



Predicting Personality with Twitter Data and Machine Learning Models

Abstract

Social media is a place where users present themselves to the world, revealing personal details and insights into their lives. We are beginning to understand how some of this information can be utilized to improve the users' experiences with interfaces and with one another.

This study applies personality prediction of a Twitter user based on the words used in tweets posted by the user. The personality type is predicted based on Big Five Personality Model that outputs agreeableness, conscientiousness, openness, neuroticism, and extraversion as personality traits.

The most successful machine learning methods are selected to predict each personality trait. When the machine learning models were trained with the latest 50 tweets of users, models estimated each personality trait with the accuracy values in the range of 0.76 to 0.97.

Objectives

- Personality prediction based on microblogs
- Detection of linguistic cues related with personality traits
- Identification of potential linguistic cues that is identified by observers for personality prediction



Benefits for Society and Environment

- We can predict human behavior a bit precisely with the given parameters
- We may help the cyber people to detect the nature and degree of present situation in that locality