

Intelligent Personality Detection System Using Linguistic Features Based on Social Media Data

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With the advancement of the technology the transition from forum and blog-based Internet communication among users to social networking sites such as Facebook and Twitter, allow users to create and share content related to different subjects, which expose their activities feelings and opinions. The purpose of this research article is to provide a web application in order to detect one's personality using linguistic feature analysis. The personality of a person is classified according to Eysenck's Three Factor model including Extrovert - Introvert, Neuroticism - Emotional Stability, and Psychoticism - Tender. The proposed technique is based on ontology based text classification, linguistic feature-vector matrix using LIWC (Linguistic Inquiry and Word Count) features and semantic analysis using supervised machine learning algorithm named Naïve Bayes. The extracted data provides extraordinary information about the personality of a person under human feelings and social interaction. It conveys who the users are and what their qualities are. This is vital for the areas such as HR management systems, R&D Psychologists and all the other API users. Considering HR management sector this would be an advantage in recruiting process, salary increments and providing allowances. R&D Psychologists will gain the advantage of the dynamic ontology to make their research result in a more efficient manner. System will be exposed as an API for universities, sports and social clubs when recruiting individuals to those organizations. According to the test results the proposed system is in an accuracy level of 91% when tested with a real world questionnaire based application. Experiments have been carried out comparing with a real world personality detection questionnaire based system and results demonstrate that the proposed technique can detect the personality of a person with acceptable accuracy and a speed.

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