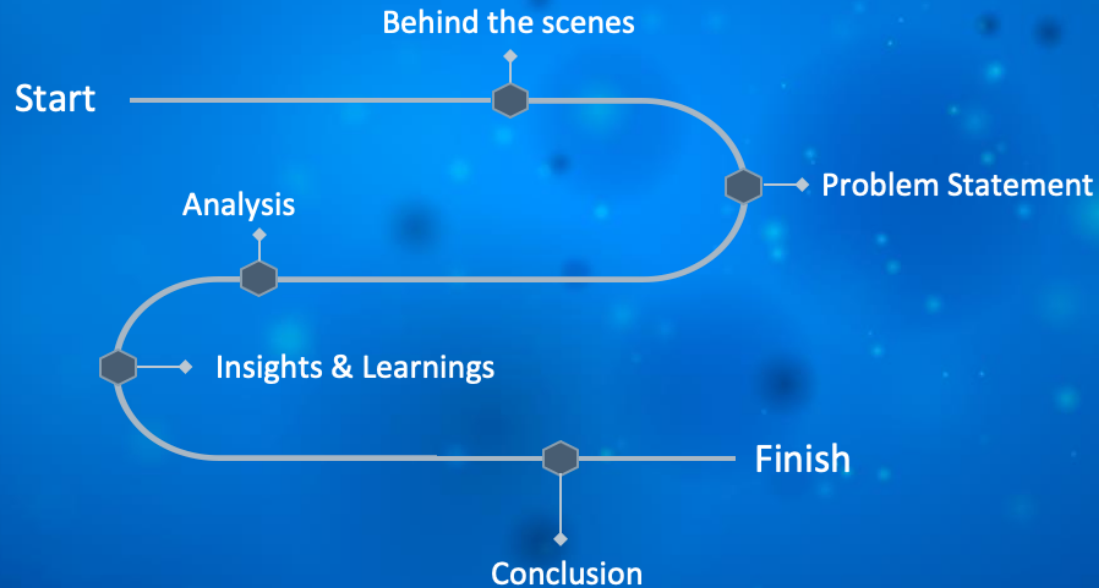


Discovering Mental Health in Mirco-bloggers over twitter using sentiment analysis

By:

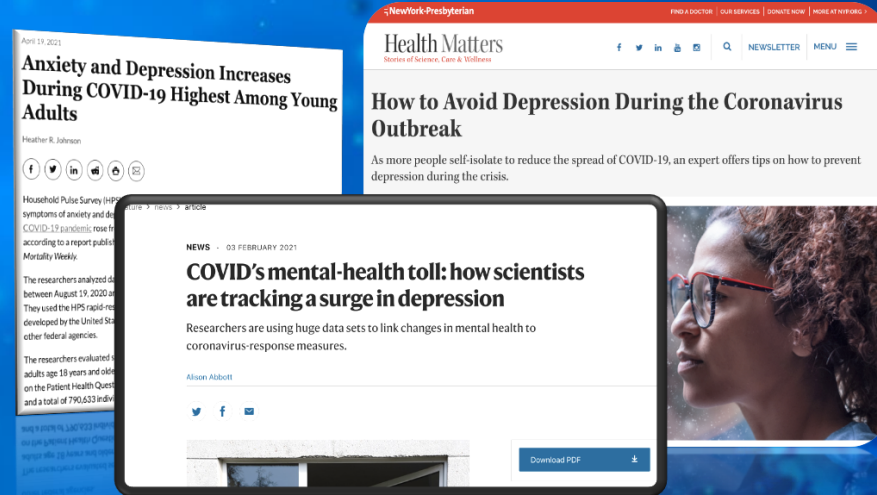
Anusha, Shreya, Abhijeet

Road Map



Behind the Scenes

- ▶ Scientists & researchers, apprehend the deterioration of mental health caused by COVID isn't temporary, and could persist long after the pandemic departs.
- ▶ Suddenly, innumerable people are suffering from stress, fear, anxiety, trepidation, hopelessness and ultimately depression.



Problem Statement

- ▶ Has the mental health of populace in COVID deteriorated?
- ▶ What is the proportion of people experiencing symptoms of anxiety and depression?
- ▶ Are more people anxious than depressed or vice-versa?
- ▶ With how much certainty can we predict the mental health of a person by using his history of tweets?

“

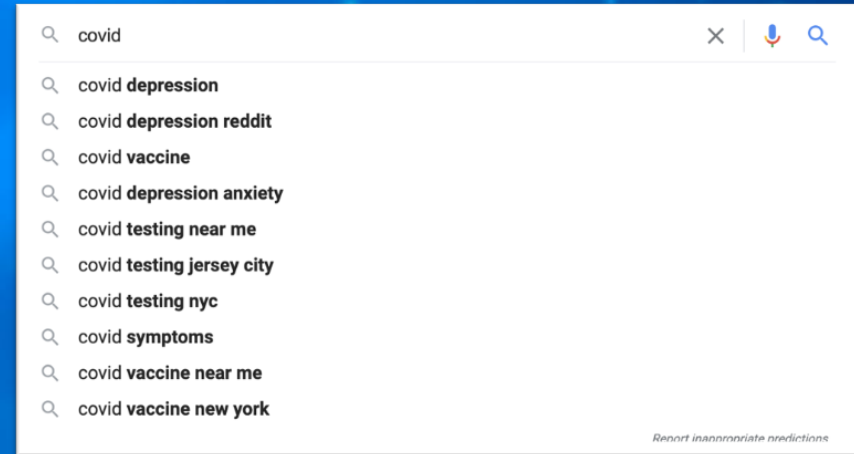
You are what you
Tweet...

Analysis

- ▶ The approach for this study includes the use of twitter as the principal source of information for thoughts, comments, and views in the form of tweets.
- ▶ The python library, Tweepy has been employed for data extraction from twitter API.
- ▶ Vader algorithm is applicable to further classify tweets under sentiment polarity and intensity.
- ▶ Regex and NLP techniques have been used for text and data analysis including removal of https/urls/punctuations/numbers from tweets and tokenization and stemming procedures for maximum results.
- ▶ Decision Tree, Random Forest, Support Vector Machine and Logistic regression are the attempted machine learning models.

Insights & Learnings

- ▶ This quick internet search for COVID confirms our hypothesis.
- ▶ **3 out of top 5** search results are based on depression and anxiety due to the pandemic.



Conclusion

- ▶ Responding to the debrief of our problem statements, yes, with certainty and reliance, there is a rise in large inhabitant of this world with respect to mental health issues
- ▶ 7.7% percent people from our dataset might be suffering from depression and anxiety
- ▶ More and more people are getting anxious than depressed
- ▶ From our model analysis, using SVM as the machine learning algorithm we can best predict whether the person is depressed, anxious or neither with an approximately 80% chance.

The background is a solid blue color with several stylized, spiky virus-like particles scattered across it. A dark blue horizontal band runs across the middle of the image, serving as a backdrop for the text.

Thanks!