



Lingual markers for automating personality profiling: background and road ahead

Mohmad Azhar Teli¹ · Manzoor Ahmad Chachoo¹

Received: 17 May 2022 / Accepted: 29 August 2022 / Published online: 22 September 2022
© The Author(s), under exclusive licence to Springer Nature Singapore Pte Ltd. 2022

Abstract

Personality is a psychological concept which embodies the unique characteristics of an individual. An individual's distinct traits are embodied by the psychological concept of personality. The Lexical Hypothesis states that language use and the terms people use to describe one another can help us decide personality qualities. Huge improvements in data collecting and processing have been brought about by technological breakthroughs. These could help to develop autonomous personality assessment models by deriving linguistic markers from the data present in social media, telecommunication signals, and even signals collected from human–machine interaction. Numerous studies have cantered on using machine learning to automate personality recognition from text. However, there are questions in terms of their performance, reliability as well as ethical usage. To find solutions, we extensively review and analyse the existing research in the field of personality computing using lingual markers in text. A content-oriented classification of the techniques used is provided. We also examine the existing literature for gaps and limitations with a detailed comparative analysis. The field of personality computing has the potential to impact every field of human life but the progress as of now is limited. Our review will help researchers to build from what has been achieved so far for faster progress in the field.

Keywords Social-signal processing · Human–computer interaction · Personality computation · Behaviour modelling · Emotional intelligence · Text processing · Natural language processing · Personality profiling

✉ Mohmad Azhar Teli
mohmadazhar.student@kashmiruniversity.net

Manzoor Ahmad Chachoo
manzoor@kashmiruniversity.ac.in

¹ Department of Computer Science, University of Kashmir Hazratbal, Hazratbal, Srinagar 190006, India