ABSTRACT

Anxiety is one of the most common mental disorders, which is often difficult to detect because it does not present direct physical symptoms and is influenced by low public awareness and negative stigma surrounding mental health. As a result, many individuals prefer to express their feelings through social media platforms such as Twitter rather than seeking professional help. However, detecting potential symptoms of anxiety through textual data is challenging, as users rarely mention their mental conditions explicitly. This study aims to design a classification model for detecting anxiety symptoms in Twitter users using the Support Vector Machine (SVM) algorithm combined with a paraphrasing approach based on IndoT5. The research process includes text preprocessing and training the SVM model using the RBF kernel with optimal parameters of C = 10 and gamma = 0.1. The evaluation results show that the use of IndoT5 significantly enhances the model's performance, achieving an accuracy of 97.52%, precision of 97.57%, recall of 97.50%, and an F1-score of 97.52%. Compared to the Multilayer Perceptron (MLP) and Decision Tree algorithms, SVM demonstrates the highest accuracy performance. The resulting model is implemented in a web-based system using Streamlit to classify input text into either the "Normal" or "Anxiety" category. This system is intended as an early detection tool for anxiety symptoms in social media users and is not designed to replace professional psychological services.

Keywords: Anxiety, Twitter, Text Classification, SVM, IndoT5.