The Impact of Social Media on Student Academic Performance and Digital Wellbeing

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Abstract, The increasing use of social media among students has raised concerns regarding its impact on academic performance and digital well-being. This study aims to examine the relationship between social media usage, student learning outcomes, and overall well-being in a digital environment. Using a mixed-methods approach, data were collected through surveys and in-depth interviews with high school and university students. The findings indicate that while social media can serve as a valuable tool for academic collaboration and resource-sharing, excessive and unregulated usage often leads to distractions, reduced academic performance, and negative effects on mental health. The study highlights the need for balanced social media engagement and the implementation of digital literacy programs to promote responsible usage. These insights contribute to the ongoing discussion on digital well-being and offer practical recommendations for students, educators, and policymakers.

Keywords: Academic performance, digital well-being, social media, student learning, technology use.

1. INTRODUCTION

The rapid expansion of social media usage among students has transformed the way they interact, learn, and engage with academic content. Platforms such as Facebook, Instagram, Twitter, and TikTok have become integral to students' daily lives, influencing their study habits, communication, and mental well-being (Kaplan & Haenlein, 2019). While social media provides access to educational resources and peer discussions, concerns have arisen regarding its potential to distract students and negatively impact academic performance (Junco, 2015). Understanding this dynamic is crucial as digital engagement continues to grow, requiring further research on its implications for students' academic success and overall well-being.

Several studies have explored the relationship between social media usage and academic achievement, yielding mixed results. On one hand, social media can facilitate collaborative learning, enabling students to share information, access online study groups, and seek academic support (Selwyn, 2016). On the other hand, excessive engagement in non-academic content often leads to procrastination, reduced concentration, and lower grades (Al-Menayes, 2015). The impact of social media varies depending on factors such as usage duration, content type, and self-regulation skills, highlighting the need for a balanced approach to digital engagement.

Despite the growing body of research on this topic, a gap remains in understanding how social media affects digital well-being, particularly in relation to students' mental health and stress levels. Studies indicate that high social media consumption can lead to anxiety, sleep

disturbances, and reduced self-esteem (Twenge et al., 2018). However, positive aspects, such as emotional support and community building, suggest that social media plays a dual role in shaping students' psychological well-being (Best, Manktelow, & Taylor, 2014). Addressing this gap is essential for developing strategies to optimize social media usage without compromising students' health and academic performance.

This study seeks to bridge the existing research gap by examining both the positive and negative effects of social media on student academic performance and digital well-being. Unlike previous studies that focus solely on academic outcomes, this research takes a holistic approach by integrating aspects of digital literacy, mental health, and responsible social media engagement. By employing a mixed-methods approach, this study aims to provide comprehensive insights into how students navigate social media in an academic context and what measures can be implemented to enhance its benefits while mitigating risks.

The findings of this study will contribute to the broader discourse on digital education and well-being, offering valuable recommendations for students, educators, and policymakers. As digital technologies continue to evolve, understanding their influence on learning and mental health is essential for creating sustainable academic environments. This research underscores the urgency of promoting digital literacy programs that empower students to harness social media effectively while maintaining a healthy balance in their academic and personal lives.

2. THEORETICAL FRAMEWORK

The use of social media in academic settings can be understood through several theoretical perspectives. One of the most relevant frameworks is the Cognitive Load Theory (Sweller, 1994), which suggests that excessive engagement with non-academic social media content increases extraneous cognitive load, thereby reducing students' ability to focus on learning tasks. When students divide their attention between academic work and social media distractions, their working memory capacity is overloaded, leading to decreased academic performance (Kirschner & Karpinski, 2010).

Another pertinent theory is the Uses and Gratifications Theory (Katz, Blumler, & Gurevitch, 1973), which explains why students engage with social media. This theory suggests that individuals use social media to fulfill specific needs, such as information-seeking, entertainment, social interaction, or emotional support. While academic-related uses of social media can enhance learning outcomes, excessive reliance on these platforms for entertainment or socialization may lead to negative academic consequences (Quan-Haase & Young, 2010).

Furthermore, the Self-Regulation Theory (Zimmerman, 2000) provides insight into how students manage their social media usage in academic contexts. According to this theory, students who exhibit high self-regulation skills can control their engagement with social media to optimize learning outcomes, whereas those with poor self-regulation may experience academic setbacks. Prior research highlights that students who set clear academic goals and monitor their social media usage tend to perform better academically (Ağır & Keskin, 2019).

Empirical studies also provide mixed findings on the relationship between social media usage and academic performance. For example, Junco (2012) found that frequent Facebook use negatively correlates with GPA, whereas studies by Manca and Ranieri (2016) suggest that social media can be an effective tool for academic engagement when used purposefully. Similarly, research by Wang, Chen, and Liang (2011) emphasizes that the quality of social media usage, rather than its frequency, is a more critical determinant of its academic impact.

Given these theoretical perspectives, this study seeks to explore the role of social media in shaping students' academic performance and digital well-being. The research aims to provide a balanced understanding of how students can maximize the benefits of social media while minimizing its adverse effects.

3. RESEARCH METHODOLOGY

This study employs a quantitative research design to analyze the impact of social media on students' academic performance and digital wellbeing. The research follows a survey-based approach, collecting data through structured questionnaires distributed to university students. According to Creswell (2014), a survey method is effective for capturing large-scale trends and generalizable insights.

Population and Sample

The population of this study comprises undergraduate students from multiple universities. A stratified random sampling technique is employed to ensure a representative sample, following the guidelines of Sekaran & Bougie (2016). The final sample size consists of 500 students, determined using Krejcie & Morgan's (1970) sampling formula.

Data Collection Techniques

The primary data collection method is a self-administered questionnaire, which includes both closed-ended and Likert-scale questions. The questionnaire is adapted from validated instruments used in prior studies (e.g., Junco, 2012; Valkenburg & Peter, 2011). To ensure content validity, the questionnaire is reviewed by subject-matter experts.

Data Analysis

The collected data undergoes statistical analysis using SPSS software. Descriptive statistics summarize the demographic characteristics of the respondents, while inferential tests such as multiple regression analysis assess the relationships between social media usage, academic performance, and digital wellbeing. Reliability testing follows the Cronbach's Alpha method, adhering to Nunnally & Bernstein's (1994) standard threshold of 0.7.

Research Model

The conceptual framework for this study is based on the Uses and Gratifications Theory (Katz et al., 1973) and the Cognitive Load Theory (Sweller, 1988). The model hypothesizes that social media usage influences academic performance both directly and indirectly through digital wellbeing. Key variables include time spent on social media (X_1), academic engagement (Y_1), and perceived stress levels (Y_2).

This research methodology ensures a rigorous and systematic approach, allowing for valid and reliable findings that contribute to the existing literature on social media and academic outcomes.

4. RESULTS AND DISCUSSION

Data Collection Process

Data were collected over a period of three months (January - March 2024) from multiple universities across different regions. A total of 500 valid responses were obtained from the administered questionnaires, achieving a response rate of 85%. The survey was conducted online to ensure accessibility and efficiency in data collection, aligning with similar methodologies used in prior studies (Junco, 2012).

Data Analysis Results

The descriptive statistics in Table 1 summarize key variables, including social media usage time, academic engagement, and perceived stress levels. The mean social media usage was found to be 3.5 hours per day (SD = 1.2), while academic engagement showed a mean score of 3.8 on a 5-point Likert scale (SD = 0.9).

Table 1: Descriptive Statistics of Key Variables

Variable	Mean	SD
Social Media Usage (hours/day)	3.5	1.2
Academic Engagement (Likert Scale 1-5)	3.8	0.9
Perceived Stress Level (Likert Scale 1-5)	3.2	1.0

Relationship Between Social Media and Academic Performance

A multiple regression analysis was conducted to assess the relationship between social media usage and academic performance. The results indicate a negative correlation (β = -0.35, $p < 0.01$), supporting findings from Valkenburg & Peter (2011), which suggest excessive social media use may negatively affect academic outcomes.

Furthermore, mediation analysis revealed that digital wellbeing significantly influences the relationship between social media usage and academic performance (β = -0.25, $p < 0.05$), in line with the Cognitive Load Theory (Sweller, 1988).

Comparison with Previous Studies

The findings align with research by Kirschner & Karpinski (2010), who reported that students who spend excessive time on social media tend to have lower academic performance. However, contrary to previous studies (e.g., Pasek et al., 2009), this study finds that moderate social media usage does not significantly impact engagement levels.

Theoretical and Practical Implications

From a theoretical perspective, this study extends the Uses and Gratifications Theory (Katz et al., 1973) by demonstrating the mediating role of digital wellbeing in academic outcomes. Practically, educational institutions should promote balanced social media use and implement digital wellbeing programs to mitigate potential adverse effects on students' academic performance.

Overall, these results contribute to ongoing discussions about the impact of social media on education and provide actionable insights for educators, policymakers, and students.

5. CONCLUSION AND RECOMMENDATIONS

This study concludes that social media usage has a significant impact on student academic performance and digital wellbeing. The findings indicate that excessive social media use negatively correlates with academic achievement (β = -0.35, $p < 0.01$), consistent with prior studies (Valkenburg & Peter, 2011; Kirschner & Karpinski, 2010). Additionally, digital wellbeing plays a crucial mediating role, influencing how social media habits affect students' engagement and stress levels (Sweller, 1988). The study supports the Cognitive Load Theory and the Uses and Gratifications Theory by illustrating the dual effects of social media as both an academic tool and a source of cognitive distraction.

Based on these conclusions, it is recommended that educational institutions implement policies that promote balanced social media usage while integrating digital wellbeing programs to enhance students' academic focus. Universities should consider workshops on time

management and digital literacy to help students develop healthier online habits (Katz et al., 1973). Future research should explore longitudinal impacts and include a more diverse student population to strengthen the generalizability of findings. Acknowledging the study's limitation in its cross-sectional design, further studies incorporating experimental or mixed-method approaches are suggested to provide deeper insights into the evolving relationship between social media and academic success.

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