

1. Introduction

Social media is one place for someone to express themselves. The ease of accessing social media makes the majority of people do various kinds of activities on their social media accounts, such as telling stories about daily life, sharing experiences, communicating, and many things. Facebook is a social media that is widely used with a number of users reaching 1.8 billion users, and around 800 million users are active in doing activities on Facebook by spending approximately 40 minutes a day accessing Facebook. Facebook's diverse user status makes a group of researcher's studies whether a person's personality type can be determined through the use of social media. There are several personality models that can be used to predict personality. Commonly used models include the MBTI (Myers Briggs Type Indicator), DISC (Dominance Influence Steadiness Conscientiousness), and Big Five Personality. After several experiments and a review process from several literatures, the Big Five Personality Model was used in this study because this model is the most popular and accurate way to predict a person's personality traits.

From the research of Cobb-Clark et al, Big Five personality traits are more consistent in time, because the methods owned by the Big Five will remain consistent over time so the data can be used at any time and that makes this model the best to use. As the name implies, Big Five Personality has five traits, including Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. Each person must have the most dominant personality among the five personalities.

There are research that examines personality classifications using the Support Vector Machine method, which explains the use of a Multi-Class Support Vector Machine that is good at solving personality traits cases that have five classes. SVM can generalize more accurately on unseen cases relative to classifiers that aim to minimize the training error so it can generate better prediction on multi-class cases. Based on the results given by these methods, this research will use the Support Vector Machine (SVM) method because this method has the ability to generalize problems well so as to produce high accuracy and a smaller error rate than the pre-existing methods.

In this research, the purpose is to build a model of Support Vector Machine that can find the user's personality on Facebook, without asking them to fill out questionnaires and interviews related to personality according to activities they do on their Facebook, so that in the future, the results of this research can be used by companies to find the best human resources in accordance with the fields that are being needed by the company. Therefore, this study applies existing methods in data mining techniques to build the user's personality classifier.