

# Methods in Predictive Techniques for Mental Health Status on Social Networks using Machine Learning

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**Abstract:** *Purpose:* Social networks have been developed as a great point for its users to communicate with their interested friends and share their opinions, photos, and videos reflecting their moods, feelings and sentiments. This creates an opportunity to analyze social network data for user's feelings and sentiments to investigate their moods and attitudes when they are communicating via these online tools.

*Methods:* Although diagnosis of mental health using social networks data has picked an established position globally, there are several dimensions that are yet to be detected. In this study, we aim to perform psychological analysis on Facebook data collected from an online public source. To investigate the mental health, we propose machine learning technique as an efficient and scalable method.

*Results:* With the implementation of the proposed method using a set of various psycholinguistic features, we can significantly improve the accuracy and classification error rate. In addition, we can achieve expected results in different experiments such as Decision Tree (DT) which gives the highest accuracy in ML approaches to find the mental health.

*Conclusions:* Machine learning techniques identify high quality solutions of mental health problems among Facebook users.

**Keywords:** Health, Relationship, Classifier, Exploration, Community

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