



THE INFLUENCE OF SOCIAL MEDIA ON THE ACADEMIC PERFORMANCE AND BEHAVIOUR OF YOUNG STUDENTS: A MIXED-METHODS STUDY

¹Ashutosh Chavan , ²Prof. Shreeyash Sohani , ³Dr. Madhulika Gupta , ⁴Prof. Avinash Sonawane ,
⁵Mr. Dhanajay Patil

1 Students ,Department of Master of Computer Applications, Dr. D. Y. Patil Centre for Management & Research, Chikhali, Pune, India

2 Associate Professor , Department of Master of Business Administration, Dr. D. Y. Patil Centre for Management & Research, Chikhali, Pune, India

3 Assistant Professor, Department of Master of Computer Applications, Dr. D. Y. Patil Centre for Management & Research, Chikhali, Pune, India

4 Assistant Professor , Department of Master of Computer Applications, Dr. D. Y. Patil Centre for Management & Research, Chikhali, Pune, India

5 Administration Head, Dr. D. Y. Patil Centre for Management & Research, Chikhali, Pune, India

Abstract : The increasing integration of social media into the daily lives of young students has generated both opportunities and challenges for their academic and personal development. This mixed-methods study explores the extent to which social media influences the academic performance and behavioural patterns of students aged 13–21. A total of 200 participants from secondary schools and undergraduate programs were surveyed, and 20 students were interviewed. Quantitative results revealed a statistically significant negative correlation between excessive social media use and academic achievement, while qualitative findings highlighted issues of distraction, procrastination, and social comparison. Conversely, moderate and purposeful use of educational content on platforms such as YouTube, LinkedIn Learning, and discussion forums was found to enhance collaborative learning and engagement. The study recommends that educational institutions incorporate media literacy programs to promote balanced and productive social media use.

Keywords--Social media, academic performance, student behavior, mixed-methods, digital literacy, education technology

1.INTRODUCTION

The rapid expansion of social media has profoundly reshaped the ways in which young students communicate, learn, and socialize. Platforms such as Instagram, YouTube, WhatsApp, TikTok, and X (formerly Twitter) have become embedded in everyday routines, functioning simultaneously as sources of entertainment, networking, and information exchange. According to the Pew Research Center (2022), more than 95% of teenagers report regular use of social media, with over one-third acknowledging near-constant engagement. This pervasive presence underscores the central role of digital platforms in shaping contemporary student life.

While social media provides unique opportunities for academic collaboration, peer interaction, and access to educational resources, concerns remain regarding its potential adverse effects on attention span, study habits, and psychological well-being. Prior studies have demonstrated that the influence of social media is not uniform: it can either facilitate or hinder learning depending on the nature and intensity of use (Kirschner & Karpinski, 2010; Junco, 2012). Excessive and unregulated engagement often leads to distraction and procrastination, whereas purposeful and goal-oriented use can enhance collaborative learning and knowledge sharing.

Against this backdrop, the present study seeks to investigate both the constructive and detrimental impacts of social media on the academic performance and behavioural tendencies of students aged 13–21. By employing a mixed-methods approach that integrates quantitative survey data with qualitative insights from interviews, the research aims to capture a holistic understanding of how social media shapes educational outcomes and student behavior

2. REVIEW OF THE LITERATURE

The relationship between social media usage and academic performance has been extensively examined, though findings remain mixed. Early studies highlighted the **negative academic consequences** of excessive social networking. Kirschner and Karpinski (2010) reported that Facebook users had significantly lower grade point averages (GPAs) and devoted less time to studying compared to non-users. Similarly, Junco (2012) found a negative correlation between Facebook activity and college students' GPAs, suggesting that time spent online often displaces academic engagement.

Conversely, other scholars emphasize the **educational potential of social media** when used purposefully. Tess (2013) argued that platforms such as Twitter and Facebook can foster deeper learning and engagement when integrated into academic discussions. Ahn (2011) further demonstrated that social media facilitates peer interaction and informal learning opportunities, complementing traditional classroom instruction.

Beyond academic outcomes, researchers have investigated the **behavioral and psychological effects** of social media. Kuss and Griffiths (2017) identified risks of anxiety, sleep deprivation, and social withdrawal among adolescents who engage excessively online. Twenge et al. (2018) described the paradox of connectivity, wherein students remain constantly "connected" yet experience emotional detachment and loneliness. These findings underscore that social media's influence extends beyond grades, shaping broader patterns of well-being and social behavior.

Taken together, the literature suggests that social media exerts a **dual-faceted influence**. On one hand, unregulated and entertainment-driven use contributes to distraction, procrastination, and academic decline. On the other, structured and goal-oriented engagement—such as participation in study groups, accessing tutorials, or collaborative discussions—can enhance learning outcomes. The balance between these opposing effects appears to be mediated by factors such as **time management, digital literacy, and self-regulation**.

Literature Survey

Junco et al. (2011) investigated the educational use of Twitter in college settings. Their findings demonstrated that students who engaged with academic content on Twitter exhibited higher levels of engagement and improved academic performance. The research emphasized the importance of purposefully integrating social media within educational contexts.

Ahmed and Qazi (2011) focused on the dual nature of Facebook and YouTube as both academic tools and entertainment distractions. Their research involving Pakistani undergraduates revealed that academic oriented use of these platforms contributed positively to performance, while non-academic use correlated with lower outcomes.

Tess (2013) conducted a comprehensive review of social media applications in higher education. She found that platforms such as blogs, Facebook, YouTube, and wikis, when effectively integrated, supported collaborative learning, student engagement, and information retention. However, the study also noted that improper or excessive use could diminish educational value.

Greenhow and Lewin (2016) explored the role of digital competence and social media literacy in academic success. They concluded that students possessing stronger digital literacy skills were better equipped to evaluate online content, positively influencing their learning outcomes. Their work underscored the value of teaching students to navigate social media responsibly.

Al-Rahmi and Zeki (2017) investigated how social media facilitated collaborative learning. Their findings indicated that platforms like WhatsApp and Facebook helped students interact, clarify academic doubts, and maintain contact with peers and instructors. The study concluded that such interaction enhanced academic motivation and overall performance.

3. OBJECTIVES OF THE STUDY

The study was guided by the following objectives:

- **To examine the relationship between social media use and academic performance** among young students, with a focus on how varying levels of engagement influence grades and study habits.
- **To explore behavioural and psychological changes** associated with prolonged social media use, including issues of distraction, procrastination, anxiety, and social comparison.
- **To identify patterns of social media engagement that contribute positively to learning**, such as participation in study groups, accessing tutorials, and collaborative discussions on educational platforms.
- **To provide actionable recommendations** for promoting balanced and productive social media use, enabling students to harness its benefits while minimizing adverse effects.

4. RESEARCH METHODOLOGY

4.1 Research Design

A **mixed-methods design** was adopted to capture both numerical trends and personal experiences. The quantitative component involved structured surveys to measure usage patterns and academic outcomes, while the qualitative component employed semi-structured interviews to gain deeper insights into students' perceptions and lived experiences.

4.2 Sample and Population

The study surveyed **200 students** (60% female, 40% male) aged **13–21 years**, drawn from secondary schools and undergraduate institutions in **Mumbai and Pune, India**. A **stratified sampling technique** ensured balanced representation across academic levels, gender, and age groups

4.3 Data Collection Tools

- **Survey Questionnaire:** Designed to measure frequency, duration, and purpose of social media use, alongside indicators of academic performance and behavioural traits.
- **Semi-Structured Interviews:** Conducted with **20 students**, allowing participants to share personal experiences, challenges, and strategies related to social media use in their academic lives.

4.4 Data Analysis

- **Quantitative Data:** Processed using **SPSS v25**, employing descriptive statistics, Pearson correlation, and regression analysis to identify relationships between social media use and GPA.
- **Qualitative Data:** Analyzed thematically, with coding to identify recurrent behavioural and emotional patterns such as distraction, anxiety, and collaborative learning.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Quantitative Analysis

5.1.1 Usage Patterns

- A majority (**68%**) reported using social media for **3–5 hours daily**, indicating high engagement.
- The most popular platforms were **Instagram (84%)**, **YouTube (78%)**, and **WhatsApp (72%)**, reflecting a mix of entertainment and communication purposes.
- Alarmingly, **42% admitted to using social media during study hours**, suggesting interference with academic focus.

5.1.2 Academic Correlation

- A **negative correlation ($r = -0.47, p < 0.01$)** was observed between hours spent on social media and GPA.
- Students limiting use to **under 2 hours/day** achieved an average GPA of **3.5**, while heavy users (>5 hours/day) averaged **2.8 GPA**, highlighting the detrimental impact of excessive use.

5.1.3 Purpose of Use

- Students engaging in **educational activities** (tutorials, study groups, research) reported higher academic performance (**mean GPA = 3.6**).
- Those using social media primarily for **entertainment** scored lower (**mean GPA = 2.9**), reinforcing the importance of purposeful engagement.

5.2 Qualitative Analysis

5.2.1 Distraction and Procrastination

- Many students described difficulty concentrating due to constant notifications and online interactions.
- Statements such as *"I can't study without checking my messages"* illustrate how compulsive habits undermine productivity.

5.2.2 Emotional and Social Effects

- Several interviewees reported **anxiety and low self-esteem** stemming from social comparison.
- Continuous exposure to peers' achievements on platforms like Instagram created pressure and feelings of inadequacy.

5.2.3 Productive Collaboration

- A subset of students leveraged platforms like **YouTube, LinkedIn Learning, and Reddit** for academic discussions and peer tutoring.
- These students highlighted that **goal-oriented use** enhanced comprehension, motivation, and collaborative learning outcomes.

- **FINDINGS OF THE STUDY** There exists a **significant negative correlation** between excessive social media use and academic performance.
- Behavioural consequences include procrastination, anxiety, and reduced real-world social interaction.
- Purpose-driven social media engagement contributes positively to academic outcomes.
- Time management and digital literacy mediate the extent of social media’s impact.
- Gender differences were minimal, but older students demonstrated greater self-regulation.
- Students who practiced digital discipline achieved higher academic consistency.

6.1. Quantitative Findings

- **Usage Patterns**
 - 68% of students reported 3–5 hours of daily social media use.
 - Instagram (84%), YouTube (78%), and WhatsApp (72%) were most popular.
 - 42% admitted to using social media during study hours.
- **Academic Correlation**
 - Pearson correlation: $r = -0.47, p < 0.01$ → significant negative relationship between hours spent and GPA.
 - Light users (<2 hrs/day): GPA = 3.5
 - Heavy users (>5 hrs/day): GPA = 2.8
- **Purpose of Use**
 - Educational use (tutorials, study groups): GPA = 3.6
 - Entertainment use (scrolling, memes, videos): GPA = 2.9

Social Media Use (hrs/day)	Avg GPA	Primary Purpose	Academic Outcome
< 2 hrs	3.5	Mixed/Educational	High performance
3–5 hrs	3.1	Entertainment	Moderate decline
> 5 hrs	2.8	Entertainment	Significant decline

Table 1: Social Media Use and Academic Performance

6.2. Qualitative Findings

Thematic analysis of interviews revealed three dominant themes:

- 1. Distraction & Procrastination**
 - Notifications disrupted concentration.
 - Students admitted compulsive checking during study hours.
- 2. Emotional & Social Effects**
 - Anxiety and comparison due to peers’ achievements on Instagram.
 - Reduced self-esteem and sleep deprivation reported.
- 3. Productive Collaboration**
 - Students using YouTube, Reddit, and LinkedIn Learning for study groups and tutorials reported improved comprehension and motivation.

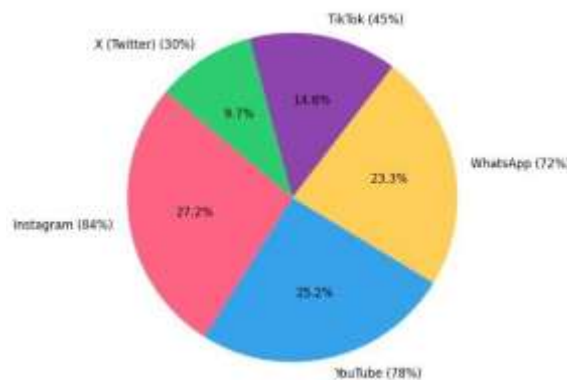


Fig. Popularity of Social Media Platforms Among Students

6.3. Discussion

- 1. Negative Academic Impact**

- Excessive use strongly correlated with lower GPA. Aligns with Kirschner & Karpinski (2010) and Junco (2012) who found similar negative effects.
2. **Behavioural Consequences**
 - Procrastination and anxiety mirror findings of Kuss & Griffiths (2017).
 - The paradox of connectivity (Twenge et al., 2018) was evident in students' emotional detachment despite constant online presence.
 3. **Positive Academic Potential**
 - Purpose-driven use (tutorials, forums) improved GPA and engagement.
 - Supports Tess (2013) and Ahn (2011) who highlighted collaborative learning benefits.
 4. **Moderating Factors**
 - Digital literacy and time management emerged as key mediators.
 - Older students showed better self-regulation, suggesting maturity influences discipline.
 5. **Implications for Education**
 - Institutions should integrate **media literacy programs**.
 - Encourage **structured use of educational platforms** (YouTube, LinkedIn Learning).
 - Promote **time management workshops** to reduce procrastination.

6. CONCLUSION

The study concludes that social media exerts both positive and negative influences on young students. While it can enhance collaborative learning and provide valuable educational resources, unregulated use contributes to distraction, procrastination, and academic decline. Institutions should prioritize **media literacy education** and **time management training** to promote mindful social media engagement.

Future research should focus on longitudinal data to understand the long-term behavioural and cognitive effects of social media. As the digital ecosystem continues to evolve, educators and policymakers must balance technological integration with strategies that safeguard students' academic and emotional well-being.

REFERENCES

- [1] P. A. Kirschner and A. C. Karpinski, "Facebook® and academic performance," *Computers in Human Behavior*, vol. 26, no. 6, pp. 1237–1245, 2010. <https://doi.org/10.1016/j.chb.2010.03.024>
- [2] J. Ahn, "The effect of social network sites on adolescents' social and academic development: Current theories and controversies," *Journal of the American Society for Information Science and Technology*, vol. 62, no. 8, pp. 1435–1445, 2011. <https://doi.org/10.1002/asi.21540>
- [3] J. R. Junco, G. Heiberger, and E. Loken, "The effect of Twitter on college student engagement and grades," *Journal of Computer Assisted Learning*, vol. 27, no. 2, pp. 119–132, 2011.
- [4] I. Ahmed and T. F. Qazi, "A look out for academic impacts of social networking sites (SNSs): A student based perspective," *African Journal of Business Management*, vol. 5, no. 12, pp. 5022–5031, 2011.
- [5] R. Junco, "Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance," *Computers in Human Behavior*, vol. 28, no. 1, pp. 187–198, 2012. <https://doi.org/10.1016/j.chb.2011.08.026>
- [6] P. A. Tess, "The role of social media in higher education classes (real and virtual) – A literature review," *Computers in Human Behavior*, vol. 29, no. 5, pp. A60–A68, 2013. <https://doi.org/10.1016/j.chb.2012.12.032>
- [7] C. Greenhow and C. Lewin, "Social media and education: Reconceptualizing the boundaries of formal and informal learning," *Learning, Media and Technology*, vol. 41, no. 1, pp. 6–30, 2016.
- [8] D. J. Kuss and M. D. Griffiths, "Social networking sites and addiction: Ten lessons learned," *International Journal of Environmental Research and Public Health*, vol. 14, no. 3, p. 311, 2017. <https://doi.org/10.3390/ijerph14030311>
- [9] W. M. Al-Rahmi and A. M. Zeki, "A model of using social media for collaborative learning to enhance learners' performance on learning," *Journal of King Saud University – Computer and Information Sciences*, vol. 29, no. 4, pp. 526–535, 2017.
- [10] J. M. Twenge, G. N. Martin, and W. K. Campbell, "Decreases in psychological well-being among American adolescents after 2012 and links to screen time," *Emotion*, vol. 18, no. 6, pp. 765–780, 2018. <https://doi.org/10.1037/emo0000403>

[11] Pew Research Center, "Teens, social media, and technology 2022," *Pew Research Center*, Aug. 10, 2022. Available: <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/>

