

ABSTRACT

DETECTING TWITTER USER DEPRESSION SYMPTOMS BASED ON SENTIMENT ANALYSIS USING K-NEAREST NEIGHBOR ALGORITHM

By

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Depression is a medical condition in the form of feelings of sadness which can negatively affect one's thoughts, actions, feelings, and mental health. Depression is a normal reaction to a person's life events such as the loss of a loved one. Someone in a state of depression generally experience feelings of sadness, anxiety or empty. In Indonesia alone there are around 15.6 million people who experience depression. They tend to feel trapped in conditions that are hopeless, without help, full of rejection, or feeling worthless. Depression can lead to mental illness and suicide.

Today's social media is no different from real life, people use social media to socialize, share stories, share photos, share writings. In Indonesia alone, according to We Are Social, social media users reach 150 million users out of a total population of 286 million people, one of the social media that is very interested in Indonesian people is Twitter. Twitter is a social media service for friends and family to be able to communicate and stay connected through instant message exchanges. Users can post tweets that can contain photos, videos, links and text. What is meant by tweet is every message posted to your profile, sent to followers, and can be searched on Twitter search.

Identifying depression can use textual data in the form of text, because text can be used to communicate and convey information. Therefore, a study was conducted to identify depression on Twitter to determine the level of depression of a person with one of the methods, namely machine learning, namely text mining using the K-Nearest Neighbor algorithm. K-Nearest Neighbor itself is a method to classify several objects based on learning data that is the closest distance to the object that we want so that the KNN algorithm can make it possible to find out the text that leads to depression by a tweet that has been uploaded. Can be used to detect depression, and we can minimize someone affected by depression. In this study an accuracy of 84%, 82% precision, 84% recall resulted in an 82% f1-measure.

Keywords: depression, Machine learning, K-Nearest Neighbor, text mining, twitter, social media.