

ABSTRACT

COMPARISON OF RECURRENT NEURAL NETWORK (RNN) AND CONVOLUTIONAL NEURAL NETWORK (CNN) METHODS FOR BEAUTY PROODUCT REVIEW SENTIMENT ANALYSIS

Oleh

Novantri Prasetya Putra

18102279

The development of beauty products in Indonesia is currently showing a significant increase, this can be seen from the purchasing power of consumers increasing to 7% in 2021. Purchases of beauty products are usually based on comments from consumers who have used the product. Consumer comments can also be suggest for a *brand* in publishing the latest products in order to meet consumer desires. Sentiment analysis is a solution to find out positif or negatif consumer comments. This is the main focus in this study, namely conducting a sentiment analysis of beauty product reviews using the *Recurrent Neural Network* and *Convolutional neural network* methods with data derived from comments on the *Femaledaily* website. The RNN method is a method that is carried out repeatedly by considering information from the past in determining decisions. Meanwhile, the CNN method is a method commonly used for *Computer Visual (CV)* but is very effective for classifying text because it has a layer that can study features in the data it has. The RNN and CNN methods will compare the performance in classifying text with 5200 data (2600 positif dan 2600 negatif), 3 varian node buffer categories (50, 100, and 150 varian node buffers), and 3 data sharing categories (7:3, 8:2, and 9:1). The results obtained in this research test are that CNN gets higher accuracy than RNN in each predetermined category, but the time used by RNN is shorter than CN. The best results obtained are 100% using the CNN method with 100 varian node buffers category and 8:2 data comparison, 150 varian node buffers and 8:2 data comparison, and 150 varian node buffers and 9:1 data comparison.

Kata Kunci : sentiment analysis, convolutional neural network, recurrent neural network, long short term memory, deep learning