SENTIMENT ANALYSIS OF INSTAGRAM APP REVIEWS ON GOOGLE PLAY STORE USING THE NAÏVE BAYES METHOD

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Abstract

Instagram is one of the most widely used social media applications, accumulating millions of user reviews on the Google Play Store. These reviews reflect user perceptions and experiences, offering valuable insights into customer satisfaction levels. This study aims to perform sentiment analysis on user reviews of the Instagram app using the Naïve Bayes algorithm. Review data was collected through web scraping and processed through several text preprocessing stages, including tokenization, stopword removal, and stemming. The processed text was then transformed using the TF-IDF method before being fed into the classification model. The model's performance was evaluated using accuracy, precision, recall, and F1-score metrics. The results show that the Naïve Bayes model achieved an overall accuracy of 73%, with a precision of 0.72 and recall of 0.78 for negative sentiment, and a precision of 0.74 and recall of 0.68 for positive sentiment. The average overall F1-score was 0.73. These findings suggest that the model performs reasonably well in classifying user sentiment and can be used to support strategic decision-making by app developers.

Keywords: Sentiment Analysis, Instagram, Naïve Bayes, Google Play Store, TF-IDF, Scraping.