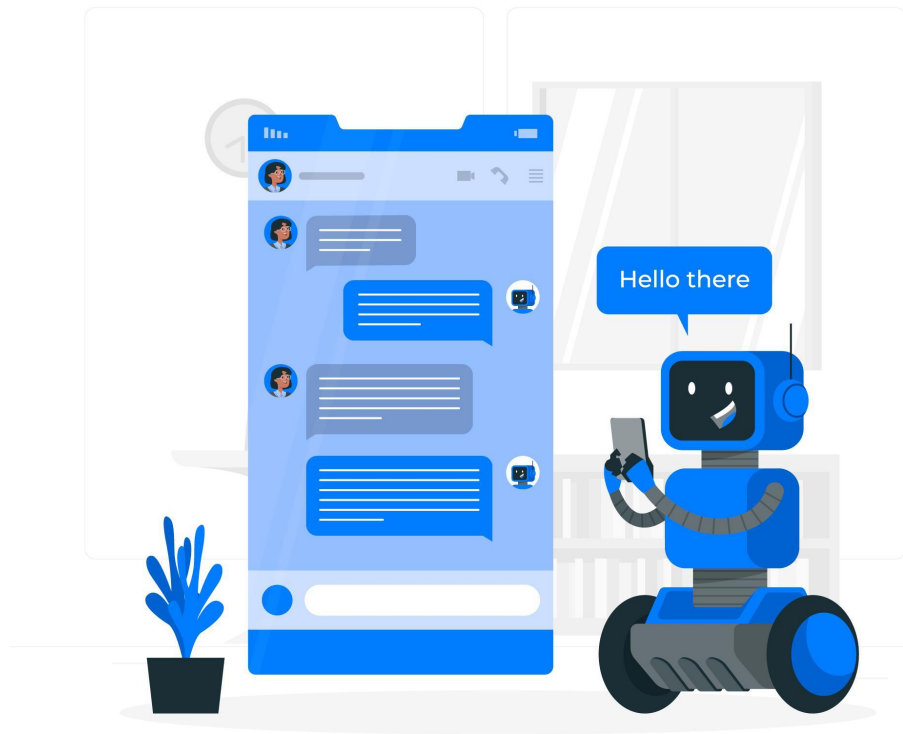


Text-Based Suicide Risk Detection

A Model for
Mental Health AI

Roshni Janakiraman



Outline

1. Project Relevance
2. Data and Insights
3. Model + Demo
4. Next Steps



U.S. Mental Health Crisis



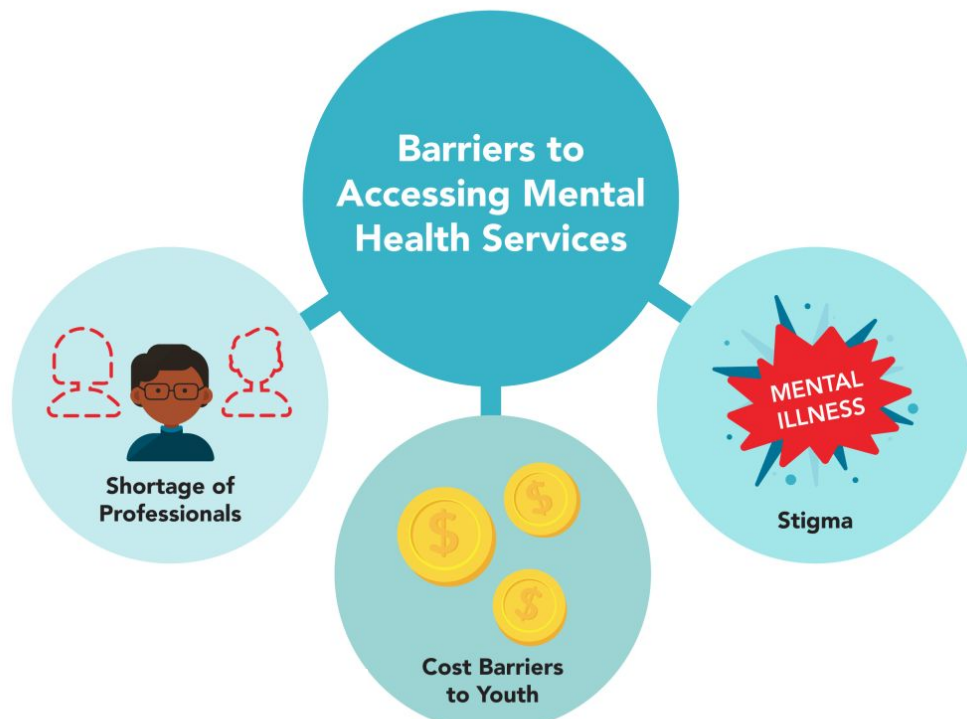
Nearly

46,000

people died by
suicide in 2020



1 death every
11 minutes

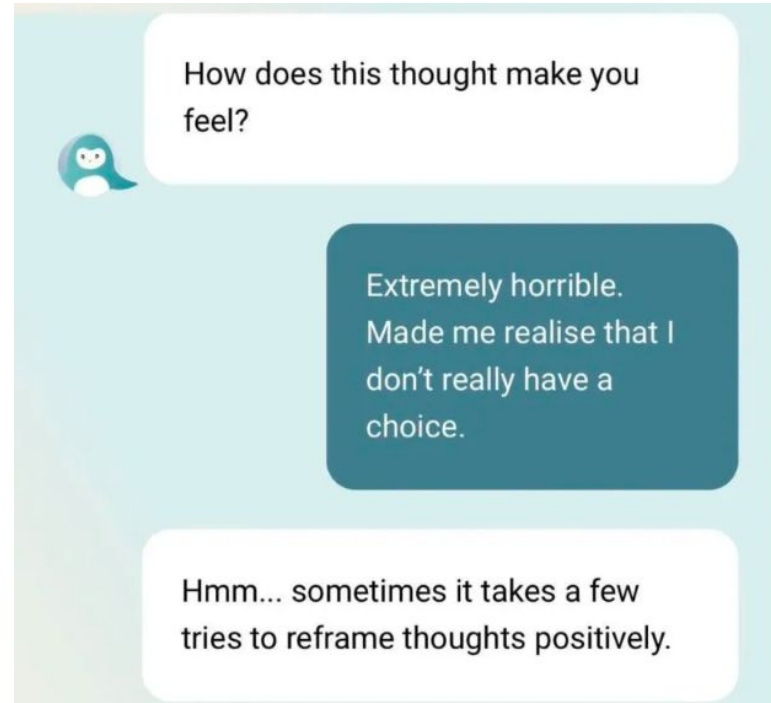


Mental Health Chatbots

Benefits



Problems

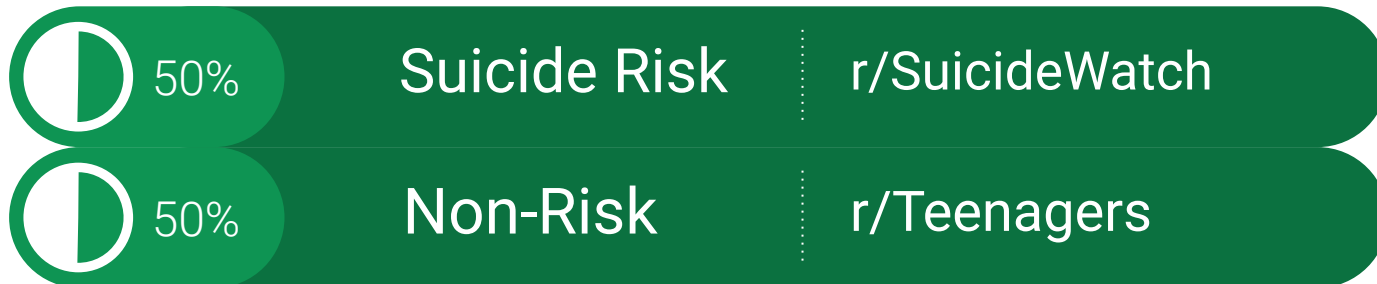


Objectives:

1. Distinguish *suicide risk* from *non-risk*
2. Minimize false negatives
3. Streamline services

Data

- 200k+ posts from Reddit:



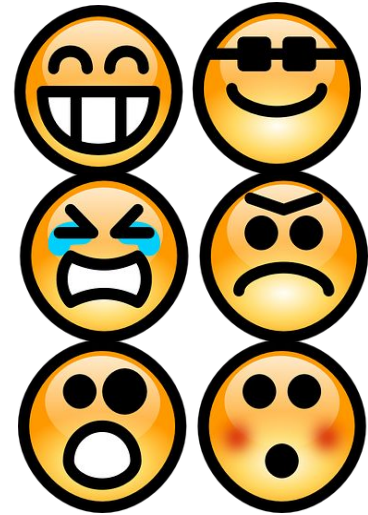
Text Analysis



1. Relevant Words



2. Sentiment



3. Emotion

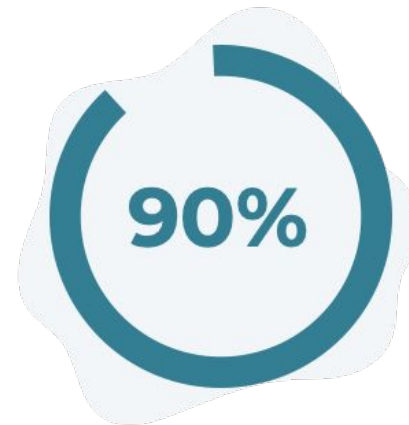
Model Evaluation

Final: Logistic Regression Model

Target: *Accuracy, Recall*



**BASELINE
MODEL**



**FINAL
MODEL**

Next Steps: Implementation

- Model Demo will be available on my Github
- Integration Options:
 1. Integrate with current operating chatbot
 2. Back-end system: alert counselors to contact client

Future Directions

1. Implementation in your prototype
2. Slang words and misspellings
3. Teach model suicide crisis risk assessment rules



Thank You!



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