Impact of Influential figure taking COVID vaccine on national sentiment

IMT 547: Social Media Data Mining & Analysis

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What is the problem? Why is it hard?

- We constantly see differences in public opinions about issues
- It is sometimes beneficial to clear out the misinformation and encourage masses to believe in a good purpose
- Influential figures (or celebrities) are often seen encouraging audiences towards the same and making their stand clear via social media
- However, does it actually work?
- Is it possible to change public opinion using any public move, for that matter?

What are you trying to do?

- 1. Aim to measure the impact of influential figures' opinions, actions, words on the masses and their opinions.
 - Wish to understand if such a public bold move was able to sway the national opinion at all.
- 2. We'll try to analyze the impact on the sentiment of people in the United States with respect to COVID-19 vaccines when an influential figure (here the president of the US, Joe Biden) himself takes the vaccination on camera.

How is it done today?

- Sentiment analysis is the automated process where we identify and classify information which is in the form of text.
- This information might be something like a twitter post, and can express an opinion, a judgment, or a feeling about a particular topic or product feature.
- Currently most work is done on analyzing the sentiment that goes behind a particular event, and not really comparing the impact of an event on the sentiment of the people in a particular area.

What is new in your approach?

- The novelty of our approach lies in analyzing the impact of a major event on the sentiment of the people on a particular event.
- Comparing the sentiments of people before and after this event would help us understand the impact of that event.
 - For example, are people more willing to take vaccinations after their president takes one himself?
 - Should there be more such campaigns to encourage the people?

Who cares?

- Political Parties
- Healthcare Organization
- Vaccine Manufacturing & Distributing Companies
- Government Healthcare Units for Public Health

If you are successful, what difference will it make?

What impact will success have?

- 1. This research will help us gauge people's sentiments around this vaccine as expressed on a social media platform openly.
- 2. Impact of influential figures actions on people's sentiments towards the vaccines.

How will it be measured?

- 1. By calculating the percentage of positive, negative, and neutral tweets
- 2. With the help of wordcloud and barplot visualizations

Data

- The current source of our data is Twitter
- When it comes to whether we can collect sufficiently large data, we already learned in class that we can <u>bypass the rate limit of Twitter</u>, so we are confident that we will have enough data to test this hypothesis.

Plan of Activities

Phase 0

- Project ideation and phase planning
- Framing research questions and methodologies

Phase 1

- Researching data sources
- Extraction of data

Phase 2

- Preprocessing of obtained data
- Analysis and modeling to answer questions

Phase 3

- Visualizations
- Documentation/Presentation

Thanks!