Abstract

Twitter is one of the most popular social media among Indonesian people. Due to the high number of users and the intensity of their use, Twitter can also be used to dig up information related to a topic or product with sentiment analysis. One of the most frequently discussed topics on Twitter is related to movie reviews. Everyone's opinion of movie reviews can refer to different aspects. So, aspect-based sentiment analysis can be applied to movie reviews to get more optimal results. Aspect-based sentiment analysis is a solution to find out the opinions of Twitter users on movie reviews based on the aspects. In this study, a system for aspect-based sentiment analysis was built with a dataset of Indonesian language movie reviews consisting of 3 aspects: plot, acting, and director. The classification model uses the Long Short-Term Memory (LSTM) method with the application of TF-IDF feature extraction, fastText feature expansion, and handling of imbalanced data using SMOTE. The final results of this study for the plot aspect obtained an accuracy score of 74.86% and F1-score of 74.74%, the acting aspect obtained an accuracy score of 94.80% and F1-score of 94.74%, and the director aspect obtained an accuracy score of 94.02% and F1-score of 93.89%.

Keywords: aspect based analysis sentiment, movie review, LSTM, fasttext, TF-IDF, SMOTE