ABSTRACT

This study aims to identify depression symptoms based on the pattern of posts on social media X using the ALBERT (A Lite BERT) method. The study includes two testing scenarios: the first scenario uses the translated dataset, while the second scenario uses the original dataset. The test results show that the second scenario provides the best performance with the configuration of the learning rate hyperparameter 3e-5, batch size 16, and epoch 5 on a 70:30 data split. The model achieved 90.9% accuracy, 92.3% precision, 92.3% recall, and 92.3% F1-Score.

Data exploration and preprocessing stages such as case folding, cleansing, stop word removal, tokenization, and stemming proved to be effective in preparing the dataset, so that the model can learn data patterns well and produce optimal performance. This research successfully demonstrates that the ALBERT method has an excellent ability to detect depression symptoms from social media posting patterns, opening up opportunities for further development in the future.

Keywords: *machine learning, depression, natural language processing, ALBERT, social media, DASS-42*