

Abstract

The topic of forest fires is of significant interest on social media platforms. In this case, Twitter has been used by 11.8 million users as a means to spread information about forest fires. Twitter, a microblogging service launched on July 13, 2006, allows users to share information for free to themselves and others. Public sentiment related to forest fires can be analyzed through opinions and discussions on Twitter social media. This research aims to analyze the Sentiment of Forest Fires on Twitter Social Networks using the Long Short Term Memory (LSTM) Method. The research data was obtained by crawling the Twitter API using the keyword "forest fire." After crawling, 7,000 tweet texts were collected and labeled as "Negative" and "Positive." Through the preprocessing stage, using a 7,000 dataset, the TF-IDF accuracy of the developed LSTM model reached 68.14%. In addition, the GloVe expansion feature was performed with the Tweet corpus, which resulted in an increase in accuracy of 11.77% to 80.13% in the LSTM model. Meanwhile, the FastText expansion feature with the Common Crawl corpus also increased the accuracy by 11.99% to 80.59% on the LSTM model.

Keywords: Forest Fire; Twitter; LSTM; FastText; GloVe