

# Effects of Social Media\*

## (COMP3125 Individual Project)

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### *Abstract—*

The objective of my search was to gauge whether there is a correlation between the rise of social media- specifically Instagram- and mental health in the United States. This research explores the multifaceted relationship between social media usage and mental health outcomes, focusing on both positive and negative effects. Social media platforms, including Instagram, and TikTok, have become central to modern communication and daily life, influencing individuals' self-perception, emotional well-being, and social dynamics. Through a combination of literature review and empirical analysis, this study investigates how excessive social media consumption correlates with mental health issues such as anxiety, depression, and self-worth.

[-https://www.statistico.com/s/instagram-monthly-active-users-by-year](https://www.statistico.com/s/instagram-monthly-active-users-by-year)

This data set measures growth of Instagram users from January 2013 to December 2021 and consists of an x axis : 'years'

And y values: 'number of users, in millions'

[Suicide Data and Statistics | Suicide Prevention | CDC](#)

This Data sets consists of an x axis: 'years' that spans from 2000 to 2018 and a y axis : 'Age-adjusted rates per 100,000' with 5 values from 11.0 – 15.0'.

### **I. Introduction**

Social media has become a very pervasive part of our society as more and more users are being created every day. With the rise of social media, it is to be expected that many other fabrics of our society would be affected such as mental health. In the past two decades, social media has fundamentally altered the way people communicate, share information, and engage with others, becoming an integral part of daily life. Platforms like Facebook, Instagram, Twitter, and more recently, TikTok, have revolutionized how individuals interact, create identities, and experience social connectedness. While these platforms offer numerous advantages, such as fostering relationships, providing opportunities for self-expression, and enabling the dissemination of information, there has been growing concern about their potential negative impact on mental health. With apps such as Instagram that are all about how many likes one receives on a post, gaining so much popularity over the years, there is reasonable concern that it might have a negative effect on feeling of self-worth for many Americans

### **II. Datasets**

-Mental Health Social Media Dataset.csv obtained from: [Mental-Health-and-Social-Media-Analysis/Mental Health Social Media Dataset.csv at main · randhir-05/Mental-Health-and-Social-Media-Analysis](#)

This data set is made up of data collected from surveyed university students. They are prompted to answer the questions such as: "how often do you use social media?" and "how often to you feel depressed?". They answer these questions with a numerical answer 1-5 where 1 is the least and 5 is the greatest.

### **III. Methodology**

My methodology for finding this assumed link between mental health and social media usage throughout the years was to employ Jupyter Notebook and functions such as Pandas to clean and organize the data I have obtained.

### **IV. Results**

Much to my surprise, the data that I obtained did not prove any real link from social media usage to mental health. The correlation between the two variables is not as high as I presumed and, in my research, I even found that in 2018, during the rapid rise of social media, suicide rates in the US actually went down. Even in 2020 when seemingly the whole world was on social media due to the pandemic, there was no surge in suicide or feelings of depression but the opposite. Similarly to 2018, the trend of mental adversity saw a drop in 2020 when social media usage was at an all-time high not just nationally but globally.

### **V. Discussion**

It was incredibly difficult to obtain the datasets for this project as many of them were private or only accessible through payment.

decline of mental health.

It was even to the point where I essentially had to create my own excel table with the data, I was not able to download. Because of this I believe that my research was a bit limited and that there are many more variables out there that I was not able to implement into my project to get a broader understanding of my main question: Does the rise of social media have a negative effect on mental health in the US?

To improve this search, I would conduct my own research in which I survey a multitude of random people and ask them how social media has affected them throughout the years and take their responses to create my own data set.

## VI. CONCLUSION

In conclusion, I found that there is not enough data to suggest that social media has a direct link to the

## REFERENCES

- [1] randhir-05, "Mental-Health-and-Social-Media-Analysis/Mental Health Social Media Dataset.csv at main · randhir-05/Mental-Health-and-Social-Media-Analysis," *GitHub*, 2024. <https://github.com/randhir-05/Mental-Health-and-Social-Media-Analysis/blob/main/Mental%20Health%20Social%20Media%20Data%20set.csv>
- [2] ] Statistico, "Instagram: Monthly Active Users, by year | Statistico," *Statistico*, Mar. 27, 2024. <https://www.statistico.com/s/instagram-monthly-active-users-by-year> (accessed Apr. 04, 2025).
- [3] Centers for Disease Control and Prevention, "Suicide data and statistics," *Suicide Prevention*, Oct. 29, 2024. <https://www.cdc.gov/suicide/facts/data.html>