Abstract

Social media has become a tool that makes it easier for people to exchange information. The freedom to share information has opened the door for increased incidents of hate speech on social media. Hate speech detection is an interesting topic because with the increasing use of social media, hate speech can quickly spread and trigger significant negative impacts, discrimination, and social conflict. This research aims to see the effect of GRU method, GloVe word embedding and word modifier algorithm in detecting hate speech. GRU and GloVe are used in this research for the hate speech detection system, where deep learning with a Gated Recurrent Unit (GRU) and Word Embedding with the Global Vector model (GloVe) converts words in text into numerical vectors that represent the meaning and context of the words. GRU is chosen due to its ability to capture long-term dependencies in textual data with higher computational efficiency compared to Long Short-Term Memory (LSTM). Gated Recurrent Unit (GRU) model processes the sequence of words to understand the sentence structure. GRU model processes the sequence of words to understand the sentence structure. The evaluation results for the classification of hate speech using GRU and GloVe are 90.7% accuracy and 91% F1 score. With the combination of informal word modifier algorithms there is an increase with a value of 92.8% F1 and 92.4% accuracy. in conclusion, the use of informal word modifier algorithms can increase the evaluation value in detecting hate speech.