PERBANDINGAN METODE ALGORITMA NAÏVE BAYES DAN DECISION TREE PADA ANALISIS SENTIMEN MASYARAKAT TERHADAP CALON PRESIDEN INDONESIA TAHUN 2024

ABSTRAK

Pemilihan presiden Indonesia tahun 2024 banyak menarik minat dan diskusi publik yang signifikan di platform media sosial seperti X. Penelitian ini bertujuan untuk menganalisis sentimen publik terhadap para calon presiden menggunakan algoritma Naïve Bayes dan Decision Tree. Data dikumpulkan dari X selama tiga periode: pendaftaran calon pada Oktober 2023, sebelum pemilihan pada Februari 2024, dan setelah pemilihan pada pertengahan Februari 2024. Pra-pemrosesan data meliputi *case folding, data cleaning, text normalization, stemming, stop-word removal,* and *tokenization*. Penelitian ini mengklasifikasikan sentimen menjadi kategori positif dan negatif serta mengevaluasi kinerja algoritma berdasarkan metrik akurasi, presisi, *recall*, dan *F1-score*. Hasilnya menunjukkan bahwa kedua algoritma secara efektif mengklasifikasikan sentimen, dengan F1-score untuk Naïve Bayes: Anies Baswedan sebesar 79%, Prabowo Subianto sebesar 81%, dan Ganjar Pranowo sebesar 89%, sedangkan Decision Tree mencapai: Anies Baswedan sebesar 80%, Prabowo Subianto sebesar 76%, dan Ganjar Pranowo sebesar 87%. Setiap algoritma memiliki kelebihan dan kekurangannya sendiri untuk menangkap sentimen pemilih yang beragam. Penelitian ini berkontribusi pada pemahaman dinamika opini publik dalam pemilihan umum calon presiden di Indonesia dan memberi wawasan untuk studi analisis sentimen di masa depan, terutama dalam strategi kampanye politik dan pemantauan pemilu secara real-time.

Kata Kunci: Analisis Sentimen, *Naïve Bayes*, *Decision Tree*, Pemilihan Presiden Indonesia 2024, X

COMPARISON OF NAÏVE BAYES AND DECISION TREE ALGORITHMS IN SENTIMENT ANALYSIS OF PUBLIC OPINION TOWARDS THE 2024 INDONESIAN PRESIDENTIAL CANDIDATES

ABSTRACT

The 2024 Indonesian presidential election has generated significant public interest and discussion on social media platforms like X. This research aims to analyze public sentiment towards the presidential candidates using Naïve Bayes and Decision Tree algorithms. Data were gathered from X during three periods: candidate registration in October 2023, pre-election in February 2024, and post-election in mid-February 2024. Data preprocessing involved case folding, data cleaning, text normalization, stemming, stop-word removal, and tokenization. This study classifies sentiments into positive and negative categories and evaluates the algorithms' performance based on accuracy, precision, recall, and F1-score metrics. Results indicate that both algorithms effectively classify sentiments, with F1-scores for Naïve Bayes: Anies Baswedan at 79%, Prabowo Subianto at 81%, and Ganjar Pranowo at 89%, while Decision Tree achieved: Anies Baswedan at 80%, Prabowo Subianto at 76%, and Ganjar Pranowo at 87%. Each algorithm has its strengths and weaknesses in capturing diverse voter sentiments. This research contributes to understanding the dynamics of public opinion in Indonesia's presidential election and provides insights for future sentiment analysis studies, particularly in political campaign strategies and real-time election monitoring.

Keywords: *Sentiment Analysis, Naïve Bayes, Decision Tree, Indonesia Presidential Election 2024, X*