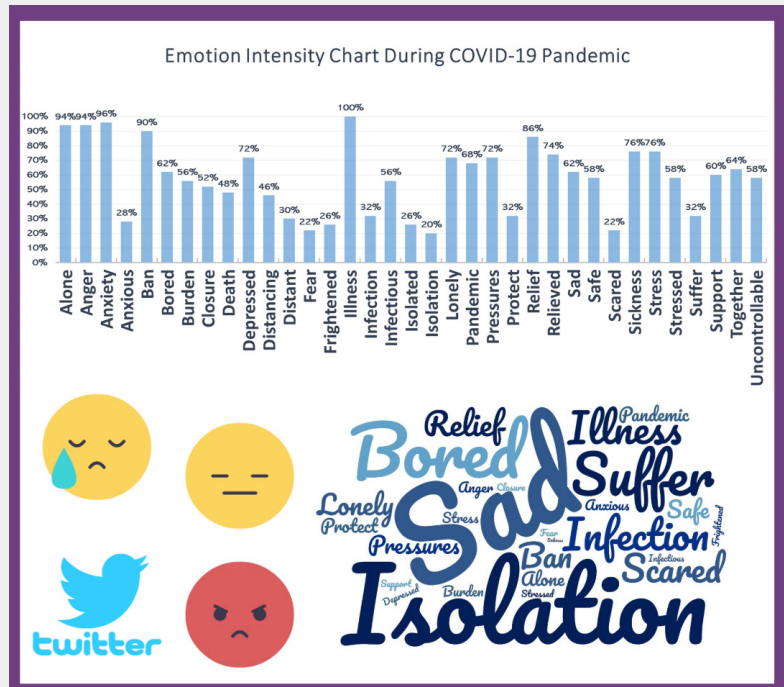


COVID-19 RESEARCH NEWSLETTER

Issue 8, 28 May 2020

DeepFeel: A Deep Learning Mental Health Assessment Model to Help Cope with Stress Imposed by COVID-19 Outbreak

The novel coronavirus (COVID-19) pandemic outbreak has put an incredible burden on many people, resources, and economies around the world. Social distancing, remote work, distance learning, travel bans, home-quarantines, and business closures are transforming the very essence of normal life of nations worldwide, as well as increasing stress, anxiety, and negative emotions. Moreover, with people around the world working remotely due to COVID-19 pandemic's suppression measures, online social platforms are becoming the most prominent tools of communication. Hence, studying and extracting insights from social media can help in assessing how well people cope with this unprecedented global crisis. In this research, an automated mental health assessment model was designed to evaluate mental health status on social media during the pandemic. Positive mental health interventions and recommendations are deduced accordingly to help people cope with the stress imposed by COVID-19 outbreak.



To that end, Twitter is selected as the primary online communication platform, being the most popular social media platform worldwide. They say, "You Are What You Tweet." A semi-supervised Deep Learning-Based Contextualized Language Model was developed to predict the emotional orientation of tweets generated by people in the UAE during the pandemic, in line with expert-verified mental health taxonomies. Based on the most recent COVID-19 Twitter dataset published in April-2020, the proposed prediction model accomplished an outstanding accuracy of 90% in predicting mental health status.

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If you are interested in sharing your COVID-19 related research, please send your contribution to research.office@uaeu.ac.ae