Prediction of Mental Health Disorders
Project Proposal

Supervisor: João Paulo Cordeiro

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1 Objectives

Mental health conditions are prevalent worldwide, with approximately one in eight people globally affected by a mental disorder. Anxiety and depressive disorders are the most common among both males and females. In recent times, the expression of health conditions, particularly mental health issues, has become increasingly visible in online media, especially on social media platforms. This phenomenon has garnered significant attention from the scientific community, leading to numerous ongoing studies. A key challenge lies in developing automatic methods to detect mental health problems early in online communities. Various datasets and benchmarks are already available, facilitating the training and evaluation of existing and newly developed automatic systems to predict mental disorders.

This project will investigate various machine learning (ML) techniques applied to a range of public datasets, encompassing diverse mental health disorders represented in social media, primarily through text and images. This experimental work will involve testing and comparing the performance of different ML methods. The primary goal is to assess various ML approaches, identifying the most effective ones either generally or for specific diseases.

2 Work Plan

T1: The main study of the problem. (⏱ 2 weeks)

T2: Datasets gathering and pre-processing. (⏱ 3 weeks)

T3: ML frameworks to be applied. (⏱ 3 weeks)

T4: Range of experimentation and analysis. (⏱ 4 weeks)

T5: Writing of the project report. (⏱ 3 weeks)

3 Academic Prerequisites

Must have good programming skills, especially in Python, and general knowledge of Machine Learning.

4 Expected Results

A detailed empirical study on the use of ML in predicting mental health disorders in online communities. The study's main findings and conclusions must be well documented in the final report.

5 Contacts

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