ABSTRACT

SENTIMENT ANALYSIS OF NOKIA PRODUCTS ON YOUTUBE SOCIAL MEDIA USING K-NEAREST NEIGHBORS METHOD

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Youtube outube is one of the popular social media and the popularity of Youtube is used by several companies, one of them is Nokia in marketing its products, both in the form of advertisements and videos. Nokia is a cell phone company that had fallen in 2013 due to unwillingness to follow the operating system trend at the time. Nokia continues to rise and launch new products that are increasingly sophisticated. In viewing and summarizing public opinion on the revival of the Nokia company, this research will classify the opinions given by the public towards Nokia products through comments on Nokia product videos on Youtube using K-Nearest Neighbors method. Comments is collected by scraping. Comments that have been obtained will be processed through the preprocessing stages, namely *translate* data, *emoction remove*, *case folding*, *cleansing*, *stop word remove*, *frequently word remove*, *rare word remove*, *stemming* and *lemmatizing*. Dataset has 2000 comments and will be separated into data training and data testing with ratio of 80:20, 1600 comments for data training and 400 comments for data testing. The weighting for each word in this research will uses TF-IDF method. Classification of positive and negative comments is done by using the K-Nearest Neighbors method with a value of k = 5. The results of the classification are 397 positive sentiments and 3 negative sentiments. To evaluate the performance results of the K-Nearest Neighbors this research uses the Confusion Matrix. The results of this research indicate that public comments on Nokia products mostly positive. This research also obtained an accuracy value of 91.25%, precision 92%, recall 91.25%, and f1-score 87.7%.

Keywords: youtube, nokia, K-Nearest Neighbors, analysis sentiment