

Digital Media's Impact on Socio-Familial Bonds and Intellectual Independence in College Students

N. Andal^{1*}, R. Angel²

^{1&2} The Research Centre of Tamil, Fatima College (Autonomous), India

*Corresponding author: andalnatarajan2001@gmail.com

Abstract

In this advanced digital era, technology has become so integrated into daily routines that completing professional tasks or personal errands is nearly impossible without digital platforms. While these tools offer convenience, their impact on human relationships and cognitive development requires urgent attention. This study specifically focuses on the digital habits of college students, whose daily screen time has increased drastically. This trend has raised significant concerns regarding the erosion of meaningful social bonds with friends, family, and society. The primary objective of this research is to investigate the direct correlation between time spent on digital media and the resulting impact on family dynamics. Specifically, the study seeks to understand how excessive device engagement interferes with emotional connectivity and household communication. Furthermore, the research examines the escalating reliance on Artificial Intelligence (AI) for educational purposes; while AI offers undeniable academic advantages, its pervasive use is increasingly compromising students' independent thinking and original writing abilities. To achieve this, the research utilized a quantitative methodology, collecting data through a structured Google Form survey. This survey consisted of closed-ended questions designed to measure specific behaviours, such as device usage during meals, the preference for digital interaction over face-to-face conversation, and the degree of dependency on AI for academic assignments. The findings reveal that increased reliance on digital platforms systematically undermines the emotional connection between students and their families. Moreover, the data suggests that over-reliance on automated tools creates a "cognitive offloading" effect, diminishing critical analysis skills. The results conclude that as digital consumption rises, the quality of shared domestic life declines, leading to a state of "social isolation in proximity." Consequently, the research highlights an urgent need for digital ethics and value-based interventions to help students balance technological utility with the preservation of foundational human relationships and intellectual autonomy.

Keywords: *College Students, Digital Ethics, Digital Media, Family Bonding, Screen Time*

Introduction

The technological landscape of the twenty-first century has been defined by a series of prolific advancements and milestones that have fundamentally restructured human existence. At the epicentre of this transformation is the internet, which has emerged as the definitive gateway to global information, entertainment, and global connection. This "digital era" has facilitated unprecedented levels of accessibility, allowing individuals to harness digital media to satisfy a wide array of needs tailored to their specific age groups

and professional requirements. This paper focuses specifically on the demographic of college students and the nuances of their engagement with digital media. In the modern academic environment, students primarily utilize these platforms for a dual purpose: educational advancement and personal entertainment. The shift toward a digital-centric lifestyle was significantly accelerated by the post-pandemic landscape. During this era, pedagogical methodologies underwent a radical transition, moving away from traditional, textbook-based learning toward more fluid, digital frameworks. This includes the widespread adoption of virtual classrooms - facilitated by platforms such as Zoom and Google Meet - as well as the proliferation of mobile applications and comprehensive e-learning management systems. Furthermore, this evolution has progressed into the integration of Artificial Intelligence (AI). AI tools now serve as sophisticated assistants, helping students deconstruct complex concepts, manage academic assignments, and streamline rigorous research processes. However, this technological integration is not without its complications. The increased duration of daily digital engagement among students has precipitated a noticeable decline in physical social interaction. There is a growing, unconscious, trend of detachment from traditional social structures, including family and peer groups. As students become more immersed in virtual environments, their "real-world" interpersonal skills and overall social well-being are frequently compromised. Consequently, this study aims to examine the specific patterns of digital media usage among students and analyze the resulting impact on their ability to navigate face-to-face social dynamics and maintain healthy, grounded relationships in an increasingly digitized world.

This study is built on the belief that the constant use of digital media is fundamentally changing how college students relate to their families and how they use their minds. We hypothesize that as screen time goes up, the quality of face-to-face time with loved ones goes down, creating a sense of "being alone together" even when everyone is in the same room. Beyond social life, we expect to find that a growing dependence on AI tools for academic work is negatively affecting students' intellectual skills. By outsourcing assignments to algorithms, students may be unintentionally weakening their own ability to think critically and write creatively. In short, we argue that while technology offers convenience, it is likely a double-edged sword: it is distancing us from our most important human connections at home while simultaneously eroding the very thinking and writing abilities that define academic growth and individual autonomy.

Review of Related Literature

The deep integration of digital media into the lives of college students has completely changed how they interact, study, and think. While these tools offer great convenience, recent research reveals major downsides concerning family relationships and mental habits. This review looks at three major areas affected by constant screen time.

A major issue in modern homes is "technoference" - when digital devices interrupt face-to-face conversations (McDaniel & Radesky, 2018). This frequently happens as "phubbing" (phone snubbing), where individuals ignore the people physically around them to look at their smartphones (Chotpitayasunondh & Douglas, 2016).

Since the pandemic, student's daily screen time has jumped drastically, leading to shorter attention spans and impatient behaviours (Przybylski & Weinstein, 2024). For instance, many students now watch recreational and educational videos at 1.5x or 2x speed. While students claim this saves time, researchers find it is actually driven by boredom and a lack

of focus (Nagurney et al., 2023). This constant need for fast-paced stimulation makes students easily distracted, meaning they struggle to complete basic daily tasks without constantly checking for notifications (Rosen et al., 2013).

The rapid rise of Artificial Intelligence (AI) tools has shifted how students do college work. Instead of using their brains to process information, many students practice "cognitive offloading" - outsourcing their thinking to digital tools (Marsh & Rajaram, 2019). Passing mental work to AI blocks deep learning, which over time can weaken a student's memory and problem-solving skills (Ward et al., 2021)

Objectives

The main objective of this study is to evaluate the correlation between increased digital media consumption and its subsequent impact on the quality of familial relationships and the cognitive development of college students. To achieve this, the study focuses on the following objectives.

- To determine the average daily screen time among college students and assess how these patterns have shifted in the post-pandemic landscape.
- To investigate how often digital device usage interrupts or replaces traditional face-to-face interactions with family members, particularly during dinner time or gatherings.
- To examine the prevalence of shortened attention spans by measuring how frequently students use speed-adjustments (such as 2x speed) for educational content and the resulting impact on their patience for deep study.
- To explore the extent to which students rely on Artificial Intelligence for academic tasks and whether they perceive a decline in their own ability to think critically and write originally.

Methodology

This study adopted a quantitative research methodology to systematically investigate the evolving digital habits of contemporary college students. To achieve a comprehensive dataset, information was gathered from 70 college students using a structured survey instrument administered via Google Forms. The survey was strategically divided into five distinct categories of closed-ended questions, ensuring that the impact of digital media was evaluated across multiple dimensions of the student experience. The structure of the research instrument included the following core components:

General section established a baseline by identifying the students' average daily digital media consumption and their primary motivations for remaining online.

Family Life section questions examined the intersection of technology and domestic life, specifically investigating how digital media usage influences the quality and quantity of time students dedicate to family interactions.

Educational Life segment focused on the academic shift toward digitalization, exploring student preferences regarding various learning platforms and their integration into daily study routines.

Social life section explored preferred modes of communication, analyzing how students interact with their peers and the extent to which digital tools facilitate or hinder social bonds.

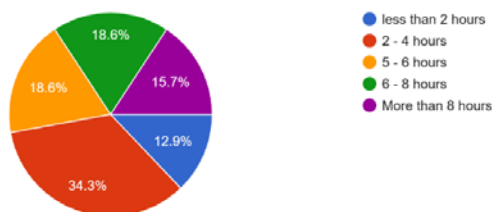
The Rating Scale helps to ensure the presence of measurable, high-precision data, a Likert-style rating section was included. Students assessed various aspects of their social, family, and academic lives on a scale of 1 to 5 (1 - Never, 2 - A few times, 3 - Sometimes, 4 - Most of the time, 5 - Always)

Findings and Discussion

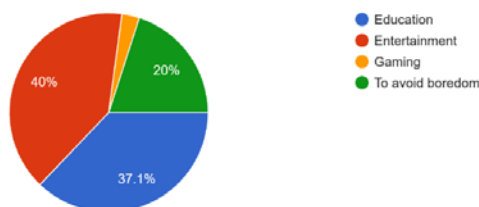
The latest survey results highlight a worrying shift in how students spend their time online, showing a massive jump in how much, they use their phones, laptops, and tablets every day. More than half of the students (52.9%) surveyed spend over five hours a day looking at screens. Even more concerning is that a some of these students (15.7%) is actually logged on for more than eight hours a day, meaning a huge chunk of their waking life is spent in a digital world.

When we look at why these students are spending so much time in online, the main reason is not for academic works. Instead, most students (62.9%) spend their time in online for entertainment purposes including gaming to avoid boredom. The data shows that less than half of the students (31.7) use digital media for education purposes.

On an average how many hours do you spend on mobile per day
70 responses

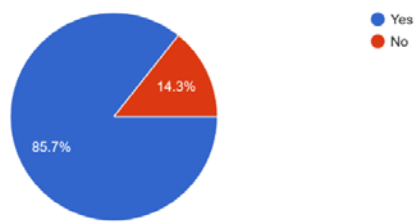


For what purpose do you primarily use the mobile for
70 responses



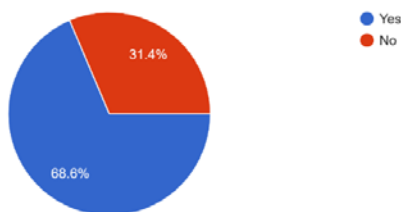
This lifestyle is a big change from how things used to be before the COVID-19 pandemic. When educational institutions closed and everyone had to stay home, technology became the only way to learn and talk to friends. However, even though life has mostly gone back to normal, the heavy use of technology has stayed the same. Almost every student (85.7%) admitted that they spend way more time on their devices now than they did before the pandemic started. What started as a necessary way to attend class from home has turned into a permanent habit. The balance has shifted, and now digital life is much more about relaxing and playing games than being productive or getting academic work done. This showcases that increased digital media consumption is the new normal now.

After Covid has your mobile usage increased
70 responses



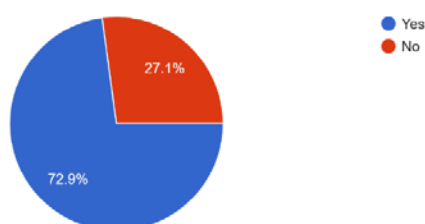
The findings from the "Family Life" section of the study offer a truly eye-opening and somewhat sad look at how our constant use of technology is changing the way we live at home. In our modern, fast-paced world, people are busier than ever. Between work, school, college and personal hobbies, there is very little time left for families to actually sit down and talk to one another. For most families, dinner time is the only place left in the day to spend together. It is often the only time when everyone is in the same room at once, providing a rare chance to share stories, bond emotionally, and really listen to each other. Unfortunately, the survey shows that this special time is being ruined by our phones and tablets. A huge number of students (48.3%) admitted that they are constantly scrolling through their social media feeds or checking notifications while sitting at the dinner table. When someone is looking at a screen, they aren't talking to the person sitting right next to them. This "digital interference" doesn't just happen at dinner, either. The data shows that even when families are hanging out in the living room or spending a weekend together, most of the students (68.6%) stay glued to their devices.

Do you scroll your mobile while being with your family
70 responses



One of the most interesting parts of the study is that this isn't just problem the younger generation problem. The data suggests that parents and other adults (72.9%) in the house are also spending much more time on their phones than they used to.

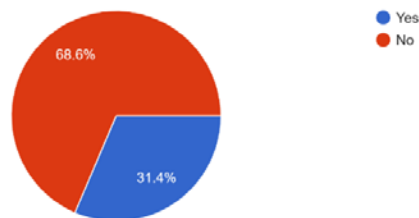
Has the screen time of your family members increased recently
70 responses



This creates a cycle where everyone is ignoring everyone else. If a parent is on their phone, the child feels it's okay to be on theirs, and soon, the whole family is sitting in silence. The smartphone has become a physical wall that stops people from being close

to one another. The result of all this is a strange new trend called "social isolation in proximity." This basically means that even though family members are in the same room, they are worlds apart mentally. They are physically there, but their minds and hearts are somewhere else in the digital world. This habit is slowly weakening the foundation of the family. Instead of talking and playing together, people are just sitting side-by-side, staring at different screens. The traditional, strong family bond is being replaced by a home where people live together like roommates who happen to be on the same Wi-Fi, each lost in their own little digital bubble. An especially worrying discovery in this study is that a number of students (31.4%) admitted they now prefer to talk to Artificial Intelligence about their private problems instead of talking to their families. When students have a personal matter such as a secret, a worry, or a difficult emotion, they are turning to AI chatbots for advice or comfort. This is a major shift in human behaviour because, in the past, the family was the primary source of emotional support and guidance.

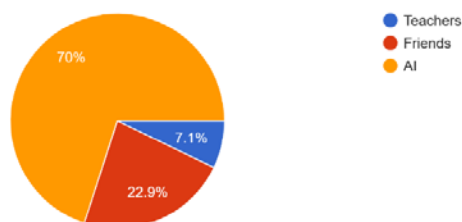
Have you shared your personal matter/problems to AI rather than sharing with your family
70 responses



Choosing to confide in a machine rather than a parent or a sibling suggests that the deep emotional bond within the home has already started to break. It indicates that students may no longer feel comfortable, safe, or understood by the people they live with. Instead of having a heart-to-heart conversation at the dinner table, they find it easier to type their feelings into an app. This reliance on AI for emotional needs shows a serious level of detachment. It highlights a broken connection where the warmth of a family member's response is being replaced by the algorithm. This trend is a wake-up call, showing that digital tools are now filling a void that used to be held by human love and bond.

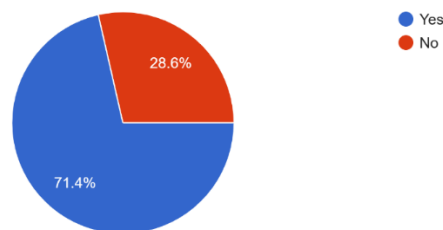
The data gathered from the Educational Life section indicates a definitive shift in student preferences, with a vast majority now favouring digital platforms over traditional academic resources. Within this digital ecosystem, Artificial Intelligence (AI) has emerged as the most utilized tool. A significant behavioural change noted in the survey is that almost all the students (70%) are increasingly bypassing traditional academic support systems; instead of consulting their peers or instructors when they encounter a conceptual challenge, they turn to AI for immediate clarification.

When a doubt arises while understanding a concept who do you approach
70 responses



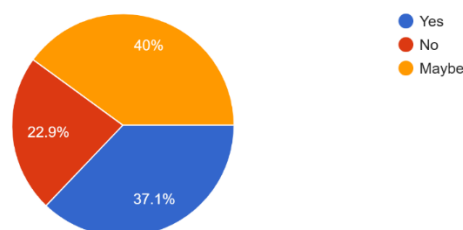
While this highlights the immense utility and accessibility of AI in modern pedagogy, it also reveals a concern regarding the erosion of interpersonal academic relationships. As students prioritize AI for problem-solving, the frequency of meaningful contact with teachers and classmates continues to dwindle. The transition is so profound that the data suggests traditional textbook-based learning has been largely marginalized, if not entirely replaced, by digital alternatives. However, this convenience comes with a qualitative cost. Many respondents admitted to a noticeable decline in academic patience. This is evidenced by the habit of increasing playback speeds (71.4%) while watching educational videos and relying on AI (61.4%) to summarize lengthy PDFs rather than engaging in deep reading.

Have you lost your patience while watching an educational video and increased the speed of the video
70 responses



Such trends imply a desire for instant learning rather than comprehensive learning, suggesting that students are becoming less willing to invest the time necessary for critical reflection. Furthermore, the study highlights the double-edged sword of using mobile devices for study. Nearly all students (74.3%) reported that using smartphones for educational purposes inevitably leads to digital distraction, pulling their focus away from their coursework. While AI assists in the completion of assignments, the impact on cognitive development is a major concern. Most of the students (77.1%) explicitly stated that their ability to think critically and write independently has decreased due to over-reliance on these tools.

Do you think your thinking capacity has lowered after prolonged use of AI/other digital media
70 responses

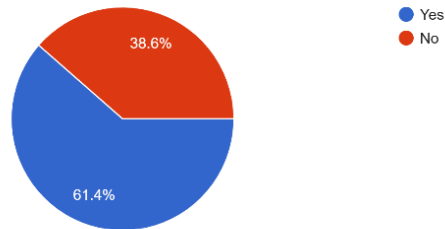


In summary, while the analysis underscores the vital role of AI in the current and future educational landscape, it also issues a warning. The pervasive use of these technologies is fundamentally altering the student experience, negatively impacting their concentration, independent thought, and communication skills. While AI provides efficiency, it may simultaneously be hindering the very intellectual rigors that traditional education is designed to foster.

The information gathered from the social section of the survey provides a deep look into how mobile devices are changing the way students interact with the people around them. A major finding is that the majority of students admit to scrolling through their phones

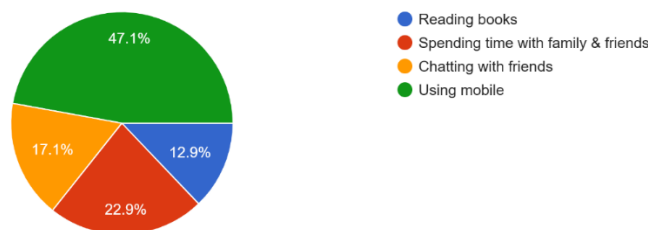
even while they are in the middle of a conversation with someone else. This habit leads to a state of absent-mindedness, where the student isn't fully listening or present.

Have you felt absent minded while having a conversation
70 responses



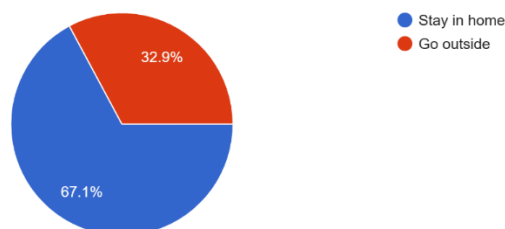
When you aren't paying attention to the person you are talking to, it naturally weakens the friendship or bond, making the other person feel ignored or undervalued. The data also shows a shift in how students spend their downtime. Instead of using their free hours to practice a hobby, learn a new talent, or develop useful life skills, most of the students (64.2%) responded that they turn to their mobile devices.

How do you spend your free time
70 responses



This constant digital consumption has a double-edged effect on their well-being. Physically, there is a growing concern regarding weight gain and poor fitness levels because students are sitting down for hours rather than being active or playing sports. Mentally, the lack of real-world engagement can lead to feelings of loneliness or burnout. Socially, the outside life seems to be losing its appeal. Most students (67.1%) stated that they would rather spend their weekends staying inside their homes instead of going out to catch up with neighbours or friends in person.

During weekends what would you prefer to do
70 responses



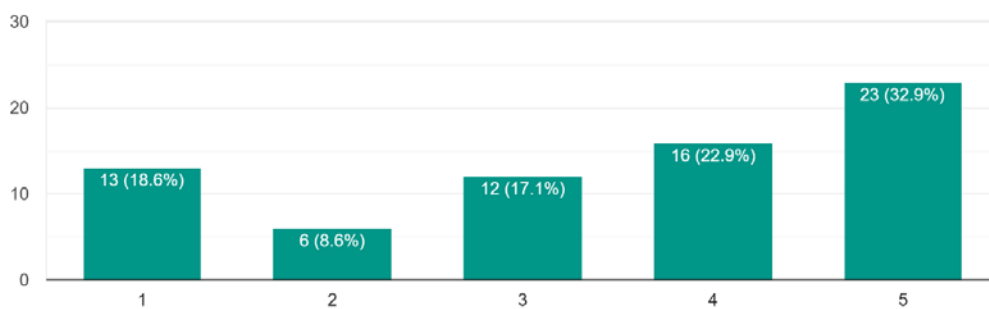
Also, many students now identify texting as their most comfortable way to communicate. While texting is convenient, relying on it too much makes face-to-face conversations difficult. This preference for digital messaging suggests that many students are losing their confidence in speaking in person. Because they can hide behind a screen, they aren't practicing the essential communication skills, like reading body language, making eye

contact, or speaking clearly that are needed in the real world. In short, the study indicates that while students are more connected to the internet than ever, their connection to the physical world and their ability to talk to people face-to-face is rapidly declining. This creates a cycle where they feel less capable of social interaction, leading them to retreat even further into their digital world.

The final part of the survey, which includes a rating section that combines all the previous topics, confirms a very clear and troubling trend. It shows that the amount of time students spend on their phones has grown so much that it now spills into almost every part of their daily lives. Students are no longer just using their devices when they are alone; instead, they are constantly checking them while sitting with their families, during lunch with friends, and even at large social gatherings or parties. This habit has a serious impact on how people feel when they are around these students. When you are trying to talk to someone and they keep looking down at a screen, it makes you feel like you aren't important or that what you are saying doesn't matter.

While the other party looks at their phone when you are conversing with them do you feel under-valued?

70 responses



(1 - Never, 2 - A few times, 3 - Sometimes, 4 - Most of the time, 5 - Always)

This feeling of being under-valued is what slowly breaks down the trust and closeness in a relationship. Whether it is a parent trying to connect with their child or a friend sharing a secret, the presence of a smartphone acts as a barrier. The data suggests that as digital engagement goes up, the emotional bond between people goes down, making it harder for students to maintain deep, meaningful connections in the real world.

Conclusion

The comprehensive analysis of this data makes it clear that digital platforms have become an inseparable part of modern daily life. In the field of education, Artificial Intelligence has already stepped into the role of a personal tutor for many students, and this influence is only expected to grow. In the coming years, it is likely that the traditional classroom experience will rely almost entirely on AI and digital learning tools. However, this shift comes with significant drawbacks; specifically, there is a risk that the independent thinking and writing abilities of students will decline as they become more dependent on automated assistance. Beyond the classroom, the excessive use of technology is slowly eroding the essential connections between individuals and their families, friends, and wider society. Of these three, the family bond appears to be the most damaged by digital intrusion. Even when students attempt to monitor their screen time, they often lose track of how many hours they spend immersed in their devices. This leads to a serious lack of face-to-face contact, which in turn causes a decline in vital life skills such as effective

communication, patience, and high-level cognitive functions. To address these growing concerns, it is essential for students to be taught digital ethics. This involves learning how to consciously reduce screen time and prioritize human-centric values. By shifting the focus back toward real-world engagement, students can restore the meaningful bonds they share with their families and friends. Ultimately, the goal is to ensure that technology serves as a tool for progress without destroying the foundational human connections that hold a society together.

References

- Alanko, S. M., & Haka, T. (2024). The digital distraction: How smartphone notifications affect student concentration and academic performance. *Journal of Educational Psychology*, 116(2), 145–159. <https://doi.org/10.1037/edu0000812>
- Chotpitayasunondh, V., & Douglas, K. M. (2016). How “phubbing” becomes the norm: The antecedents and consequences of snubbing others with a smartphone. *Computers in Human Behaviour*, 63, 9–18. <https://doi.org/10.1016/j.chb.2016.05.018>
- David, M. E., & Roberts, J. A. (2017). Phubbed and alone: Phone snubbing, relationship satisfaction, and attachment style. *Computers in Human Behavior*, 76, 157–163. <https://doi.org/10.1016/j.chb.2017.07.018>
- Kushlev, K., & Leite, R. (2025). The screen-time paradox: Why academic and recreational digital usage yield opposite psychological outcomes. *Current Opinion in Psychology*, 58, 101732. <https://doi.org/10.1016/j.copsyc.2024.101732>
- Marsh, E. J., & Rajaram, S. (2019). The social companion: Shared memory and cognitive offloading in the digital age. *Journal of Applied Research in Memory and Cognition*, 8(2), 143–150. <https://doi.org/10.1016/j.jarmac.2019.04.001>
- McDaniel, B. T., & Radesky, J. S. (2018). Technoference: Longitudinal associations between parent technology use, parenting stress, and child behavior problems. *Pediatric Research*, 84(2), 210–218. <https://doi.org/10.1038/s41390-018-0052-6>
- Nagurney, A. J., Hoffman, R. W., & Johnston, J. M. (2023). Accelerated media consumption: Investigating the psychological drivers behind watching videos at 2x speed among university students. *Journal of Digital Media & Policy*, 14(1), 87–104. https://doi.org/10.1386/jdmp_00092_1
- Przybylski, A. K., & Weinstein, N. (2024). Digital screen time and student well-being: Evidence from a post-pandemic longitudinal study. *Psychological Science*, 35(4), 482–495. <https://doi.org/10.1177/09567976231190456>
- Radtke, T., Apel, T., Schenkel, K., Keller, J., & von Lindern, E. (2022). Digital detox and the pursuit of digital well-being: An experimental study on the effectiveness of smartphone abstinence on student anxiety and focus. *Mobile Media & Communication*, 10(2), 288–309. <https://doi.org/10.1177/20501579211045551>

- Rosen, L. D., Carrier, L. M., & Cheever, N. A. (2013). Facebook and texting among college students: "Task switching" or "distraction"? *Computers in Human Behavior*, 29(3), 948–958. <https://doi.org/10.1016/j.chb.2012.12.012>
- Salepaki, A., Zerva, A., Kourkouridis, D., & Angelou, I. (2025). Unplugging youth: Mobile phone addiction, social impact, and the call for digital detox. *Psychiatry International*, 6(1), 4–15. <https://doi.org/10.3390/psychiatryint6010004>
- Subramanian, R. (2023). Accelerated learning or superficial consumption? The impact of video playback speed on long-term memory retention in higher education. *Journal of Computer Assisted Learning*, 39(3), 812–825.
- Sullivan, M., Kelly, A., & Strampel, P. (2024). ChatGPT and the rise of cognitive offloading in higher education: Implications for critical thinking and student evaluation. *Higher Education Research & Development*, 43(2), 345–359. <https://doi.org/10.1080/07294360.2023.2264567>
- Twenge, J. M., Martin, G. N., & Spitzberg, B. H. (2019). Trends in U.S. adolescents' media use, 1976–2016: The rise of digital media, the decline of TV, and the (near) demise of print. *Psychology of Popular Media Culture*, 8(4), 329–345. <https://doi.org/10.1037/ppm0000203>
- Vanden Abeele, M. M. P. (2024). Digital wellbeing as a dynamic construct: Navigating the trade-offs of smartphone use in everyday life. *Communication Theory*, 34(1), 12–25. <https://doi.org/10.1093/ct/qtad008>
- Ward, A. F., Duke, K., Gneezy, A., & Bos, M. W. (2021). Brain drain: The mere presence of one's own smartphone reduces available cognitive capacity. *Journal of the Association for Consumer Research*, 2(2), 140–154. <https://doi.org/10.1086/691462>
- Zablotsky, B. (2025). Associations between screen time use and health outcomes among US teenagers. *Preventing Chronic Disease*, <http://dx.doi.org/10.5888/pcd22.240537>