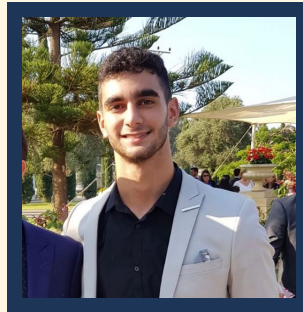




Advertisement Campaign



Seraj Khazei

Agenda

01

Business Understanding



02

Dataset Overview



03

Methods



04

Recommendations



05

Future Research

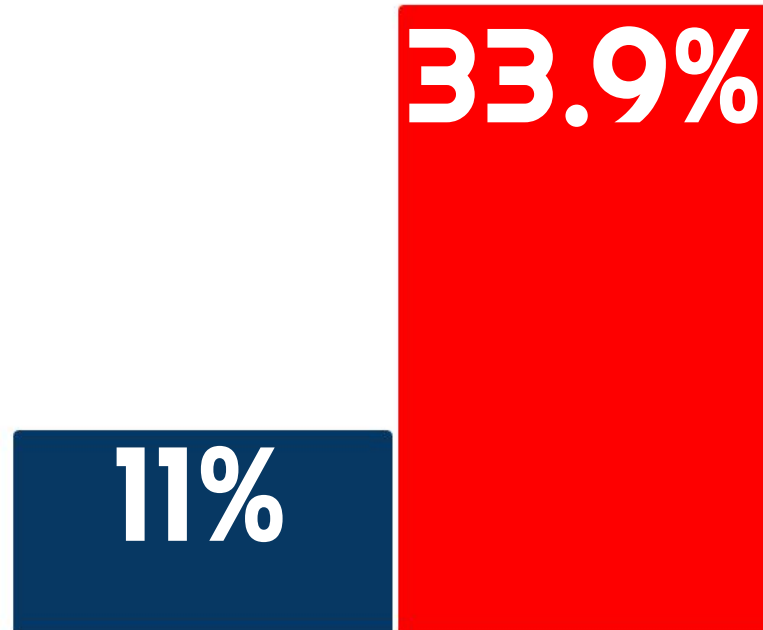




01 Business Understanding

Depression or anxiety before and after the pandemic

■ January-June 2019 ■ May 2020



Symptoms of anxiety or depression

Is Everybody Doing ... OK? Let's Ask Social Media

Researchers are looking at online behavior to gauge public mental health. The results aren't pretty.



By Casey Schwartz

Oct. 12, 2020

Identify individuals who score high on trait Neuroticism

O	Openness To Experience	Low Conventional	High Imaginative
C	Conscientiousness	Low Spontaneous	High Organized
E	Extraversion	Low Solitary	High Outgoing
A	Agreeableness	Low Sceptical	High Trusting
N	Neuroticism	Low Emotionally Stable	High Prone To Stress





Classify Neurotic post

+84%

Accuracy



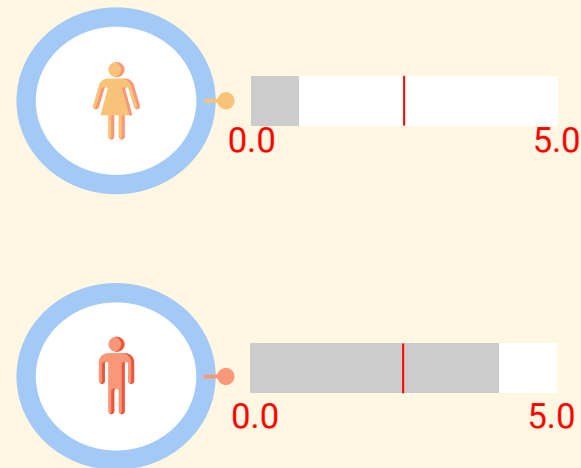
02 Dataset Overview

How Neurotic a status update is based on the language



So excited for whats ahead,
ready to take on anything!

I have had the worst year! :(





03 **Methods**



Natural Language Processing




Machine Learning

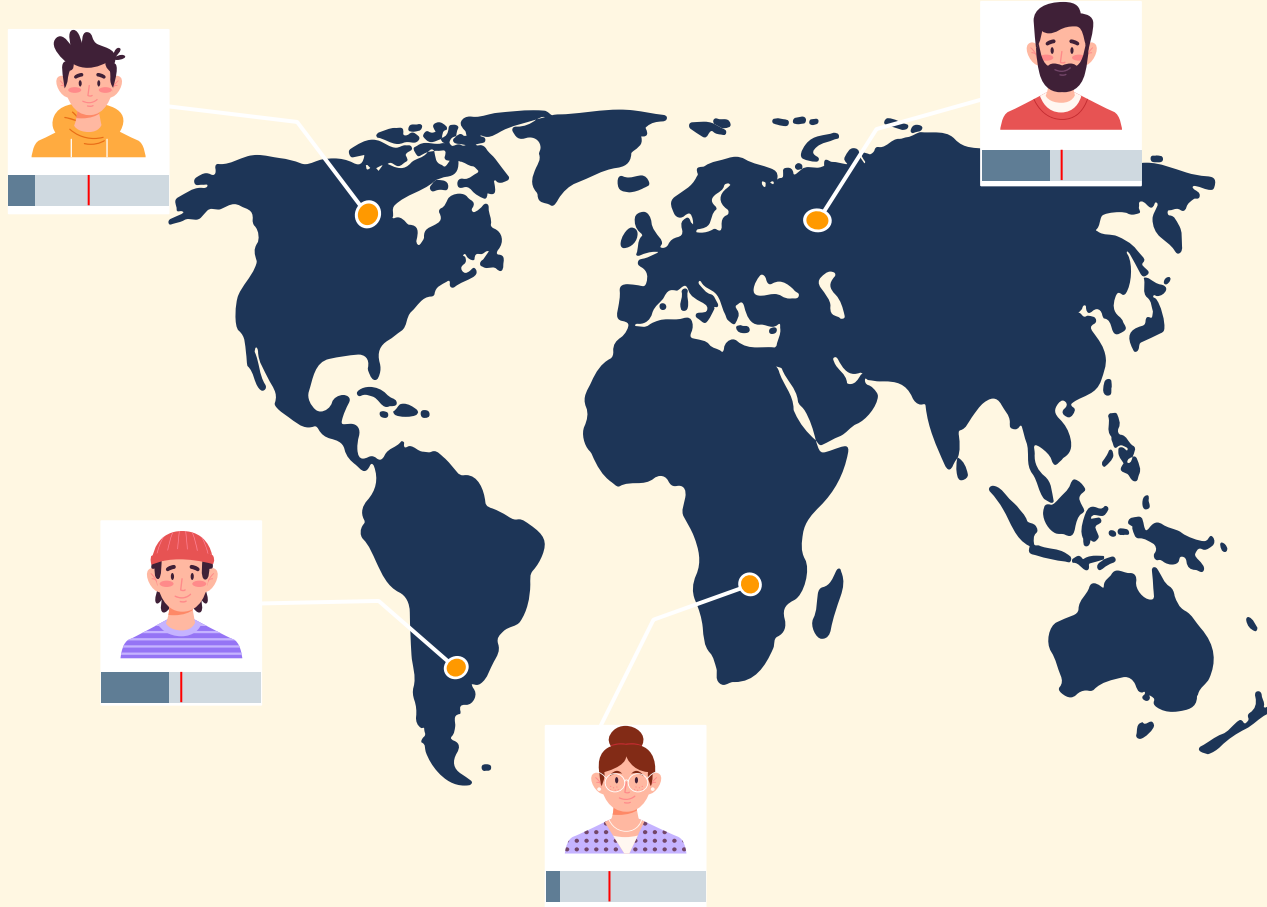


Metric: Accuracy - 84%



04 Recommendations

Identifying trait Neuroticism =  rate of depression/anxiety





05 Future Research

- **Other media platforms**
- **User's timeline**
- **Humantic AI API**



Thank you!

Contact Information:



serajkhaze@gmail.com



[serajkhazei](https://github.com/serajkhazei)



[Seraj Khazei](https://www.linkedin.com/in/Seraj-Khazei)

Questions?

Appendix

How trait Neuroticism was scored

Table 3

Top category and word-level correlations for the lower-order facets.

Trait	No. of cats.	Top 20 LIWC categories (P < .05)	No. of words (p < .001)	Top 20 words
<i>Neuroticism</i>				
Anxiety	15	Feeling (0.17), Anxiety (0.16), Articles (-0.16), Space (-0.15), 1st Person Sing. (0.15), Certainty (0.13), 1st Person (0.12), Negative Emotions (0.12), Up (-0.11), Discrepancy (0.1), 2nd Person (-0.1), Affect (0.1), Negation (0.1), Grooming (0.1), Cognitive Processes (0.1)	33	awful (0.29), sick (0.26), road (-0.26), ground (-0.25), terribly (0.25), cranky (0.25), stress (0.24), feeling (0.24), southern (-0.24), stressful (0.24), myself (0.23), though (0.23), feel (0.23), sweater (0.23), county (-0.23), scenario (0.23), ashamed (0.22), feels (0.22), oldest (-0.22), spoiled (0.22)
Anger	17	Negative Emotions (0.18), Anger (0.17), Negation (0.16), Swearing (0.14), Discrepancy (0.13), Space (-0.13), Causation (0.13), School (0.13), Cognitive Processes (0.12), Up (-0.12), 1st Person Sing. (0.11), Exclusive (0.11), Certainty (0.11), Anxiety (0.1), Feeling (0.1), Tentative (0.1), 1st Person (0.1)	14	sick (0.24), later (-0.23), yay (0.22), road (-0.22), possibly (0.22), completely (0.21), thirty (-0.21), though (0.21), poem (-0.21), wild (-0.21), desperately (0.2), pregnancy (0.2), shouldn't (0.2)
Depression	18	Anger (0.15), Negative Emotions (0.15), Up (-0.14), Discrepancy (0.14), Tentative (0.13), 1st Person Pl. (-0.13), Negation	14	lazy (0.24), refuse (0.23), irony (0.22), pretend (0.22), visited (-0.22), horrible (0.22), harsh

[Open in a separate window](#)

All correlations are based on a minimum N of 263.

Neuroticism is a fundamental domain of personality with enormous public health implications

[Thomas A. Widiger](#)¹ and [Joshua R. Oltmanns](#)¹

► [Author information](#) ► [Copyright and License information](#) [Disclaimer](#)

This article has been [cited by](#) other articles in PMC.

Neuroticism is the trait disposition to experience negative affects, including anger, anxiety, self-consciousness, irritability, emotional instability, and depression¹. Persons with elevated levels of neuroticism respond poorly to environmental stress, interpret ordinary situations as threatening, and can experience minor frustrations as hopelessly overwhelming. Neuroticism is one of the more well established and empirically validated personality trait domains, with a substantial body of research to support its heritability, childhood antecedents, temporal stability across the life span, and universal presence^{1, 2}.

Evidence trait Neuroticism is linked to depression and anxiety



Gregg Henriques Ph.D.
Theory of Knowledge

ANXIETY

Trait Neuroticism and Depressive and Anxiety Disorders

High trait neuroticism is key to understanding depressive and anxiety disorders.

Posted February 26, 2017 |  Reviewed by Lybi Ma



THE BASICS

What Is Anxiety?

[Find a therapist to overcome anxiety](#)

What is the single most important personality trait associated with anxiety and depression? Without a doubt, the answer is **Trait Neuroticism** (TN). As such, it is crucial for people with depression and anxiety to understand this psychological construct. This blog explains what traits are and why TN can be understood as “the sensitivity and activity of the negative affect system”. With this frame we can then explain why people high in TN are vulnerable to developing disorders of depression and anxiety, especially if they are exposed to stressful living conditions and do not have good capacities for processing their emotions in a secure, affirming relational environment.



Effects of neuroticism on depression and anxiety: Rumination as a possible mediator

Jeffrey Roelofs ^a , Marcus Huibers ^a, Frenk Peeters ^b, Arnoud Arntz ^a

[Show more](#) 

[+](#) Add to Mendeley [🔗](#) Share [🗣️](#) Cite

<https://doi.org/10.1016/j.paid.2007.09.019>

[Get rights and content](#)

Abstract

Neuroticism is considered a vulnerability factor for depression and anxiety but the mechanism by which this vulnerability is increased is unknown. Rumination is considered a psychological vulnerability for depression and anxiety. The current study sought to examine the mediational effects of different components of rumination (i.e., rumination on sadness, symptom-based rumination, rumination on causes of sadness) in the relationships between neuroticism and symptoms of depression and anxiety in a sample of non-clinical undergraduates ($N = 192$). In line

Reliability of ocean model

Model and Author	Big Traits	Notes
Two big personality traits Wiggins (1968)	<ul style="list-style-type: none">- Extraversion- Anxiety	<ul style="list-style-type: none">- Many studies have confirmed both traits.
Two big personality traits, Robertson, 1994	<ul style="list-style-type: none">- Conscientiousness- Neuroticism	<ul style="list-style-type: none">- From BFT, there are two traits only have un positive effect on performance.
Eysenck's three factor model, 1967, 1992	<ul style="list-style-type: none">- Psychoticism- Extraversion- Neuroticism	<ul style="list-style-type: none">- These three of the five traits were intercorrelate but not all BFT.
Big five traits, Fiske (1949)	<ul style="list-style-type: none">- Extraversion, agreeableness, conscientiousness, neuroticism, openness	<ul style="list-style-type: none">- The transition from the lexical hypothesis to the practical hypothesis, led to the BFT.

The Number of Personality Traits in Different Models

Introduction

The theory of traits is one of most important theories of personality (Ewen 2003), and the big five traits (BFT) represent the heart of the theory of personality traits to descript, interpret, and predict human behavior. BFT (extraversion, agreeableness, conscientiousness, openness, and neuroticism or emotional stability) can be considered one of the richest fields of research and development. This can be attributed to three important reasons at least namely, the *BFT* is the most widely accepted and most prominent model to describe the structure of personality traits (Rammstedt et al. 2010). A large number

Author: Najm Abood

In particular, Lewis Goldberg advocated heavily for five primary factors of personality (Ackerman, 2017). His work was expanded upon by McCrae & Costa, who confirmed the model's validity and provided the model used today: conscientiousness, agreeableness, neuroticism, openness to experience, and extraversion.

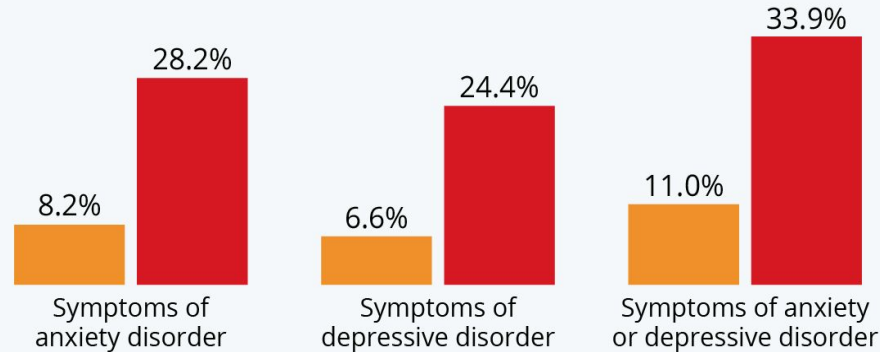
The model became known as the “Big Five” and has seen received much attention. It has been researched across many populations and cultures and continues to be the most widely accepted theory of personality today.

www.simplypsychology.org

Pandemic Causes Spike in Anxiety & Depression

% of U.S. adults showing symptoms of anxiety and/or depressive disorder*

■ January-June 2019 ■ May 14-19, 2020



* Based on self-reported frequency of anxiety and depression symptoms. They are derived from responses to the first two questions of the eight-item Patient Health Questionnaire (PHQ-2) and the seven-item Generalized Anxiety Disorder (GAD-2) scale.

Sources: CDC, NCHS, U.S. Census Bureau

0

enjoy enjoy :) -0.3855

stab people , -0.3855

stab people stupidity -0.3855

happy new orleans -0.3855

change facebook user -0.3855

fadin away ... -0.3855

panini ... -0.3855

didnt want ... -0.3855

stupid drama . -0.3855

way ! regret -0.3855