

Title: Early Detection of Suicidal Tendencies through evaluation of Sevier Depression Detection by Image and Video Analysis

Abstract

The present invention relates to an early detection of suicidal tendencies. The method comprises: data is collected from various sources, including publicly available datasets, online forums, and social media platforms, with proper consent and privacy measures in place; contrast adjustment and histogram equalization, will be applied to enhance the visual features and minimize variations in lighting conditions and image quality; and apply advanced deep learning approaches to analyse the pre-processed data. The existing methods for suicide ideation detection have primarily relied on textual data analysis, such as monitoring twitter posts and online communication. However, these approaches are limited by the availability and accuracy of self-reported information, as individuals may be reluctant to express their suicidal thoughts openly. Furthermore, textual analysis alone may fail to capture the problems of nonverbal cues that can be indicative of suicidal ideation. This work aims to address the discussed limitations using machine learning techniques to analyse visual data, specifically images, for the detection of suicide ideation. By leveraging the rich information contained in visual cues, such as facial expressions, body posture, and environmental contexts, this approach has the impending to produce comprehensive and accurate analysis of any individual mental state, enabling timely intervention and support. The early detection of suicidal tendencies is a critical challenge with profound implications for saving lives and addressing a major public health crisis. A worldwide very potent cause of deaths is suicide, and its prevention requires timely intervention and support for at-risk individuals. Traditional methods for assessing suicide risk, such as self-reporting questionnaires and clinical evaluations, have inherent limitations, including potential biases, subjective interpretations, and the inability to provide continuous monitoring. The growth and improvement in computer vision tech and machine learning have led us to new avenues for suicide ideation detection through the analysis of visual data, such as images and video streams. Visual cues, including facial expressions, body language, and environmental contexts, can provide valuable insights into an individual's emotional state and potential suicidal ideation. With the help of deep learning algorithms and computer vision techniques, it is possible to develop automated systems that can analyse visual data in real-time, enabling early detection and timely intervention.