Twitter stress testing: Detecting psychological stress in tweets

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Psychological stress is an important determinant of mental health. Its early detection might allow interventions to be made to preclude chronic problems. Writing in the International Journal of High Performance

Computing and Networking, a team from India, has turned to an analysis of updates on the well-known social media service, Twitter, with a view to detecting psychological stress in the platform's users based on the characteristics of the user's updates, or "tweets."

Aysha Khan and Rashid Ali of the Department of Computer Engineering at ZHCET, AMU in Aligarh, India, explain how traditional [psychological stress](#) detection techniques require specialists and professional equipment. Machine learning could be used to analyze twitter output and automate the process of detection, the researchers suggest.

The pressures of life inevitably lead to stress in some individuals, they always have. Stress can not only lead to problems with mental health, but this can spill over into [physical problems](#) such as raised [blood pressure](#) and the concomitant increased risks of cardiovascular disease associated with that condition. There is growing evidence that chronic stress can also have a detrimental impact on one's immune system and perhaps even increase the risks of certain diseases, including cancer.

Online social networking via sites such as Twitter, has radically changed the way we communicate, [share information](#), and perceive the flow of news and updates we receive. For many, these outlets have opened up boundless possibilities for improvement, for others, the constant need to share and garner validation has led to increasing stress. The picture is complicated and many factors feed in and out of the bigger perspective of how online social network affects us on a daily and ongoing basis. The team has demonstrated a novel approach to extracting the mood and mental state of users in an automated manner that could ultimately be employed by health workers to detect stress in the people they care for.

  More information: Aysha Khan et al. Stress detection from Twitter posts using LDA, *International Journal of High Performance Computing*

and Networking (2021). [DOI: 10.1504/IJHPCN.2020.112700](#)

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