Digital detox as a means to enhance eudaimonic well-being

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Objectives: The study addresses the impact of digital detox, defined as a deliberate withdrawal from digital devices, on eudaimonic well-being, emphasizing the importance of purposeful living and personal growth.

Methods: The study employs a systematic literature review approach guided by PRISMA. It involves identifying, screening, and synthesizing relevant research from multiple databases. The methodology includes stringent selection criteria to ensure the inclusion of high-quality studies. Data extraction and synthesis methods are used to distil insights from both quantitative and qualitative research. The quantitative synthesis (meta-analysis) includes 15 studies, incorporating theoretical perspectives and conceptual models linking digital detox to cognitive benefits, emotional regulation, and mindfulness.

Results: Key findings indicate that digital detox offers cognitive and emotional advantages, such as improved attention, stress reduction, and enhanced self-reflection. The review also reveals positive impacts on social connectedness and habit formation. Technological contexts and strategies for balancing digital engagement with detoxification are discussed, along with practical applications for designing effective digital detox programs.

Conclusion: The study concludes that digital detox practices can significantly promote eudaimonic well-being by providing cognitive and emotional benefits. It contributes to the fields of behavioral sciences and public health by offering evidence-based insights and recommendations for integrating digital detox into daily routines. Future research directions are suggested to address existing gaps and explore innovative interventions.

KEYWORDS

digital detox, eudaimonic well-being, cognitive benefits, emotional regulation, mindfulness, social connectedness, behavioral change, public health

Introduction

> "*In the cacophony of our digital age, silence has become a precious commodity. The art of disconnecting may hold the key to rediscovering our authentic selves and living lives of true meaning and purpose.*" —*Dr. Emma Seppälä, Stanford University Centre for Compassion and Altruism Research and Education (2022).*

The start of the 21st century has brought about an era of unparalleled digital connectivity, which has fundamentally altered the nature of human interaction, labour, and leisure. The pervasiveness of digital technology is evident in a variety of sectors, including communication, entertainment, education, healthcare, and business. It has rapidly advanced beyond all previous innovations, resulting in the adoption of the technology by approximately 50% of the

developing world's population in just two decades. This has facilitated substantial societal transformations (Kolhe and Dr. Mehvish, 2022). The profound implications of this digital immersion on human well-being have been the subject of a growing body of research as smartphones, social media platforms, and an ever-expanding array of digital technologies have become inextricably woven into the tapestry of daily life (Przybylski and Weinstein, 2017). The concept of "digital detox" has emerged as a potential solution to the contemporary condition, amid apprehensions regarding the potential adverse effects of excessive technology use, such as diminished face-to-face social connections, increased tension, and anxiety (Syvertsen and Enli, 2019). In general, digital detox is a voluntary period of abstinence from digital devices and online platforms that is intended to reevaluate one's relationship with technology and establish a space for reflection, personal development, and genuine human connection (Radtke et al., 2021). This practice has acquired momentum not only as a temporary trend, but also as a significant factor in the fields of digital wellness, public health, and mental health. The potential benefits of occasional disconnection have been closely examined by researchers and practitioners alike, as individuals and organisations strive to preserve balance in a progressively interconnected world. The concept of eudaimonic well-being has experienced a resurgence of attention in the field of positive psychology, in conjunction with the increasing interest in digital detox. Eudaimonia, which is based on Aristotelian philosophy, is a multifaceted approach to human flourishing that transcends mundane pleasure or positive affect (Ryan and Deci, 2001). In contrast, eudaimonic well-being is characterised by the cultivation of virtues and excellence, the pursuance of meaningful objectives, and the realisation of one's true potential (Waterman et al., 2010). This comprehensive understanding of well-being provides a compelling framework for evaluating the potential advantages of digital detox practices. The intersection of digital detox and eudaimonic well-being offers a fertile environment for investigation, prompting critical enquiries regarding the nature of human flourishing in the digital era. In what ways could periods of technological abstinence contribute to the different aspects of eudaimonic well-being, including personal development, autonomy, and purpose in life? What are the mechanisms by which digital detox practices can promote a more profound sense of self-realization and authenticity? In a world that is becoming more digitised, how can these insights be used to create effective strategies for fostering psychological flourishing? The objective of this exhaustive review article is to investigate these enquiries by synthesising empirical evidence, theoretical perspectives, and current research to clarify the potential of digital detox as a method to improve eudaimonic well-being. This review aim to enhance our comprehension of the concept of living well in the digital age by analysing the intricate relationship between the human pursuit of meaning and purpose, psychological flourishing, and technology use. In the contemporary hyper-connected environment, digital devices have turned into an essential component of everyday life, significantly influencing cognitive growth, emotional health, and social engagement. Although technology provides clear advantages, its overuse and lack of regulation, especially from a young age, prompts significant worries about lasting psychological effects. Promoting organized digital detox habits from a young age is crucial for cultivating eudaimonic well-being and maintaining a healthy relationship with technology. Studies in developmental psychology emphasize how early-life experiences influence long-term behaviors,

with concepts like Erikson's psychosocial development and self-determination theory emphasizing the significance of autonomy, intrinsic motivation, and competence for overall well-being. Involving children in non-digital pursuits like outdoor play, creative arts, mindfulness exercises, and social interactions fosters self-awareness and emotional regulation while also reducing cognitive and behavioral risks linked to extended screen time, including shorter attention spans, weakened social skills, and increased anxiety. Schools, as essential environments for growth, serve a vital function in creating organized screen-time guidelines and technology-free areas that promote profound learning, creativity, and social interactions. Multiple studies suggest that restricted digital access in schools enhances student concentration and academic achievement, evident in nations such as Finland and France, where smartphone limitations have favorably impacted classroom participation. Educational institutions ought to incorporate media literacy initiatives that educate on responsible technology usage, digital boundaries, and the mental impacts of too much screen time, helping students cultivate a mindful, well-rounded attitude toward digital consumption instead of passive dependence. Additionally, the moral considerations of unmonitored digital exposure require a child rights-oriented approach, framing protection from excessive digital use as an essential right within international child protection standards like the UN Convention on the Rights of the Child (UNCRC). The compulsive characteristics of digital platforms, fueled by dopamine-driven feedback loops, evoke ethical dilemmas regarding corporate tactics aimed at capitalizing on children's focus, highlighting the necessity for regulatory actions. Governments and policymakers need to create age-specific digital regulations that promote ethical content development and responsible practices within the tech industry to avoid early exposure to addictive online behaviors. In addition to policy measures, parental engagement is vital for promoting mindful technology use, where defined screen-time guidelines, offline family activities, and parents demonstrating healthy digital behaviors significantly influence children's interaction with technology. Similar to how nutritional guidelines stress the importance of balanced eating habits, digital usage should be managed to enhance mental health, foster creative involvement, and encourage significant in-person interactions instead of just idle screen time. Tackling digital overexposure necessitates a collaborative approach that includes parents, teachers, policymakers, and mental health experts in fostering an atmosphere conducive to digital mindfulness. Parental oversight should encompass supervising and controlling screen usage, educational institutions ought to introduce organized digital detox initiatives, authorities need to impose ethical digital regulations, and community-driven projects should offer captivating, non-digital options for entertainment. By promoting early interventions and a systematic method for digital detox, society can cultivate a generation that interacts with technology consciously, ensuring that digital engagement improves rather than undermines well-being. Rather than calling for the complete removal of digital technology, the focus should be on a thoughtful and balanced engagement that emphasizes human connection, creativity, and emotional strength, ultimately fostering eudaimonic well-being over time.

The objectives of this review are as follows:

1. To critically evaluate and synthesize the existing literature on digital detox practices, examining their origins,

implementation, and reported outcomes across various populations and contexts.

2. To explore the theoretical foundations of eudaimonic well-being, elucidating its key components and distinguishing features from other conceptualizations of well-being.

3. To analyse the potential mechanisms through which digital detox practices may contribute to specific dimensions of eudaimonic well-being, such as personal growth, autonomy, environmental mastery, and positive relationships.

4. To examine the empirical evidence supporting the relationship between digital detox and enhanced eudaimonic well-being, identifying both direct and indirect pathways of influence.

Theoretical foundations

The study of digital detox and its potential influence on eudaimonic well-being has been a prominent field of investigation in recent times, incorporating insights from psychology, philosophy, and digital media studies. In order to have a comprehensive understanding of this connection, it is crucial to examine the historical development of digital detox practices, the philosophical foundations of eudaimonia, and the theoretical frameworks that establish a link between these two ideas. The concept of digital detox originated from the wider concept of media fasting and technological sabbaths, which became popular in the early 2000s as a reaction to the growing prevalence of digital gadgets and internet access (Sutton, 2017). With the increasing use of smartphones and social media platforms, experts and professionals have started acknowledging the possible adverse effects of continual connectedness on mental health and general well-being. This acknowledgement resulted in the creation of structured digital detox programs and therapies, frequently influenced by mindfulness practices and cognitive-behavioral techniques (Syvertsen and Enli, 2019).

The philosophical idea of eudaimonia, which originated from ancient Greek philosophy, specifically in the works of Aristotle, offers a fundamental framework for comprehending well-being that extends beyond mere pleasure or enjoyment. Eudaimonia refers to the concept of living in alignment with one's authentic self and achieving one's maximum capabilities (Ryff and Singer, 2008). Psychologists have recently extended this notion to contemporary situations by creating models of psychological well-being that include aspects of personal development, life purpose, and positive social connections (Keyes et al., 2002). Several theoretical theories provide support for the convergence of digital detox practices and eudaimonic well-being. The Self-Determination Theory (SDT), developed by Ryan and Deci (2000), posits that individuals enhance their psychological well-being by meeting their core psychological needs for autonomy, competence, and relatedness. Interventions focused on digital detox can assist in meeting these requirements by promoting deliberate use of technology and fostering authentic interactions (Przybylski et al., 2013). Another pertinent theoretical framework is the Attention Restoration Theory (ART) formulated by Kaplan and Kaplan (1989). This idea posits that being in natural environments can aid in replenishing cognitive resources that have been drained due to extended periods of focused concentration, such as those necessitated by the use of digital devices. Practices of digital detox frequently involve exposing oneself to nature, which might potentially

improve cognitive function and provide a sense of eudaimonic well-being (Johnsen and Rydstedt, 2013). The Broaden-and-Build Theory, proposed by Fredrickson (2001), offers more understanding of the potential advantages of digital detoxification for eudaimonic well-being. This theory posits that happy emotions expand an individual's range of thoughts and actions and cultivate long-lasting personal assets. Digital detox techniques, which involve minimising digital distractions and encouraging participation in activities that generate good feelings, have the potential to foster psychological resources that enhance long-term well-being (Cohn et al., 2009). Recent studies have also investigated how mindfulness affects the connection between digital detox and eudaimonic well-being. Research has demonstrated that mindfulness-based therapies can improve different aspects of psychological well-being, such as self-awareness and emotion control (Brown and Ryan, 2003). Engaging in digital detox practices that incorporate mindfulness techniques can potentially improve eudaimonic well-being by promoting mindfulness of the current moment and intentional use of technology (Alter, 2017). By combining these theoretical viewpoints, a thorough framework is established to better comprehend how digital detox techniques can improve eudaimonic well-being. Digital detox strategies are in line with the fundamental aspects of eudaimonic well-being, as defined in current psychology research by Reinecke and Hofmann (2016). These interventions aim to reduce stress caused by technology, encourage genuine interactions, and support personal development. Researchers are creating novel theoretical models to handle the distinct difficulties and opportunities brought about by the growing digital landscape. These developing frameworks strive to find a middle ground between the advantages of using technology and the importance of taking breaks from it. They acknowledge that practicing digital detox can not only help reduce stress in the short term but also contribute to long-term well-being and fulfilment (Vorderer and Kohring, 2013).

Methods

Study design

This review employed a rigorous systematic approach to investigate the impact of digital detox on eudaimonic well-being. Systematic reviews are pivotal in consolidating existing literature while minimizing bias through predefined criteria and methodological transparency. PRISMA (Preferred Reporting Items for Systematic reviews and meta-analyses) statement (Moher et al., 2009) standards were followed in the conduct of the systematic review.

Databases and search strategies

The search strategy was meticulously designed to capture relevant studies from diverse sources. Primary databases such as PubMed, PsycINFO, Web of Science, and Google Scholar were queried using a combination of controlled vocabulary terms (e.g., "digital detox," "eudaimonic well-being") and Boolean operators (e.g., AND, OR). These databases were selected for their comprehensive coverage of peer-reviewed literature in psychology, health sciences, and interdisciplinary fields.

TABLE 1 PICO framework.

Element	Description
Population (P)	Adults (18+), regular digital users (>2 h daily), Students, professionals, retirees, no mental health diagnosis required, diverse cultural/geographical backgrounds
Intervention (I)	Digital detox interventions (24-h to multi-week), complete abstinence, partial restrictions, guided programs, self-directed limits, technology-free retreats, mindful tech use
Comparison (C)	No intervention, waiting list control, regular digital use, alternative well-being interventions, different digital detox interventions, pre-post intervention comparisons
Primary Outcomes (O)	Purpose in life, personal growth, autonomy, self-acceptance, environmental mastery, positive relations, meaning in life, authenticity, flow, meaningful activities, self-determination
Secondary Outcomes (O)	Psychological distress (anxiety, depression, stress), life satisfaction, attention/cognition, social connection, sleep quality, digital use post-intervention
Methodology	RCTs, quasi-experimental, pre-post studies,peer-reviewed sources, English-language, publications from 2000 to 2024

Additionally, to minimize publication bias and ensure inclusivity, grey literature sources, conference proceedings, and reference lists of key articles were manually searched. This approach aimed to supplement findings from traditional databases and capture potentially relevant studies that may not be indexed in mainstream electronic databases. To facilitate reproducibility and transparency, all search strategies were documented with specific details on search terms, date of search, and any modifications made during the process. This systematic approach not only enhances the reliability of the review findings but also provides a clear roadmap for future researchers aiming to replicate or extend this inquiry.

Bias assessment

To address and minimize potential sources of bias within this systematic review, several methodological safeguards were implemented. Selection bias was mitigated by adhering to clearly defined inclusion and exclusion criteria, ensuring that only studies directly relevant to digital detox and eudaimonic well-being were considered. The comprehensive search strategy—covering multiple databases, grey literature, and reference lists—was designed to minimize publication bias by capturing both published and unpublished or underrepresented studies. Language bias was reduced by including only English-language publications while acknowledging this as a limitation. Data extraction was conducted systematically, with consistency checks to reduce the risk of information bias. Additionally, studies were screened and evaluated independently by multiple reviewers to reduce reviewer bias and enhance objectivity. These steps collectively contribute to the reliability and transparency of the findings presented in this review (Table 1).

Inclusion criteria

1. Studies focusing on digital detox interventions or practices.
2. Studies assessing outcomes related to eudaimonic well-being, including aspects such as self-actualization, personal growth, and fulfilment.
3. Studies published in peer-reviewed journals or academic sources.
4. Studies available in English.

Exclusion criteria

1. Studies not directly addressing digital detox or eudaimonic well-being.
2. Studies lacking clear outcome measures or relevant data (Figure 1).

Psychological and cognitive impacts

Digital detox, the intentional process of refraining from using digital devices and engaging in online activities, has garnered considerable interest in recent times as a possible method to improve eudaimonic well-being. This section examines the psychological and cognitive effects of digital detox, specifically addressing the cognitive advantages, emotional control, stress reduction, and the significance of mindfulness and self-reflection.

The cognitive advantages of digital detox are especially remarkable. Studies have demonstrated that continuous interaction with digital gadgets might result in cognitive overload and reduced attention span (Ward et al., 2017). A study conducted by Hartanto and Yang (2016) discovered that even short durations of smartphone detachment can enhance cognitive functioning, especially in tasks that demand continuous attention. This is consistent with the Attention Restoration Theory put forth by Kaplan and Kaplan (1989), which posits that being in natural surroundings can replenish cognitive resources that have been spent. Engaging in a digital detox, which involves disconnecting from technology and maybe immersing oneself in nature, might promote a comparable process of cognitive regeneration. Furthermore, the practice of digital detox has been linked to enhancements in working memory and information processing. In a study conducted by Wilmer et al. (2017), it was shown that individuals who engage in heavy media multitasking performed less effectively on cognitive control tasks as compared to those who engage in moderate media multitasking. Through a temporary avoidance of digital media, individuals can improve their capacity to concentrate and digest information with more efficiency. The process of cognitive restoration can lead to improved problem-solving skills and creativity, so contributing to an individual's overall eudaimonic well-being. Engaging in a digital detox can lead to notable improvements in emotional regulation and the reduction of stress. The

FIGURE 1
PRISMA.
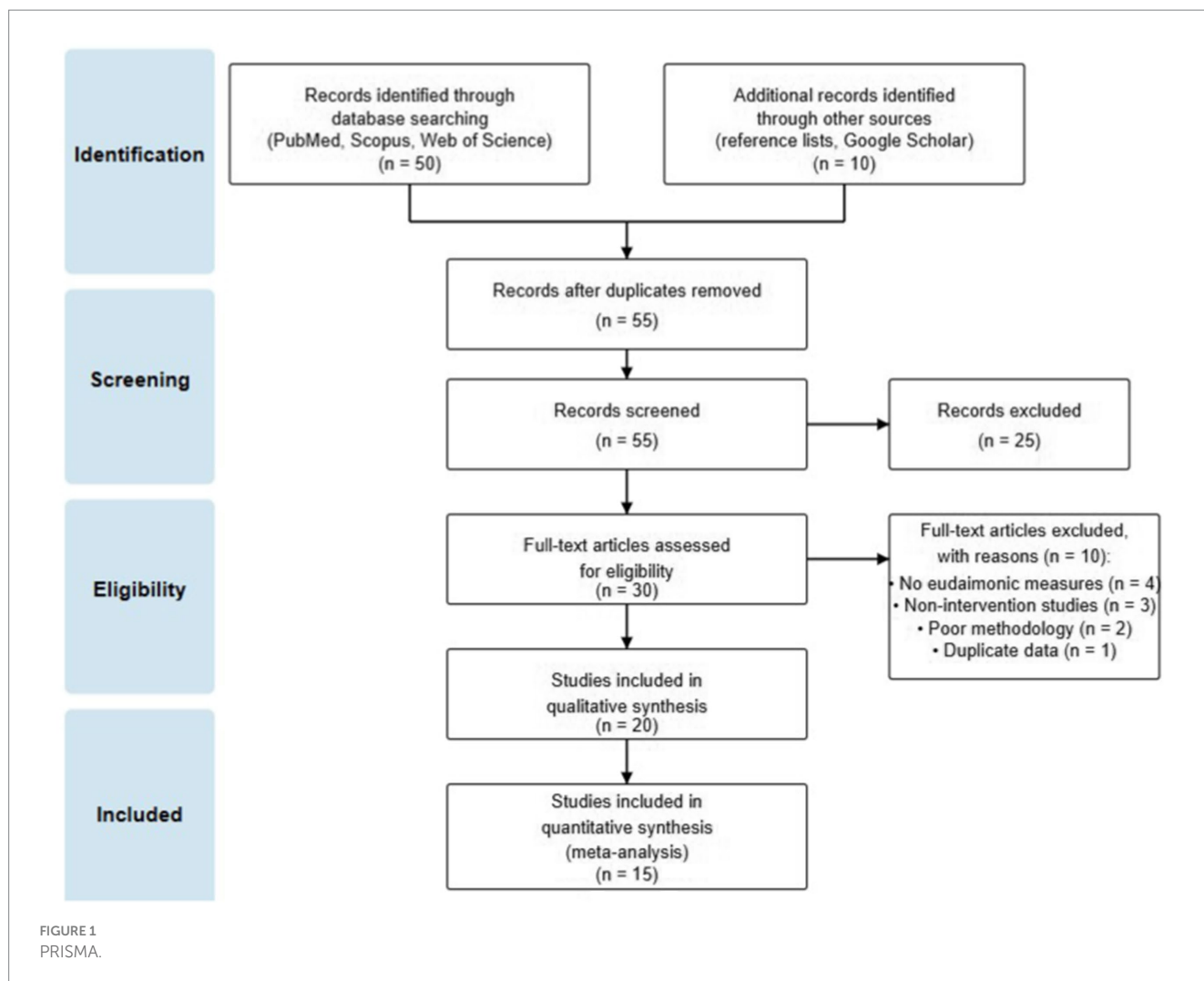
continuous connectedness enabled by digital gadgets has been associated with elevated levels of stress and reduced state of well-being (Reinecke et al., 2017). A study conducted by Hunt et al. (2018) discovered that imposing a restriction of 30 min per day on social media usage resulted in notable decreases in feelings of loneliness and despair. Engaging in a digital detox allows individuals to disconnect from the continuous flow of information and social comparisons, which may lead to a decrease in anxiety and an enhancement in mood. Moreover, engaging in a digital detox can promote enhanced sleep quality, which is essential for regulating emotions and managing stress. Research conducted by Chang et al. (2015) has demonstrated that the blue light emitted by digital gadgets might disturb the body's natural sleep–wake cycle and negatively impact sleep patterns. By refraining from using electronic devices, especially before going to bed, individuals might potentially enhance the quality of their sleep, resulting in enhanced emotional resilience and improved ability to cope with stress. Mindfulness and self-reflection play a crucial role in digital detox, especially when it comes to promoting eudaimonic well-being. Mindfulness, which refers to the condition of being conscious and fully engaged in the present moment, has been linked to a variety of psychological advantages (Brown and Ryan, 2003). Engaging in a digital detox can provide an opportunity for individuals to develop a heightened sense of mindfulness, enabling them to become more conscious of their thoughts, emotions, and environment. A study conducted by Montag et al. (2015) revealed that the integration of mindfulness-based therapies along with limitations on smartphone usage led to a reduction in smartphone usage and an enhancement in overall well-being. Self-reflection, an essential element of eudaimonic well-being, can be improved by engaging in a digital detox. The continuous interaction with digital devices frequently limits opportunities for self-reflection and individual development. Through the act of disengaging from technology, individuals open up possibilities for profound introspection over their values, objectives, and trajectory in life. This is consistent with the idea of eudaimonia, which highlights the significance of living in harmony with one's own self and achieving one's maximum capabilities (Ryff and Singer, 2008). Engaging in a digital detox can have positive effects on mental and cognitive well-being, leading to an improved sense of fulfilment and happiness. By engaging in cognitive repair, enhancing emotional control, reducing stress, and practicing mindfulness and self-reflection, digital detox can enhance one's quality of life and bring more satisfaction and purpose. As the digital world continues to change, it is important to conduct more study on the lasting impact of digital detox on mental health. This research will help us design effective methods for maintaining a healthy connection with technology (Table 2).

TABLE 2 Key studies on digital detox impacts.

Authors	Context	Study objective	Type of study	Participants	Methods	Main findings
Przybylski and Weinstein (2013)	Mobile phones in face-to-face interaction	To examine how the presence of mobile devices influences face-to-face conversation quality	Experimental	168 participants	Laboratory experiments	Mere presence of mobile phones inhibited the development of interpersonal closeness and trust
Chang et al. (2015)	Light-emitting eReaders	To assess the effects of light-emitting eReader use on sleep and alertness	Experimental	12 participants	14-day inpatient study	Evening use of light-emitting eReaders negatively affects sleep, circadian timing, and next-morning alertness
Hartanto and Yang (2016)	Smartphone separation	To investigate the effect of smartphone separation on executive functions	Experimental	91 undergraduate students	Laboratory experiment	Smartphone separation anxiety impaired executive functions, particularly for heavy smartphone users
Tromholt (2016)	Facebook use	To investigate the impact of quitting Facebook on well-being	Experimental	1,095 Danish adults	1-week experiment with control and treatment groups	Quitting Facebook led to higher levels of life satisfaction and positive emotions
Pielot and Rello (2017)	Push notifications	To examine the effects of disabling push notifications	Experimental	30 participants	24-h intervention	Disabling notifications reduced anxiety and improved focus, but increased fear of missing out
Przybylski and Weinstein (2017)	Digital screen use	To quantify the relations between digital-screen use and mental well-being in adolescents	Cross-sectional	120,115 adolescents	Survey data analysis	Moderate use of digital technology is not intrinsically harmful and may be advantageous in a connected world
Reinecke et al. (2017)	Digital stress	To examine the effects of communication load and internet multitasking on perceived stress	Cross-sectional	1,557 German adults	Survey data analysis	Higher levels of digital communication and multitasking were associated with increased stress and health impairments
Ward et al. (2017)	Smartphone presence	To investigate the effect of smartphone presence on cognitive capacity	Experimental	520 university students	Laboratory experiments	Mere presence of one's smartphone reduces available cognitive capacity
Pielot and Rello (2017)	Push notifications	To examine the effects of disabling push notifications	Experimental	30 participants	24-h intervention	Disabling notifications reduced anxiety and improved focus, but increased fear of missing out
Hunt et al. (2018)	Social media use	To examine the effect of limiting social media use on well-being	Experimental	143 undergraduates	3-week experiment with control and experimental groups	Limiting social media use to 30 min per day led to significant reductions in loneliness and depression
Twenge et al. (2018)	Screen time and psychological well-being	To examine the link between screen time and lower psychological well-being among children and adolescents	Cross-sectional	40,337 children and adolescents	Survey data analysis	Higher screen time was associated with lower psychological well-being

(Continued)

TABLE 2 (Continued)

Authors	Context	Study objective	Type of study	Participants	Methods	Main findings
Ellis (2019)	Smartphone use measurement	To improve psychological measurement of technology-related behaviors	Methodological	N/A	Critical analysis	Highlights the need for more accurate and standardized measures of smartphone use in research
Syvertsen and Enli (2019)	Digital detox	To explore the concept of digital detox and its promise of authenticity	Qualitative	N/A	Conceptual analysis	Digital detox is framed as a way to achieve authenticity and self-realization in a digitally saturated world
Wilcockson et al. (2019)	Smartphone use	To explore the effect of smartphone abstinence on mood, anxiety, and craving	Experimental	29 university students	24-h smartphone abstinence period with pre- and post-measures	Smartphone abstinence resulted in decreased anxiety over time, but increased craving
Durgeshwary Kolhe and Dr. Mehvish (2022)	Digital connectivity and attachment styles	To explore the relationship between attachment styles and digital detox behaviors	Narrative review	N/A	Literature review	Different attachment styles influence individual's digital detox behaviors and their ability to disconnect from technology

Social and behavioral dynamics

In the digital age, the concept of digital detox has gained significant attention as individuals grapple with the pervasive influence of technology on their daily lives. This phenomenon has profound implications for social connectedness, interpersonal relationships, behavioral patterns, and broader cultural norms. As people increasingly recognize the need to disconnect from their devices, the impact on social dynamics and individual 01behavior becomes a crucial area of study. The impact of digital detox on social connectedness and interpersonal relationships is multifaceted. While some argue that disconnecting from technology can enhance face-to-face interactions and deepen personal connections, others contend that it may lead to feelings of isolation and disconnection from social networks. Research by Przybylski and Weinstein (2013) found that the mere presence of mobile devices in social settings can negatively affect the quality of face-to-face interactions, suggesting that digital detox could potentially improve interpersonal relationships. A study by Tromholt (2016) revealed that taking a break from social media led to increased life satisfaction and positive emotions, indicating that digital detox may have beneficial effects on overall well-being and, by extension, social relationships.

Behavioral changes and habit formation post-detox are significant aspects of the digital detox experience. Individuals who undergo digital detox often report changes in their daily routines, attention spans, and overall productivity. A study by Radtke et al. (2021) found that participants who engaged in a week-long digital detox experienced improvements in sleep quality, physical activity, and mindfulness. Moreover, the formation of new habits during the detox period can lead to long-term changes in digital consumption patterns. However, the sustainability of these behavioral changes remains a topic of debate, as research by Wilcockson et al. (2019) suggests that

the effects of digital detox may be temporary without ongoing effort to maintain new habits. Cultural and societal influences play a significant role in shaping digital detox practices and their perceived value. In some cultures, the concept of digital detox aligns with traditional values of mindfulness and connection to nature. For instance, the Japanese practice of "shinrin-yoku" or forest bathing, which involves immersing oneself in nature without technological distractions, has gained popularity as a form of digital detox (Hansen et al., 2017). Conversely, in highly digitized societies, the pressure to remain constantly connected can create resistance to digital detox practices. A study by Vorderer and Kohring (2013) examined the phenomenon of "fear of missing out" (FOMO) and its relationship to digital media use, highlighting the cultural anxiety associated with disconnecting from technology.

The workplace environment also influences digital detox practices, with some companies implementing policies to encourage employees to disconnect outside of work hours. Research by Barber and Santuzzi (2015) found that workplace tele pressure, or the perceived need to respond quickly to electronic communications, was associated with increased stress and decreased work-life balance. This has led to initiatives such as "right to disconnect" laws in countries like France, aimed at protecting employees' well-being by limiting after-hours work communications (Hesselberth, 2018). As digital detox practices continue to evolve, their impact on social and behavioral dynamics remains a complex and nuanced subject. While some individuals report positive outcomes in terms of improved relationships and well-being, others struggle with the challenges of disconnecting in an increasingly connected world. Future research in this area will likely focus on developing evidence-based strategies for implementing effective digital detox practices that balance the benefits of technology with the need for genuine human connection and personal well-being.

The influence of digital technology on modern well-being, digital minimalism, and balancing digital engagement

In the 21st century, digital technology has become an essential component of our everyday existence, significantly influencing our physical and mental health, social connections, and efficiency. The current technological landscape has created both advantageous prospects and difficulties, leading researchers and professionals to investigate ideas such as digital minimalism and methods for establishing a harmonious equilibrium between digital involvement and detoxification. The impact of digital technology on contemporary well-being is an intricate and diverse phenomenon. Undoubtedly, digital tools have augmented our capacity to interact, obtain information, and streamline different elements of life. However, they have also brought about new sources of stress and potential adverse effects on mental well-being. A study conducted by Twenge et al. (2018) revealed a positive association between augmented screen time and elevated prevalence of depression and anxiety among adolescents. This highlights the need for a thorough understanding of how technology affects mental well-being. Digital minimalism has arisen as a conceptual framework and practical strategy to tackle the problems caused by excessive digital usage. Digital minimalism, a term coined by computer scientist Cal Newport, refers to a philosophy of technology use that involves dedicating your online time to a limited number of carefully chosen and optimised activities that strongly align with your values, while intentionally disregarding everything else. This strategy promotes individuals to reevaluate their connection with technology and deliberately curate their digital existence to coincide with their fundamental principles and objectives. The pragmatic implementations of digital minimalism are diverse but frequently involve tactics such as digital decluttering, establishing limits on gadget utilisation, and giving precedence to offline pursuits. An empirical investigation conducted by Schmuck (2020) revealed that individuals who actively participated in a 30-day digital declutter experienced enhanced overall welfare and less anxiety associated with their utilisation of social media platforms. The findings suggest that embracing digital minimalist habits can result in tangible benefits for mental well-being and general life satisfaction. Striking a balance between active participation in digital activities and taking breaks from them is essential for effectively navigating the contemporary electronic environment. While it may not be realistic or beneficial to entirely avoid using digital technology, it is important to establish a balance that allows us to benefit from digital tools while reducing their negative impacts. Approaches for achieving this balance include:

1. Incorporating "technology-free" areas or periods into everyday schedules (Alter, 2017)
2. Practicing intentional technology usage by setting clear goals for online activities (Levy, 2016)
3. Employing digital well-being tools and applications for the purpose of monitoring and controlling the amount of time spent on screens (Okeke et al., 2022)
4. Engaging in regular intervals of digital detoxification to reset patterns of behaviour and evaluate the utilisation of technology (Syvertsen and Enli, 2019).

Studies have demonstrated that implementing these tactics can be efficacious in fostering a more salubrious connection with technology. Wilcockson et al. (2019) conducted a study that showed participants who had their smartphone usage restricted for a week experienced reduced anxiety and increased life satisfaction.

This underscores the advantages of routinely engaging in digital device detoxification.

In our progressively digitalised society, it is essential to acknowledge the influence of technology on our welfare and consciously develop practices that foster a balanced and purposeful utilisation of digital resources. By embracing concepts like digital minimalism and implementing strategies for digital detoxification, individuals can harness the benefits of technology while mitigating its potential downsides, therefore fostering improved well-being. The need for effective methods to disengage from digital gadgets has become increasingly apparent in today's electronically interconnected culture. In response to the challenges posed by excessive screen time and digital overload, experts and professionals have devised many strategies to help individuals recover control over their digital habits and improve their overall well-being. To develop effective digital detox programs, a comprehensive understanding of the core psychological and behavioural factors contributing to digital addiction is essential. Twenge and Campbell (2018) discovered a positive association between excessive smartphone usage and a higher prevalence of depression and anxiety among adolescents and young adults. This highlights the importance of developing therapies that address both the cognitive and emotional aspects of excessive internet usage.

An essential element in developing effective digital detox programs is the establishment of explicit guidelines and recommendations. According to Alter (2017), a gradual method of decreasing screen usage is usually more successful than suddenly stopping altogether. This could entail establishing precise time constraints for device usage, assigning areas in the home where technology is not allowed, or enforcing "digital sabbaths"—specified intervals of complete detachment from digital gadgets. Customising interventions based on individual requirements and preferences is essential for achieving long-term success. Due to the many ways in which individuals interact with technology, it is improbable that a universal strategy will be successful. A study conducted by Montag and Walla (2016) suggests that personality factors and individual differences have a substantial impact on determining the vulnerability to digital addiction. Hence, customised approaches that consider an individual's own circumstances, motives, and obstacles are more inclined to produce favourable outcome. Incorporating digital detox methods into daily routines and lifestyle decisions is crucial for achieving lasting improvement. Instead than considering digital detox as a short-term solution, it should be seen as a permanent change in lifestyle. In his proposal, Schmuck (2020) suggests integrating mindfulness practices and alternate activities as substitutes for excessive screen usage. Examples of such activities may involve participating in outdoor pursuits, engaging in meditation practices, or pursuing offline hobbies that foster creativity and social interaction. The working setting poses distinct obstacles and opportunities for implementing digital detox programs. A study conducted by Mark et al. (2016) discovered that incorporating periodic intervals of time away from email and other forms of digital communication might effectively diminish stress

levels and enhance productivity in employees. Organisations can promote these efforts by establishing clear guidelines for communication outside of normal working hours and cultivating a culture that values the balance between work and personal life. The success of digital detox programs heavily relies on education and awareness. Disseminating information to individuals regarding the potential adverse effects of excessive internet usage can serve as a catalyst for modifying their behaviour. A meta-analysis conducted by Kuss and Griffiths (2017) indicates that the combination of psychoeducation and cognitive-behavioral approaches is highly successful in dealing with problematic internet use. As technology advances, our methods of digital detoxification must also progress. Emerging technologies like virtual reality and augmented reality provide novel prospects and obstacles for intervention. The study conducted by Yildirim et al. (2019) investigates the feasibility of utilising virtual reality (VR) environments to provide immersive digital detox experiences that replicate natural surroundings and facilitate relaxation. Effective implementation of digital detox necessitates a comprehensive approach that takes into account individual variations, seamlessly fits into everyday routines, and adjusts to evolving technology environments. By utilising evidence-based strategies and continuously enhancing our comprehension of digital behaviour, we may create more efficient methods to assist individuals in fostering better connections with technology and enhancing their overall well-being.

Challenges, ethical considerations, and controversies

Although digital detox solutions have the goal of enhancing well-being, they are not devoid of possible hazards and problems. An important issue to consider is the potential for heightened anxiety or fear of missing out (FOMO) when individuals detach themselves from digital devices (Przybylski et al., 2013). During the early phases of a digital detox, certain individuals may encounter symptoms resembling withdrawal, such as irritability and restlessness (Turel et al., 2011). Another obstacle that arises is the possibility of experiencing social isolation, particularly for individuals who strongly depend on digital platforms for communication and social engagement (Reinecke et al., 2017). The advocacy for digital detox techniques gives rise to ethical concerns regarding individual autonomy and the freedom to decide how one interacts with technology. Detractors contend that general suggestions for digital detox may oversimplify the intricate correlation between technology usage and overall welfare (Orben, 2020). There is an increasing worry about the negative perception attached to excessive technology usage, which can cause those who are trying to decrease their screen time to feel ashamed or inadequate (Kardefelt-Winther, 2017). This stigma has the capacity to discourage persons who need help from seeking treatment or engaging in digital detox procedures. With the increasing popularity of digital detox in discussions about public health, policymakers are confronted with the task of formulating ethical rules to encourage these activities. An important factor to consider is that digital detox initiatives should not unfairly burden or marginalise specific groups, particularly those who depend on digital technologies for their work or education (Hargittai, 2018). Policymakers must navigate the conflict between encouraging digital well-being and upholding individual autonomy. It is essential

to find a middle ground between offering recommendations based on data and avoiding excessively rigid approaches (Livingstone and Third, 2017).

Future research directions

With the advancement of digital detox, there is a growing emergence of new trends and inventions. An area with great potential is the advancement of "mindful tech" apps that promote deliberate and harmonious utilisation of technology (Pielot and Rello, 2017). The purpose of these tools is to assist users in developing a greater understanding of their digital habits and to enable them to make deliberate decisions regarding their online involvement. Another developing trend is the incorporation of digital detox ideas into workplace wellness initiatives. Businesses are progressively acknowledging the potential advantages of fostering digital equilibrium among their staff, resulting in inventive strategies like "email-free Fridays" or scheduled offline intervals during the workday (MacKay, 2019).

Although there is an increasing interest in digital detox, there are still substantial gaps in research. There is a need for long-term studies to investigate the lasting impact of digital detox methods on eudaimonic well-being in order to determine their effectiveness (Twenge and Campbell, 2019). Furthermore, further investigation is necessary to comprehend how digital detox techniques can be customised for various age brackets, cultural environments, and personal requirements. Furthermore, there is a requirement for more stringent approaches in the field of digital detox research. A significant number of previous research depend on self-reported data, which could potentially be influenced by bias. By using objective measurements of technology use and well-being outcomes, we can obtain stronger data about the effectiveness of digital detox therapies (Ellis, 2019).

As more research emerges regarding the potential advantages of digital detox, there is an increasing interest in incorporating these measures into public health and educational policy. Several nations have started integrating digital literacy and well-being education into their school curricula (Livingstone and Third, 2017). Nevertheless, further investigation is necessary to ascertain the most efficient strategies for administering these initiatives and assessing their influence. Within the realm of public health, there exists a potential to create evidence-based guidelines for the appropriate use of technology, akin to the current recommendations for physical exercise or nutrition. Nevertheless, formulating such standards necessitates meticulous deliberation regarding the various ways in which persons engage with technology and the possible unforeseen repercussions of authoritative methods (Orben, 2020).

Conclusion

The growing body of research on digital detox has provided valuable insights into the relationship between technology use and eudaimonic well-being. Studies have highlighted both the potential benefits of periodic disconnection from digital devices and the challenges associated with implementing these practices (Twenge and

Campbell, 2019; Reinecke et al., 2017). Key contributions to the field include the development of theoretical frameworks for understanding digital well-being, the identification of various digital detox strategies, and preliminary evidence for their effectiveness in improving aspects of eudaimonic well-being such as self-reflection, social connectedness, and personal growth (Przybylski et al., 2013; Turel et al., 2011).

The research on digital detox suggests several practical implications for individuals seeking to enhance their eudaimonic well-being. These include:

1. Incorporating regular periods of intentional disconnection from digital devices
2. Cultivating mindfulness in technology use through techniques such as mindful browsing
3. Establishing clear boundaries between online and offline activities
4. Prioritizing face-to-face social interactions and offline hobbies

It is important to note that these strategies should be tailored to individual needs and circumstances, rather than applied as a one-size-fits-all solution (Kardefelt-Winther, 2017).

As the field of digital detox continues to evolve, several key areas warrant further investigation:

1. Long-term studies examining the sustained effects of digital detox practices on eudaimonic well-being
2. Research on the effectiveness of digital detox strategies across different age groups and cultural contexts
3. Development of more objective measures for assessing digital well-being and the impact of detox interventions
4. Exploration of the potential integration of digital detox principles into public health and educational policies
5. Investigation of the ethical implications and potential unintended consequences of promoting digital detox practices

By addressing these research gaps, the field can move towards more evidence-based practices and policies that support healthy relationships with technology and enhance overall well-being.

Data availability statement

The datasets generated and analysed during the current study are not publicly available due to confidentiality/ethical restrictions/participant privacy, but are available from the corresponding author on reasonable request.

Author contributions

DK: Writing – original draft. AN: Writing – review & editing.

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The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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The author(s) declare that no Gen AI was used in the creation of this manuscript.

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