

ABSTRACT

Mental health has become a serious concern among Generation Z, particularly due to their intense interaction with social media platforms like TikTok. This platform is not only used for entertainment but also serves as a space to express personal feelings and experiences, including those related to mental health. This study aims to analyze the mental health awareness perspective of Indonesian Generation Z through TikTok user comments. By using a machine learning approach—specifically the Support Vector Machine (SVM) algorithm and Term Frequency-Inverse Document Frequency (TF-IDF) feature representation—an automatic classification system was developed to identify two categories: aware and not aware.

The best SVM model achieved an accuracy of 92.06%, with a precision of 96.59%, recall of 86.55%, and F1-score of 91.32%. Evaluation using a confusion matrix and ROC curve produced an AUC of 0.95, confirming excellent discriminative capability. From a total of 13,331 analyzed comments, 53.2% were categorized as not aware and 46.8% as aware. Topic modelling using Latent Dirichlet Allocation (LDA) revealed five main themes within each group, reflecting the range of mental health awareness among Generation Z.

Text preprocessing using the Sastrawi library significantly improved classification performance. Word cloud visualization and salient term analysis showed that the aware group used specific terms such as “psychologist,” “anxiety,” and “emotion,” while the not aware group was dominated by general and ambiguous expressions. This research contributes to the development of contextual, data-driven digital mental health monitoring and intervention systems

Keywords — Generation Z, LDA, mental health, SVM, TikTok