

ABSTRACT

This study aims to examine public opinion and sentiment on generative AI as expressed by users on Social Media Platform X, employing a deep learning-based sentiment analysis approach. Data were collected through a keyword-based crawling method and processed through several stages including text cleaning, tokenization, and automatic labeling using the pre-trained model nlptown/bert-base-multilingual-uncased-sentiment. Sentiment classification was then performed using the BERT base-uncased model, fine-tuned on the labeled dataset with three sentiment classes, and compared with a Long Short-Term Memory (LSTM) model to evaluate effectiveness. The experimental results show that BERT consistently outperforms LSTM, achieving an accuracy of 87% and a macro average F1-score of 79%, while LSTM reached only 81% accuracy and a macro F1-score of 71%. These findings highlight BERT's superiority in capturing complex linguistic context in unstructured textual data. This research contributes to a deeper understanding of public perceptions surrounding generative AI and reinforces the applicability of transformer-based models in social media sentiment classification tasks.

Keywords: sentiment analysis, generative AI, Social Media Platform X, BERT.