

Abstract

Twitter is a free social media site that is not only a place to share posts and multimedia content but also offers its users to express their feelings, emotions, and sentiments about an issue. So with this, it is often found that Twitter users make posts that show how the user's behavior includes mental problems experienced users such as symptoms of depression, anxiety, and stress disorders. Only about half of depression cases can be detected by doctors or other experts, this is because until now, the diagnosis of depression starts from reports of patients, family, or close friends of patients, or also starts from the results of certain tests such as questionnaires. So this research builds a model to predict depression by building a model that predicts whether someone is depressed through tweets on Twitter using the XLNet pre-trained text classification model. Testing is done by removing stemming from the preprocessing stage. Testing is also done by adding hyperparameters for fine-tuning the XLNet model. Testing is also carried out using a dataset that filters out foreign words where foreign data is translated into Indonesian. The data stored is data that uses words based on the KBBI dictionary. Based on the results of model testing that has been carried out using confusion matrix, the model can predict tweets that indicate depression and get an accuracy value of 78.57%.

Keywords: Twitter, Depression, XLNet, Prediction