



The Language of Mental Health

Reddit Language Analysis



Problem Statement

A nonprofit agency is interested in new ways to assess mental health using social media. They want a way to assess someone's mental health using their social media posts.

- During the COVID pandemic, more people turned to the internet to share their struggles
- The stress associated with COVID and changes/conflict it brought increased mental health symptoms
- Many who are struggling find it difficult to reach out to professionals

Business Value

- Social Good!
- Potential for less new trauma, abuse, etc
- More clients
- Break the cycle!



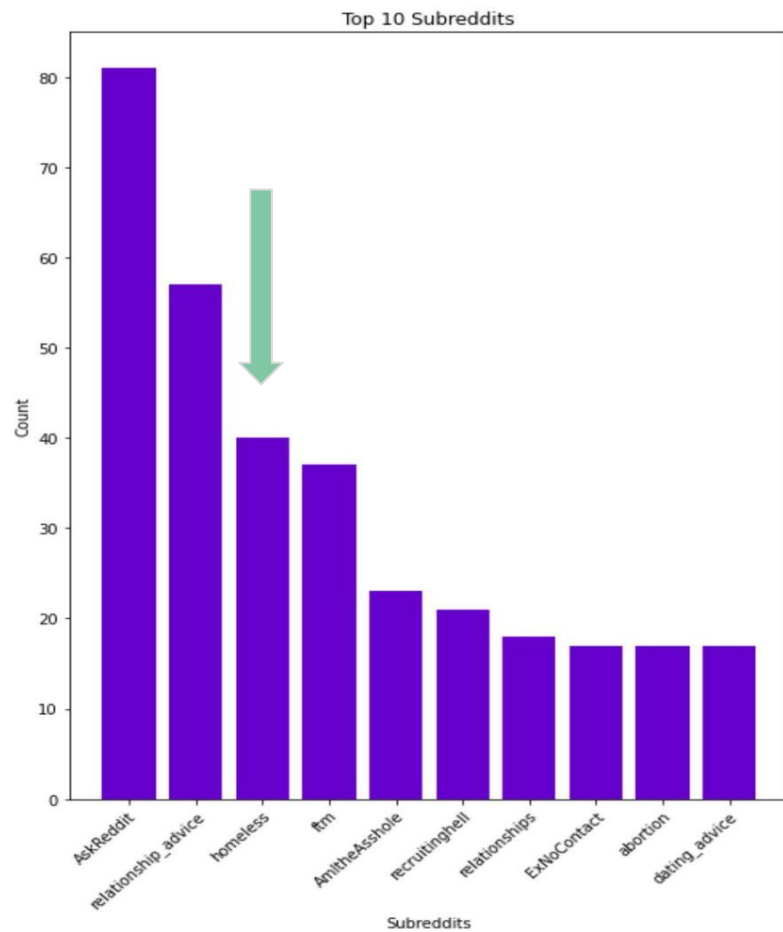
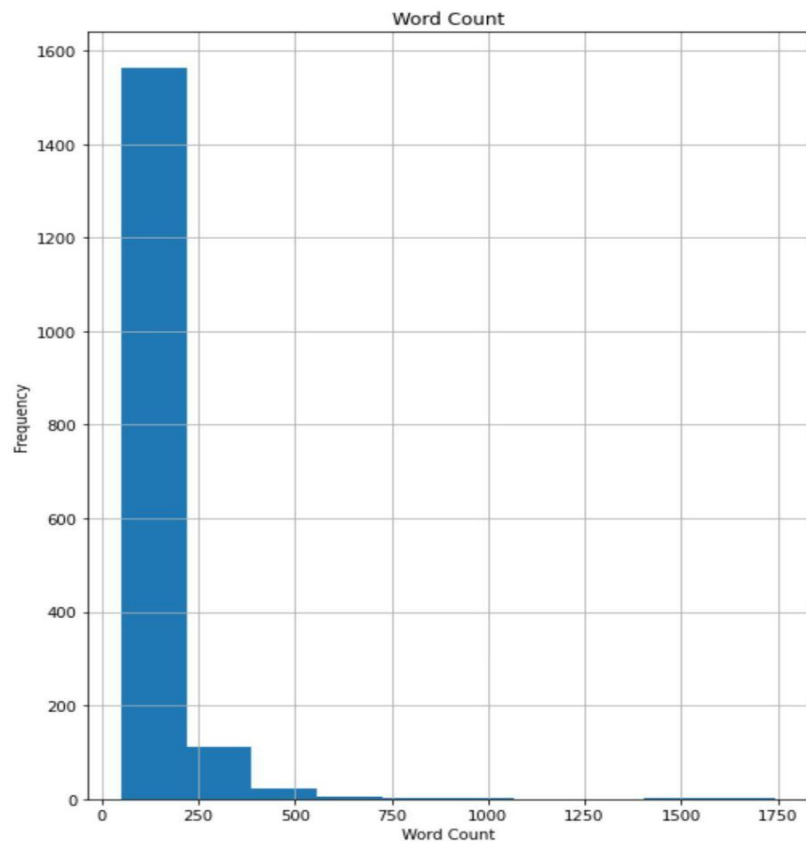
Methodology

- Data from Reddit
- Bipolar, Borderline, Anxiety, Depression, PTSD, ADHD
- Focused on posts in non-mental health subreddits
- Word2Vec, Random Forest Classifier, Keras, SBERT

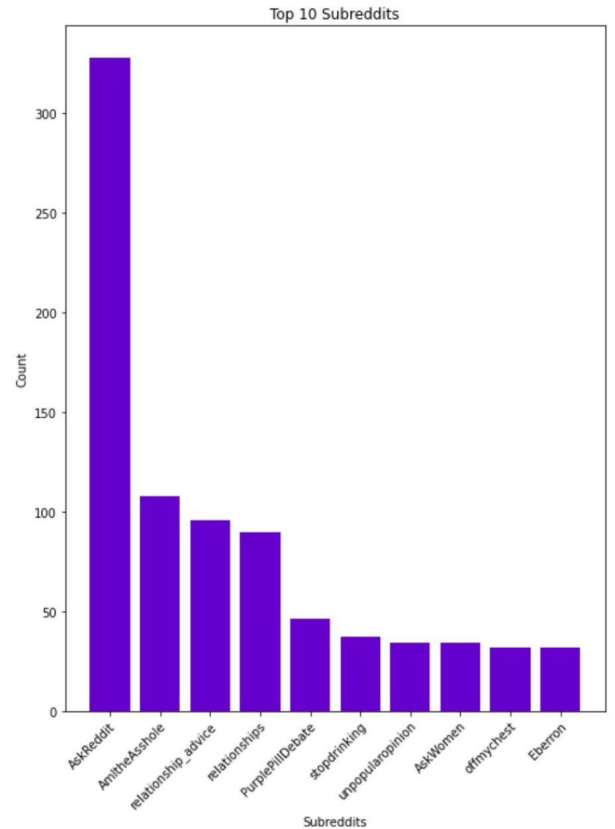
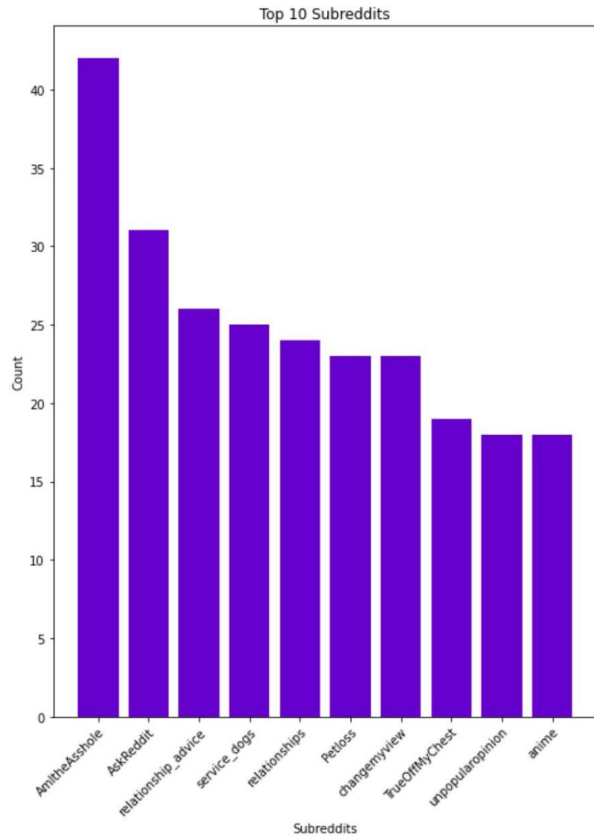




Bipolar Comments



Borderline and PTSD





Final Model Decision Making

50

50% Accuracy
71.5% precise
68.5% recall

Anxiety and PTSD

Comment/Submission



Mental
Health
Struggles?

if yes



Which
diagnosis?

Recommendations

Creating a support
group online



Recommendations

- In subreddits that allow it, respond to users who express that they are struggling.
 - Benefits of Counseling
 - Programs the Agency offers
 - Informational posts



Recommendations

Subreddits of Note:

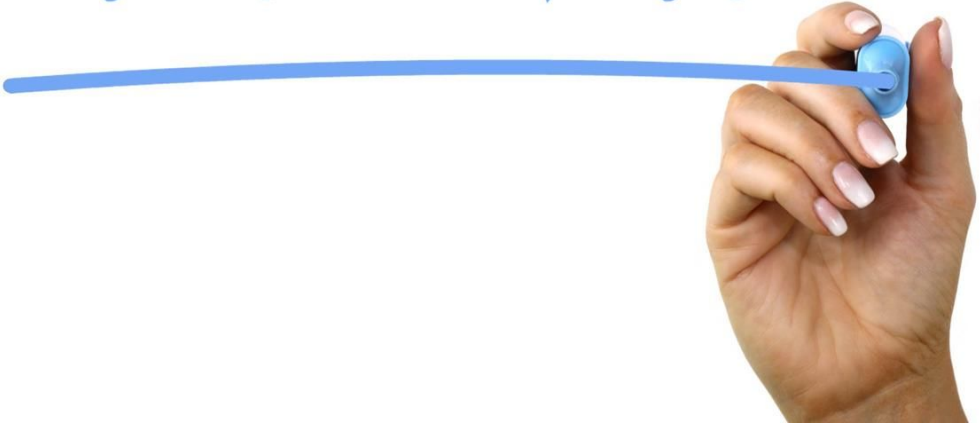
- AskReddit
- Relationships
- Relationship Advice
- Am I the Asshole?



Future Work

- Continue to refine the models to analyze language in posts not related to mental health
- Creating an informational or encouraging (not too positive) bot
- Look at comorbidity

RESEARCH





Contact Kayla Strickland at
kas2nd@virginia.edu

thank
you!