Mental Health Diagnosis through Machine Learning Approaches

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Abstract : Mental health of people is equally important as of their physical health. Mental health and well-being are influenced not only by individual attributes but also by the social circumstances in which people find themselves and the environment in which they live. Like physical health, there is a number of internal and external factors such as biological, social and occupational factors that could influence the mental health of people. People living in poverty, suffering from chronic health conditions, minority groups, and those who exposed to/or displaced by war or conflict are generally more likely to develop mental health conditions. However, to authors' best knowledge, there is dearth of knowledge on the impact of workplace (especially the highly stressed IT/Tech workplace) on the mental health of its workers. This study attempts to examine the factors influencing the mental health of tech workers. A publicly available dataset containing more than 65,000 cells and 100 attributes is examined for this purpose. Number of machine learning techniques such as 'Decision Tree', 'K nearest neighbor' 'Support Vector Machine' and 'Ensemble', are then applied to the selected dataset to draw the findings. It is anticipated that the analysis reported in this study would contribute in presenting useful insights on the attributes contributing in the mental health of tech workers using relevant machine learning techniques.

Keywords : mental disorder, diagnosis, occupational stress, IT workplace
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