

# The Effects of New Media Communication on University Students: A Quantitative Study at Management and Science University (MSU)

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## Abstract

The emergence of new media technologies has transformed communication practices among university students. This study explores how digital platforms influence academic performance, social interactions, mental health, and behavioral habits. Conducted among 200 students at Management and Science University (MSU), the research applies a quantitative methodology using structured surveys. The study identifies key relationships between usage patterns of new media and variables including academic impact, social and psychological well-being, and behavioral usage habits. Findings indicate that while new media offers academic and social benefits, excessive or unstructured usage may contribute to cognitive overload, reduced academic focus, and emotional strain. Recommendations for students, educators, and policymakers are provided to foster responsible digital engagement. The study adds value by proposing targeted interventions for institutions aiming to enhance students' digital literacy and wellness support systems.

## Keywords

New Media, University Students, Digital Communication, Academic Impact, Mental Health, Usage Patterns

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## 1. Introduction

Digital technology has redefined how university students communicate, learn, and interact socially. Platforms such as social networking sites, instant messaging apps, and online forums serve as integral tools for both academic and personal engagement. These digital tools offer immediate access to information, facilitate collaboration, and provide avenues for social interaction beyond traditional classroom boundaries. However, they also present challenges, including academic distractions, mental health risks, and social isolation.

With the accelerated adoption of online learning, particularly during global crises like the COVID-19 pandemic, the reliance on digital platforms has become even more pronounced. Students increasingly depend on tools like Zoom, Google Meet, Microsoft Teams, and asynchronous learning platforms for coursework. At the same time, they engage socially through Instagram, WhatsApp, TikTok, and Telegram. While these tools create new opportunities, they can lead to excessive screen time, disrupted sleep schedules, and emotional distress. This study investigates the multifaceted effects of new media communication on university students' academic success and personal development, focusing on behavioral, psychological, and performance-related aspects.

## 2. Literature Review

The growing use of digital platforms among students has sparked interest in their educational and psychological effects. Ahmad et al. (2023) found that social media enhances collaborative learning but may distract students from academic goals. Bond (2020) suggests flipped learning supported by digital media boosts student engagement. However, overuse of non-academic media may lead to reduced focus and cognitive overload.

Sokolova (2019) identifies emotional downsides of new media, including anxiety and weakened face-to-face social skills. Social media can foster unrealistic social comparisons, leading to dissatisfaction and reduced self-esteem. Moreover, the compulsive use of digital platforms impacts time management and lifestyle habits (Ahmad et al., 2023). Students may sacrifice physical activity, socializing, and academic preparation to spend time scrolling or engaging online. Additional research supports these concerns. Valkenburg and Peter (2011) highlight how social media use affects adolescents' and young adults' well-being, indicating both positive outcomes such as increased peer support and negative consequences such as depression. Similarly, Rosen et al. (2013) emphasize that students frequently experience "techno-brain burnout," a state of cognitive fatigue caused by constant digital interruptions, particularly notifications from mobile apps and instant messaging platforms.

Furthermore, Junco (2012) found a negative correlation between time spent on Facebook and student GPA, suggesting that students who engage more heavily with social platforms for non-academic purposes are at a greater risk of academic underperformance. The same study revealed that multitasking with social media while studying reduces retention and efficiency, supporting the cognitive concerns raised by Sweller (1988) under the Cognitive Load Theory. New media also affects students' sense of identity and belonging. According to Boyd (2014), online platforms serve as arenas for identity construction, especially among young people. However, constant exposure to idealized representations of others can result in a distorted self-image and pressure to conform to social norms (Perloff, 2014).

Despite these drawbacks, responsible media consumption and digital literacy can transform new media into a powerful learning and social tool. Universities are increasingly exploring digital engagement strategies that encourage healthy behaviors and academic integration. For instance, Selwyn (2016) proposes that institutions should embrace a more critical pedagogy of digital media use, guiding students to become reflective and ethical users of technology. Integrating digital literacy modules within academic programs may empower students to balance their media engagement effectively, leveraging its benefits while minimizing associated risks.

## 3. Theoretical Framework

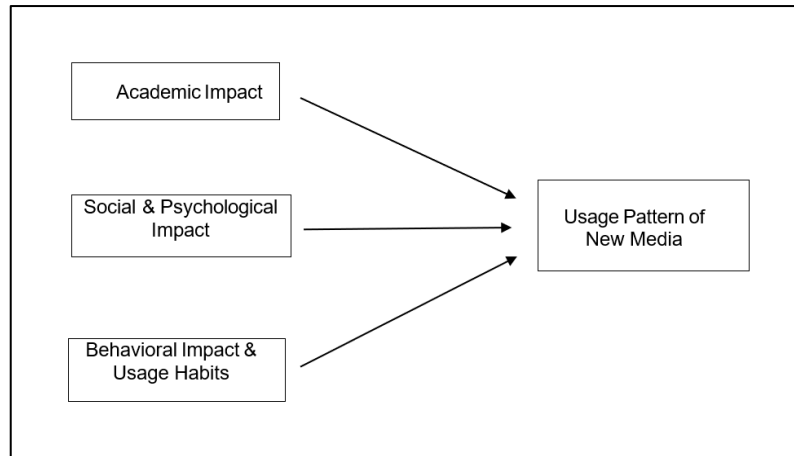
This study is grounded in three well-established communication and psychological theories that collectively offer a robust framework for analyzing the multifaceted effects of new media on university students: Uses and Gratifications Theory (UGT), Cognitive Load Theory (CLT), and Social Comparison Theory (SCT).

**Uses and Gratifications Theory (UGT)** proposed by Katz, Blumler, and Gurevitch (1973). UGT postulates that individuals actively seek out media content to satisfy specific needs—be it information-seeking, entertainment, personal identity, or social interaction. Among university students, these motivations are evident in their use of various platforms: they might use WhatsApp and Telegram for academic collaboration, YouTube and TikTok for entertainment, and Instagram or Facebook to maintain social ties. UGT helps explain the diverse purposes behind media consumption, emphasizing that students are not passive recipients but active users whose choices are shaped by their individual desires. The theory is especially relevant in understanding how students balance educational use of media with recreational and social uses.

**Cognitive Load Theory (CLT)** introduced by Sweller (1988). CLT emphasizes the limitations of working memory when processing information. When students juggle multiple digital inputs—such as engaging in online lectures while simultaneously browsing social media—they are at risk of experiencing cognitive overload. This overload can impair comprehension, retention, and the ability to focus on complex academic tasks.

The theory underscores the challenges of digital multitasking, which is prevalent in modern learning environments. CLT provides a scientific rationale for why prolonged, unregulated use of digital media may hinder academic performance. According to Mayer (2005), when cognitive resources are stretched across too many stimuli, learners are less likely to process information meaningfully.

**Social Comparison Theory (SCT)** developed by Festinger (1954). SCT proposes that individuals evaluate their own social and personal worth by comparing themselves to others. Social media environments, particularly visual platforms like Instagram and TikTok, provide a curated stream of idealized lifestyles and achievements. For university students, constant exposure to peers' accomplishments, appearances, or social activities can lead to feelings of inadequacy, stress, or lowered self-esteem. This phenomenon, sometimes termed "Facebook depression" (Kross et al., 2013), illustrates how social comparison online can negatively impact psychological well-being. SCT is therefore essential in explaining the emotional implications of social media usage, especially in youth populations who are still forming their identities.



**Fig. 1:** Research framework

## 4. Methodology

A quantitative survey was distributed to 200 randomly selected MSU students across various faculties. The questionnaire measured four variables: usage patterns of new media, academic impact, social and psychological effects, and behavioral usage habits. The survey included Likert-scale items and demographic questions. Data were analyzed using SPSS, focusing on reliability testing (Cronbach's Alpha), descriptive statistics, and hypothesis testing. The questionnaire was pre-tested on 30 students to refine clarity and structure. Cronbach's Alpha values confirmed acceptable internal consistency across all constructs, with values above .70.

## 5. Result and Discussion

The Cronbach's Alpha values indicated strong reliability across all constructs: Usage Patterns ( $\alpha = .903$ ), Academic Impact ( $\alpha = .928$ ), Social and Psychological Impact ( $\alpha = .946$ ), and Behavioral Impact ( $\alpha = .907$ ).

**Table 1: Summary of Correlation Between Variables**

| Hypothesis | Variables Compared                           | Correlation Coefficient (r) | Significance (p) | Relationship Strength |
|------------|----------------------------------------------|-----------------------------|------------------|-----------------------|
| H1         | Usage Patterns & Academic Impact             | 0.955**                     | < .001           | Strong                |
| H2         | Usage Patterns & Social/Psychological Impact | 0.950**                     | < .001           | Moderate              |
| H3         | Usage Patterns & Behavioral Impact           | 0.946**                     | < .001           | Strong                |

These findings confirm that media usage significantly affects students across cognitive, emotional, and behavioral domains. Students with high engagement in digital platforms reported notable academic integration and challenges, such as attention difficulty or reduced motivation due to overuse.

The findings align with existing literature. New media enhances academic engagement when structured properly but can hinder performance if overused (Bond, 2020; Ahmad et al., 2023). Students often balance between benefits such as information access and challenges like procrastination. Emotionally, media supports social connectivity but also fosters stress through online comparison and pressure (Sokolova, 2019). The SCT framework supports the interpretation that peer comparison can create unrealistic standards, especially through visual-driven platforms like Instagram and TikTok. Behavioral patterns suggest that excessive digital consumption disrupts routines, such as study time and sleep, confirming CLT's relevance. Students often multitask between educational tasks and entertainment, which may impair retention and focus.

The study emphasizes the need for structured interventions, including:

- Incorporation of digital well-being modules in university orientation programs.
- Awareness campaigns about screen time and media overuse.
- Enhanced access to counselling for students struggling with digital stress or comparison anxiety.

## 6. Conclusion

New media plays a pivotal role in shaping the academic and social experiences of university students. It facilitates learning through access to digital resources, virtual classrooms, and collaborative platforms, enabling students to engage in self-paced education and maintain connectivity with peers and instructors beyond physical boundaries. Additionally, social networking platforms serve as spaces for self-expression, identity formation, and emotional support, helping students navigate both academic and personal development (Valkenburg & Peter, 2011). The availability of instant information also enhances awareness of global issues and enriches classroom discussions through real-time content sharing.

However, the benefits of new media come with considerable risks when usage becomes excessive or unregulated. Prolonged screen time, digital distractions, and exposure to curated online personas can impair students' academic focus, disrupt sleep cycles, and increase anxiety and depression levels (Sokolova, 2019; Kross et al., 2013). Behavioral patterns such as multitasking during study sessions or compulsive checking of notifications are linked to diminished cognitive performance and reduced academic outcomes (Sweller, 1988; Rosen et al., 2013). Therefore, while digital engagement is essential in modern education, it requires conscious moderation and structured support systems to mitigate adverse effects.

Universities must take a proactive role in fostering responsible digital citizenship. Integrating digital literacy modules into the curriculum can empower students to critically evaluate information, manage screen time, and use digital tools effectively for academic purposes. Furthermore, establishing campus-based counseling services and digital wellness campaigns can provide students with coping strategies to manage digital stress, online comparison, and social media addiction.

Future research should adopt a longitudinal approach to assess how patterns of new media usage evolve over time and how these patterns influence academic achievement, emotional health, and life satisfaction across different stages of university life. Cross-cultural studies are also essential to explore how students from various cultural backgrounds interpret and utilize digital platforms, as norms around technology use vary globally. Additionally, with the rise of artificial intelligence, it is crucial to investigate how AI-driven educational tools (e.g., chatbots, adaptive learning systems) are reshaping learning dynamics, student motivation, and ethical considerations in higher education. As educational environments become increasingly digitized, maintaining a balanced, equitable, and health-conscious approach to new media integration is not just beneficial—it is necessary.

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