

Psychological Effects of Technology and Social Media

PAWAN NIGADE¹, RUTUJA GOGAWALE², DR. SWATI JOSHI³

1,2,3 Department of Computer Science, PVG's College of Science and Commerce

4 Research Guide, Department of Computer Science, PVG's College of Science and Commerce

Abstract- Technology and social media have become an inseparable part of modern life, influencing communication, education, entertainment, and social interaction. While technological advancements provide several benefits such as easy access to information and global connectivity, excessive use of social media and digital devices can negatively impact psychological well-being. This research focuses on the psychological effects of technology and social media on individuals, especially teenagers and young adults.

The study examines issues such as anxiety, depression, low self-esteem, sleep disorders, cyberbullying, addiction, and social isolation caused by excessive social media usage. At the same time, it also highlights positive effects such as online learning, communication, emotional support, and awareness generation.

The research is based on surveys, literature reviews, and analysis of user behavior patterns. The findings suggest that uncontrolled use of technology and social media may significantly affect mental health and emotional stability. The study concludes that balanced and mindful use of technology is necessary to maintain psychological well-being and healthy digital habits.

Keywords: Technology, Social Media, Mental Health, Psychological Effects, Anxiety, Depression, Digital Addiction, Cyberbullying, Emotional Well-being, Teenagers.

1.INTRODUCTION

Technology and social media platforms have transformed human lifestyles and communication systems. Applications such as Instagram, Facebook, WhatsApp, Twitter, and YouTube have become widely used across all age groups. People now spend a significant amount of time online for communication, entertainment, education, and professional work.

Although technology offers convenience and connectivity, excessive dependency on digital platforms has created psychological challenges. Continuous exposure to social media can affect emotional health, concentration, sleep patterns, and interpersonal relationships. Social comparison, online pressure, cyberbullying, and digital addiction are increasing rapidly among young users.

This research aims to analyse both the positive and negative psychological impacts of technology and social media on individuals and society.

2.RESEARCH MOTIVATION

The rapid growth of social media usage among teenagers and young adults has raised concerns regarding mental health and emotional well-being. Many individuals experience anxiety, stress, loneliness, and low self-confidence due to excessive screen time and online interactions.

The motivation behind this research is to understand how technology affects human psychology and to create awareness about healthy digital usage habits. The study also aims to identify the balance between the benefits and harmful effects of social media.

3.RESEARCH AIM

The main aim of this research is to study and analyze the psychological effects of technology and social media on individuals, especially students and young adults, and to understand how excessive digital exposure influences mental and emotional health.

4. LITERATURE REVIEW

Several researchers have studied the psychological impact of technology and social media on individuals, especially teenagers and young adults. Studies show that increased usage of digital platforms affects emotional, social, and mental well-being in different ways.

According to Keles et al. (2020), excessive social media usage is directly associated with anxiety, depression, and psychological distress among adolescents. The study highlighted that prolonged screen time and online dependency negatively affect emotional stability and self-confidence.

Valkenburg and Peter (2011) explained that online communication influences self-esteem, personality development, and social behavior. Their research suggested that positive interactions on social media can improve confidence, while negative interactions may increase loneliness and emotional stress.

Another study conducted by Twenge and Campbell (2018) found that teenagers spending more time on smartphones and social networking platforms are more likely to experience mental health issues such as sadness, sleep deprivation, and suicidal thoughts. The researchers emphasized that excessive digital exposure reduces real-life social interaction.

Research by the American Psychological Association (APA) also identified cyberbullying as one of the major psychological risks associated with social media usage. Victims of online harassment often experience fear, anxiety, depression, and low self-esteem.

Studies on digital addiction indicate that constant notifications, likes, and online engagement activate reward systems in the brain, creating addictive behavior patterns. This addiction can reduce productivity, concentration, and academic performance among students.

Some researchers have also discussed the positive effects of technology and social media. Online learning platforms, virtual communication, awareness campaigns, and emotional support groups help people connect globally and access information easily. During the COVID-19 pandemic, technology played a significant role in education, healthcare communication, and remote working.

5. RESEARCH METHODOLOGY

The research methodology used in this study focuses on understanding the psychological effects of technology and social media through surveys, observations, and analysis of existing research papers. Both qualitative and quantitative methods were used to collect and analyze the data effectively.

5.1 Research Design and Approach

- **Design:** The research follows a descriptive research design to study the behavior, opinions, and psychological impact of social media usage on individuals. The study mainly focuses on identifying patterns related to stress, anxiety, emotional well-being, and digital addiction.
- **Approach:** A mixed research approach was used in this study, including both qualitative and quantitative methods. Quantitative data was collected through surveys and questionnaires, while qualitative analysis was performed using observations and literature review findings.

5.2 Data Collection and Sampling: The data for this research was collected using online questionnaires and survey forms. Responses were gathered through digital platforms such as Google Forms, WhatsApp, and email. The method helped in collecting information quickly and efficiently from a large number of participants.

- **Sampling Technique:** Random sampling technique was used in this research to collect responses from different participants. Students, teenagers, and young adults from various educational backgrounds were selected to ensure diversity and obtain reliable results for the study.
- **Sample Size:** The sample included all students who voluntarily responded to the survey (N = 50).

5.3 Research Instrument and Analysis

- **Instrument:** The main research instrument used in this study was a structured questionnaire containing multiple-choice and opinion-based questions. The questionnaire was designed to collect information regarding social media usage, screen time, emotional behavior, stress levels, and psychological effects experienced by participants.
- **Data Analysis Techniques:** The collected data was analyzed using percentage analysis and graphical representation methods such as charts and tables. The responses were interpreted to identify patterns, trends, and the overall psychological impact of technology and social media on individuals.

5.4 Implementation

The main objective of the study was to understand how excessive use of technology and social media affects mental health, emotional well-being, and daily lifestyle based on real responses collected from participants. The study was based on the experiences, opinions, and behavioral patterns of students and young adults rather than controlled experimental methods. A structured questionnaire was designed to collect information on important psychological and behavioral factors associated with technology and social media usage, including:

- daily screen time and frequency of social media usage
- commonly used social media platforms
- impact of social media on stress, anxiety, and emotional health
- sleep disturbances caused by excessive technology usage
- effects of online comparison on self-esteem and confidence
- social isolation and reduced face-to-face communication
- addiction to smartphones and digital devices
- cyberbullying experiences and online harassment
- impact of technology on concentration and academic performance
- awareness regarding healthy digital habits and balanced technology usage

The questionnaire included multiple-choice and opinion-based questions to ensure clarity, simplicity, and ease of response for participants.

Survey Distribution & Data Collection

The Google Form was shared with students through WhatsApp to ensure quick participation.

- A total of **30 respondents** completed the survey.
- Google Forms automatically recorded responses.
- Data was exported to Google Sheets and Excel for analysis.

The responses reflected real student behavior and awareness levels, making the findings suitable for interpretation.

5.5 Validation of Findings

Validation was ensured through:

The findings were validated by comparing survey results with existing research papers, journals, and psychological studies. Consistent patterns and repeated responses were considered reliable for the study.

- **Comparison with literature:** The findings of this study were compared with existing research on the psychological effects of technology and social media. The results are largely consistent with earlier studies that report a strong relationship between excessive social media use and mental health issues such as anxiety, depression, stress, and reduced self-esteem.
- **Theoretical alignment:** The findings of this research align well with established psychological and behavioral theories.

6.RESULTS:

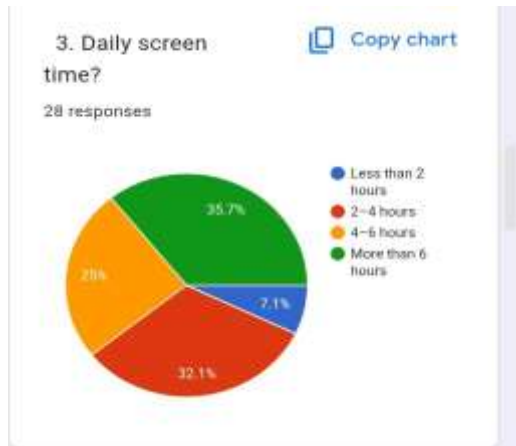


Fig 1: Above fig shows that most participants spend a large amount of time on screens daily. Around 35.7% of respondents use screens for more than 6 hours, indicating high digital exposure among users.

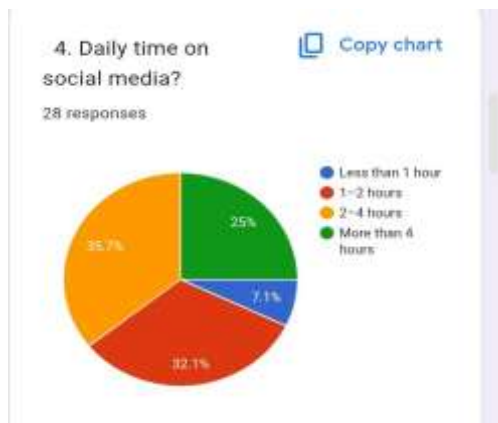


Fig 2: The survey reveals that a majority of participants spend 2–4 hours or more daily on social media platforms. This suggests that social media has become a regular part of everyday life and online interaction.

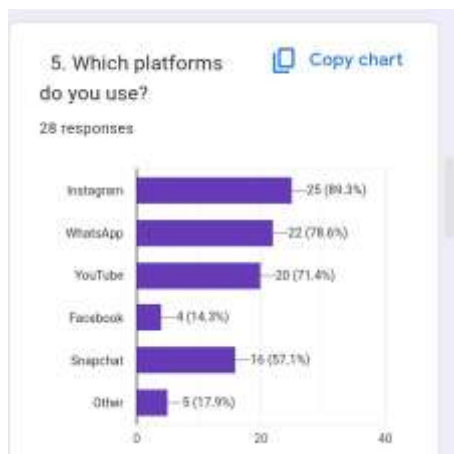


Fig 3: The results indicate that Instagram is the most widely used platform among participants, followed by WhatsApp and YouTube. Facebook has the lowest usage, showing changing social media preferences among young users.

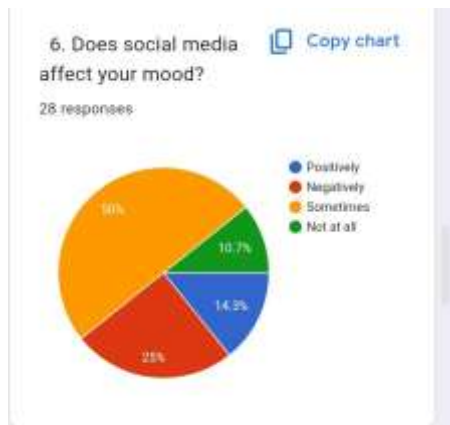


Fig 4: survey shows that people are affected mentally by social media 25% but most of the 50% people says it sometimes they are affected by it.

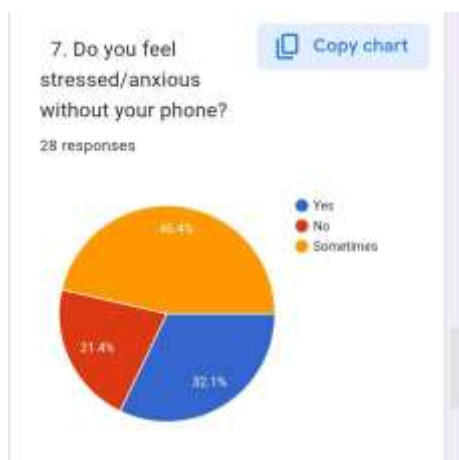


Fig 5: 46% people feels only sometimes anxious or stressed without the phone. But people who feels anxious without phone is more than people who feels nothing.

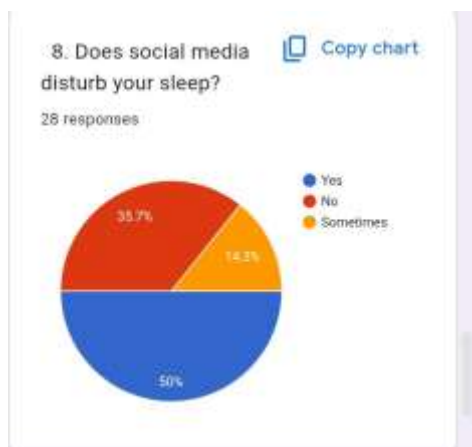


Fig 6: 50% people are saying that social media is disturbing their sleep, which is very harmful.

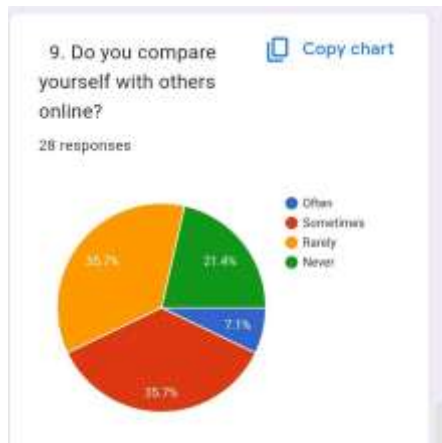


Fig 7: people who compares them with others count is same as the people who don't compares .

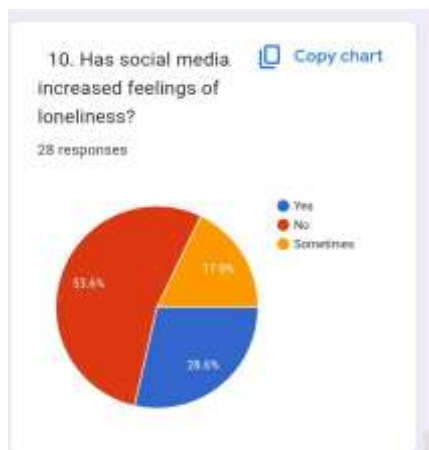


Fig 8: due to use of social media 53% people are saying that they don't feel alone just because of social media.

7.DISCUSSION

The findings of the survey clearly show that technology and social media have a strong influence on the psychological and emotional well-being of individuals. Most participants reported spending a large amount of time on screens daily, with 35.7% using digital devices for more than 6 hours per day. This indicates a high level of digital exposure among users, especially teenagers and young adults. Similarly, many respondents spend 2–4 hours or more daily on social media platforms, showing that social media has become an important part of everyday life, communication, and entertainment.

The survey results also reveal that Instagram is the most widely used platform, followed by WhatsApp and YouTube, while Facebook usage is comparatively low. This reflects changing social media preferences among younger generations, who are more attracted to visually engaging and interactive platforms.

The study highlights several psychological effects associated with social media usage. Around 25% of participants stated that social media directly affects their mental health, while nearly 50% mentioned that they are “sometimes” affected. This suggests that although not all users experience constant psychological pressure, social media still influences emotional well-being at different levels.

Another important finding is related to anxiety and smartphone dependency. Approximately 46% of respondents reported that they sometimes feel anxious or stressed without their phones. The number of people experiencing anxiety without phones is higher than those who feel completely unaffected, indicating growing emotional dependence on digital devices.

Sleep disturbance is another major issue identified in the study. About 50% of participants agreed that social media affects their sleep patterns. Excessive use of smartphones and social networking platforms, especially during nighttime, may reduce sleep quality and lead to mental fatigue, stress, and reduced concentration.

The survey also explored social comparison behavior. The number of participants who compare themselves with others online is almost equal to those who do not compare themselves. This shows that social media can influence self-esteem and confidence for some individuals, while others may use these platforms without experiencing comparison pressure.

At the same time, the findings indicate some positive psychological effects of social media. Around 53% of respondents stated that social media helps them avoid feelings of loneliness. Online communication, social interaction, and digital communities may provide emotional support and help users stay connected with friends, family, and society.

Overall, the discussion suggests that technology and social media have both positive and negative psychological impacts. The effect mainly depends on usage patterns, screen time, and individual behavior. Balanced and mindful use of technology is therefore necessary to maintain mental health, emotional stability, and healthy digital habits.

8.FUTURE SCOPE

This research can be extended to study the long-term psychological effects of social media and advanced technologies like AI, VR, and digital addiction on different age groups. Future studies can also focus on mental health awareness, screen-time management, and digital wellness applications.

The research scope can be improved by using larger surveys, advanced analysis methods, and real-time user behavior tracking to better understand the impact of technology on mental health.

9.CONCLUSION

Technology and social media have become an important part of modern life and greatly influence human behavior and mental health. The study shows that excessive use of social media can lead to stress, anxiety, sleep disturbances, reduced concentration, and emotional instability among users, especially teenagers and young adults.

At the same time, technology also provides benefits such as easy communication, online learning, awareness, and emotional support. Therefore, the psychological impact of technology depends mainly on how it is used. The study concludes that balanced and responsible use of social media is necessary to maintain mental well-being, healthy relationships, and positive digital habits.

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