

Topic Sentiments toward the COVID-19 Vaccine on Twitter

Authors : Melissa Vang, Raheyima Khan, Haihua Chen

Abstract : The coronavirus disease 2019 (COVID-19) pandemic has changed people's lives from all over the world. More people have turned to Twitter to engage online and discuss the COVID-19 vaccine. This study aims to present a text mining approach to identify people's attitudes towards the COVID-19 vaccine on Twitter. To achieve this purpose, we collected 54,268 COVID-19 vaccine tweets from September 01, 2020, to November 01, 2020, then the BERT model is used for the sentiment and topic analysis. The results show that people had more negative than positive attitudes about the vaccine, and countries with an increasing number of confirmed cases had a higher percentage of negative attitudes. Additionally, the topics discussed in positive and negative tweets are different. The tweet datasets can be helpful to information professionals to inform the public about vaccine-related informational resources. Our findings may have implications for understanding people's cognitions and feelings about the vaccine.

Keywords : BERT, COVID-19 vaccine, sentiment analysis, topic modeling

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