

Detecting User Level Depression Using Social Network Text Analysis

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ABSTRACT:

One of the most prevalent mental health issues in the world is Depression. Diagnosis and Treatment of depressed patients depends heavily on the patient's mental state, and depressed people frequently resist getting help. People can communicate their sentiments and opinions with friends and family using Social Media. There exists an opportunity to create new frameworks for detecting people at risk for depression on social media platforms. This could also help institutions and medical professionals to understand the symptoms and behaviors of depression.

With this in mind, we suggest a framework for identifying depression in users of social networks. Sentiment analysis is to be done after collecting and preprocessing sizable real-world dataset by removing stopwords, stemming, lemmatization, converting emoticons to text and translation. The preprocessed text should be converted into numeric scores and classified accordingly. Different Supervised Machine Learning algorithms (K-Nearest Neighbors (KNN), Logistic Regression (LR), Naive Bayes (NB), Neural Network (NN), Random Forest (RF), Support Vector Machine (SVM), Classification And Regression Trees (CART)) to build a model to detect the depression risk of social network users is to be used. The framework also models the impact of friends on a user's mental state. It is thought that the actions of the user's friends have an impact on them. In addition to this, we will create a User-Friendly GUI which helps the depressed users by suggesting activities which can improve their mental health such as Yoga, Music, Sports, etc.

KEY WORDS: Social network, Depression, User Intention, Social Media, ML, GUI

Project Guide

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