



August 7, 2025

- 1. Introduction
- 2. Usability Study Lessons
- 3. Improvements
- 4. Demo
- 5. Insights & Applications



INTRODUCTION

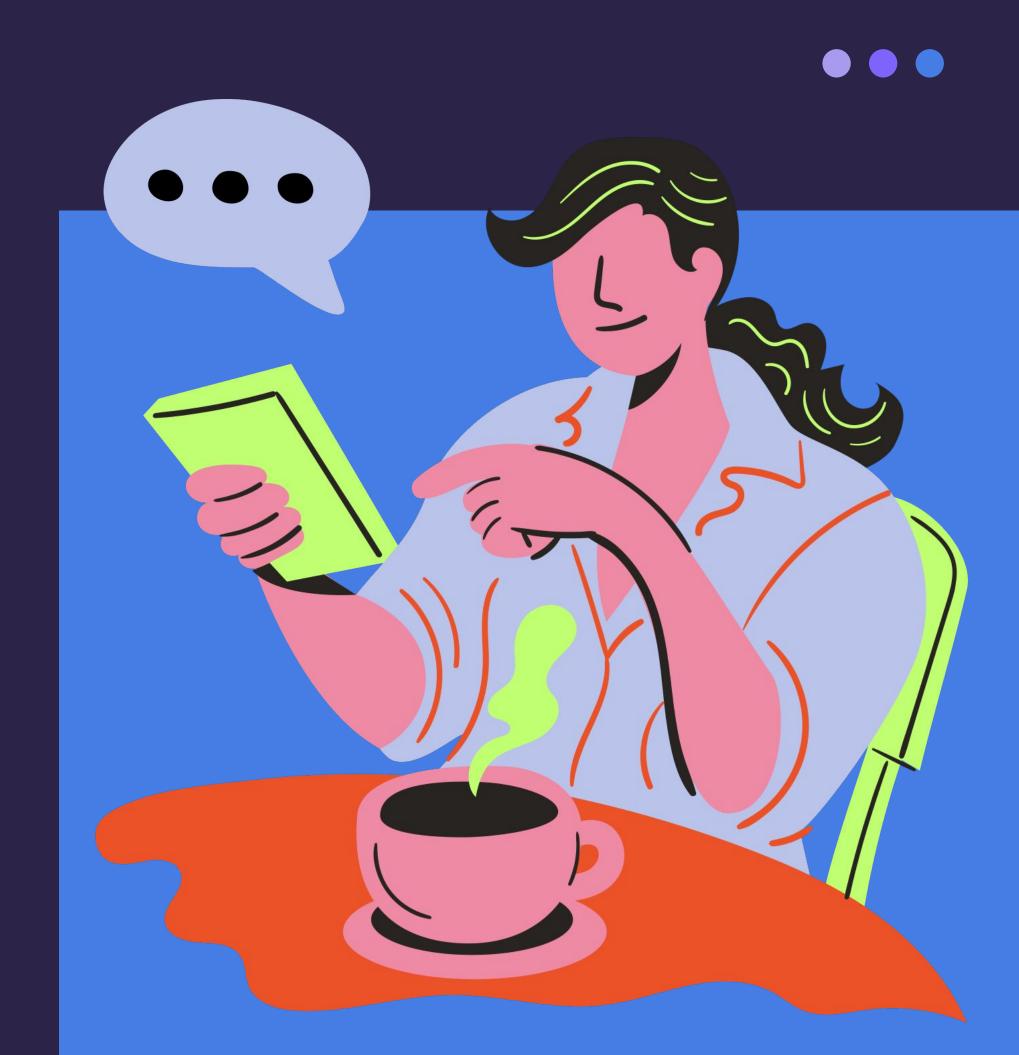
Users:

- Social media users
- Curious humans

Data:

- American Adults' Use of Social Media Pew Research
- American Teens' Use of Social Media Pew Research
- <u>Perception of Social Media Use on Teens'</u>

 <u>Mental Health</u> Pew Research
- <u>Social Media and Mental Health</u> from University of Liberal Arts Bangladesh





Lessons Learned

1

Data doesn't match

findings in mentioned research

4

Plots are not standardized

2

Overwhelming

amount of information

5

Plots **do not fit**on webpage / too
large

3

Limited instructions
and context for each
 plot

6

Website **UI/UX**issues

Issue 1: Data doesn't match findings

Previous

- 1. Mental Health and

 Lifestyle Dataset for

 Sentiment Analysis from

 Zenodo
- 2. <u>Social Media and Mental</u>

 <u>Health from Kaggle</u>

Changes

1.Introduce more
data

2.Remove
 references to
 prior research

- 3. Perception of Social

 Media Use on Teens'

 Mental Health Pew

 Research
- 4. <u>Social Media and Mental</u>

 <u>Health</u> from University of

 <u>Liberal Arts Bangladesh</u>

Issue 2: Overwhelming amount of information

Previous

6 tasks

Understand *overall impact* on mental health

Compare impact on mental health by age and gender

Discover impact on user behavior

Identify similarities across platforms

Discover ties with other *lifestyle* choices

Explore findings with a custom
 profile

Changes

1.Focus user

tasks down to

three major

insights

2.Consolidate

plots through

dashboards

New

4 tasks

Compare overall **social media use** across various demographics

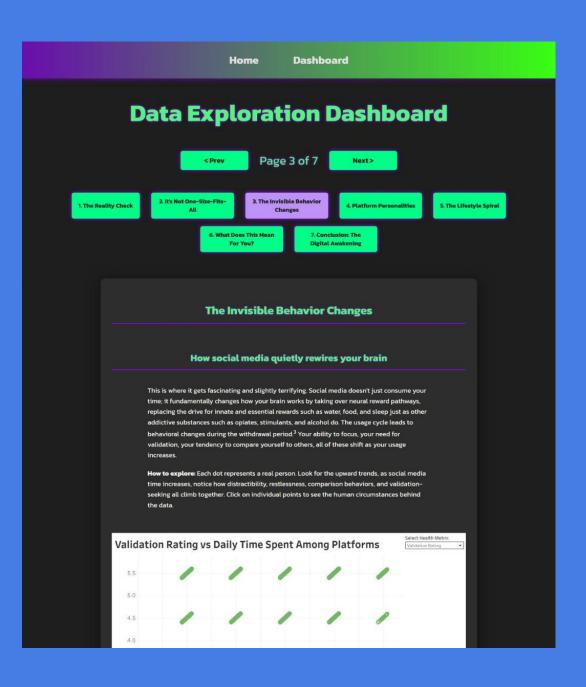
Understand *overall impact* on mental health

Discover impact on user behavior across various platforms

Explore findings with a custom profile

Issue 3: Limited instructions and context

Previous

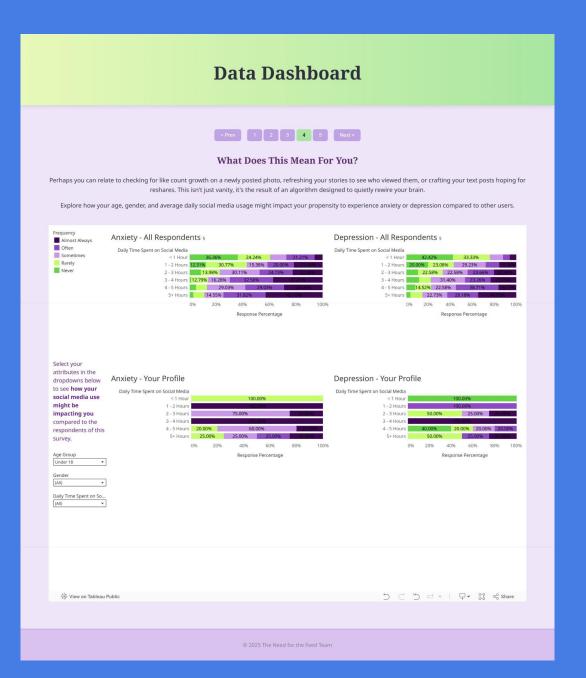


Changes

- 1.Improved clarity
 of interaction
 instructions
- 2.Removed misalignment

between the
context/instruct
ions & graph

3.Less text!



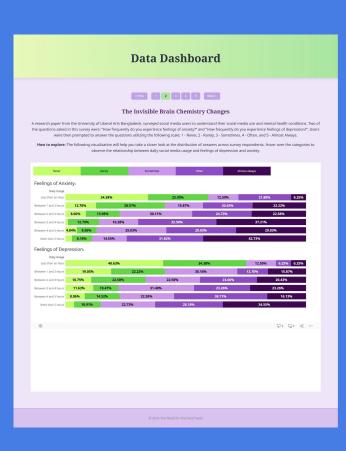
Issue 4: Plots are not standardized

Previous

The Lifestyle Spiral The Invisible Behavior Changes How social media quietly rewires your brain Validation Rating vs Daily Time Spent Among Platforms

Changes

- 1.Standardized font
 and color palette
 using a custom
 theme
- 2.Added consistent
 legends and axis
 labels to every
 plot
- 3.Designated QC TM

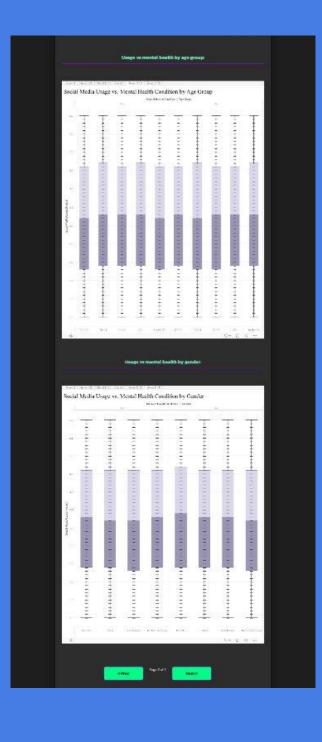




Issue 5: Plots do not fit on webpage / too large

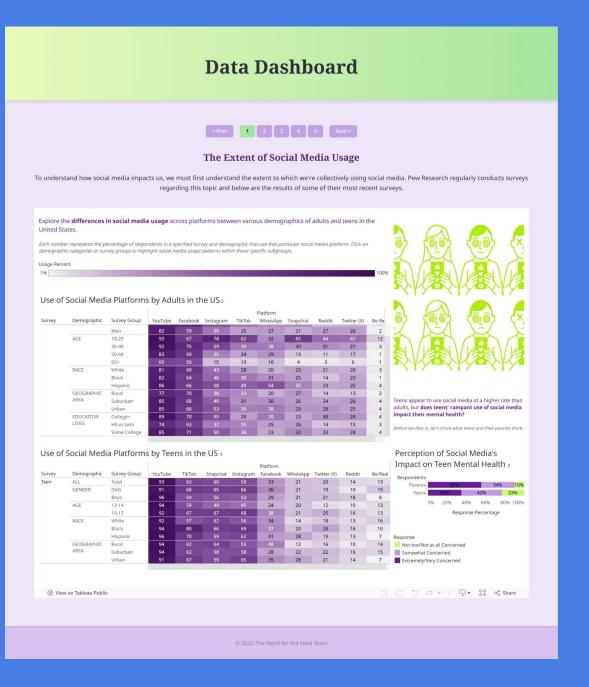
Previous





Changes

- 1.Consolidated box
 plots into clear
 dashboards
- 2.Configured all
 plots to
 dynamically
 change size to
 screen size



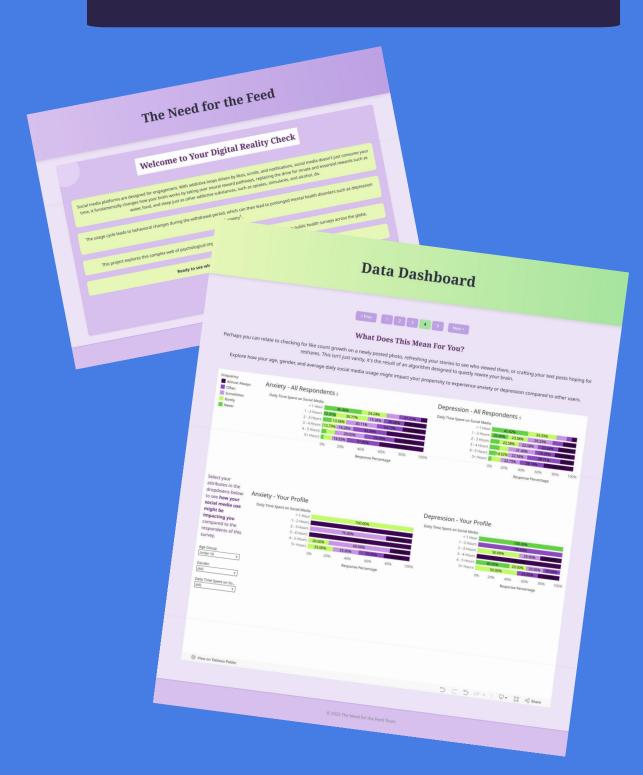
Issue 6: Website UI/UX issues

Previous

Platform Personalities Not all apps are created equal format varies across social media platforms, changing the way users interact with those platforms. Photo-based personal-sharing platforms like Instagram encourage networking while anonymous text-based forums like Reddit focus on knowledge sharing. How to explore: Select different platforms to see their unique "psychological fingerprints." Notice how Instagram users show higher comparison behaviors, while TikTok users report more distractibility. The bubble size represents user volume, bigger bubbles mean more people are experiencing these effects.

Changes

- 1.Light graph loading
 (no lagging)
- 2. Simplify navigation
- 3.Standardized plot
 design
- 4.Improved lighter theme

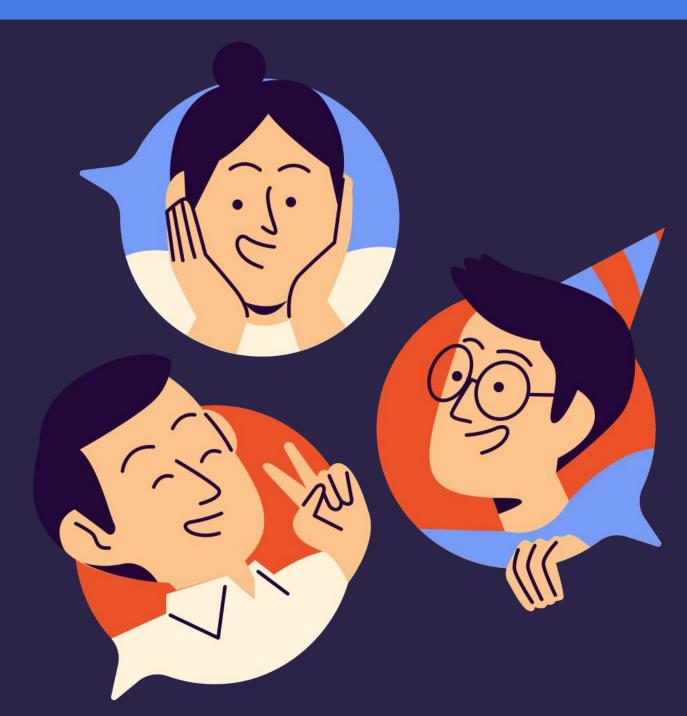




Insights & Applications

Key Insights:

- Teenagers report worse mental health scores than adults
- The more hours you spend online the more likely you are to experience feelings of depression or anxiety.
- Type of platform can worsen addictive behaviors



Use Cases:

• Policy

• Academic dissemination

• Self-assessment



THANK





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