

# Topic: Visualizing the Effects of Social Media Use on Mental Health

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## Background

In the past decade, social media has become a central part of many people's lives. Studies show that almost 60% of the world's population is on social media and 92% of people with internet are on social media<sup>1</sup>. While social media allows people to connect with other across the globe and form healthy connections, several recent studies have linked social media use to mental health issues, such as depression and anxiety<sup>2</sup>. Addictiveness, feelings of loneliness, and self-doubt are only some of the most common negative effects of social media, particularly among teens<sup>3</sup>. This project aims to use new datasets, particularly from the recent Covid years, to make my own conclusions about how social media use affects mental health.

## Project Description

This projects aims to examine the effects of social media on mental health through data visualizations. I will look at datasets of different social media platforms and different mental disorders to find potential similarities and differences. I will attempt to use diverse datasets that allow me to make conclusions about a wide range of people, rather than a subset of social media users. Using the data I find, I will present interactive visualizations as evidence for my conclusions. I will propose ways in which people can alter their use of social media to more

positively impact their mental health. I will also attempt to include a deliverable that would allow people to make their own observations beyond my conclusions.

## Potential Comparisons and Subtopics

- Comparing social media use and mental health by age
- Comparing social media use and mental health by gender
- Comparing social media use and mental health by geographic location
- Positive results of social media and how they relate to mental health
- Privacy concerns of social media and how they may relate to mental health

## Potential Sources and Datasets

- “Inferring Social Media Users’ Mental Health Status from Multimodal Information” -  
<https://aclanthology.org/2020.lrec-1.772.pdf>
- Mental Health Survey -  
[https://www.openicpsr.org/openicpsr/project/175582/version/V1/view?path=/openicpsr/175582/fcr:versions/V1/Data/Input/MentalHealthSurvey/Mental\\_Health\\_Survey\\_Feb\\_20\\_22.csv&type=file#](https://www.openicpsr.org/openicpsr/project/175582/version/V1/view?path=/openicpsr/175582/fcr:versions/V1/Data/Input/MentalHealthSurvey/Mental_Health_Survey_Feb_20_22.csv&type=file#)
- “Effect of social media on mental health during Covid-19 lockdowns in India” -  
<https://zenodo.org/record/5512843#.Y9tmUuzMLyg>
- “Data on language analyses in instagram users, who had engaged in non-suicidal self-injury” -  
[https://figshare.com/articles/dataset/Brown\\_Bendig\\_Instagram\\_Suicidality\\_Dataset\\_xlsx/7763333](https://figshare.com/articles/dataset/Brown_Bendig_Instagram_Suicidality_Dataset_xlsx/7763333)

- “Reddit Mental Health Dataset” - <https://zenodo.org/record/3941387#.Y9tm7OzMLDJ>

## Deliverables

- Processed datasets
- 3-5 data visualizations summarizing key comparisons I make
- Final report on conclusions that can be made based on my visualizations

## Tools

For this project, I will primarily be using D3.js, HTML, CSS, and Python to process datasets, create visualizations, and present them in an appealing webpage.

## Timeline

**Weeks 1-3:** Complete background research and find relevant datasets; Project Proposal

Presentation

**Weeks 4-5:** Clean and process datasets to be appropriate for visualizations

**Weeks 6-9:** Complete at least 2 visualizations; Midterm Progress Report Presentation

**Weeks 10-13:** Complete 2 - 3 more visualizations

**Weeks 14-16:** Final Report and Poster Presentation

## Sources

1. Chaffey, Dave. “Global Social Media Statistics Research Summary 2022 [June 2022].” Smart Insights, January 30, 2023.

<https://www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research/#:~:text=The%20number%20of%20social%20media,growth%20of%20%2B137%20million%20users.>

2. Walsh, Dylan. "Study: Social Media Use Linked to Decline in Mental Health." MIT Sloan, September 14, 2022.

<https://mitsloan.mit.edu/ideas-made-to-matter/study-social-media-use-linked-to-decline-mental-health.>

3. "The Effects of Social Media on Mental Health." Lancastergeneralhealth.org. Accessed February 1, 2023.

<https://www.lancastergeneralhealth.org/health-hub-home/2021/september/the-effects-of-social-media-on-mental-health.>