

Analisis Sentimen Terhadap Tunjangan Kinerja Dosen Pada Media Sosial Menggunakan Algoritma K-Nearest Neighbor

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ABSTRACT

The development of social media, particularly Instagram, enables the public to express various opinions on emerging issues, including government policies. One of the issues that has attracted public attention is the lecturer performance allowance policy, which has generated diverse responses from society. This study aims to analyze public sentiment toward the lecturer performance allowance policy on Instagram using the K-Nearest Neighbor (K-NN) algorithm. The research data consisted of 2,684 comments obtained through a scraping process. The data then underwent cleaning, manual labeling with validation by a language expert, and preprocessing stages including case folding, word normalization, tokenization, stopword removal, and stemming, resulting in 1,944 final data. Term weighting was performed using the Term Frequency–Inverse Document Frequency (TF-IDF) method. The determination of the optimal k value was carried out using the Grid Search method, which produced an optimal value of $k = 5$ with the highest accuracy. Model evaluation was subsequently conducted using the K-Fold Cross Validation method, where fold 1 was selected as the most stable fold based on the comparison of training and validation accuracy values. The best accuracy obtained during the testing process was 0.7564 or 75.64%, indicating that the K-Nearest Neighbor (K-NN) method is capable of classifying public sentiment toward the lecturer performance allowance policy with relatively good and stable performance.

Keywords: *Sentiment Analysis, Instagram, Lecturers' Performance Allowance, K-Nearest Neighbor, TF-IDF.*