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How the Clarification of Fake News Affect the Development of the COVID-19

In recent months, COVID-19 is a hot topic, and many news of COVID-19 has pushed on various social media. These kinds of news always tend to get much attention. However, a significant portion of these news are false and misleading which cause that people did not take enough precautions early on. There is no denying that the fake news provides significant effect. For example, in the UK, there were at least three 5G towers burned by the end of March because some people believed it caused the COVID-19 to spread widely. If more and more people believe such fake news, this would not only cause social panics, but also cause huge economic losses. This is also what we are interested in, that how could the news take control of things. Based on the limited sources we have, we are going to study whether the clarification of fake news will have an effect on the development of COVID-19.

We basically used two datasets in this project. One is the clarification of fake news called "Falsehood". The other dataset is called "historical US confirmed cases".

Since the virus has an incubation period, we have to consider this period when we consider the correlation between news and coronavirus. In this project, we decided to consider the average COVID-19 incubation period 5 days. Then we built the model of these two variables, and based on the graph, we use quadratic transformation and log transformation.

Then we try to find the association between keywords on news and their corresponding variables. We select a few specific words and variables for individual modelling, such as word "death" and the increasing death cases.

According to what we have, we can conclude that there exists a correlation between the amount of clarification of fake news and the development of COVID-19. Moreover, in order to know the specific effect, we try to compare the trends in social attention with the trends in development of COVID-19. Therefore, we count the most common words that appear in either fake news or clarification. Based on the analyze, the connection between them became clearer. When people pay more and more attention to this virus, letting the fake news go unchecked can cause a terrible situation. What's more, the clarifying news before getting the final result could also be considered misleading or false. This is why we were overwhelmed when the virus outbroke in March. Since the clarification should be doubtless, this could also explain why the amount of clarification keeps increasing.

Resource Link:

https://www.medicalnewstoday.com/articles/covid-19#incubation-period

https://www.theverge.com/2020/4/4/21207927/5g-towers-burning-uk-coronavirus-conspiracy-theory-link

https://www.bbc.com/future/article/20160323-why-are-people-so-incredibly-gullible

Data Source Link:

https://covidtracking.com/api/v1/us/daily.csv

https://www.kaggle.com/sudalairajkumar/covid19-in-usa/data#us_covid19_daily.csv

http://data.gdeltproject.org/blog/2020-coronavirus-narrative/live_onlinenews/MASTERFILELIST.TXT