

## Technoference among College Students: A Systematic Review

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### ABSTRACT

In the digital age, this systematic review explores the concept of technoference. The interference of technology caused various problems among college students, especially since smartphones play a vital role in our daily lives and relationships. The over-overdependence on technology is referred to as technoference. The interference of technology affects the academic performance as well as social relationships among college students. This review comprises an analysis from prior studies conducted to understand the impact of technoference on college students. The review discusses the prevalence of the interference of technology and its effects on academic performance, social relationships, and well-being and provides suggestions to reduce its negative impact.

**Keywords:** *Technoference, College Students, Interference of Technology*

The rapid integration of digital technologies such as smartphones and iPads into daily life, especially among college students, has become a major problem. They become overdependent on digital technologies. While digital technology has revolutionized communication and information access, its excessive use has led to concern about the negative effects, particularly among college students. A growing body of literature has focused on the concept of technoference, referred to the negative interference caused by technology in personal as well as academic life. In the digital age, the constant connectivity increased easy access to virtual communication and decreased face-to-face interaction. The interruption of technology has led to college students being overdependent on digital technology for online academic notes and online friendships. The college students often engaged with their smartphones during class, which affected their academic work. The interference caused by technology has raised negative consequences and disrupts the relationships and mental well-being. This paper presents a systematic review of recent studies on technoference among college students, examining its prevalence, effects, and strategies for minimizing its negative consequences.

### METHODOLOGY

This systematic review explored the concept of *technoference*, defined as the interference of technology, particularly smartphones, into various aspects of daily life and social relationships. Technoference has become increasingly prevalent among college students, with emerging evidence linking it to diminished academic performance, strained social

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relationships, and well-being. To assess the scope and impact of excessive smartphone use within this demographic, the review synthesized empirical studies published over the past decade. The review aimed to identify the prevalence and consequences of technoference while offering evidence-based recommendations for mitigating its negative outcomes. This review-based work contributes to the growing body of literature addressing the psychological and behavioral effects of technology overuse among young adults.

A comprehensive literature search was conducted across several article databases, including PubMed, PsycINFO, ERIC, and Web of Science. The search term included “technoference”, “college students”, “interference of technology”, “social relationships,” and related keywords and its effects on college students. Including past studies enabled the review to encompass a wider range of research exploring related topics such as the impact of technology interference on well-being and social interactions.

The review focused on the studies that empirically examined the relationship between technoference and at least one of the targeted outcomes, such as social relationships, academic performance, or psychological well-being; focused specifically on college or university student populations; and were published in peer-reviewed journals within the defined timeframe. A narrative synthesis approach was employed to integrate the findings. This method allowed for systematic organization and thematic analysis of the evidence, providing a cohesive summary of the effects of technoference on the academic, social, and psychological domains of college student life.

## RESULTS

### *Prevalence of Technoference among College Students*

In a study, results revealed that 78% of college students reported interference due to smartphone use; the interference occurred during academic work, face-to-face interactions, and family gatherings (Smith and Johnson, 2020).

Another study showed the result that 65% of students reported that, due to overuse of digital devices, they caused significant in-class distractions that lowered the academic performance. The prevalence of technoference among college students highlights the extent to which digital devices are ingrained in daily routines and disrupt maintaining concentration and balance. Social media platforms such as Facebook, Instagram, WhatsApp, and TikTok are some of the major factors of technoference among college students. Studies found that these social media apps are frequently accessed by students during class and before sleep (Tech et al., 2022).

### *Impact of Technoference on Social Relationships*

The major significant effect of technoference has been found on social relationships. Research studies showed that college students experienced frequent interference of technology and reported lower quality in their family and social relationships; 70% of students reported that overuse of smartphones interfered with social interaction and experienced feelings of neglect and not being valued by their peers. The term neglect is associated with the constant attention paid by the students to their mobiles, reduced emotional connection, and face-to-face interactions (Brown et al., 2021).

The interference of technology has been linked with the higher rates of social isolation. Studies revealed that students who spent more than 4 hours a day on social media platforms experienced feeling of loneliness and isolation (Lee and Chang, 2023)

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### *Effects on Academic Performance*

The interference of technology is associated with the disruption of students' academic performance. The overuse of smartphones has been turned a drastic problem among college students. A study on college students revealed the result that overuse of smartphones during class and lectures among students decreased their academic performance. Students who spent more than 5 hours per day on their mobile had lower scores and academic performance compared to those students who did not spend time more frequently on their smartphones. The intrusion of digital media lowered the enthusiasm for high academic performance among students, which directly affects their psychological well-being (Smith et al., 2020).

Studies revealed that students who spent more than 3 to 4 hours a day on entertainment platforms such as Netflix and YouTube were linked with lower concentration and focus on academic work, which affected the study schedule, grades, and scores of the students. The overuse of digital platforms leads to poor academic performance (Tech et al., 2022).

### *Impact on Mental Health*

The intrusion of technology had a vital effect on mental well-being among college students. Technoference leads to stress, anxiety, and depression among young adults. Fear of missing out (FOMO) leads to experiences of inadequacy and higher stress. Due to constant exposure to social media content, people experience symptoms of depression. The intrusion of digital overuse increased mental health issues among young adults (Lee and Chang, 2023).

## **DISCUSSION**

This review-based analysis highlights the interference of technology, which affects academic performance as well as social relations. The prevalence of digital intrusion among college students plays an essential role in the digital era. The overdependence on technology leads to disturbance in academic balance and peer relationships. Due to constant use of digital devices, the young adults face multiple mental health-related problems. The technology-based addiction has turned people into digital-dependent lives. The young adults become less physically active due to high screen time.

Interventions such as digital detox programs could be helpful for college students, where young adults commit themselves to limit their screen time and understand the negative consequences of the interference of technology that affects their physical, mental, and social well-being.

Educational-based campaigns, workshops, and seminars would be helpful for the students to understand how to implement digital detox and learn to reduce the frequency of screen time. Universities and colleges could establish counseling sessions for the digital detox. It could help the students to get easily available free counseling, which makes them understand how technology-based interference impacts their lives.

Further research should explore the effect of intervention programs on young adults to reduce technology interference. Longitudinal-based research studies could track the impact of smartphone use and its effect on how it disrupts the academic life of young adults.

## **CONCLUSION**

The intrusion of technology is a significant issue among college students with implications for their mental well-being, academic performance, and relationships with family and peers. This systematic review highlights the emerging nature of technology-based interruptions and

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the need for interventions to minimize the effects of technoference. As the digital dependency increased among students, it became necessary to maintain a balance among students with digital devices and academic life.

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### ***Conflict of Interest***

The author(s) declared no conflict of interest.

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