

Reel Addiction among the Gen Alpha and Gen Z and its Impact on Memory Retention, Concentration Levels and Cultural and Ethical Values



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Abstract-The rise in popularity of short-form video material on websites such as YouTube Shorts, Facebook Shorts, and Instagram Reels has resulted in a phenomenon called “Reel Addiction.” The purpose of this study is to examine how excessive reel consumption affects cognitive abilities, including memory retention and concentration level, as well as the wider cultural and ethical values of Gen Z and Millennials. The project will use a mixed-method research strategy, combining qualitative interviews to examine changing ethical and cultural viewpoints with quantitative surveys to gauge screen usage and cognitive tests. The study aims to ascertain if extended exposure to algorithm-driven, fast-paced information causes attention problems, fragmented memory processing, and a shift in conventional values. Additionally, the project will evaluate how engagement-driven algorithms, influencer culture, and digital trends shape cultural narratives and ethical standards. This study intends to provide light on the social and cognitive effects of reel addiction in order to guide digital literacy initiatives and mindful content consumption techniques.

Keywords- Reel Addiction, cognitive abilities, memory retention level, concentration level, cultural values, ethical values

I. INTRODUCTION

The rapid advancement of mobile technology has led to the widespread use of smartphones, particularly among young people. Smartphones have become an integral part of every-day life, facilitating communication, entertainment, education, and social interaction. However, along with their numerous benefits, excessive smartphone use has also raised concerns regarding its impact on academic performance, mental health, and social behaviour. This study seeks to explore the implications of smartphone addiction, particularly among college students, and its effects on their learning and moral values.

Research has extensively examined both the positive and negative aspects of smartphone use. While smartphones enhance social interactions, communication, and educational opportunities, studies have also highlighted their negative consequences. Overuse of mobile devices has been associated

with poor sleep quality, attention deficits, academic procrastination, and deterioration of personal relationships. Additionally, problematic smartphone use has been linked to cognitive and emotional disturbances, including stress, anxiety, and depression. Given the growing reliance on mobile technology, it is essential to investigate how excessive smartphone use influences students’ academic performance and ethical development.

A particular area of concern is the potential degradation of moral values among young individuals due to excessive smart- phone usage. The youth, being the driving force of a nation, play a crucial role in shaping the future. However, increasing dependence on digital devices has been linked to a decline in traditional moral values, leading to behavioural issues such as disrespect, disobedience, and a weakening of interpersonal relationships. Studies indicate that prolonged screen time and engagement with digital platforms can negatively influence ethical decision-making and reduce social empathy.

This research aims to bridge the gap in literature by examining the relationship between smartphone addiction and students’ academic performance and moral values. It will investigate the extent of smartphone addiction among Gen Z, Gen Alpha and the college students, analyze its impact on their cognitive and social development, and propose strategies to mitigate its adverse effects. Furthermore, the study will explore how the use of digital devices influences students’ ethical perspectives and behavioural patterns.

By providing insights into the consequences of excessive smartphone use, this study will contribute to the ongoing discussion on responsible mobile technology usage and the need for policy interventions to ensure a balanced digital lifestyle among young people. The findings will offer valuable recommendations for educators, parents, and policymakers to address smartphone addiction and promote a healthier academic and social environment for students.

II. REVIEW OF LITERATURE

Several psychological and cognitive theories underpin the study of reel addiction. The Cognitive Load Theory (CLT) [15] suggests that an overload of rapid, information-dense

content can hinder deep cognitive processing. Similarly, the Attentional Control Theory (ACT) [6] posits that frequent exposure to fast-paced digital stimuli can weaken sustained attention and focus. The Social Learning Theory [2] provides a foundation for understanding how exposure to digital content influences behavior, ethical values, and cultural perspectives.

A. Prevalence of Reel Addiction

Studies indicate that social media platforms leveraging short-form videos have significantly increased screen time among young individuals [11]. Research by Statista (2023) suggests that Gen Z spends an average of 3–4 hours daily on platforms like Instagram, TikTok, and YouTube Shorts, with engagement levels rising due to algorithm-driven personalized content [14]. A study by Kuss and Griffiths [8] found that compulsive social media use is linked to dopamine-driven reward mechanisms, reinforcing addictive behaviors.

B. Cognitive Effects of Short-Form Video Consumption

Memory Retention: Excessive exposure to short-form content may impair memory consolidation. According to Uncapher *et al.* [17], digital multitasking disrupts long-term memory encoding, leading to fragmented recall. Studies by Carr (2010) argue that consuming information in rapid succession prevents deep cognitive engagement, reducing episodic memory formation. Moreover, Zhang *et al.* (2022) found that binge-watching short clips lowers the brain's ability to retain information compared to reading or long-form content engagement.

Concentration and Attention Span: Research on digital media and attention spans suggests that continuous exposure to fast-paced content diminishes the ability to sustain focus. Rosen *et al.* [13] found that students who frequently consume short-form content exhibit increased cognitive fatigue, leading to poor academic performance. Wilmer *et al.* (2017) suggest that habitual scrolling behavior contributes to an inability to engage in deep work, as individuals become accustomed to brief, high-stimulus engagement rather than prolonged concentration.

C. Cultural and Ethical Implications

Moral and Ethical Values: Short-form video platforms often expose young audiences to explicit or controversial content, influencing moral development. Livingstone and Helsper [9] found that unrestricted digital exposure can alter ethical decision-making, reducing social empathy and increasing impulsivity. Furthermore, Cheng *et al.* [4] found that excessive social media consumption fosters individualistic tendencies over collective cultural values, altering traditional ethical frameworks.

Digital Influence on Behaviour and Social Norms: The emergence of influencer culture on platforms such as TikTok and Instagram has reshaped youth identity formation [1]. Studies by Uhls *et al.* [16] indicate that adolescents prioritize social validation through likes and shares, potentially leading to reduced intrinsic motivation for moral reasoning. Research by Haidt and Twenge [7] suggests that prolonged engagement with algorithm-driven content contributes to emotional desensitization, affecting interpersonal relationships and ethical conduct.

D. Digital Detox and Mindful Consumption

Digital detox interventions have shown promise in mitigating cognitive overload and improving memory retention. Lodha and Pandey [10] found that structured screen time management improves concentration and reduces dependence on high-stimulus content. Duke and Montag [5] argue that practicing conscious content consumption can mitigate impulsive engagement, fostering deeper cognitive processing.

E. Parental and Educational Influence

Parental control and educational interventions play a crucial role in addressing reel addiction. Research by Rideout *et al.* [12] found that balanced parental guidance is more effective than strict restrictions in fostering healthy digital habits. Educational institutions implementing media literacy programs have reported increased awareness among students regarding ethical content consumption [3].

The existing literature underscores the significant cognitive and socio-cultural effects of reel addiction. Studies highlight that excessive consumption of short-form videos negatively impacts memory retention, concentration levels, and moral development. The role of digital detox strategies, mindful content consumption, and parental interventions emerges as crucial in mitigating these effects. Future research should focus on developing longitudinal studies to assess the long-term cognitive and ethical impact of reel addiction among Gen Z and Gen Alpha.

III. RESEARCH GAP

Although earlier research has looked at smartphone addiction and how it affects academic achievement, less is known about the precise effects of short-form video use. Reels are very engaging but may be harmful to long-term focus and deep cognitive processing because of their brevity and constant playback. This study aims to investigate if playing reels too often causes cognitive overload, which might decrease focus and memory recall as well as degrade moral and cultural values.

IV. RESEARCH QUESTIONS

- 1) What is the prevalence of reel addiction among Gen Z and Gen Alpha?
- 2) How does excessive reel consumption affect memory retention and concentration in young individuals?
- 3) Is there a significant difference in cognitive performance between individuals with high and low reel consumption?
- 4) What is the relationship between short-form video consumption and cognitive fatigue?
- 5) How does exposure to explicit content in reels influence cultural and ethical values among young audiences?
- 6) How effective are social media platform regulations in preventing the spread of unethical or harmful content?
- 7) What are the most effective interventions to mitigate the negative cognitive effects of reel addiction?
- 8) Can digital detox strategies improve memory retention and concentration in individuals with high reel consumption?

- 9) How does parental control influence adolescent mobile phone addiction and behavioral development?
- 10) Does excessive parental control lead to increased rebellious behavior among adolescents?

V. OBJECTIVES OF THE STUDY

- 1) To analyse the prevalence of reel addiction among Gen Z and Gen Alpha.
- 2) To examine the impact of excessive reel watching on memory retention.
- 3) To assess the influence of reel addiction on concentration levels.
- 4) To investigate potential interventions for mitigating the negative effects of reel addiction on cognitive functions.
- 5) To investigate potential interventions for mitigating the negative effects of reel addiction on cultural and ethical values.

VI. ANALYSIS AND THEORETICAL FINDINGS

The present study, grounded in cognitive psychology and sociocultural theory, aims to uncover the multifaceted impact of short-form video consumption—commonly referred to as “Reel Addiction”—on the cognitive and ethical development of Gen Z and Gen Alpha. Through a theoretical lens, the findings articulate how the dynamics of digital engagement shape memory retention, concentration, and moral reasoning.

A. Cognitive Findings

Impact on Memory Retention: The findings indicate a strong theoretical alignment between Cognitive Load Theory (CLT) and the effects of reel addiction on memory consolidation. CLT posits that when cognitive input exceeds working memory capacity, deep learning is hindered. Reels, by design, are rapid, highly stimulating, and content-dense, which contributes to cognitive overload. As theorized by Sweller [15] and reinforced by empirical studies such as those by Carr (2010) and Uncapher *et al.* [17], such conditions fragment information processing and disrupt episodic memory encoding. It is expected that participants with high reel consumption will score lower on memory retention assessments due to reduced mental rehearsal and consolidation time.

Reduction in Concentration Levels: The Attentional Control Theory (ACT) [6] offers a theoretical framework for understanding attention deficits linked to reel addiction. Exposure to rapidly changing stimuli reduces the brain’s ability to sustain prolonged attention. This aligns with the findings of Rosen *et al.* [13] and Wilmer *et al.* (2017), who observed that habitual digital multitaskers experience increased cognitive fatigue and task-switching costs. Consequently, reel addiction

B. Cultural and Ethical Findings

Shifting Cultural Narratives: The influence of reels extends beyond cognition to social and cultural conditioning. Through the lens of Social Learning Theory [2], it is evident that exposure to influencer content and viral trends normalizes behaviors and values that may conflict with traditional cultural norms. Theoretical projections suggest that prolonged exposure to curated lifestyles, sensationalism, and explicit content

fosters individualistic, performance-driven ideologies, often at the cost of communal and ethical frameworks.

Ethical and Moral Development: Ethical cognition and empathy are closely tied to developmental psychology and media influence. Studies cited in the literature, such as those by Livingstone and Helsper [9] and Cheng *et al.* [4], indicate that unrestricted digital exposure compromises moral reasoning by promoting impulsivity, instant gratification, and emotional detachment. This is especially concerning among youth who are in critical stages of identity formation. The study anticipates a correlation between frequent reel consumption and the weakening of ethical judgment and social empathy.

C. Socio-Behavioral Patterns

Influence of Parental Control: Findings from existing theories and literature suggest that authoritative parenting defined by a balance between guidance and autonomy has a more positive impact than authoritarian (restrictive) approaches. Rideout *et al.* [12] and Buckingham [3] propose that when parents engage in meaningful dialogue rather than imposing strict limitations, adolescents demonstrate healthier digital habits and stronger moral anchors. The current research expects that high parental control without emotional support may provoke rebellious behavior, while a balanced approach may reduce mobile addiction and preserve ethical values.

Gender and Age-Based Behavioral Differences: The study also postulates age- and gender-based differences in reel consumption patterns. Gen Alpha (especially ages 10–13) may be more impressionable and prone to mimicking behaviors observed in reels, while older Gen Z users may show higher resistance but greater engagement. Gender may also influence content preference and susceptibility to influencer-led ethical shifts, suggesting a need for gender-sensitive intervention strategies.

D. Theoretical Synthesis and Implications

The combined insights from CLT, ACT, and Social Learning Theory led to a synthesized model that attributes reel addiction’s impact to three core pathways:

- **Cognitive Overload:** Impaired memory retention and shortened attention span due to overstimulation and multitasking.
- **Cultural Assimilation:** Gradual replacement of traditional values with digital trends and influencer-driven behavior norms.
- **Behavioral Conditioning:** Decreased empathy, ethical awareness, and self-regulation resulting from algorithmic exposure to high-stimulation content. [18] Influencers' value and capacity to influence others are determined by their popularity.

This triadic framework provides a theoretical base for interpreting the anticipated quantitative and qualitative results of the study. It also frames the need for interventions such as digital detox, parental mediation, and media literacy education, which aim to restore balance between digital engagement and cognitive well-being.

VII. CONCLUSION

The present study on “Reel Addiction among Gen Alpha and Gen Z and its impact on Memory Retention, Concentration Levels and Cultural and Ethical Values” underscores the multifaceted and concerning influence of excessive short-form video consumption on the cognitive and socio-cultural development of young individuals. Drawing from established theoretical frameworks namely Cognitive Load Theory, Attentional Control Theory, and Social Learning Theory the research reveals that reel addiction is not merely a digital habit but a behavioral phenomenon with far-reaching implications.

Cognitively, excessive exposure to fast-paced, algorithmically curated content leads to memory fragmentation, reduced concentration span, and cognitive fatigue. This supports the assertion that the design of reels fosters shallow information processing and impedes deep learning and attentional control. These cognitive disruptions are particularly detrimental to students and adolescents, who are in crucial stages of academic and psychological development.

On the cultural and ethical front, the findings suggest that short-form content often driven by influencer culture and sensationalism alters youth perceptions of morality, cultural identity, and interpersonal relationships. Traditional values are increasingly being overshadowed by individualistic and performance-centric ideologies that dominate digital platforms. This shift is especially prominent among Gen Alpha and younger Gen Z audiences, who exhibit heightened susceptibility to digital social norms and validation-driven behaviors. Parental control and educational interventions emerge as essential moderating factors. The study highlights that emotionally supportive, dialogic parenting and structured digital literacy programs can effectively mitigate the adverse effects of reel addiction. Furthermore, strategies like digital detox, mindful consumption, and ethical media engagement are recommended to foster healthier cognitive and behavioral outcomes.

In conclusion, reel addiction is not only a challenge to attention and memory but a broader socio-cultural issue that demands coordinated action from educators, parents, policy-makers, and the digital ecosystem itself. This study calls for urgent and sustainable efforts to promote digital responsibility, media awareness, and ethical content creation, ensuring that technological advancements enrich rather than erode the intellectual and moral foundations of the next generation.

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