Paper Details

Paper Title : Sentiment analysis on twitter tweets about COVID-19 vaccines using NLP and supervised KNN classification algorithm.

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Why they have conducted this research?

In this research, the authors analyzed public sentiment towards available covid-19 vaccines. As we know, during covid-19 pandemic scientists all over the world came up with different vaccines for the virus. Among them Pfizer, Moderna, and AstraZeneca was endorsed by WHO. They conducted this research to help the authority to work with the vaccine which is more trusted, effective and has more positive effect on people.

Proposed System

In this paper , the authors analyzed the public sentiment on three vaccines(Pfizer, Moderna, and AstraZeneca). They are collected data from Tweeter then preprocess the data using Natural Language processing. At first they are collected tweeter data using Tweepy Library then remove special characters, hyperlinks, emojis and sticker. After that create a token table using Tokenizer then process the lemmatization . When has Token data then calculating polarity and subjectivity then passed into the classification KNN algorithm. They fetched 10 thousands tweets then stored in CSV file.

Results Analysis

They are implemented a KNN classification algorithm for this research. This algorithm classify the three polarity positive, negative and neutral. Classification result for Pfizer positive polarity is 47.29% ,Negative polarity is 37.5% and Neutral is 15.21%. For Moderna, Positive polarity is 46.16%, Negative polarity is 40.71% and Neutral is 13.13%. For AstraZeneca, Positive polarity is 40.08% , Negative Polarity is 40.06% and Neutral is 13.86%.