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# Digital Wellbeing in the Modern Era: Impacts, Coping Strategies and the Moderating Role of Digital Literacy

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***Abstract:*** Digital technologies have become deeply embedded in contemporary life, reshaping how individuals communicate, learn and interact socially. While these technologies provide numerous benefits such as enhanced connectivity and access to information, they also present challenges related to psychological distress, cognitive overload and problematic usage patterns. This paper synthesizes existing literature to examine the nature of digital wellbeing, its impacts across psychological, cognitive, social and behavioral domains and the coping strategies individuals adopt to maintain balance. Furthermore, the paper explores the moderating role of digital literacy, emphasizing its importance in shaping positive digital experiences while mitigating risks. Drawing on interdisciplinary research, the study proposes a conceptual framework linking digital engagement, wellbeing outcomes, coping mechanisms and digital literacy. The findings suggest that digital wellbeing is a dynamic construct requiring a balanced approach that integrates behavioral regulation, technological awareness and educational interventions. The analysis further indicates that effective digital engagement depends not only on individual self-regulation but also on supportive technological design and institutional frameworks. Additionally, digital literacy emerges as a critical factor in enhancing positive outcomes while reducing potential risks, reinforcing its role in promoting sustainable and responsible digital practices.

***Key words*** - Digital Wellbeing, Digital Literacy, Mental Health, Technology Use, Coping Strategies

## 1. Introduction

Digital tools are now deeply ingrained in daily life due to the quick spread of digital technologies, which has completely changed modern civilization. Smartphones, social media platforms and artificial intelligence systems have facilitated unprecedented levels of connectivity and efficiency, fundamentally reshaping how individuals communicate, learn and interact (Mahato & Rajavikaram, 2024). However, this transformation has also introduced complex challenges related to wellbeing. Individuals are increasingly exposed to constant notifications, information overload and social comparison, which may negatively affect psychological and emotional health (Matthes et al., 2019; Smith et al., 2021). Digital wellbeing has therefore emerged as an essential concept in understanding how individuals can maintain a healthy relationship with technology. It is commonly understood as a dynamic state of balance between connectivity and disconnection, where individuals engage with digital technologies in ways that enhance rather than diminish their quality of life (Vanden Abeele, 2021). This balance is influenced by individual behaviours, technological design and contextual factors, which makes digital wellbeing a multifaceted and evolving construct. While digital technologies can foster social inclusion and reduce isolation, particularly among older adults (Sen et al., 2022), along with excessive or maladaptive use has been associated with mental health challenges such as anxiety, depression and stress (Novanská Škripcová & Viteková, 2025). In addition, the increasing integration of digital platforms into daily activities has led to new behavioural patterns, including constant multitasking and dependency on digital devices (Nabung, 2024), which further complicate the relationship between technology use and wellbeing.

Beyond psychological implications, digital technologies significantly influence cognitive processes and social dynamics (De Barros, 2024). Continuous engagement with digital platforms often fragments attention, reduces deep information processing and contributes to cognitive fatigue, particularly in environments driven by algorithmic content delivery and persuasive design features such as infinite scrolling (Ali et al., 2025). At the same time, digital environments reshape social interactions by enabling global connectivity (Marlowe et al., 2016) while simultaneously amplifying social comparison and validation-seeking behaviours (Agarwal, 2025). Furthermore, the growing role of artificial intelligence in personalizing digital experiences raises important concerns about autonomy, privacy and over-reliance on automated systems (Karamuk, 2025). In this context, digital literacy becomes a critical factor in moderating digital wellbeing, as it encompasses not only technical competence but also the ability to critically evaluate information, understand algorithmic influences and engage responsibly in digital spaces. However, digital literacy alone may not be sufficient, as emotional regulation and behavioural control also play vital roles in shaping digital experiences. Therefore, this paper aims to examine the impacts of digital technology on wellbeing, explore coping strategies and analyze the moderating role of digital literacy, ultimately contributing to a more comprehensive understanding of digital wellbeing in the modern era.

## 2. Conceptualizing Digital Wellbeing

Digital wellbeing is a multidimensional construct that reflects an individual's ability to maintain a healthy, balanced and sustainable relationship with digital technologies in an increasingly connected world. It encompasses psychological, cognitive, social and behavioural dimensions, each of which is shaped by patterns of digital engagement and individual differences in technology use. Vanden Abeele (2021) conceptualizes digital wellbeing as an experiential state characterized by an optimal balance between connectivity and dysconnectivity, emphasizing that wellbeing is not solely determined by the quantity of digital use but by the quality and context of such engagement. This perspective shifts the focus from simplistic measures such as screen time toward a more nuanced understanding of how individuals experience and regulate their interactions with digital environments. Digital wellbeing is therefore inherently dynamic, fluctuating across time and situations depending on personal goals, technological affordances and social expectations (Steinert & Dennis, 2022).

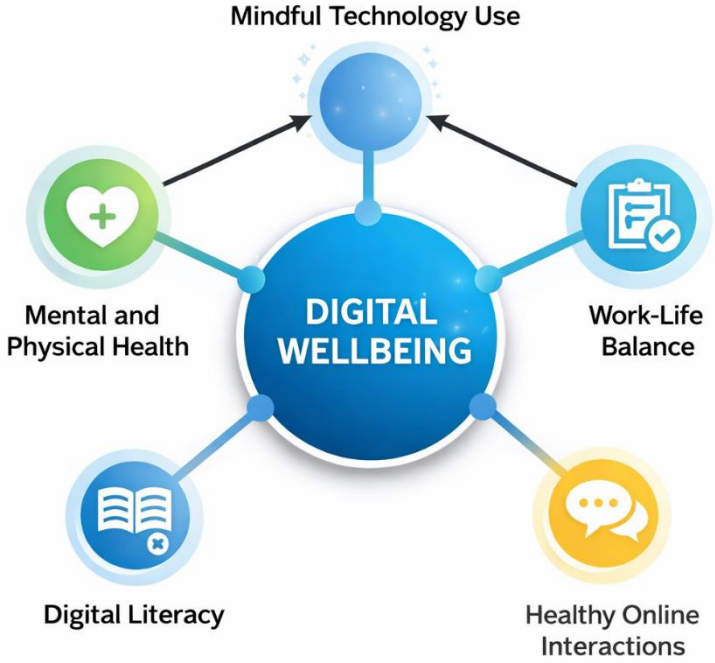


**Figure 1.** Components of Digital Wellbeing

Digital wellbeing, as a multidimensional construct, can be better understood through established theoretical perspectives that explain how individuals interact with digital technologies and how these interactions influence wellbeing outcomes. This study builds on key theories such as Self-Regulation Theory, Cognitive Load Theory and Social Comparison Theory to provide a conceptual foundation. Self-Regulation Theory explains how individuals manage their behaviours through cognitive and behavioural control processes, which are essential for maintaining balance in technology use (Bandura, 1991). Cognitive Load Theory highlights the impact of information overload and attentional fragmentation in digital environments, emphasizing the cognitive challenges associated with excessive digital engagement (Sweller, 1988). Social Comparison Theory provides insight into the psychological effects of digital interactions, particularly in social media contexts

where individuals compare themselves with idealized representations of others, often influencing self-esteem and emotional wellbeing (Festinger, 1954). Together, these theoretical perspectives offer a comprehensive framework for understanding digital wellbeing and support the proposed conceptual model of the study.

From a psychological perspective, digital wellbeing is closely linked to emotional regulation, mental health outcomes and overall life satisfaction (Scott et al., 2023). Digital environments can provide opportunities for self-expression, social support and identity exploration (Zhakin, 2023), all of which may enhance emotional wellbeing. However, they can also expose individuals to stressors such as information overload, online harassment and constant social comparison, which may lead to anxiety, depression and emotional fatigue (Niu et al., 2020). Cognitive dimensions of digital wellbeing involve processes such as attention, memory and decision-making, which are increasingly influenced by digital interactions (De Barros, 2024). While digital technologies enhance access to information and facilitate learning, they may also contribute to fragmented attention and reduced capacity for deep, sustained thinking. Social dimensions of digital wellbeing further complicate this relationship, as digital platforms simultaneously enable meaningful connections and foster superficial interactions (Oluwatoyin, 2021). Behavioural aspects of digital wellbeing focus on usage patterns, including screen time, habitual checking and dependency on digital devices. These behaviours are often shaped by both individual habits and the persuasive design features of digital technologies, which are intentionally developed to maximize user engagement (Amirabdolahian et al., 2025).

Digital wellbeing is not only an individual phenomenon but also a socially and culturally situated construct influenced by broader contextual factors. Cultural norms, institutional practices and technological infrastructures all play a role in shaping how individuals interact with digital technologies and how they perceive their impact. For example, in educational contexts, digital engagement is often encouraged and associated with productivity and learning, whereas in personal contexts, excessive use may be viewed as problematic. Similarly, workplace expectations regarding constant availability and responsiveness can blur the boundaries between professional and personal life, contributing to digital stress and burnout. Individual differences, such as personality traits, age and prior experiences with technology, further influence digital wellbeing by shaping preferences, coping strategies and levels of self-regulation. Younger individuals, for instance, may be more adept at navigating digital environments but also more vulnerable to issues such as social comparison and online validation-seeking, while older adults may benefit from digital connectivity but face challenges related to digital literacy and accessibility.

## 3. Digital Technology and Human Wellbeing

### *3.1 Emotional and Psychological Dimensions of Digital Engagement*

The psychological implications of digital technology use represent one of the most extensively examined aspects of digital wellbeing that reflecting both its empowering potential and its capacity to generate emotional strain. Digital environments offer individuals unprecedented opportunities for emotional expression, identity exploration and social support (Zhakin, 2023). Online platforms enable users to share experiences, seek validation and maintain interpersonal connections, which can contribute positively to emotional wellbeing. Digital communication has proven beneficial for individuals who experience social isolation, as it provides alternative avenues for interaction and belonging. For example, technology-mediated communication has been shown to enhance emotional connectedness and improve quality of life among older adults, demonstrating its capacity to function as a psychological resource in contexts of limited physical interaction (Sen et al., 2022).

Despite these advantages, the psychological consequences of digital engagement are often complex. Continuous exposure to curated digital content fosters environments where social comparison becomes pervasive, encouraging individuals to evaluate themselves against idealized representations of others. This process can lead to weakened self-esteem, increased anxiety and emotional dissatisfaction. The phenomenon of Fear of Missing Out, which has been strongly associated with problematic social media use and psychological distress (Hosseini et al., 2026). Additionally, the expectation of continuous availability, which is reinforced by notifications and instant messaging, blurs the lines between personal and digital life, which exacerbates emotional exhaustion and chronic stress.

### *3.2 Cognitive Transformations in the Digital Environment*

Digital technologies have significantly transformed cognitive processes, redefining how individuals obtain, process, and employ information. Digital tools augment cognitive efficiency by offering rapid access to extensive information, thereby aiding learning and helping problem-solving (Clemente-Suárez et al., 2024). The integration of digital platforms into educational and professional contexts has expanded opportunities for knowledge acquisition and skill development that enables individuals to engage with diverse forms of content in interactive and dynamic ways. This cognitive augmentation reflects the potential of digital technologies to extend human intellectual capabilities beyond traditional limitations. However, these benefits are accompanied by significant cognitive challenges. Research suggests that such multitasking behaviours

negatively affect productivity and hinder the development of critical thinking skills (Shanmugasundaram & Tamilarasu, 2023). Reliance on digital tools may reduce memory retention and increase dependence on external aids.

### *3.3 Reconfiguring Social Relationships in Digital Contexts*

The social impact of digital technologies is characterized by an interplay between enhanced connectivity and potential social fragmentation. Digital platforms have revolutionized communication by enabling instantaneous interaction across geographical boundaries, facilitating collaboration and fostering the formation of global communities (Fazil et al., 2024). These technologies have become essential tools for maintaining relationships in contexts where physical interaction is limited, such as during the COVID-19 pandemic, when digital communication served as a primary means of sustaining social connections and continuity in daily life (Nguyen et al., 2020). At the same time, the nature of digital interaction often differs significantly from face-to-face communication, raising questions about its impact on relationship quality. Online interactions are frequently mediated by screens and lack the richness of non-verbal cues, such as facial expressions and body language, which are essential for emotional understanding and empathy. Negative online behaviours, including cyberbullying, harassment and social exclusion, further complicate the social dynamics of digital engagement and have been associated with adverse wellbeing outcomes (ElSayary et al., 2026).

### *3.4 Behavioural Patterns and the Regulation of Digital Use*

Behavioural responses to digital technology use provide critical insight into how digital engagement shapes everyday life. Short-form content platforms promote rapid, stimulating consumption that encourages continuous use and may lead to behavioral dependency despite awareness of negative effects (Novanská Škripcová & Viteková, 2025). These patterns can disrupt routines, sleep, and productivity. Although digital wellbeing tools increase awareness, they often fail to sustain behavioral change without strong self-regulation and motivation (Roffarello & De Russis, 2019).

## 4. Regulatory Mechanisms and Adaptive Responses for Sustaining Digital Wellbeing

### *4.1 Cognitive Self-Regulation and Reflective Digital Awareness*

Effective digital engagement relies on cognitive self-regulation, involving conscious monitoring and adjustment of technology use. Users adopt reflective awareness of habits, motivations, and psychological responses, enabling critical evaluation of information and reducing misinformation and overload (Goddard, 2025; Uslu, 2025). Recognizing stress or boredom helps develop intentional control strategies. This metacognitive approach promotes mindful use, shifting behaviour from reactive to deliberate and aligning digital practices with personal goals and values.

**Table 1.** Regulatory Mechanisms and Adaptive Strategies for Digital Wellbeing

| Core Dimension | Conceptual Focus | Key Components | Expected Outcomes |
|---|---|---|---|
| Cognitive Self-Regulation | Reflective control over digital use | Critical thinking, self-monitoring | Better decisions, reduced misinformation |
| Behavioural Regulation | Structured digital habits | Screen time control, boundaries | Reduced dependency, improved productivity |
| Emotional Resilience | Managing digital stress | Mindfulness, self-compassion | Lower stress, emotional stability |
| Technological Mediation | Tech-supported self-regulation | Tracking tools, AI feedback | Awareness, improved control |
| Educational & Institutional Support | System-level digital literacy | Policies, curriculum | Long-term resilience, responsible use |

### *4.2 Behavioural Regulation and Structured Technology Use*

Behavioural regulation plays a vital role in shaping sustainable digital habits by enabling individuals to manage their time, attention and engagement with digital devices more effectively (Anthonysamy et al., 2020). Strategies such as setting usage boundaries, scheduling specific periods for digital interaction and taking regular breaks help prevent overexposure in environments designed to maximize user attention. Integrating offline activities like physical exercise and social interaction further promotes balance and overall wellbeing. Over time, these practices contribute to healthier routines, reduced dependency and enhanced self-control. However, maintaining such habits requires continuous effort, motivation and adaptability to evolving digital environments.

### *4.3 Emotional Resilience and Psychological Coping in Digital Contexts*

Emotional resilience is crucial for digital wellbeing, as digital environments expose individuals to stressors like social comparison, negative feedback and information overload. These can affect emotional stability and wellbeing. Developing coping strategies such as mindfulness, self-compassion and emotional regulation helps manage these challenges (Wisener & Khoury, 2022). Setting boundaries and disengaging from harmful

interactions further supports wellbeing. Strengthening emotional resilience enables balanced digital engagement and highlights the connection between emotional states and online behaviour (Ge, 2025; ElSayary et al., 2026).

### *4.4 Technological Mediation and Intelligent Digital Interventions*

Technological solutions support digital wellbeing by enabling users to monitor and regulate their digital activities (Roffarello & De Russis, 2022). Tools such as screen time tracking, usage analytics and app restrictions enhance awareness and encourage behavioral change. However, their effectiveness depends on user motivation, as awareness alone often fails to produce lasting change. Advances in AI offer more adaptive support through personalized feedback, predictive alerts and real-time guidance, improving self-regulation. Despite these benefits, concerns related to privacy, autonomy, and ethical design remain critical for ensuring positive outcomes (Roffarello & De Russis, 2019).

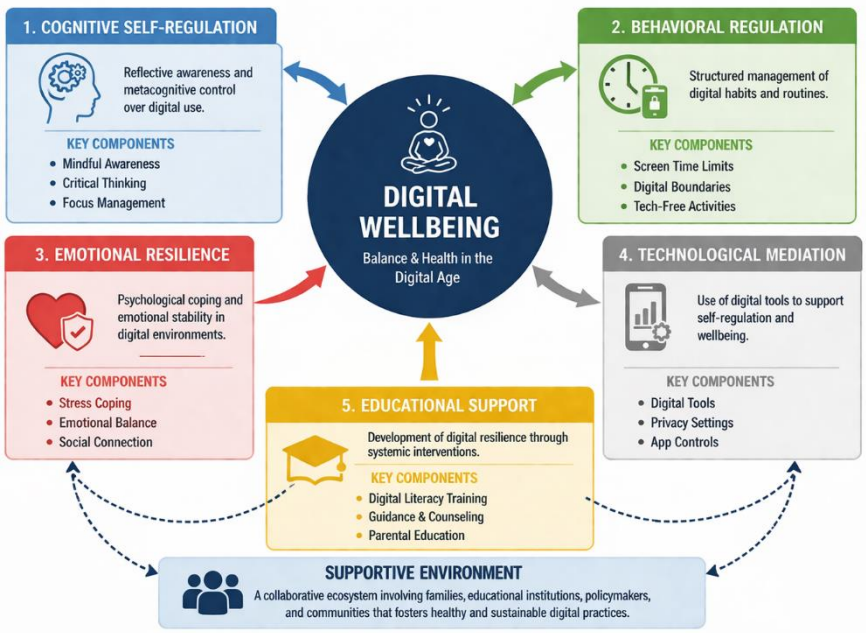


**Figure 2.** Digital wellbeing regulatory framework

### *4.5 Educational Frameworks and the Development of Digital Resilience*

Educational and institutional strategies play a vital role in promoting digital wellbeing by equipping individuals with essential skills to navigate digital environments effectively. Digital resilience extends beyond technical proficiency to include critical thinking, emotional regulation, problem-solving and responsible digital citizenship (Vettriselvan, 2025). Integrating digital literacy into educational curricula empowers individuals to use technology in a balanced and informed manner while understanding its broader impacts. Such initiatives encourage awareness of digital behaviours and their consequences. Additionally, institutional policies and support systems that promote healthy technology use contribute to sustainable digital practices. A holistic approach combining individual competencies with systemic support is essential for fostering long-term digital wellbeing and resilience (Livingstone et al., 2021; Naeem & Mushibwe, 2025).

## 5. The Moderating Role of Digital Literacy in Digital Wellbeing

Digital literacy plays a pivotal role in shaping how individuals engage with digital technologies and experience their effects on wellbeing. As a moderating variable, it influences the direction and intensity of outcomes associated with digital engagement by enabling users to navigate digital environments more effectively and responsibly. Digital literacy extends beyond basic technical competence to include critical thinking, ethical awareness, and self-regulation, all of which contribute to more informed and balanced technology use (Jeffcoat & Tang, 2025).

### *5.1 Critical Evaluation of Digital Information*

One of the primary functions of digital literacy is the ability to critically evaluate digital information. Individuals with higher levels of digital literacy are better equipped to assess the credibility, accuracy, and relevance of online content, thereby reducing their vulnerability to misinformation and manipulation. This skill is particularly important in contemporary digital environments, where the rapid spread of false information can have significant psychological and social consequences (Steinfeld et al., 2025).

### *5.2 Self-Regulation and Responsible Digital Use*

Digital literacy also enhances individuals' capacity for self-regulation, allowing them to manage their digital engagement more effectively. Users with strong digital skills are more likely to monitor their screen time, avoid excessive or compulsive usage, and maintain a healthy balance between online and offline activities. This ability to regulate behaviour contributes to improved psychological wellbeing and reduces the risk of digital addiction and burnout (Livingstone et al., 2021).

### *5.3 Safe and Ethical Digital Practices*

Another important dimension of digital literacy is the promotion of safe and ethical digital behaviour. This includes awareness of privacy, data security, and responsible communication practices in online spaces. Digitally literate individuals are more likely to engage in respectful interactions and to protect themselves from potential risks such as cyber threats and online harassment. These practices contribute to healthier and more constructive digital environments (Clark et al., 2018).

### *5.4 Adaptive Coping and Psychological Resilience*

Digital literacy further supports adaptive coping mechanisms by enabling individuals to respond effectively to digital stressors such as social comparison, cyberbullying, and information overload. Through enhanced problem-solving skills and emotional awareness, individuals can better manage the psychological demands of digital engagement, thereby strengthen resilience and maintain emotional stability (ElSayary et al., 2026).

### *5.5 Access to Opportunities and Quality of Life Enhancement*

Digital literacy expands access to opportunities that contribute to improved quality of life. Digitally competent individuals can effectively utilize online resources for education, healthcare, social participation, and professional development. This not only enhances personal growth but also supports broader social inclusion, particularly among populations that may otherwise face barriers to digital access (Xin et al., 2025).

### *5.6 Limitations of Digital Literacy as a Moderating Factor*

Despite its significant benefits, digital literacy does not entirely eliminate the risks associated with digital technology use. Even individuals with high levels of digital competence may experience issues such as overuse, emotional distress or cognitive overload. This suggests that digital literacy functions as a moderating rather than a deterministic factor, influencing but not fully controlling the outcomes of digital engagement (Novanská Škripcová & Viteková, 2025).

## 5. Discussion

The present analysis highlights the complex and multidimensional nature of digital wellbeing, emphasizing that the relationship between digital technology use and human wellbeing cannot be understood through a purely linear or deterministic lens (Vanden Abeele, 2021). Rather, digital engagement operates within a dynamic system in which psychological, cognitive, social and behavioural dimensions interact continuously and producing both beneficial and adverse outcomes (Shanmugasundaram & Tamilarasu, 2023; Oluwatoyin, 2021). The findings suggest that digital technologies are not inherently harmful or beneficial; instead, their impact depends largely on how they are used, the context in which they are embedded and the individual capacities of users to regulate their engagement (Bandura, 1991). This reinforces the growing scholarly consensus that digital wellbeing should be conceptualized as a process-oriented construct shaped by ongoing interactions between individuals and digital environments (Vanden Abeele, 2021).

One of the key insights emerging from this analysis is the dual role of digital technologies as both enablers and disruptors of wellbeing. On one hand, digital platforms facilitate communication, access to information and opportunities for learning and self-expression, thereby enhancing various aspects of wellbeing (Nguyen et al., 2020; Fazil et al., 2024). On the other hand, the same technologies contribute to challenges such as information overload, attentional fragmentation, social comparison and behavioural dependency (Matthes et al., 2019; Niu et al., 2020; Novanská Škripcová & Viteková, 2025). This duality underscores the importance of moving beyond simplistic metrics such as screen time and instead focusing on qualitative aspects of digital engagement, including purpose, context and user experience. It also suggests that interventions aimed at improving digital wellbeing must account for both the positive and negative dimensions of technology use rather than adopting a purely restrictive approach.

Regulatory mechanisms play an important role in moderating the link between digital engagement and wellbeing outcomes (Anthonysamy et al., 2020; Roffarello & De Russis, 2019). Cognitive self-regulation, behavioural discipline and emotional resilience collectively enable individuals to navigate digital environments more effectively and to mitigate potential risks (Scott et al., 2023). These mechanisms emphasize the significance of individual agency in shaping digital experiences, implying that users are not passive consumers of technology influence, but active participants capable of modifying their actions and responses. However, the effectiveness of these strategies is not uniform across individuals, as it is influenced

by factors such as age, personality, prior experience and access to resources. This variability points to the need for personalized approaches to digital wellbeing that consider individual differences and contextual factors.

Digital literacy emerges as a particularly significant moderating variable within this framework, influencing both the extent to which individuals benefit from digital technologies and their vulnerability to associated risks (Livingstone et al., 2021; Xin et al., 2025). Individuals with higher levels of digital literacy are generally better equipped to evaluate information critically, manage privacy concerns and engage with digital tools in purposeful ways (Steinfeld et al., 2025; Jeffcoat & Tang, 2025). However, the discussion also reveals that digital literacy alone is insufficient to ensure positive outcomes, as even highly skilled users may experience issues such as overuse or emotional distress (Novanská Škripcová & Viteková, 2025). This finding highlights the need to reconceptualize digital literacy as a broader construct that integrates technical skills with cognitive, emotional and ethical competencies (Naeem & Mushibwe, 2025). In this sense, digital literacy should be viewed as part of a larger framework of digital resilience that encompasses the ability to adapt to evolving technological environments while maintaining wellbeing.

Another important implication relates to the role of technological design in shaping user behaviour. Many digital platforms are intentionally designed to maximize engagement through features such as notifications, infinite scrolling and algorithmic personalization (Yaochen & Jasper, 2025). While these features enhance usability and user satisfaction, they also contribute to habitual and sometimes compulsive usage patterns (Ali et al., 2025). This raises important ethical considerations regarding the responsibility of technology developers to design systems that support rather than undermine user wellbeing (Clark et al., 2018). A shift toward human-centered design principles, which prioritize user autonomy, transparency and wellbeing, is essential for creating healthier digital ecosystems. Such an approach would involve not only redesigning existing platforms but also rethinking the underlying business models that incentivize prolonged user engagement.

From an educational and policy perspective, the findings underscore the importance of integrating digital wellbeing into broader institutional frameworks (Livingstone et al., 2021; Amirabdolahian et al., 2025). Educational institutions play a crucial role in developing digital literacy and resilience by equipping individuals with the skills necessary to navigate digital environments effectively (Jeffcoat & Tang, 2025). Similarly, organizational policies that promote balanced technology use and protect individuals from excessive digital demands can contribute to improved wellbeing outcomes. At a societal level, there is a need for collaborative efforts involving policymakers, educators and technology developers to establish standards and guidelines that support sustainable digital practices.

Finally, this discussion highlights several directions for future research. Empirical studies are needed to validate the proposed conceptual relationships and to explore the long-term effects of digital engagement on wellbeing across different populations and cultural contexts. Additionally, there is a need for interdisciplinary research that integrates perspectives from psychology, education, communication and technology studies to develop more comprehensive models of digital wellbeing. By advancing both theoretical understanding and practical applications, future research can contribute to the development of more effective strategies for promoting wellbeing in an increasingly digital world.

## 6. Conclusion

Digital wellbeing in the modern era represents a complex and evolving construct shaped by the interaction between individuals and digital technologies. This paper demonstrates that digital engagement produces both positive and negative outcomes across psychological, cognitive, social and behavioural domains, depending on the nature, context and intensity of use. It further highlights the importance of regulatory mechanisms such as cognitive self-regulation, behavioural control and emotional resilience in managing digital experiences effectively. Digital literacy emerges as a critical moderating factor, enabling individuals to navigate digital environments more consciously, although it is not sufficient on its own to ensure positive wellbeing outcomes. Overall, achieving digital wellbeing requires a balanced and holistic approach that integrates individual competencies, supportive institutional frameworks and ethically designed technologies. Future efforts should focus on fostering sustainable digital practices that enhance human wellbeing while minimizing potential risks in an increasingly technology-driven world.

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