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Detecting Human "Digital Burnout" from Device Usage

Kajal Chavan, Rutuja Kadam, Sanjana Kulkarni, Ms. Shrdhaa Gavkare, Pratiksha Bansode
Department of Computer Engineering
Pimpri Chinchwad Polytechnic, Pune
kajal.chavan156@gmail.com, rutujaskadam06@gmail.com, Sanjana21kul@gmail.com
shraddhagavkare13@gmail.com, bansodepratiksha23@gmail.com

Abstract: *The age of prevalent use of digital technology, excessive use of electronic gadgets, affects productivity and mental health significantly. The prevalence of digital burnout, characterized by feelings of mental exhaustion, loss of concentration, irritability, sleeping disorders, and emotional depletion, is often a result of persistent use of smartphones, laptops, and digital platforms. The system developed here is known as the Digital Burnout Detection System, a smart system designed for usage analysis and early detection of burnout symptoms.*

To analyze variables such as screen time length, application switching rate, response to notifications, and time taken to take breaks, the proposed system utilizes machine learning algorithms. This system categorizes levels of burnout into Low, Medium, and High Risk based on prominent features extracted from usage data. This system also takes the initiative to design notifications and recommendations to maintain healthy usage behavior when it recognizes that a user is under high risk of burnout. This proposed system strives to ensure that digital wellbeing is enhanced with real-time detection and prevention of burnout.

Keywords: Stress detection, machine learning, digital wellbeing, device usage analysis, digital burnout, and user behavior analysis

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