Analisis Sentimen Provider Telekomunikasi Indonesia dengan Metode Convolutional Neural Network

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Abstract
In today's modern world, consumers of a telecommunications service provider easily use social media to express their opinions. Twitter, is one of the active social media and contains many opinions. Companies can use public opinion conveyed on social media to carry out business strategies. One of the challenges faced is building a system to automatically get the sentiments of users in large numbers. Sentiment Analysis is a technique for classifying user sentiments automatically towards a product, service, or event. The classification results are grouped into positive, neutral, or negative sentiments. In this study, sentiment analysis was conducted in Indonesian on Twitter regarding user opinions on several Indonesian telecommunications providers (Indosat, Telkomsel, and XL Axiata) using the Convolutional Neural Network (CNN) method. One layer of Convolutional Neural Network architecture with pre-trained word2vec and several variations of the activation function, and convolution filters are able to analyze sennently for three different types of data with an accuracy of up to 86.10%, better than several other methods such as Support Vector Machine, Naive Bayes, and K-Nearest Neighbor.

Keywords: Sentiment Analysis, Convolutional Neural Network, Twitter, Indonesian Provider Telecommunication