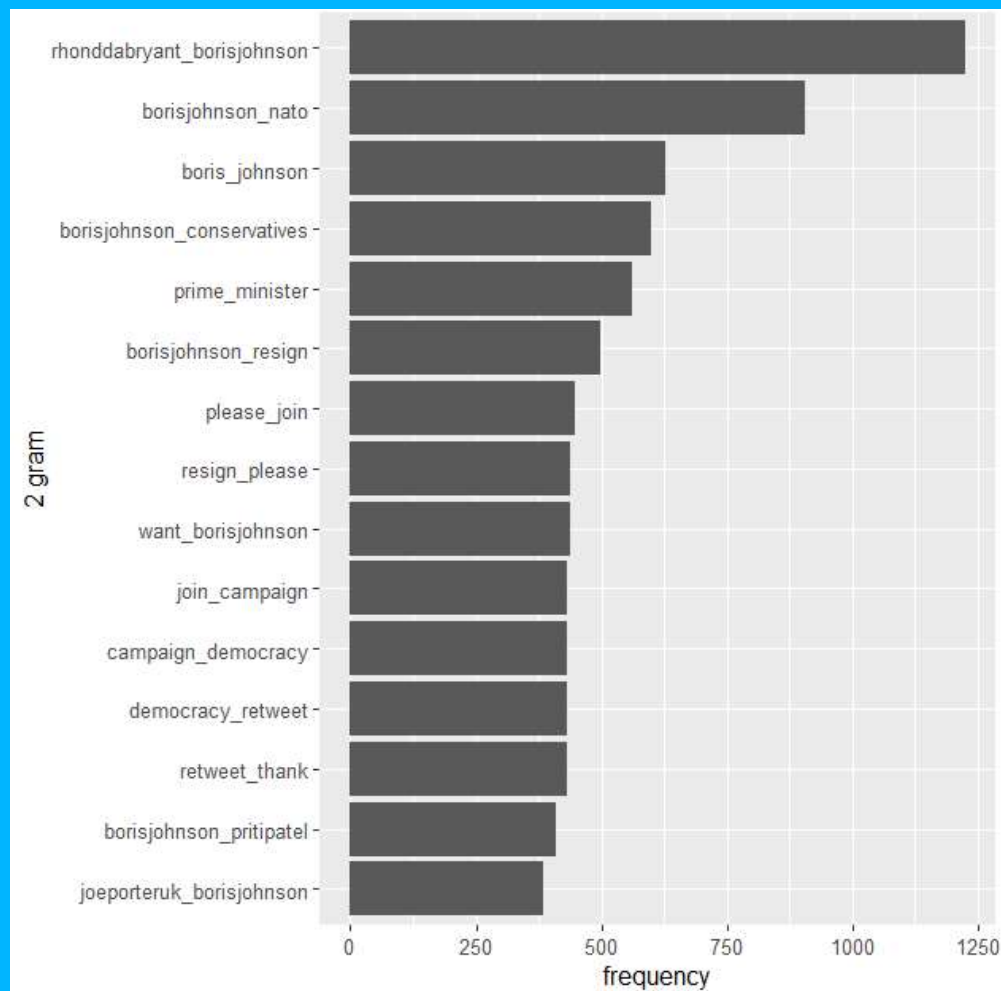
Graph: Bigram

Interpretation:

in their tweets, people are either asking for their PM to resign or to join the campaign asking for Boris Johnson to resign.

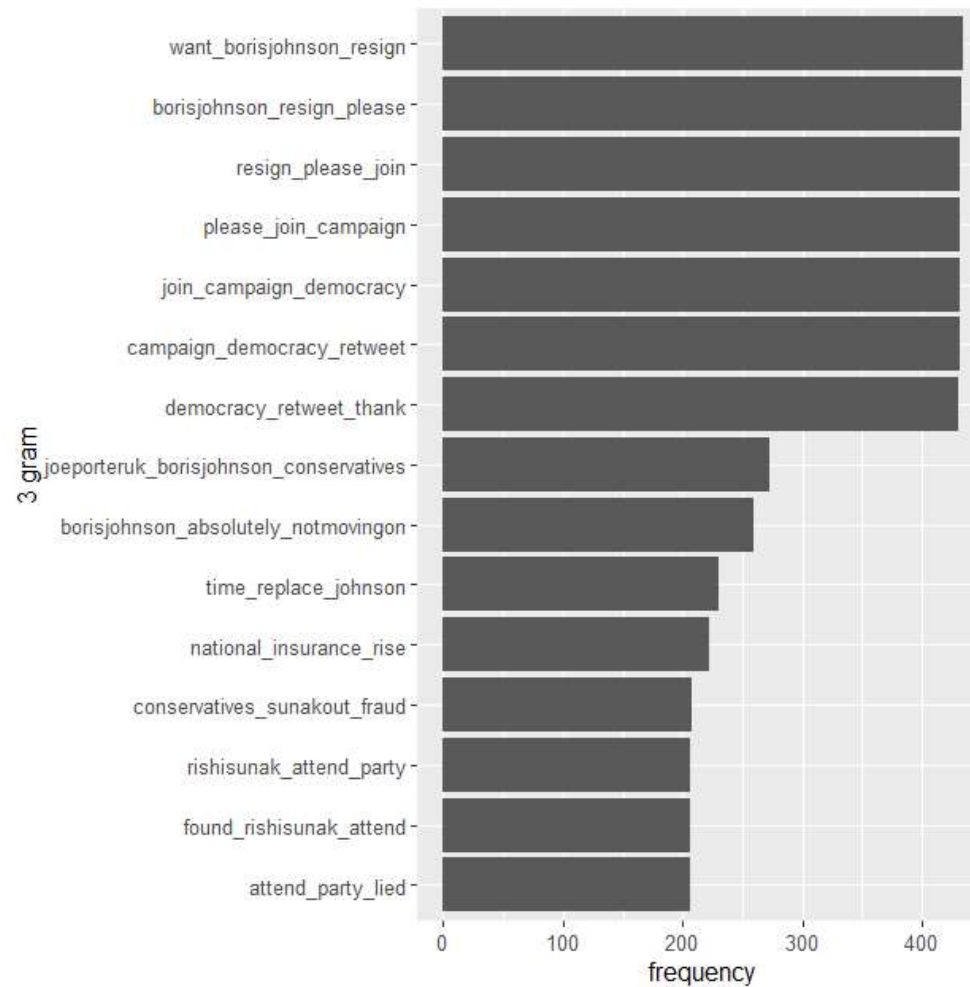
For more context: For now 20 days, the hashtag #JohnsonOut is trending on twitter UK and each day a number is added at the end of the hashtag to follow up the impact of the campaign (day 1 was #JohnsonOut1, day 2 JohnsonOut2 etc...)

The movement does not seem to be losing momentum as the hashtag trending at the time of our scrape was JohnsonOut19

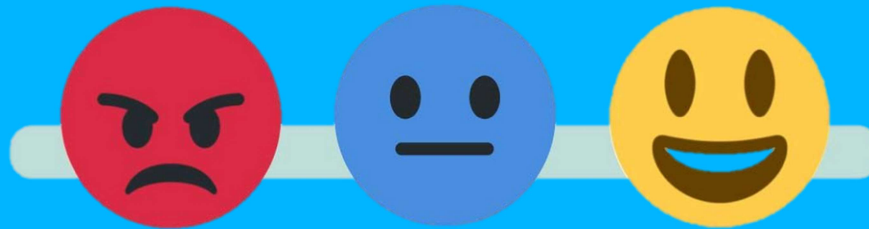


Graph: Trigram

This graph confirms what we said earlier: people want Boris Johnson and everyone involved with the #PartyGate scandal with him to resign.



Sentiment Analysis



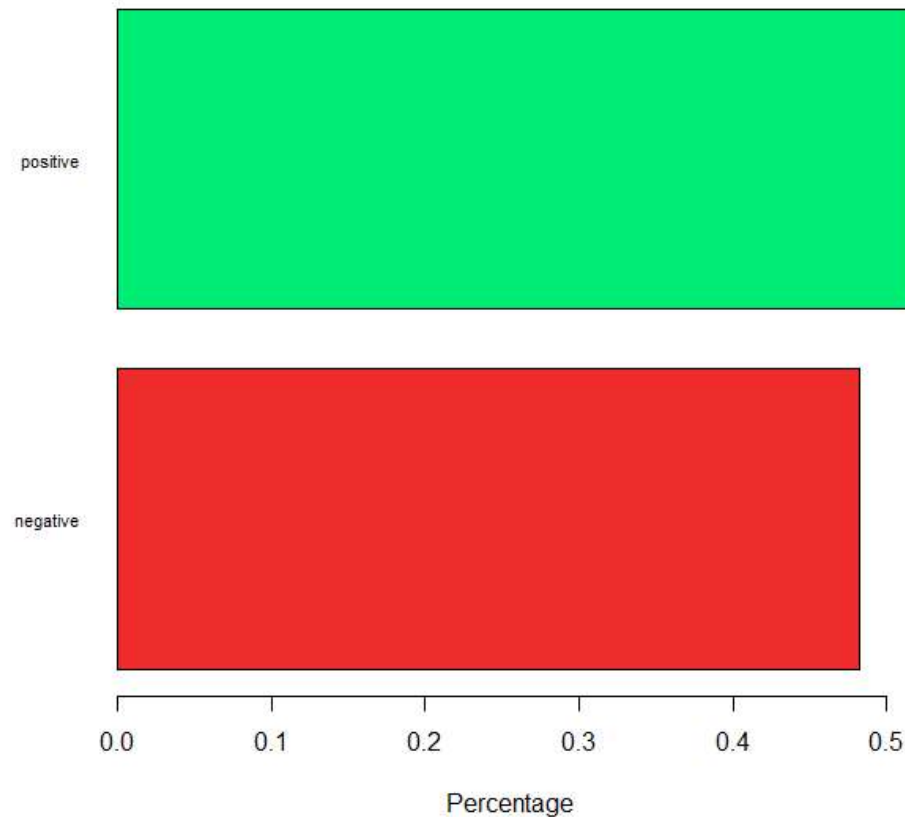
Graph: Proportion

Feelings represented in the tweets are quite mixed with an almost 50/50 between positive and negative tweets.

This can be explained by the fact that this is a lexicon-based sentiment analysis.

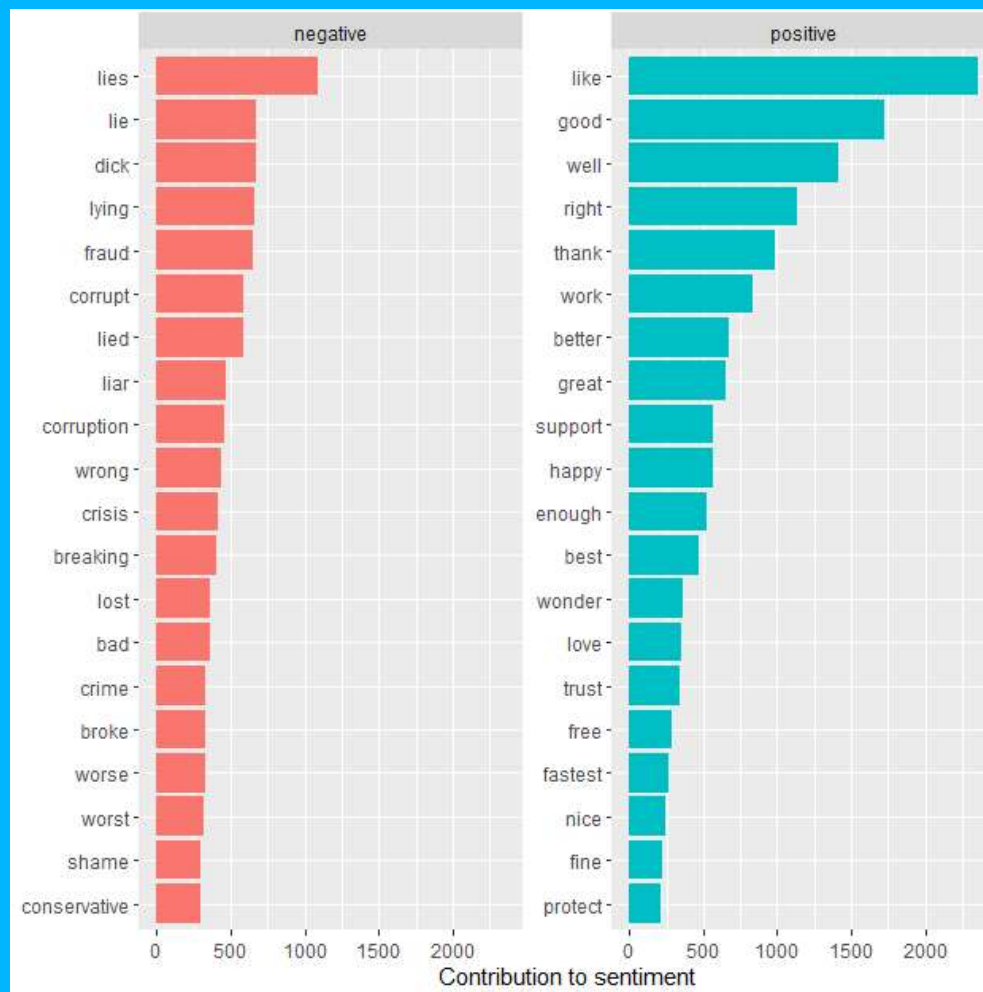
Therefore the context will not be taken into account which makes it hard to detect jokes, sarcasm or any other subtle comments

Proportion of Positive and Negative Sentiments



Graph: PosNeg

Interpretation: Most common positive words do not allow us to give a proper interpretation as we just ended up with a list of positive words with no link to Boris Johnson. But Negative tweets do have "Conservative" as one of their most frequent words, linking all negative words to their current government and expressing how unhappy they are with them.



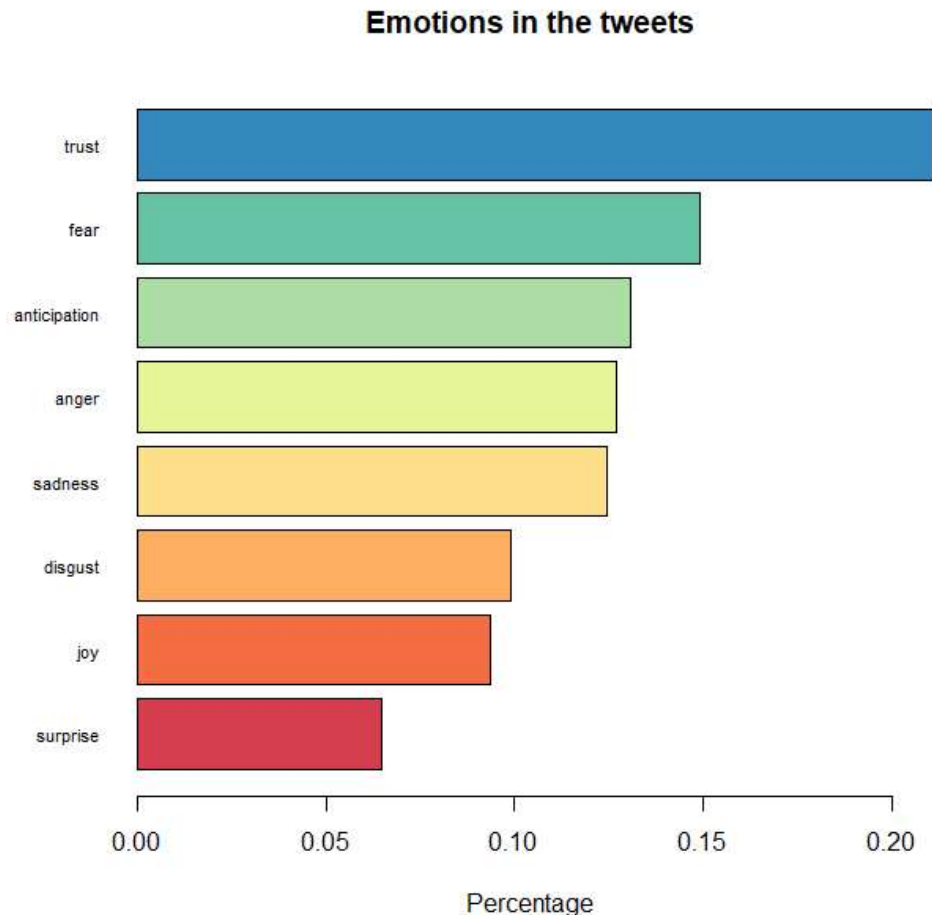
Graph: Emotions

Emotions in the tweets are quite mixed. The most represented emotion is trust, which leads us to many questions? Is it representing trust towards Boris Johnson or trust that he is guilty and can be forced out. It can also represent the lost of trust from British citizens towards their government.

There are also quite a few negative emotions: Fear, anger, sadness and disgust. Representing more than 50% of represented emotions.

There is also anticipation, meaning the population is ready to move on with a new government and is getting ready for it.

Let's analyze those sentiment with more details on the following slides.



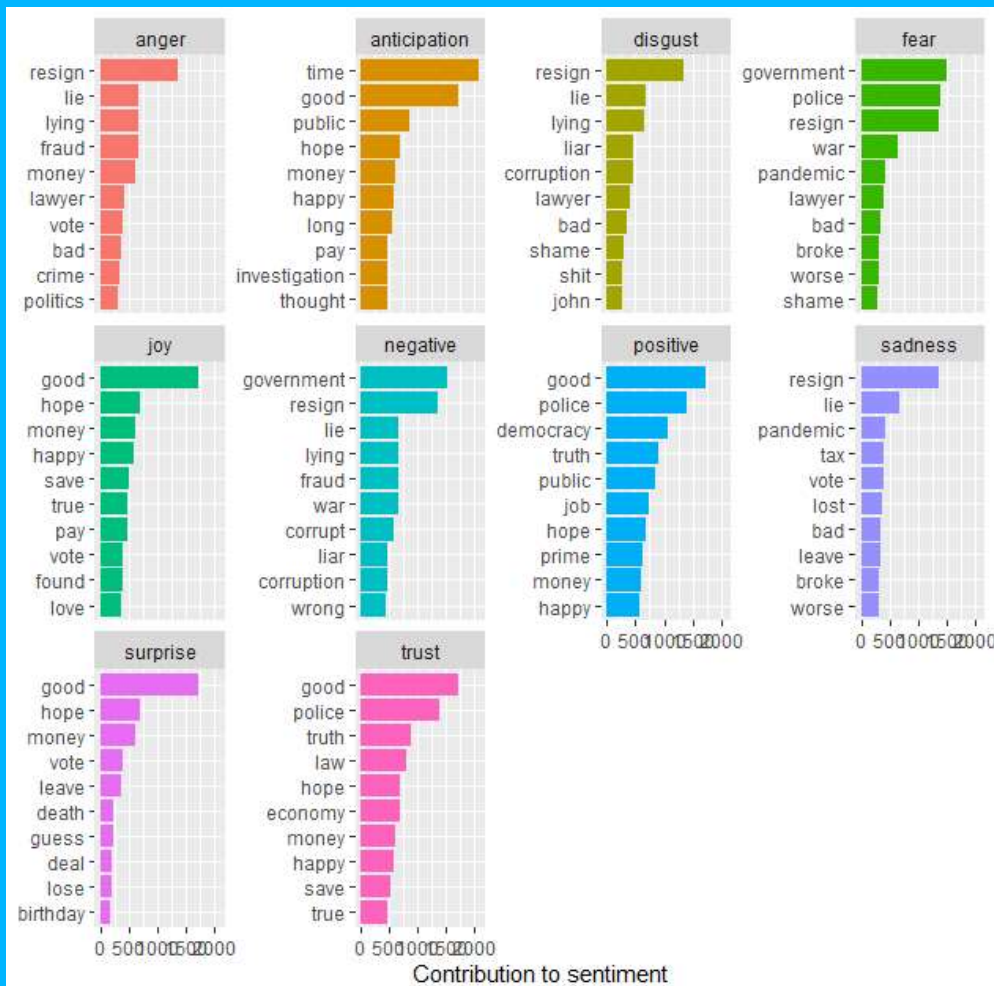
Graph: Sentiment

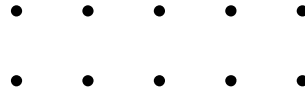
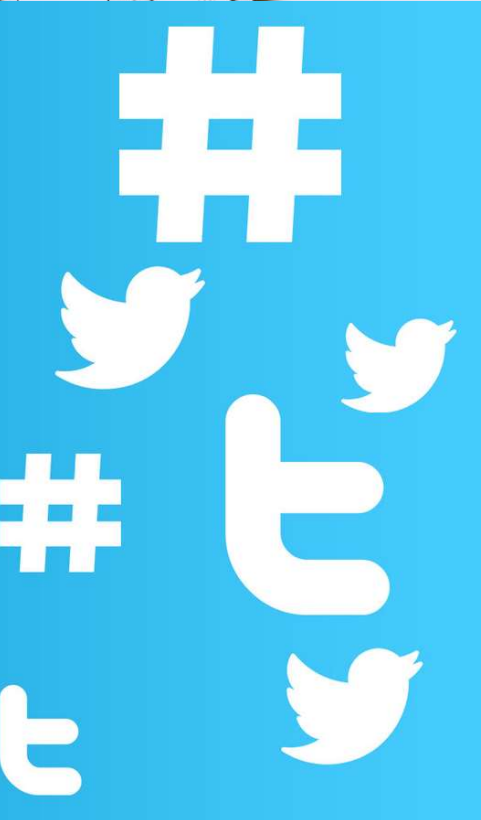
We can see that the trust sentiment actually represents trust towards the police currently investigating the Prime Minister. They hope justice will be served.

Anger, disgust, fear and sadness all show the will of the population for Boris Johnson to step down as they no longer trust him and feel negative emotions about him.

Overall, positive emotions are towards the police and and the hope for the truth to finally come out.

Whereas, negative emotions are towards the current government.





Conclusion

Based on these results, we can clearly say that British citizens are expecting their current government to step down and let a new Prime Minister take the commands of the country, as they have lost faith in Boris Johnson and the tories.

Both positive and negative tweets showed to be against them as positive tweets are actually not showing any kind of support for the hard time the Prime Minister is going through, but about the police investigating the #PartyGate scandal and how people hope they will finally shed lights on the truth which would probably lead to the government being forced out.

