Sentiment Analysis of Social Media on Instagram and Twitter for Manchester United Club Using Naïve Bayes Classifier

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ABSTRACT

This study aims to analyze the sentiment regarding the performance of Manchester United football club on social media, specifically on Instagram and Twitter, using the naïve bayes classifier method. The data used in this study was collected from 2,500 comments on Instagram and Twitter, which were then processed for sentiment analysis. The analysis steps included data cleaning, sentiment labeling, and text preprocessing, which consisted of normalization, tokenization, stopword removal, and stemming. The data showed an imbalance among the positive, negative, and neutral sentiments, which was addressed using data balance techniques. The results indicated a significant improvement in model accuracy after the data balance, with accuracy reaching 83.87% for the Instagram dataset and 82.48% for the Twitter dataset. Factors contributing to the increase in accuracy included the use of a sufficiently large dataset, effective preprocessing steps, and accurate sentiment labeling. This study provides deeper insights into public sentiment towards Manchester United on social media and can serve as a reference for responsive strategies in handling public feedback on social media platforms.

Keywords: *Sentiment Analysis, Naïve Bayes Classifier, Social Media, Instagram, Twitter, Preprocessing, Sentiment Labeling, Data Balance, Accuracy.*