ABSTRACT

SENTIMENT ANALYSIS OF THE PUBLIC TOWARDS THE KANJURUHAN TRAGEDY WITH THE SUPPORT VECTOR MACHINE METHOD

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On October 1, 2022, a tragedy struck the Indonesian football world in the Arema vs. Persebaya match, claiming approximately 714 lives, including 131 fatalities and 583 injuries. The cause of the tragedy is suspected to be the use of tear gas on the spectator stands and the closure of the Kanjuruhan stadium's exits. This tragedy has received many opinions from the Indonesian public, expressed either directly or through social media such as Twitter, YouTube comments discussing the tragedy, and other media. The diverse range of responses can be analyzed using sentiment analysis. In conducting sentiment analysis in this research, the Support Vector Machine (SVM) algorithm is used, which is one of the best algorithms for text classification. The SVM algorithm has fast testing time and sufficient accuracy. The data used is tweets about the Kanjuruhan tragedy from October 1 to October 31, 2022, and YouTube comments on the Kanjuruhan Tragedy #UsutsampaiTuntas| Mata Najwa from the date of posting to November 20, 2022. This data is processed and analyzed using the Python programming language in Jupyter Notebook and Google Colab. The sentiment polarity of the public towards the Kanjuruhan tragedy tends to be neutral in the labeling process using 3 sentiments, while it tends to be positive in the labeling process using 2 sentiments. Among the different SVM kernels, the RBF kernel exhibited the highest accuracy, precision, recall, and F1 scores, reaching 76.40%, 75.74%, 76.40%, and 75.18% respectively, when predicting data with three labels. Furthermore, the RBF kernel showed the best performance for data with two labels, achieving the highest accuracy, precision, recall, and F1-Score, which increased to 81.54%, 81.56%, 81.54%, and 81.56%, respectively.

Keywords: Analysis, Kanjuruhan, Classification, Sentiment, SVM