

PROJECT PROPOSAL

Link to the dataset: <https://www.kaggle.com/nikhileswarkomati/suicide-watch>

We use a dataset that can be used to detect suicide and depression in a text. The dataset is a collection of posts from "SuicideWatch" and "depression" subreddits of the Reddit platform till Jan 2, 2021. Reddit is an American social news aggregation, web content rating, and discussion website. Registered members submit content to the site such as links, text posts, images, and videos. Posts are organized by subject into user-created boards called "subreddits", which cover a variety of topics. One of the many topics are 'SuicideWatch' and 'depression', where the members share their feelings and if they are feeling suicidal or not. The dataset we were able to collect is from 232,074 posts.

According to latest studies, in 2021, about 33% of Americans are suffering from depression. This means 1 in every 3 people are struggling mentally. When depression prevails for long, there is a high chance that people can develop suicidal tendencies. Forty percent of people with suicidal thoughts or behaviors do not seek medical care.

The main goal of this project is to analyze a person's text post to detect if they are feeling suicidal and if they are, we provide the National Suicide Prevention Lifeline number to them. This is a very useful app for people who are unaware of their mental health and/or have no one to help diagnose their depression. Providing the National Suicide Prevention Lifeline number at the right time can save their life.

Over the last decade, the market has grown to include more than 10,000 mental health apps. These apps are already present in the market and help a lot of people in counseling, diagnosis, emergency reach-out, etc. Some of the many such apps are:

1. Jason Foundation: A Friend Asks (Android, iOS)
2. MY3 (Android, iOS)
3. ASK & Prevent Suicide (Android, iOS)
4. Suicide Crisis Support (Android)
5. Ulster County SPEAK (Android, iOS)

Although my project has a lot of room for improvement, as it has an accuracy of 49.62% in detection of suicidal people. But it is still better to help people in need and there is no harm in providing the National Suicide Prevention Lifeline number to people who aren't depressed.

My app has a homepage of affirmation words encouraging people to write about their feelings, after swiping left it will open up a note page where people can write down about their feelings. This test is then classified when they click on the button 'Save and Assess'. Depending on their text input, they will get one of the 2 output pages, first, where the output is displayed as 'Person is not Suicidal' and second, where the output is displayed as 'Person is Suicidal. Seek help! Call: 800-273-8255'. On the output pages we have an icon to go back to homepage and it is worthy to note that we have an emergency calling icon for people to directly call the National Suicide Prevention, on every page of the app.