YOU ARE WHAT YOU TYPE: ONLINE PERSONALITY ANALYSIS

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App Link: https://online-personality.herokuapp.com/

People present themselves in many ways online, but are they showing their true selves? Our application analyzes a user’s social media posts using a neural network model and determines their personality type based on the Myers-Briggs Type Indicator classification system.

The Myers-Briggs Trait Indicator (MBTI) is a questionnaire-based system that determines differing psychological preferences in how people perceive the world and make decisions. In short, it can help you identify your “personality type”. The model is based on a four-category system: Introversion/Extroversion, Sensing/Intuition, Thinking/Feeling, and Judging/Perception. Each person is said to have one preferred quality from each of the categories, resulting in 16 unique personality types. Your preference for each category is represented by a letter which produces a four-letter acronym representing your type (ex: INFJ: Introversion, iNtuition, Feeling, Judging).

One of the ways that people often display their personality is through their writing, and in today’s world most of that writing is shared and displayed online. Social media is a limitless source of people’s thoughts, opinions, and feelings in written form, offering valuable insight into how a person perceives the world and makes decisions, the essence of personality. One of the ways that this resource could be analyzed is through machine learning. Machine learning can be harnessed to analyze writing and classify writers into groups. Using this method, we set out to answer the question: Can we determine personality type from social media posts using machine learning?

To answer this question, we built an interactive web application that accepts either a Reddit or Twitter username. Once a username is submitted, the app scrapes the appropriate website for the user’s comments. The comments are then parsed and cleaned using Python to obtain the parameters needed for the model. The parameters are passed to a trained neural network which classifies the user into one of the 16 personality types. The app then displays the user’s personality type.

While there are currently many websites that allow users to take the Myers Briggs personality test directly, our application is the first to our knowledge that allows users to submit their online posts for a variety of social media platforms in order to be classified into a personality type. Taking the test directly could introduce bias, as the user may not answer the questions truthfully, but our interactive data-driven web application allows users to see how they are truly presenting themselves online and not how they think they are presenting themselves. This would allow users to assess their online behavior and make changes to improve their image if desired. This application could be a useful tool for social media influencers, advertisers, and any business owners who operate on social media.