

# CORONAVIRUS - A Social Epidemic

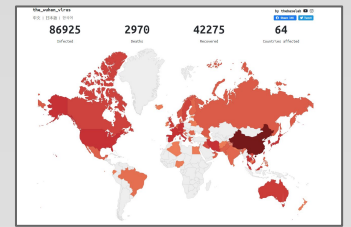
By Group 1 for IS434

## Objective

Understanding the **spread of information** regarding the COVID-19 virus

## Client

@thebaselab



Detecting and surfacing untruths from social media!



## What are we analysing?

1. Textual Analysis
2. Superusers
3. Network Community

Hashtags, keywords, tweet-level sentiment analysis

topic modelling, user-level sentiment analysis

community detection, information spread

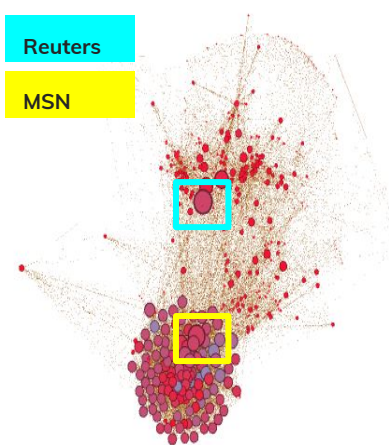
NLTK

NetworkX

## RESULTS - "Political leanings observed in News Sources Network Analysis"

### Comparison of News Sources

- News sources with differing sentiments are in different communities
- Negative news sources sparser and less clustered than positive
- Most influential sources are never extremely negative



Topic: World Economy

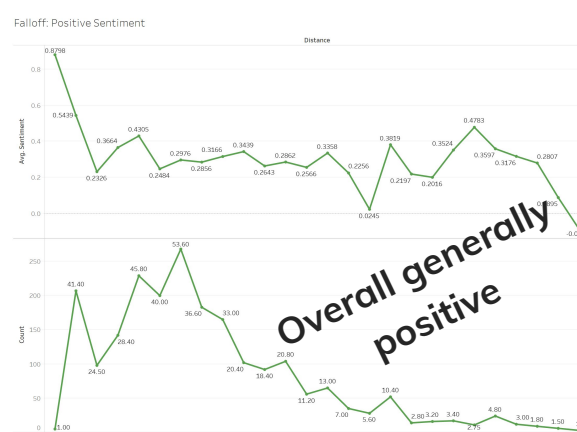
### News Sources Sentiment Communities



## RESULTS - "Happiness spreads more than Negativity"

### Positive/Negative Sentiment Falloff

- The median sentiment of a negative network is actually, positive!
- Positive users have a more balanced in-out degree, while negative users have low in-degree, meaning they receive no replies



Positive Sentiment

Negative Sentiment

### Keyword Falloff

- Positive keywords spread more than negative in the network.
- Of these keywords, supportive and religious sentiments tend to have the furthest reach.

