Is COVID-19 Partisan?

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Motivation

In this project, we use the Members of Parliament (MPs) tweets to shed a light on the political sentiment towards different measures and situations throughout the pandemic. How is the UK government dealing with COVID-19, and is the government acting in a partisan manner, or is there a clear political divide between parties?
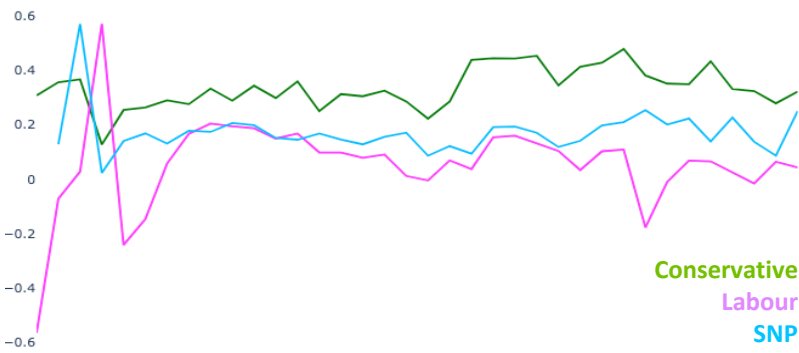
Data & Tools

The data was obtained from the UK MP Tweets website and has datasets of the UK's Members of Parliament tweets. Data was extracted from 40 hashtags that are most frequently used in tweets relating to COVID-19. EDA, sentiment analysis and unsupervised machine learning algorithms were used to analyse and drive the conclusions.

Tweet Types and Geography

Re-tweet
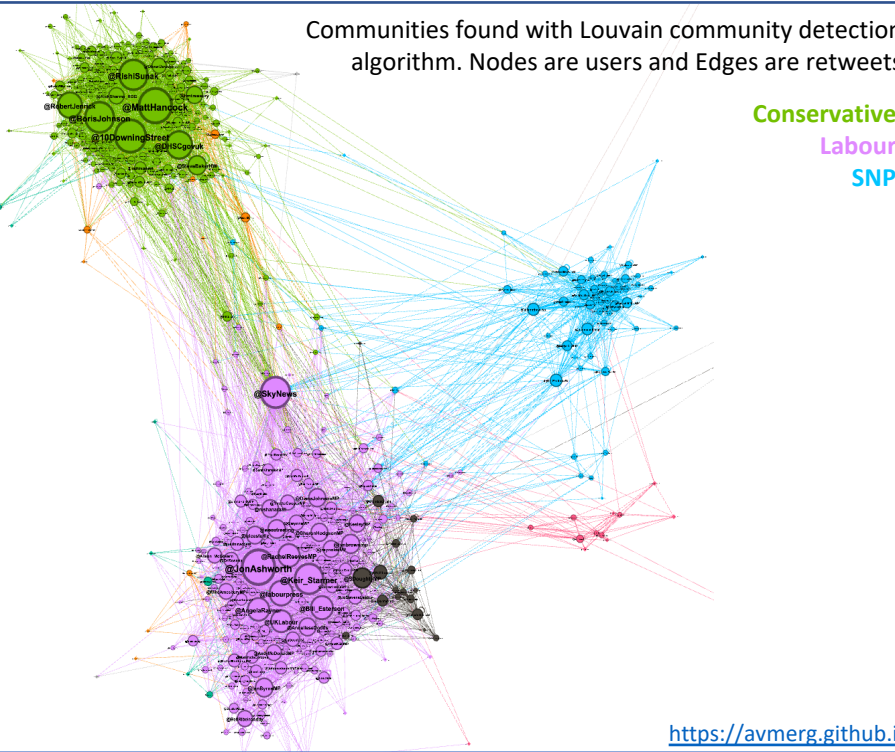Reply
Tweet

Conservative
Labour
SNP

Statistical Analysis & Machine Learning

A weighted, directed retweet network was constructed using users as nodes and retweets as edges. Louvain community detection was used to understand how the network is structured and to classify meaningful clusters in the network.
In the network, there is a high degree of partisanship. People in the same parties tend to retweet each other, with few links in between groups.
The Labour cluster is the largest, with over 35% of the nodes, followed by Conservative cluster, with 24% of the nodes and finally, the SNP cluster having roughly 16% of the nodes.
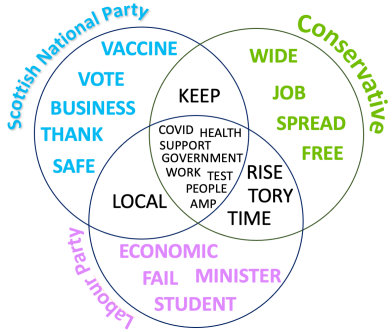
COVID-19 Retweet Network

Communities found with Louvain community detection algorithm. Nodes are users and Edges are retweets

Conservative
Labour
SNP

https://avmerg.github.io/

Sentiment Analysis per Party Over Time
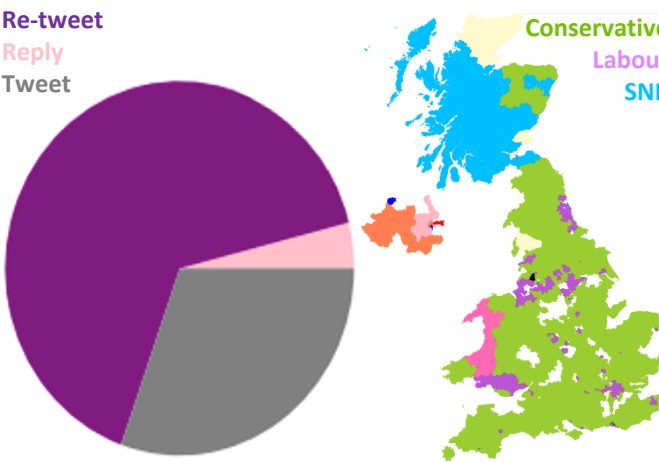

Conservative
Labour
SNP

Party Geography and Topic Overlap

LDA (Latent Dirichlet Allocation) topic analysis was implemented with Gensim in Python.
There is overlap in the topics addressed by each party.
All parties broach health and economic themes.
The frequency of economic and health messages vary between parties.

Conclusion

Although COVID-19 is a worldwide disaster, the UK political parties seem to respond to the pandemic according to the "tribe" they aligned with. From the sentiment analysis, the emotional valence becomes more similar over time.
Surprisingly, the originality level of politicians' tweets is not high, as only 30% are original, the rest are retweets or replies.
Health, the economy and support are the main topics in the MPs tweets.