



SUICIDAL TENDENCY DETECTION

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ABSTRACT

Nobody in the victim's life is prepared to deal with the devastating effects of a suicidal crisis because of how difficult it is to recognize the warning signs of suicidal ideation or behavior. Despite advances in the identification and treatment of serious mental diseases, suicide has remained an intractable public health issue. Numerous studies have shown that victims often commit suicide as a way to escape the trauma they are experiencing or as a way to finally feel at peace. The goal of this research is to suggest a way that loved ones of the victim may use to quickly ascertain whether or not the individual has begun to experience depressive symptoms. Finding a robust correlation between subsystem components and comparing accuracy to develop an alerting system is the primary objective. Using this strategy, the sufferer may get treatment sooner rather than later, which is obviously preferable. This research seeks to differentiate itself from similar systems by looking for numerous indicators of suicide intent rather than just one.

KEY WORDS: Suicidal ideation detection, social content, feature engineering, deep learning.

1. INTRODUCTION

The individuals who have the intention of taking their own lives are the target audience for this initiative. As a result of this, a system with several facets that may identify this inclination and inform the family, friends, or other people who are close to the individual in advance may prove to be a blessing for the innovation. This project has a tendency to regard an electronic device, namely a cell phone (because that is what the majority of them use), to be the most important component. This apparatus is utilized to capture a variety of aspects, including facial motions, voice recognition, and a great deal more besides. Along with

the technological byproducts of the project comes a notion as inconsequential as the incorporation of many features, such as facial gestures, voice recognition, and messaging patterns. Texting patterns include unusual texting patterns that indicate a lack of interest in doing activities. facial gestures include unhappy expressions such as sadness, dullness, and tiredness. voice patterns include low voices that sound dull, which make it easy to recognize that someone is unhappy. facial gestures include unhappy expressions such as sadness, dullness, and tiredness.

2. LITERATURE SURVEY

Research has been conducted in the past on a variety of topics due to the fact that the choice to commit suicide is not one that is made in a single day. Although some of them discussed how suicides take place, others focused on the many methods that may be used to identify suicidal intent as their final point. Different strategies, such as Human Computer Interaction (HCI), Natural Language Processing (NLP), and the use of Convolutional Neural Networks (CNN), were quite popular. However, these systems had a shortcoming in that it was not feasible to express a clear boundary in just one component of the implementation in a practical sense. This was a disadvantage. Text mining and sentiment analysis may be carried out on many social media sites, such as Reddit and Twitter, thanks to developments in technology that have occurred over the course of time. Numerous methods have been developed as a result of these developments.

3. PROPOSED SYSTEM

The purpose of this paper is to provide a proposal for a system that is capable of identifying suicidal tendencies utilizing a variety of methods. In order to carry out a comprehensive operation, Human Computer Interaction (HCI), Natural Language Processing (NLP), and Voice Pattern Analysis (VPA) are the three technologies that are carefully considered. Later on, it is recommended that the implementation of a correlation matrix take place, which has the capability of discovering strong or weak connections between the aforementioned three components.

4. RESULTS

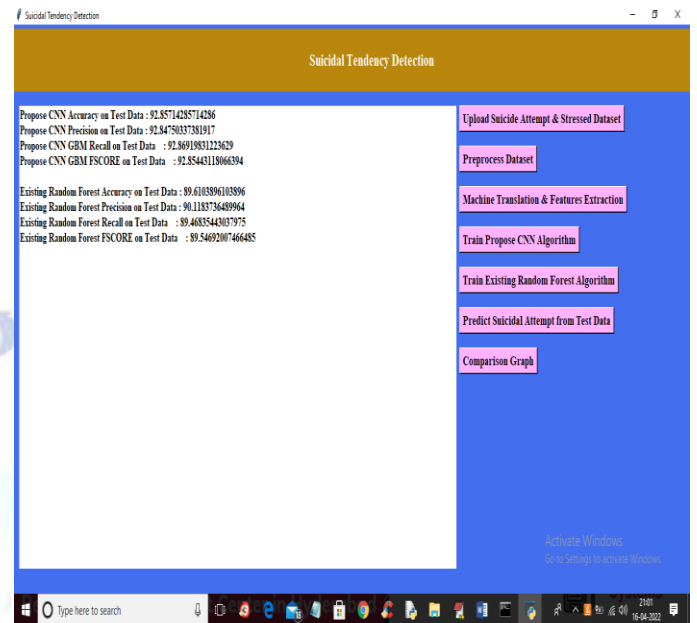


Figure 1: Tendency Detection

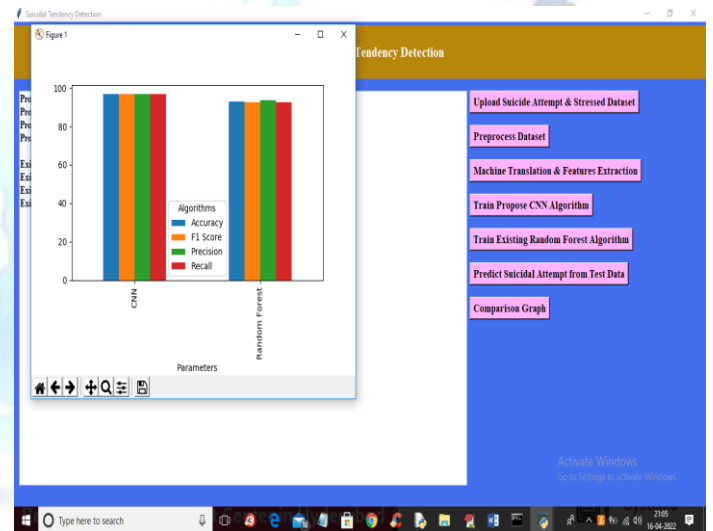


Figure 2: Comparison Graph

5. CONCLUSION

Every aspect of modern life benefits from deep learning's incorporation into our hardware, software, and gadgets. Virtual personal assistants, traffic forecasts, online transportation networks, video surveillance, online fraud detection, search engine result refining, product suggestion, and social media services are just some of the many uses for these technologies.

To identify potential suicide by hanging attempts, a novel method based on machine learning is presented.

Once trained, the system can detect and prevent attempted suicide by hanging. It keeps track on what's going on through camera and sends you a notification when anything interesting happens. This method improves accuracy and increases sensitivity on a dataset with significant differences between several simulated hanging sequences.

Improving the suggested approach in the future will be the primary emphasis in order to reduce the number of suicide attempts by hanging. A fascinating route is employed to illustrate the relationship between the strangling item and the person who is dangling from the camera.

Conflict of interest statement

Authors declare that they do not have any conflict of interest.

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