

ABSTRACT

SENTIMENT ANALYSIS OF YOUTUBE COMMENTS ON PRABOWO SUBIANTO'S VICTORY SPEECH USING NAÏVE BAYES PARTICLE SWARM OPTIMIZATION.

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The 2024 presidential election became an important momentum in Indonesia's political dynamics that triggered widespread discussions, especially on social media such as YouTube. This research aims to analyze public sentiment towards Prabowo Subianto's first speech after winning the 2024 presidential election by using Naïve Bayes algorithm optimized through Particle Swarm Optimization (PSO). This method was chosen to improve the accuracy and balanced performance of sentiment analysis compared to classic Naïve Bayes. The research data was taken from 4,035 video comments on the KompasTV YouTube channel, which then went through preprocessing stages including case folding, tokenizing, stemming, and weighting using Term Frequency-Inverse Document Frequency (TF-IDF). This dataset is divided into training data and test data with a ratio of 75:25. The results show that the application of PSO to the Naïve Bayes model provides an increase in global accuracy from 74.73% to 75.16%. In the negative sentiment category, precision increased from 56% to 59%, although recall decreased from 67% to 64%. For neutral sentiment, precision decreased from 75% to 71%, but recall increased from 55% to 61%, resulting in an increase in F1-Score from 64% to 66%. On positive sentiment, precision increased from 79% to 81%, while recall decreased from 90% to 87%, with F1-Score remaining consistent at 84%. Overall, PSO optimization successfully improved the balance between precision and recall, especially in the neutral and positive classes, demonstrating its effectiveness in optimizing model parameters.

Keywords: *Sentiment analysis, Naïve Bayes, Particle Swarm Optimization, YouTube, Presidential Election 2024.*