

SENTIMENT ANALYSIS OF ONLINE-OFFLINE LECTURES ON TWITTER USING THE SUPPORT VECTOR MACHINE METHOD

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ABSTRACT

Coronavirus Disease 2019 (Covid-19) is a virus that attacks the human respiratory system, causing fatalities and spreading rapidly to various countries worldwide. The COVID-19 pandemic has affected many aspects of human life, including the education sector. Distance or online learning policies in Indonesia were implemented by the Ministry of Education and Culture in 2020. Although these policies were implemented for the health and safety of students and teachers, there are still differing opinions regarding online learning among the public. Twitter is a social media platform commonly used to share opinions and views on various topics, including online and offline classes. Therefore, Twitter can be a source of data for analyzing students' sentiment towards online learning. The SVM method is used to classify tweets containing positive and negative sentiments towards online and offline classes. SVM produces a model that can predict the class of unknown objects by learning patterns from the training data. The data used in this study are tweets containing keywords related to online learning, collected from Twitter using the Twitter API. The obtained data is then processed through several data preprocessing stages, including case folding, cleansing, normalization, filtering, stemming, and tokenization. Next, relevant features are extracted from the data using the Term Frequency-Inverse Document Frequency (TF-IDF) method. Subsequently, SVM classification is performed based on the analysis results, yielding an accuracy of 80%, recall of 80%, and precision of 80% for online learning, and an accuracy of 73%, recall of 73%, and precision of 73% for offline learning.

Keywords: Sentiment Analysis, Online Lectures, Offline Lectures, Twitter, Support Vector Machine