

## Early Stage Suicide Ideation Detection Using Supervised Machine Learning and Neural Network Classifier

**Authors :** Devendra Kr Tayal, Vrinda Gupta, Aastha Bansal, Khushi Singh, Sristi Sharma, Hunny Gaur

**Abstract :** In today's world, suicide is a serious problem. In order to save lives, early suicide attempt detection and prevention should be addressed. A good number of at-risk people utilize social media platforms to talk about their issues or find knowledge on related chores. Twitter and Reddit are two of the most common platforms that are used for expressing oneself. Extensive research has already been done in this field. Through supervised classification techniques like Nave Bayes, Bernoulli Nave Bayes, and Multiple Layer Perceptron on a Reddit dataset, we demonstrate the early recognition of suicidal ideation. We also performed comparative analysis on these approaches and used accuracy, recall score, F1 score, and precision score for analysis.

**Keywords :** machine learning, suicide ideation detection, supervised classification, natural language processing

**Conference Title :** ICNLPSSA 2023 : International Conference on Natural Language Processing, Syntactic and Semantic Analysis

**Conference Location :** New York, United States

**Conference Dates :** April 24-25, 2023