

ABSTRAK

Penelitian ini membahas pengembangan ekstensi browser untuk mendeteksi dan menyaring komentar negatif pada platform TikTok menggunakan model Convolutional Neural Network (CNN) dengan word embedding FastText. CNN dipilih karena kemampuannya mengenali pola teks, sedangkan FastText digunakan untuk menangani kata tidak baku, slang, dan typo yang umum di TikTok. Data diperoleh melalui web scraping menggunakan console.apify dari akun kreator populer, kemudian melalui tahap preprocessing, labeling, dan augmentation menggunakan Easy Data Augmentation untuk mengatasi ketidakseimbangan kelas. Dataset dibagi ke dalam tiga skenario, dan hasil evaluasi menunjukkan Skenario B (80/10/10) memberikan performa terbaik dengan akurasi uji 91,26%, akurasi pelatihan 97,19%, dan F1-score 94,58%, tanpa indikasi overfitting signifikan. Ekstensi browser yang dibangun berhasil mengidentifikasi dan memburamkan komentar negatif secara real-time, mendukung moderasi konten di TikTok. Meskipun sistem efektif untuk komentar eksplisit, deteksi terhadap sarkasme atau kalimat negatif implisit masih menjadi keterbatasan yang dapat diatasi melalui pengembangan dataset dan arsitektur model di masa depan.

Kata Kunci: TikTok, komentar negatif, Convolutional Neural Network, FastText, CRISP-DM, ekstensi browser, deteksi real-time.

ABSTRACT

This research discusses the development of a browser extension to detect and filter negative comments on the TikTok platform using a Convolutional Neural Network (CNN) combined with FastText word embedding. CNN was chosen for its ability to recognize text patterns, while FastText was used to handle non-standard words, slang, and typos commonly found on TikTok. Data was collected through web scraping using console.apify from popular creator accounts, then underwent preprocessing, labeling, and augmentation with Easy Data Augmentation to address class imbalance. The dataset was split into three scenarios, and evaluation results showed that Scenario B (80/10/10) achieved the best performance, with a test accuracy of 91.26%, training accuracy of 97.19%, and F1-score of 94.58%, without significant signs of overfitting. The developed browser extension successfully identified and blurred negative comments in real time, supporting content moderation on TikTok. Although effective for explicit comments, the system still has limitations in detecting sarcasm or implicit negative sentences, which can be addressed by expanding the dataset and improving the model architecture in future developments.

Keywords: *TikTok, negative comments, CNN, FastText, web scraping, browser extension, CRISP-DM.*