Automatic Text Analysis in the COVID-19 Pandemic

YouTube

YouTube (and other social media) have implemented automatic text analysis in trying to prevent the spread of misinformation throughout the crisis. To begin with they demonetized any content relating to COVID19 by searching through the title and automatic transcript that's generated for videos for things relating to the virus > They flag content relating to it with a link to the official government information.

Cornell Uni Dashboard of Sentiment in Austrian Social Media During COVID-19 (preliminary evidence)

Automatic text analysis allowed changes in language to be highlighted compared to their neutral baseline. Special word clouds to visualize the overall difference. Longitudinally, time series showed spikes in anxiety that can be linked to several events and media reporting. Marked decrease in anger . Changes lasting a long time (up to 12 weeks).

Unmasking the conversation on masks: Natural language processing for topical sentiment analysis of COVID-19 Twitter discourse (preliminary evidence)

Scrutinized a database of over 1mill tweets collected over the first 5 months of 2020. Tracked public attitudes towards preventative measures of mask usage during the COVID-19 pandemic. Sentiment analysis was used to organize tweets relating to mask-wearing into high-level themes, then relay narratives for individual clusters through automatic text summarization.

Found that topic clustering and vis based on mask-related Twitter data gives insights on social perceptions of COVID19 & techniques for it's prevention.

Shows volume & popularity of tweets related have greatly increased. Can be leveraged by the healthy community for the assessment of public response to health interventions in the ongoing crisis.

UN Global Pulse – Radio Analysis LINK

> 50% of Ugandan households rely on radio as their primary source of information, & as many as 25,000 Ugandans call into local programs on hundreds of stations.

UN Global Pulse used radio monitoring technology it developed to extract ~ 100 transcripts containing COVID-19 keywords for analysis of community reports for identification of the location & magnitude of possible outbreaks to respond faster in Uganda.

As well as outbreaks of the virus, it also was used to find where immediate economic assistance was needed: citizens talking about food shortages & expressing eagerness to leave the city to rural areas to get food, harassment by unidentified groups, spikes in burglaries, increase in food prices.

Could also gather the commonality of the rumours and inconsistent information that was being talked about: traditional witchcraft being promoted as a cure, propaganda about herbs & food items or chemical products offered as a cure, propaganda by some leaders to disrespect basic individual measures of protection like washing hands & face mask, rumours of a vaccine being manufactured in Uganda.

"...I have some local herbs that can help cure Coronavirus. If you want life come to me..."

"...If people had followed what I had told them they would not be regretting. I said Garlic, Entuntunu, Enimawa and eating boiled foods fight Coronavirus..."

"...COVID only attacks people who have travelled abroad, so those of us who have not travelled are very okay..."
- Snippets of radio conversations highlighted by the Radio Analysis Tool