

Abstract

The usage of social media as a platform for individual expression is one example of how the advancement of technology has an impact on society. Therefore, many Twitter users show symptoms of depressive disorders through their tweets. It is crucial to be aware of the need to consult a doctor or other specialists to prevent suicides. However, leveraging Twitter user tweet data to detect depression early on can be avoided by using the Bidirectional Long Short Term Memory (BiLSTM) approach and the word2vec feature extraction method. The dataset utilized in this study was obtained from respondents who agreed to have their data used in research after completing a questionnaire based on the Depression Anxiety and Stress Scales - 42 (DASS-42). The whole data from 159 users of Twitter who have been classified as depressed or normal based on the results of the DASS-42 labeling are then preprocessed so that the data can be entered into the word2vec feature extraction and modeled by BiLSTM as a classification. The evaluation revealed an accuracy of 83.46 % and an f1-score of 87.11 %. By increasing the number of neurons, accuracy increased by 2.36 %, and f1-score climbed by 1.64 %.

Keywords: Twitter; Depression; DASS-42; Word2Vec; BiLSTM