

ABSTRAK

KLASIFIKASI SENTIMEN MASYARAKAT TERHADAP KINERJA KEMKOMDIGI TERKAIT PERMASALAHAN JUDI ONLINE PADA MEDIA SOSIAL INSTAGRAM MENGGUNAKAN METODE RANDOM FOREST DAN XGBOOST

Oleh

IKA RAHMA ALIA

Judi online di Indonesia menjadi salah satu isu sosial yang menimbulkan beragam tanggapan masyarakat. Kementerian Komunikasi dan Digital (Kemkomdigi) telah melakukan berbagai upaya, namun kinerjanya tetap menuai kritik maupun apresiasi publik yang banyak disuarakan melalui media sosial, khususnya Instagram. Penelitian ini bertujuan untuk mengidentifikasi sentimen masyarakat terhadap Kemkomdigi serta membandingkan kinerja algoritma *Machine Learning Random Forest* dan *XGBoost* dalam proses klasifikasi. Sebanyak 724 komentar dikumpulkan dari akun Instagram resmi Kemkomdigi dan diberi label manual oleh tiga anotator. Data kemudian melalui tahapan praproses teks (pembersihan, *case folding*, tokenisasi, normalisasi, penghapusan *stopword*, dan *stemming*), representasi fitur dengan *TF-IDF*, serta penyeimbangan kelas menggunakan *Random Oversampling*. Model dibangun dengan data latih dan data uji berbanding 70:30, diuji dengan parameter *default* dan *hyperparameter tuning* menggunakan *GridSearchCV*, serta dievaluasi melalui akurasi, presisi, *recall*, dan *F1-score*. Hasil penelitian memperlihatkan bahwa algoritma *Random Forest* memiliki kinerja lebih unggul dibandingkan *XGBoost*. Setelah dilakukan *tuning*, *Random Forest* mencapai akurasi 71,64% dengan *F1-score* 70,90%, sedangkan *XGBoost* hanya mencapai akurasi 67,66% dengan *F1-score* 67,85%. Temuan ini menunjukkan bahwa *Random Forest* lebih efektif dalam mengklasifikasikan sentimen masyarakat terkait kinerja Kemkomdigi terhadap isu judi online.

Kata Kunci: Analisis Sentimen, Judi Online, Klasifikasi, *Random Forest*, *TF-IDF*, *XGBoost*.

ABSTRACT

CLASSIFICATION OF PUBLIC SENTIMENT TOWARDS THE PERFORMANCE OF THE MINISTRY OF COMMUNICATION AND INFORMATION TECHNOLOGY REGARDING ONLINE GAMBLING ISSUES ON INSTAGRAM SOCIAL MEDIA USING THE RANDOM FOREST AND XGBOOST METHODS

By

IKA RAHMA ALIA

Online gambling in Indonesia has become a major social issue that generates diverse public responses. The Ministry of Communication and Digital Affairs (Kemkomdigi) has undertaken various measures; however, its performance continues to receive both criticism and appreciation, which are widely expressed on social media, particularly Instagram. This study aims to identify public sentiment toward Kemkomdigi and to compare the performance of two machine learning algorithms, Random Forest and XGBoost, in sentiment classification. A total of 724 comments were collected from Kemkomdigi's official Instagram account and manually labeled by three annotators. The dataset underwent several text preprocessing steps (cleaning, case folding, tokenization, normalization, stopword removal, and stemming), feature representation using TF-IDF, and class balancing with Random Oversampling. The models were trained and tested with a 70:30 ratio, evaluated under both default parameters and hyperparameter tuning via GridSearchCV, and assessed using accuracy, precision, recall, and F1-score. The results show that Random Forest outperformed XGBoost in terms of classification performance. After tuning, Random Forest achieved an Accuracy of 71.64% with an F1-score of 70.90%, while XGBoost only obtained an Accuracy of 67.66% with an F1-score of 67.85%. These findings indicate that Random Forest is more effective in classifying public sentiment regarding Kemkomdigi's performance in addressing the issue of online gambling.

Keywords: *Classification, Online Gambling, Random Forest, Sentiment Analysis, TF-IDF, XGBoost.*