

CLASSIFICATION OF HOAX NEWS ABOUT THE NATIONAL CAPITAL (IKN) THROUGH TWITTER SOCIAL MEDIA USING SVM AND MULTINOMIAL NAÏVE BAYES METHODS

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ABSTRACT

The development of social media, particularly Twitter, has facilitated the rapid dissemination of information, including hoaxes, especially concerning the relocation of the Indonesian National Capital (IKN). This advancement has generated various opinions and claims, many of which lack verifiable truth. This study aims to detect hoaxes in Twitter posts about IKN Nusantara using Natural Language Processing (NLP) techniques. The methods employed include a lexicon-based approach alongside classification algorithms such as Multinomial Naive Bayes and Support Vector Machine (SVM). The preprocessing steps involve case folding, tokenization, stopword removal, and stemming, followed by text representation using Term Frequency–Inverse Document Frequency (TF-IDF). The results indicate that the lexicon-based approach effectively detects hoax narratives, particularly in extreme claims and disinformation. At the same time, the Multinomial Naive Bayes and SVM algorithms demonstrate more consistent performance in classifying hoax and non-hoax data, as measured by accuracy, precision, recall, and F1-score metrics. This research is expected to serve as a reference for developing text-based hoax-detection systems in Indonesian, particularly regarding public policy and national development issues.

Keywords: hoax, Twitter, National Capital, Natural Language Processing, Naive Bayes, Support Vector Machine.