

Klasifikasi *Cyberbullying* Terhadap Tokoh Publik Pada Komentar Sentimen Instagram Dengan Menggunakan Metode *Support Vector Machine* Dan Optimasi Fitur Berbasis *Particle Swarm Optimization*

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Abstract

Social media is one of the things that is widely used by the people of Indonesia. One of the most widely used social media is Instagram. Instagram is a social media that basically functions to share photos and videos with fellow Instagram users. In the Instagram application itself, there are still many users who make comments which are commonly referred to as sentiment comments or cyberbullying. Sentiment analysis is a classification task that is able to detect the polarity of the sentiment of a sentence and classify it into positive or negative classes. This research was conducted to classify sentiment comments on the Instagram social media application against public figures, using the Support Vector Machine (SVM) method. This study conducted several scenarios ranging from data analysis techniques, text processing, TF-IDF weighting, and the results of this study will compare two methods to determine the highest accuracy value, namely using SVM alone compared to using SVM combined with Feature Optimization based on the Particle Swarm method. Optimization(PSO). This study resulted in the first level of accuracy, namely the scenario of the Support Vector Machine method without using Particle Swarm Optimization-based Feature Optimization, which resulted in an accuracy rate of 71.43%. Meanwhile, when doing the second scenario, which is using a classification method using the Support Vector Machine using Particle Swarm Optimization-based Feature Optimization, the best accuracy level is 72.43%.

Keywords: Classification, Sentiment Analysis, Instagram, Support Vector Machine, Particle Swarm Optimization.